

BREEAM Pre-Assessment

UK Refurbishment and Fit-out 2014

Domestic buildings

83 Station Road,

Hampton,

TW12 2BJ

Report detail

| | |
|----------------|--|
| Client | FORM Design Group |
| Report title | BREEAM UK 2014 Domestic Refurbishment Pre-Assessment |
| Site address | 83 Station Road, Hampton, TW12 2BJ |
| Project number | 001141 |

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Executive Summary

This BREEAM UK Domestic Refurbishment pre-assessment report has been prepared by **Sustain Quality Ltd** to assist with the design coordination of the proposed development at 83 Station Road, Hampton, TW12 2BJ on behalf of **FORM Design Group**.

Additionally, details and information on key sustainability targets of refurbishment are given including:

- BREEAM requirements
- Energy
- Materials
- Water use
- Waste
- Carbon emissions

The scope of this development limits the ability to achieve BREEAM certification as it is only related to minor internal work to transform a shop/showroom into two ground floor flats. Therefore, project will not pursue the achievement of certification but intends to follow the key principles outlined above and of BREEAM.

The project will be assessed using BREEAM UK 2014 Domestic Refurbishment (DR) Methodology. The design team aims to achieve BREEAM 'Excellent'.

The proposed development can achieve the BREEAM target score of **73.51%**, which sits in the **'Excellent' category for the domestic units**. Please refer to section 3.4.

1 Introduction

This BREEAM Pre-assessment has been prepared by **Sustain Quality Ltd** in support of the planning application for the development at 83 Station Road, Hampton, TW12 2BJ on behalf of **FORM Design Group**

1.1 Details of the Proposed Development

The proposal of 83 Station Road is change of use of shop/showroom into two separate flats as well as the change and addition of fenestrations.

The subject site is in the London Borough of Richmond upon Thames, specifically in Hampton. The proposal is relevant to ground floor of a property with two existing flats located on the first floor. The property is semi-detached with the entrances to the two flats located along the eastern walls of the property alongside bin storage. Amenity spaces for both flats are located towards the south-end of the property.

The existing gross internal floor area of each flat is 47.4 m² and 46.5 m².

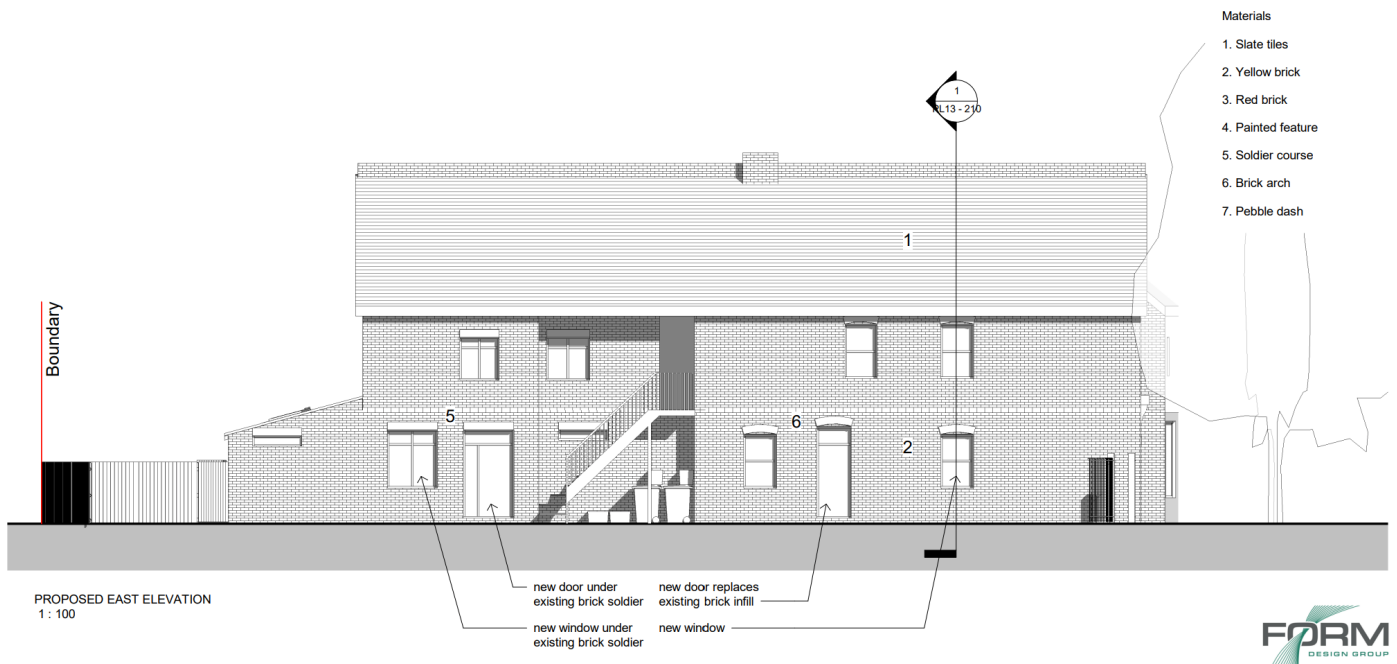


Figure 1: Proposed East Elevation of 83 Station Road.



Figure 2: Proposed North Elevation of 83 Station Road.

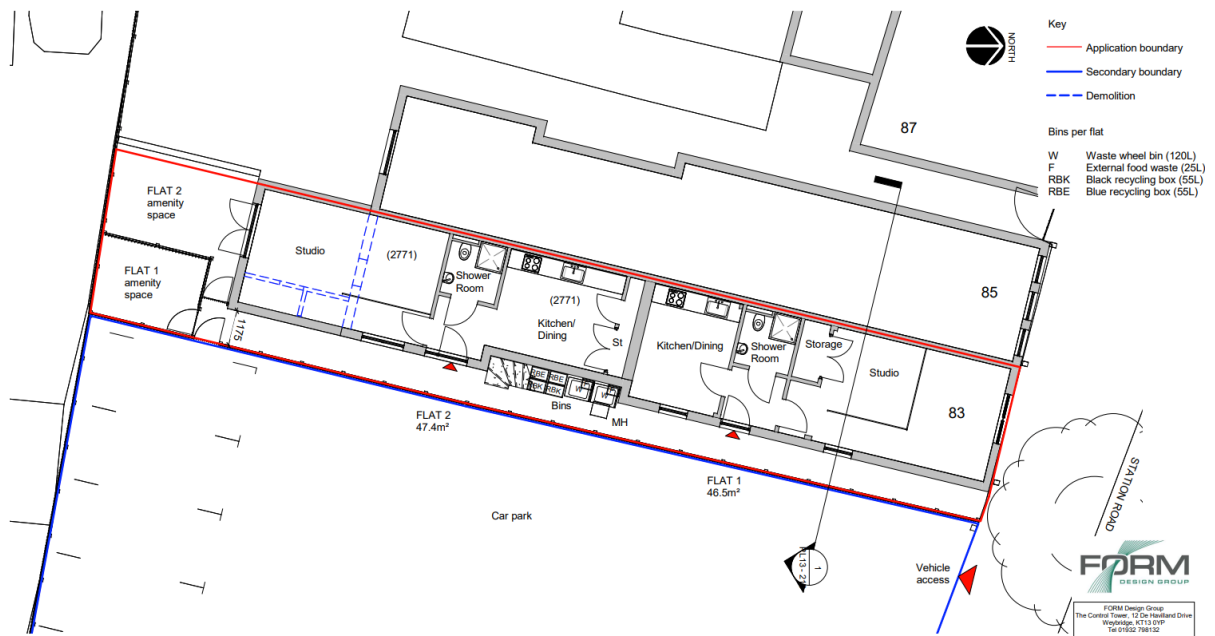


Figure 3: Proposed Ground Floor Plan for 83 Station Road.

1.2 Planning Requirements

Policy LP 22: Sustainable Design and Construction from the London Borough of Richmond upon Thames Local Plan states that proposals for change of use to residential will be required to meet BREEAM Domestic Refurbishment ‘Excellent’ standard (where feasible).

This pre-assessment report aims to satisfy this policy requirement by demonstrating that the client and design team aspire to achieve ‘Excellent’ and will follow BREEAM principles. The proposed development is of a small scale and limited scope and will therefore not aim for BREEAM certification.

2 ESG for building management and investments

ESG refers to the consideration of environmental, social, and governance factors, alongside financial factors in investment decision-making processes.

The impact of environmental, social, and governance issues in relation to financial performance, both in the corporate community and the investment community, is increasingly becoming recognised.

As a result, many investors are looking to incorporate ESG factors into the investment process alongside traditional financial analysis.

ESG investing and the United Nations' Sustainable Goals

The rising prominence given to ESG performance and ratings within the financial and investment community aligns with the 17 Sustainable Development Goals (SDGs) set out in the UN's 2030 Agenda for Sustainable Development, Appendix B – United Nations Sustainable Development Goals.

The goals recognise that ending poverty and other deprivations must go hand in hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

More sustainable, responsible, and impactful, ESG, plays a pivotal role in the global implementation of the 2030 Agenda.

ESG and BREEAM Assessments

A BREEAM assessment uses nationally and internationally recognised measures of performance that are set against well-established benchmarks to evaluate environmental specification, design, and construction and use.

The measures used cover a broad range of criteria and environmental categories (management, health and well-being, energy, transport, water, materials, waste, land use, and ecology and pollution).

3 Sustainable Development

This project is committed to sustainable development (Appendix B – United Nations Sustainable Development Goals) and future sustainability requirements and will adhere closely to the requirements set out by the client. This will be demonstrated by outlining the project's potential to achieve BREEAM UK Domestic Refurbishment 2014 '**Excellent**' standard.

This statement reflects the quality, performance, and attributes of the proposed development at 83 Station Road, demonstrating the client and design team's commitment to the development's overall sustainability.

Sustainability is often described as having three pillars of equal importance: economic, environmental, and social. These can also be replaced by People, Planet and Profit. This means that for a development to be sustainable it must not detrimentally impact the environment, provide economic benefits and be beneficial to society, i.e. the people using it or living near it.

International and national bodies have set out broad principles of sustainable development. Resolution 42/187 of the United Nations General Assembly define sustainable development as 'meeting the needs of the present without compromising the ability of future generations to meet their own needs'.

The UK Sustainable Development Strategy 'Securing the Future' set out five 'guiding principles' of sustainable development:

- living within the planet's environmental limits;
- ensuring a strong, healthy and just society;
- achieving a sustainable economy; promoting good governance;
- and using sound science responsibly.

3.1 BREEAM Domestic Refurbishment

BREEAM Domestic Refurbishment is a performance-based assessment method and certification scheme for residential buildings. The primary aim of BREEAM UK Domestic Refurbishment is to mitigate the life cycle impacts of residential refurbishment on the environment in a robust and cost-effective manner. It attempts to quantify and reduce the environmental burdens of buildings by rewarding those designs that take positive steps to minimise their environmental impacts.

Under BREEAM UK Domestic Refurbishment there are seven categories of sustainable design, within which are several sub-categories. Credits are awarded where evidence can be provided to demonstrate compliance with the criteria in the sub-categories. There are also additional credits available for innovation where the building goes beyond best practice in terms of a particular aspect of sustainability. The credits are converted into points, and this determines the rating of BREEAM UK Domestic Refurbishment 2014 for domestic buildings.

BREEAM Benchmarking

There are several elements that determine the overall performance of a project assessed using BREEAM; these are as follows:

- The scope of the assessment
- The BREEAM rating level benchmarks
- The minimum BREEAM standards
- The environmental section weightings
- The BREEAM assessment issues and credits

The BREEAM rating benchmarks enable a client and all other stakeholders to compare the performance of a refurbishment or fit-out project with other BREEAM rated buildings, and the typical sustainability performance of a stock of existing non-domestic buildings in the UK. In this respect each BREEAM rating broadly represents performance equivalent to:

Outstanding: Less than top 1% of UK refurbishment or fit-out projects (innovator)

Excellent: Top 10% of UK refurbishment or fit-out projects (best practice) 

Very Good: Top 25% of UK refurbishment or fit-out projects (advanced good practice)

Good: Top 50% of UK refurbishment or fit-out projects (intermediate good practice)

Pass: Top 75% of UK refurbishment or fit-out projects (standard good practice)

An unclassified BREEAM rating represents performance that is non-compliant with BREEAM, in terms of failing to meet either the BREEAM minimum standards of performance for key environmental issues or the overall threshold score required to achieve at least a Pass rating.

Optional Elements

There are optional elements of the assessment where the required evidence includes supporting reports and calculations. The design team aims to make decisions based on the priority of the elements and create a hierarchy to achieve optimal elements of BREEAM.

3.2 BREEAM Pre-assessment

This report is intended as a summary of the BREEAM pre-assessment review for the following project:

Table 1: BREEAM Assessment details

| | |
|----------------------|---------------------------------------|
| Project Name | 83 Station Road, TW12 2BJ |
| BREEAM Version | BREEAM UK Domestic Refurbishment 2014 |
| Assessment Stage | Pre-Assessment Stage |
| Lead Assessor | Thiago Haberli |
| Minimum Score Rating | Excellent (70%) |
| Target Score Rating | Excellent (73.51%) |

It is important to note that the pre-assessment tool is a guide to demonstrate how the proposed development could feasibly achieve the required rating or justify any credits that may not be achievable or feasible.

A pre-assessment score of 73.51% has been targeted with all minimum requirements achieve BREEAM 'Excellent' rating.

As stated previously, this will not be pursued in a BREEAM certificate due to the small scale and limited scope of the project and merely demonstrates that the project is committed to BREEAM principles and sustainable construction.

Table 2: BREEAM Progress

| | Available | Targeted | % of credits targeted | Weighting Factor | Section score |
|---|------------|----------|-----------------------|------------------|---------------|
| Management | 11 | 9 | 81.81 | 0.12 | 9.82 |
| Health & Wellbeing | 12 | 11 | 91.67 | 0.17 | 15.58 |
| Energy | 29 | 18.5 | 63.79 | 0.43 | 27.43 |
| Water | 5 | 3 | 60.00 | 0.11 | 6.60 |
| Materials | 48 | 35 | 72.92 | 0.08 | 5.83 |
| Waste | 5 | 5 | 100.00 | 0.03 | 3.00 |
| Pollution | 8 | 7 | 87.50 | 0.06 | 5.25 |
| Exemplary/Innovation | 10 | 0 | 0 | | 0 |
| Total | 127 | | | - | 73.51 |
| BREEAM Domestic Refurbishment rating | | | 73.51% | | |

The design team of the proposed fit-out has high aspirations and aims to achieve the sustainable development policy by adopting BREEAM principles early at the design stage. Some of the elements that the project team aim to deliver if possible are as follow:

- Environmental management and considerate construction;
- The life cycle assessment of materials used in the refurbishment;
- Monitoring and minimising water consumption, energy consumption, and transport during construction and operational phases;
- Monitoring of refurbishment or fit-out-site impacts, such as transport, energy, and water; and
- Achieving a high level of health and well-being in the buildings.

It is important to note that the pre-assessment tool is a guide to demonstrate how the proposed development could feasibly achieve the required rating or justify any credits that may not be achievable or feasible.

From the initial assessment of the development, we have found that it would be difficult to achieve an 'excellent' BREEAM rating, considering the financial viability and technical limitations of the project due to the age and location of the building and other underlying factors.

Due to the complexity of the certification process and project viability due to current industry cost increase and inflation and other technical on site factors the design team will strive to achieve excellent rating but again certain factors may dictate it ends up being built to 'very good' BREEAM rating.

3.3 Minimum Standards

The design team aims to achieve BREEAM minimum standards (required for the specified target rating) under each scenario. Failing to secure the minimum requirement will limit the ability of the project achieving the BREEAM target score. This is summarised below:

Table 3: Minimum Standards for 'Excellent'.

| Issue | Requirement |
|--|--|
| Ene 02 Energy efficiency rating post-refurbishment | <i>2.5 Credits</i> BREEAM Excellent level requires a minimum Energy Efficiency Rating (EER) of 70. |
| Wat 01 Internal water use | <i>2 Credits</i> Calculated water consumption (litres/person/day) needs to be from 107 to < 118. Equivalent terminal fitting consumption standards need to be met by all bathroom and WC room fittings (incl. taps, showers, baths, WCs, washing machines, and dishwashers). |
| Hea 05 Ventilation | <i>1 Credit</i> A minimum level of: <ul style="list-style-type: none"> - background ventilation (for all habitable rooms, kitchens, utility rooms, and bathrooms), - extract ventilation (in all wet rooms), and - purge ventilation (in all habitat rooms and wet rooms). |

| Issue | Requirement |
|--|---|
| | is provided to compliant with section 7, Building Regulations Approved Document Part F, 2010. |
| Hea 06 Safety | <i>1 Credit</i> The dwelling is provided with a compliant fire detection and alarm system in accordance with BS 5839-6:2013 and to at least a Grade D Category LD3. The dwelling is provided with a compliant carbon monoxide detector and alarm system if supplied with mains gas or any other form of fossil fuel. |
| Pol 03 Flooding | <i>2 Credits</i> The development falls within Option 2 – Medium/high flood risk. Therefore, to achieve these minimum credits, the dwelling needs to achieve avoidance from flooding by following Checklist A-11 in the BREEAM DR 2014 Manual. If avoidance is not possible, the two credits can be achieved where a full flood resilience/resistance strategy is implemented for the development in accordance with recommendations made by a suitably qualified building professional. |
| Mat 02 Responsible sourcing of materials | <i>Criterion 1 only</i> All timber and timber-based products used on the project needs to be ‘legally harvested and traded timber’. |

The design team will assess the development under the BREEAM UK Domestic Refurbishment 2014 for the domestic areas which satisfies the local authority requirements.

3.4 Specialist Appointments

The table below lists the specialist appointments. These suggested appointments are based on the current BREEAM target score. As the project develop, it may be necessary to ‘trade-off’ credits and therefore, there may be other appointment requirements.

Table 4: Specialist Appointments


| Specialist Required | BREEAM Credit | Requirement |
|---|------------------------|--|
| Domestic Energy Assessor / SAP Assessor | Ene 01, Ene 02, Ene 03 | All cases to calculate the EPC or full SAP which informs the EER for the assessment. |

| Specialist Required | BREEAM Credit | Requirement |
|--|---------------|--|
| Considerate Constructors scheme auditor | Man 02 | This is required where at least one credit is awarded under Man02 as registration under the Considerate Constructors scheme will be needed, which includes a site visit from an auditor. |
| A Crime Prevention Design Advisor / Police Architectural Liaison officer | Man 04 | Where more than one credit is awarded as part of the Secured by Design certification process. |
| Suitably qualified acoustician | Hea 02 | Where more than two credits are awarded to assess whether the specification meets or goes beyond Part E of Building Regulations and to carry out sound testing where required. |
| Accessibility expert | Hea 04 | Where at least one credit is being awarded which could be within the design team. |
| Hydrologist | Pol 02 | Where more than one credit is sought to provide specialist advice on designing SuDS. |
| Flood resilience expert | Pol 03 | To gain credits where in a medium / high flood risk to provide specialist advice to make dwellings resilient or resistant to flooding. |
| Suitably qualified ecologist | Man 05 | To provide site-specific advice on ecological enhancement for exemplary credits. |
| BREEAM Advisory Professional (AP) | Man 06 | Exemplary credit requirement |
| Professional to carry out thermographic survey and air tightness testing | Man 06 | Exemplary credit requirement |


4 Credit Progress Log

The table below provide the BREEAM credits targeted and comments for the construction team.

Table 5: Score Breakdown

| 4.1 Management  | | | |
|--|---|-----------|----------|
| Credit | Summary | Available | Targeted |
| Man 01 – Home user guide | A Home User guide containing information on recommendations on how the home(s) could be improved in the future; and information on energy efficiency, water use, transport facilities, materials and waste, local amenities, and emergency information will be provided. | 3 | 3 |
| Man 02 – Responsible construction practices | The development is a small-scale project and therefore will either have a principal contractor that has used the Considerate Constructors scheme or an alternative scheme; or ensure the principal contract addresses all mandatory items (e.g., introductory letters being sent to neighbours, parking provision on-site etc.) in Checklist A-3 in the BREEAM DR 2014 Manual with 80% of the optional items (e.g., deliveries being made off peak) also being addressed. | 2 | 2 |
| Man 03 – Construction Site Impacts | As the development is a small-scale project checklist A-5 will be completed and evidence will be provided to demonstrate that two or more of the sections a-d are completed (e.g., setting objectives for reducing CO ₂ production from energy use arising from site activities). | 1 | 1 |
| Man 04 – Security | | | |
| Secure windows and doors | All external doors and accessible windows that are retained will comply with the minimum-security requirements (e.g., of good quality with working key locks and a strong frame, no signs of warping, splitting, or rooting etc.). If they are newly added they will have appropriately certification. | 1 | 1 |
| Secured by design | The principles and guidance of Secured by Design Section 2 – Physical Security will be complied with. Additionally, a suitable qualified security consultant will be consulted during the design stage and their recommendations are incorporated into the refurbishment specification. | 1 | 1 |
| Man 05 – Protection and enhancement of ecological features | A site survey will not be carried out by a member of the project team or suitable qualified ecologist to determine the presence of ecological features. Due to the small scope of the project, it has been deemed not necessary. | 1 | 0 |
| Man 06 – Project management | | | |
| Project roles and responsibilities | The whole project team will be involved in the project decision-making and individual and shared roles and responsible need to be assigned with the project manager writing a project implementation plan and holding an initiation meeting to assign these responsibilities including all trades on-site. | 1 | 1 |


| | | | |
|-------------------------------|---|-----------|----------|
| Handover and aftercare | A handover meeting will be arranged; however, not with two of the following three items being committee to determine project success: a site inspection within three months of occupation, post-occupancy interviews with the building occupants or a telephonic survey or posted information within three months of occupation, or longer term after care. | 1 | 0 |
| Total | | 11 | 9 |


| 4.2 Health & Wellbeing | |  | |
|--|--|---|-----------|
| Credit | Summary | Available | Targeted |
| Hea 01 - Daylighting | | | |
| Maintaining good daylighting | As the building is already existing, the refurbishment will result in a neutral impact on the dwellings daylighting levels in the kitchen, living room, dining room, and study spaces where present. | 1 | 1 |
| Minimum daylight | The dwelling will achieve the minimum daylight levels and extensions should not significantly reduce daylighting levels in the kitchen, living room, dining room, or study of neighbouring properties. | 1 | 1 |
| Hea 02 – Sound insulation | Sound testing is not feasible due to the small scope of the project only being two small domestic units with limited scope of works. Furthermore, it is not required by the appointed building control body. Therefore criteria 2 and 3 will be pursued and a SQA will provide recommendations for the specification of all existing separating walls and floors, confirming in their professional opinion that they have potential to meet or exceed the sound insulation requirements. | 4 | 4 |
| Hea 03 – Volatile organic compounds | All decorative paints and varnishes and other product categories (e.g., wood panels, timber structures, wood flooring etc.) will be tested upon project completion and emission levels for volatile organic compounds (VOCs) will be compliant with the relevant standards identified in Table 16 of the BREEAM DR 2014 Manual. | 1 | 1 |
| Hea 04 – Inclusive design | An access expert or suitably qualified member of the design team will complete section one of Checklist A8: Access statement template found within the BREEAM DR 2014 Manual with minimum accessibility. | 2 | 1 |
| Hea 05 - Ventilation | The dwelling will achieve a minimum level of: <ul style="list-style-type: none"> - background ventilation (for all habitable rooms, kitchens, utility rooms, and bathrooms), - extract ventilation (in all wet rooms), and - purge ventilation (in all habitat rooms and wet rooms). This is compliant with Section 7, Building Regulations Approved Document Part F, 2010. Additionally, ventilation provided for the dwelling should meet the requirements of Section 5 of the Building Regulations Part F in full. | 2 | 2 |
| Hea 06 – Safety | The dwelling is provided with a compliant fire detection and alarm system in accordance with BS 5839-6:2013 and to at least a Grade D Category LD3. The dwelling is provided with a compliant carbon monoxide detector and alarm system if supplied with mains gas or any other form of fossil fuel. | 1 | 1 |
| Total | | 12 | 11 |




4.3 Energy


| Credit | Summary | Available | Targeted |
|--|---|-----------|-------------|
| Ene 01 – Improvement in energy efficiency rating | Effort will be made to improve the energy efficiency of the dwelling, thus reducing the associated CO ₂ emissions. The refurbishment should result in an improvement to the dwelling's energy efficiency rating (EER) of ≥ 36 . | 6 | 4 |
| Ene 02 – Energy efficiency rating post-refurbishment | The refurbishment will result in a minimum energy efficiency rating (EER) of 70. | 4 | 2.5 |
| Ene 03 – Primary energy demand | Efforts will be made to reduce the absolute total regulated energy demand of the dwelling, because of the refurbishment. The Primary Energy Demand, Post Refurbishment, will be ≤ 280 kWh/m ² /year. | 7 | 3 |
| Ene 04 – Renewable technologies | It has not yet been confirmed that low or zero carbon technologies will be specified. | 2 | 0 |
| Ene 05 – Energy labelled white goods | | | |
| Fridges, freezers, and fridges/freezers | Fridges and freezers or fridges/freezers will have an A+ rating or better under the EU energy efficiency labelled scheme. | 1 | 1 |
| Washing machines, dishwashers, tumble dryers, and washer-dryers | Washing machines will have an A++ rating or better; dishwashers need to have an A+ rating or better and either washer-dryers or tumble dryers need to have an A rating under the EU energy efficiency labelled scheme. If washer dryer or tumbler dryers are not provided, the EU energy efficiency labelling scheme information leaflet will be provided to each dwelling. | 1 | 1 |
| Ene 06 – Drying space | The required length of drying line outside will be provided to the flats which will be included in the outside amenity space for each unit. | 1 | 1 |
| Ene 07 – Lighting | | | |
| External lighting | Energy efficient lighting (including lighting in communal areas) will be provided with no security lighting will be provided. | 1 | 1 |
| Internal lighting | The energy required for the internal lighting of a dwelling will be minimised through the provision of a maximum average wattage across the total floor area of the dwelling of 9 watts/m ² . | 1 | 1 |
| Ene 08 – Energy display devices | A compliant energy display device will be specified which will be capable of displaying and recording current electricity and primary heating fuel consumption data. In addition, any specified energy display devices will be capable of recording consumption data to be stored internally for a minimum of two years. | 2 | 2 |
| Ene 09 – Cycle storage | One cycle storage will be provided in total due to only one one-bedroom flat being developed in this project. | 2 | 2 |
| Ene 10 – Home office | The space and services necessary for residents to be able to work from home will not be provided, in line with BREEAM criteria for a home office. | 1 | 0 |
| Total | | 29 | 18.5 |

| 4.4 Water  | | | |
|---|---|-----------|----------|
| Credit | Summary | Available | Targeted |
| Wat 01 – Internal water use | Water consumption (litres/person/day) is expected to be between 107 and < 118. Equivalent terminal fitting consumption standards will be met by all bathroom and WC room fittings (incl. taps, showers, baths, WCs, washing machines, and dishwashers). | 3 | 2 |
| Wat 02 – External water use | The development will have neither a compliant rainwater collection system for external nor internal irrigation use. | 1 | 0 |
| Wat 03 – Water meter | An appropriate water meter for measuring usage of mains potable water needs will be provided to the dwelling. | 1 | 1 |
| Total | | 5 | 3 |

| 4.5 Materials  | | | |
|---|---|-----------|----------|
| Credit | Summary | Available | Targeted |
| Mat 01 – Environmental impact of materials | Many of the building's existing elements will be retained and their performance enhanced. Where new materials are required, those with optimal balance of low environmental impact and high thermal performance will be specified. The BREEAM Domestic Refurbishment Mat 01 calculated will be used to determine the number of credits awarded. Credits are targeted in this development according to the impact of new materials according to their Green Guide rating and their impact on improving the thermal performance of the dwelling for the following elements: External walls; Internal walls (including separating walls); and Windows. | 25 | 20 |
| Mat 02 – Responsible sourcing of materials | | | |
| Prerequisite | All timber and timber-based products used on the project will be 'legally harvested and traded timber'. | | ✓ |
| Sustainable procurement plan | The principal contractor will source materials for the project in accordance with a documented sustainable procurement plan. | 3 | 3 |
| Responsible sourcing of materials (RSM) | Efforts will be made to reuse materials where feasible, and that where required, new materials will be responsible sourced. All concrete will be BES 6001 certified, and any other materials will be ISO14001 certified for both key processes and supply chain extraction processes. Up to ≥ 27% RSM points will be achieved. | 12 | 8 |
| Mat 03 Insulation | | | |
| Prerequisite | Where thermal insulation is required, responsible sourced materials with a low embodied environmental impact relative to its thermal properties will be specified, in line with BRE Requirements. | | ✓ |

| | | | |
|-----------------------------|--|-----------|-----------|
| Embodied impact | All insulation will be A+ rated under the Green Guide. | 4 | 2 |
| Responsible sourcing | At least 80% or more of the new thermal insulation used in the building elements is responsible sourced. | 4 | 2 |
| Total | | 48 | 35 |

| 4.6 Waste  | | | |
|---|--|-----------|----------|
| Credit | Summary | Available | Targeted |
| Was 01 – Household Waste | | | |
| Recycling Facilities | Criterion 2 will be targeted in Table 27 in the BREEAM DR 2014 Manual. Therefore, three internal recycling containers will be provided with a minimum 60 litre total capacity and decided position. | 1 | 1 |
| Composting facilities | The dwelling will not have significant external private space to have a composting service or facility provided for their kitchen waste; however, an interior container will to be provided for this waste of at least seven litres. | 1 | 1 |
| Was 02 – Refurbishment site waste management | Checklist A-10 in the BREEAM Manual will be completed as it is a small-scale project. It will confirm that waste is taken away by a licensed carrier, waste is taken to a site with an appropriate permit or exemption; and options are considered for reusing and recycling waste in accordance with the waste hierarchy. | 3 | 3 |
| Total | | 5 | 5 |

| 4.7 Pollution  | | | |
|---|--|-----------|----------|
| Credit | Summary | Available | Targeted |
| Pol 01 – Nitrogen oxide emissions | The NO _x emissions arising from the operating of space heating and hot water systems for each refurbished dwelling will be equal to or less than 40 mg/kWh. | 3 | 3 |
| Pol 02 – Surface water run-off | Reducing run-off from site in a basic capacity is expected and all runoff from the roof for rainfall depths up to 5mm will be managed on-site using source control methods which will include run-off from all existing and new parts of the roof. A suitably qualified professional will design an appropriate designs strategy for the site. | 3 | 2 |
| Pol 03 – Flooding | The development falls within Option 2 – Medium/high flood risk. Therefore, a flood risk assessment will be carried out and the dwelling will follow Checklist A-11. The dwellings floor level or measures to keep water away will define it as achieving avoidance from flooding. | 2 | 2 |
| Total | | 8 | 7 |



4.8 Innovation

| Credit | Summary | Available | Targeted |
|---|--|-----------|----------|
| Inn 01 Innovation | | | |
| Hea 04 – Inclusive design | Only minimum accessibility is being targeted with only section 1 expected to be completed in Checklist A8. | 1 | 0 |
| Man 02 – Responsible construction practices | The principal contractor is part of the Considerate Constructors scheme however, it will only achieve a total score of 35 with a score of 7 in each section. | 1 | 0 |
| Man 05 – Protection and enhancement of ecological features | A site survey will not be carried out by a member of the project team or suitable qualified ecologist to determine the presence of ecological features. Due to the small scope of the project, it has been deemed not necessary. | 1 | 0 |
| Man 06 – Project management | A BREEAM AP for BREEAM Domestica Refurbishment assessor has not presently been appointed to oversee key stages within the project at an early stage. | 2 | 0 |
| Ene 02 – Energy efficiency rating | The refurbishment will result in a minimum energy efficiency rating (EER) of 70. | 2 | 0 |
| Ene 08 – Energy display devices | None of the specified energy display devices are expected to be capable of recording consumption data. | 1 | 0 |
| Wat 01 – Internal easter use | Water consumption (litres/person/day) is only expected to be between 107 and < 118. | 1 | 0 |
| Mat 02 – Responsible sourcing of materials | Only ≥ 18% RSM points are targeted. | 1 | 0 |
| Wst 02 – Refurbishment site waste management | Due to the scope of the project the contractor may have challenges to manage the waste generated through the refurbishment process in accordance with Checklist A-10: Refurbishment Site Waste Management – therefore, the credit is not targeted. | 1 | 0 |
| Pol 02 Surface water run-off | A neutral impact on surface water is expected and all runoff from the roof for rainfall will be managed on-site control methods. | 1 | 0 |
| Total | | 12 | 0 |

5 Conclusion

This statement has been prepared by **Sustain Quality** on behalf of **FORM Design Group**. It summarises the **83 Station Road's** proposed development strategy to carry out BREEAM UK Domestic Refurbishment 2014.

The project team of 82 Station Road is committed to sustainable development (Appendix B – United Nations Sustainable Development Goals) and future sustainability requirements and will adhere closely to the requirements set out by the client.

The proposed sustainability approach aims to score **73.51%**, **with all requirements being carried out to an 'Excellent' standard**. However, the project will not pursue a certification because of the small scale and limited scope of the project, and it will follow BREEAM principles to achieve sustainable development.

This report shows that the proposed development has good aspirations for Environmental, Social, and Governance (ESG) management strategies and follows best practices to achieve the client's aspirations.

Appendix A – Limitations

The recommendations contained in this Report represent Sustain Quality's professional opinions, based upon the information listed in the Report, exercising the duty of care required of an experienced Environmental Consultant. Sustain Quality does not warrant or guarantee that the Site is free of hazardous or potentially hazardous materials or conditions.

Sustain Quality obtained, reviewed, and evaluated information in preparing this Report from the Client and others. Sustain Quality's conclusions, opinions, and recommendations have been determined using this information. Sustain Quality does not warrant the accuracy of the information provided to it and will not be responsible for any opinions which Sustain Quality has expressed, or conclusions that it has reached in reliance upon the information that is subsequently proven to be inaccurate.

This Report was prepared by Sustain Quality for the sole and exclusive use of the Client and for the specific purpose for which Sustain Quality was instructed. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client. Sustain Quality and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party.

Sustain Quality does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user.

Anyone using or relying upon this Report, other than the Client, agrees by its use to indemnify and hold harmless Sustain Quality from and against all claims, losses, and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

Appendix B – United Nations Sustainable Development Goals

The 2030 Agenda for Sustainable

Development, adopted by all United Nations (UN) member states in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future.

At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries – developed and developing – in a global partnership. They recognise that ending poverty and other deprivations must go together with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.



Today, the Division for Sustainable Development Goals (DSDG) in the United Nations Department of Economic and Social Affairs (UNDESA) provides substantive support and capacity-building for the SDGs and their related thematic issues.

It includes water, energy, climate, oceans, urbanization, transport, science and technology, the Global Sustainable Development Report (GSDR), partnerships, and Small Island Developing States.

DSDG plays a key role in the evaluation of the UN systemwide implementation of the 2030 Agenda and advocacy and outreach activities relating to the SDGs. To make the 2030 Agenda a reality, broad ownership of the SDGs must translate into a strong commitment by all stakeholders to implement the global goals. DSDG aims to help facilitate this engagement.

Source: <https://sustainabledevelopment.un.org>