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Sustainability Statement

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Proposed Care Home  
Dellwood Hospital  
Reading  
For  
Montpelier Estates Limited

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Issue: Five  
Date: 23 March 2022

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## Appendix A: BREEAM Pre-assessment

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### Alterations

The BRE hold the right to update or alter the scheme at any time. MRB as their agents will implement these changes as required to any assessment being undertaken.

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## 1.0 Executive Summary

### 1.1 General

A Sustainability Statement has been prepared in support of a planning application for the proposed development with associated works and infrastructure to meet the sustainability targets as set out within the Reading Borough Local Plan.

### 1.2 BREEAM

A BREEAM Bespoke pre-assessment has been undertaken for the scheme to identify feasible targeted credits. The proposed scheme could achieve a score of 61.79% which is above the 55% threshold for a Very Good rating, but below the 70% required for Excellent.

The proposed building will aim to score highly in each BREEAM category and meet the mandatory standards for an Excellent rating, however as it encompasses the existing building on the proposed site it is anticipated a Very Good rating would be the highest feasible.

### 1.3 Part L, Renewable and Low Carbon Energy

Energy efficiency measures will be incorporated where possible. The installation of local low carbon and renewable energy technologies will be investigated during technical design and incorporated where feasible to achieve compliance with Part L of the Building Regulations.

The use of decentralised energy will be investigated and if feasible included within the development. Grey water harvesting and re-use of rainwater will be considered at the detailed design stage.

## 2.0 Introduction

### 2.1 General

The sustainability statement has been prepared in support of the planning application for the proposed development of 56 bedroom Care Home and associated car parking and landscaping.

This statement provides an assessment of the sustainability requirements in line with the Reading Borough Council Local Plan.

The Local Plan requirements will be addressed using the Sustainable Design and Construction Supplementary Planning Document which outlines a checklist in Appendix 1, Table A1.2 Sustainable Design Checklist for Non-Residential Development.

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### 3.0 Policy Review

#### 3.1 Summary Review of Planning Policy Context

This section summarises the policy context for the development sustainability statement, with a focus upon energy and carbon reduction.

The various policies from international to local level, that aim to reduce greenhouse gas emissions, particularly carbon dioxide, and hence contribute to sustainable development are identified below.

#### 3.2 National Planning Policy Framework

The National Planning Policy Framework (2021) sets out the Government's planning policies for England and how these are expected to be applied. It sets out the Government's requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so. It provides a framework within which local people and their accountable councils can produce their own local and neighbourhood plans and as a material consideration in the determination of planning applications.

At the heart of the National Planning Policy Framework is a 'presumption in favour of sustainable development'. Within this context National Guidance says that:

- i) The purpose of the planning system is to contribute towards achieving sustainable development.
- ii) Sustainable development comprises of economic, social and environmental dimensions. These are interdependent and need to be pursued in mutually supportive ways:
  - Economic- contributing to building a strong, responsive and competitive economy.
  - Social- supporting strong, vibrant and healthy communities.
  - Environmental- contributing to protecting and enhancing the natural, built and historic environment.
- iii) These objectives are not criteria against which every decision can or should be judged. Plans and decisions must take into account local circumstances to ensure sustainable development is responded to appropriately in different areas.
- iv) At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking. For decision-making this means that:
  - Approving development proposals that accord with the development plan without delay; and
  - Where the development plan is absent, silent or relevant policies are out-of-date, granting permission unless:
    - any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or
    - specific policies in this Framework indicate development should be restricted.

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Planning policies should follow the presumption in favour of sustainable development approach so development which is sustainable can be approved without delay. All plans should set clear policies that will guide how the presumption should be applied locally.

### 3.3 Reading Climate Change Strategy

The Reading Climate Change Strategy 2013-2020 “Reading Means Business on Climate Change” set out a target of reducing the carbon footprint by 34% by 2020 from levels in 2005.

In response to Reading declaring a climate emergency in 2019, a new version of the Climate Change Strategy was prepared and a draft version of the Climate Change Strategy 2020-2025 was published for consultation in March 2020. The target set out within the document is to achieve a net zero carbon Reading by 2030.

The draft strategy identifies the key priorities to achieving the target set as follows:

- i) Retrofitting and building new homes and other buildings to low/zero carbon standards
- ii) Generating more energy from renewable sources
- iii) Reducing the need to travel, promoting walking, cycling and public transport, and phasing out petrol/diesel in favour of electric vehicles
- iv) Buying and using less ‘stuff’, reducing waste and developing Reading’s ‘circular economy’

### 3.4 Local Sustainability Policy

#### 3.4.1 Reading Borough Council Local Plan

The Reading Borough Local Plan was adopted in November 2019 and contains the following policies in relation to sustainability:

- i) CC2 Sustainable Design and Construction
- ii) CC3 Adaptation to Climate Change
- iii) CC4 Decentralised Energy
- iv) CC5 Waste Minimisation
- v) EN18 Flooding and Sustainable Drainage Systems

A key document in terms of sustainability is the Reading Borough Council ‘Sustainable Design and Construction’ SPD (2019) which aims to provide clear guidance for developers and decision-makers on the implementation of key sustainability policies as set out within the Local Plan.

#### 3.4.2 CC2 Sustainable Design and Construction

The policy states the new developments must take into account the effects of climate change through efficient design of the building and site layout using energy, water, minerals, materials and other natural resources appropriately. To meet these requirements the following must be achieved:

- a) All major non-residential developments or conversions to residential are required to meet the most up-to-date BREEAM 'Excellent' standards, where possible.
- b) All non-residential development or conversions to residential should incorporate water conservation measures so that predicted per capita consumption does not exceed the appropriate levels set out in the applicable BREEAM standard. Both residential and non-residential development should include recycling greywater and rainwater harvesting where systems are energy and cost effective.

### 3.4.3 CC3 Adaptation to Climate Change

All developments will demonstrate how they have been designed to incorporate measures to adapt to climate change.

- i) Where possible, new buildings shall be orientated to maximise the opportunities for both natural heating and ventilation and reducing exposure to wind and other elements.
- ii) Proposals involving both new and existing buildings shall demonstrate how they have been designed to maximise resistance and resilience to climate change for example by including measures such as solar shading, thermal mass, heating and ventilation of the building and appropriately coloured materials in areas exposed to direct sunlight, green and brown roofs, green walls, etc
- iii) Use of trees and other planting, where appropriate as part of a landscape scheme, to provide shading of amenity areas, buildings and streets and to help to connect habitat, designed with native plants that are carefully selected, managed and adaptable to meet the predicted changed climatic conditions
- iv) All development shall minimise the impact of surface water runoff from the development in the design of the drainage system, and where possible incorporate mitigation and resilience measures for any increases in river flooding levels as a result of climate change.

### 3.4.4 CC4 Decentralised Energy

- i) Any development of more than 20 dwellings and/ or non-residential development of over 1,000 sq m shall consider the inclusion of decentralised energy provision, within the site, unless it can be demonstrated that the scheme is not suitable, feasible or viable for this form of energy provision.
- ii) Where there is existing decentralised energy provision present within the vicinity of an application site, further developments of 10 dwellings or more or non-residential development of 1,000 sq m or more will be expected to link into the existing decentralised energy network or demonstrate why this is not feasible

### 3.4.5 CC5 Waste Minimisation and Storage

- i) Development should demonstrate measures to minimise the generation of waste in the construction, use and life of buildings and promote more sustainable approaches to waste management, including the reuse and recycling of construction waste and the promotion of layouts and designs that provide adequate, well-designed space to facilitate waste storage, reuse, recycling and composting.

### 3.4.6 EN18 Flooding and Sustainable Drainage Systems

The policy states the development will be directed to areas at lowest risk of flooding in the first instance. The development shall consider flooding from all sources and if development is necessary in areas at risk of flooding, it will not reduce the capacity of the flood plain to store water or increase the risks to life and property arising from flooding.

All major developments shall incorporate sustainable drainage systems (SuDS) as appropriate, smaller schemes shall be encourage to incorporate SuDS where possible. All new developments in areas of flood risk should give priority to SuDs.

#### 4.0 Site Appraisal

##### 4.1 Site Analysis

The site is located within the ground of the Dellwood Hospital site, off Liebenrod Road, Reading. The site is located to the west of Reading, north of the A4 Bath road. The surrounding areas are predominately residential areas with a large green open space, Prospect Park located to the west of the site.

The proposed development is located on a brownfield site, currently occupied by a disused former hospital building and car parking area.

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## 5.0 BREEAM

### 5.1 General

Policy CC2 Sustainable Design and Construction requires all major non-residential developments to meet the most up to date BREEAM 'Excellent' standards.

The proposed development will be assessed under the current BREEAM 2014 Bespoke scheme as it incorporates both refurbished and new-build elements.

#### BREEAM Performance Benchmarks

| BREEAM Rating | % Score |
|---------------|---------|
| Pass          | 30%     |
| Good          | 45%     |
| Very Good     | 55%     |
| Excellent     | 70%     |
| Outstanding   | 85%     |

### 5.2 Pre-assessment

A BREEAM Bespoke pre-assessment has been undertaken for the scheme to identify feasible targeted credits. The proposed scheme could achieve a score of 61.79% which is above the 55% threshold for a Very Good rating, but below the 70% required for Excellent. A copy of the pre-assessment is included in Appendix A.

The proposed building will aim to score highly in each BREEAM category and meet the mandatory standards for an Excellent rating, however as it encompasses the existing building on the proposed site it is anticipated a Very Good rating would be the highest feasible.

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## 6.0 Energy and CO<sub>2</sub> Emissions

### 6.1 General

The Reading Borough Local Plan identifies a number of policies CC2-CC5 which encourage the consideration of energy efficiency measures, decentralised energy, to reduce the overall carbon emissions of the development over its lifetime.

### 6.2 Proposed Development

Prioritising a reduction in overall energy demand is the most effective way in which to minimise environmental impacts associated with energy use. The use of efficient technologies and renewables to supply the remaining load results in lower greenhouse gas emissions as compared with the use of conventional alternatives.

Cost effective measures can be adopted to reduce energy demand without making a significant impact on the design, appearance or character of the building. It is intended to implement energy efficiency measures to improve on the minimum standards required in Part L of the Building Regulations.

The following specific measures are proposed to achieve an energy demand reduction at the development:

- i) Improve U-values of the external envelope.
- ii) Improve U-value of glazing.
- iii) Improve air permeability of building envelope.
- iv) Improved efficiency of the space heating and hot water.
- v) Use of energy efficient lighting.
- vi) Use of intelligent lighting controls.

### 6.3 Low or Zero Carbon Technologies

To address the policy CC4 Decentralised Energy, the development will undertake an energy assessment to consider the viable options for providing energy from decentralised energy sources.

#### 6.3.1 Combined Heat and Power/Combined Cooling Heat and Power

Further investigation will be carried out into the suitability of using CHP within the proposed design.

#### 6.3.2 District Heating

Within the Sustainable Design and Construction SPD (2019), it is confirmed that Element Energy has undertaken a heat mapping and energy master planning study for Reading Town Centre. The heat mapping has identified four clusters as potential areas for developing a heat network scheme within the City Centre.

The proposed site is not located within close proximity to any of the areas highlighted within the potential heat networks schemes.

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#### 6.3.3 Solar Water Heaters/Solar Thermal Heating Systems

Further investigation will be carried out into the suitability of the use of solar water heaters within the proposed design.

#### 6.3.4 Photovoltaics (PV) Arrays

Further investigation will be carried out into the suitability of the use of photovoltaics within the proposed design.

#### 6.3.5 Small scale wind energy

It is unlikely, due to the site location that a wind turbine would be a suitable technology to include within the design.

#### 6.3.6 Biomass

Further investigation will be carried out into the suitability of the use of biomass within the proposed design. This is assumed this will not be feasible for this development.

#### 6.3.7 Small Scale Hydropower

This is not a suitable technology for the site.

#### 6.3.8 Energy from Waste

Due to the scale of the development, it is unlikely energy from waste would be a viable option.

#### 6.3.9 Ground Source Heat Pumps

Further investigation will be carried out into the suitability of the use of ground source heat pumps within the proposed design.

#### 6.3.10 Air Source Heat Pumps

Further investigation will be carried out into the suitability of the use of air source heat pumps within the proposed design.

### 6.4 Summary

The development will achieve compliance with Building Regulations Part L2A and L2B 2013. The feasibility of decentralised, renewable and low carbon energy sources will be investigated during detailed design.

It is assumed the most suitable technologies would be solar water, PV, CHP and air source heat pumps.

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## 7.0 Sustainable Design and Construction Checklist

The following sections addresses the Sustainable Design Checklist as per Table A1.2 within the Sustainable Design and Construction SPD.

### 7.1 Management

*Aim: To recognise and encourage environmentally and socially considerate development.*

1. *Will guidance for the non-technical building user be provided so they can understand and operate the building efficiently and understand how the design reduced the overall environmental impact of the building and raise environmental awareness?*

A non-technical building user guide and a technical building user guide will be provided in accordance with credit Man 04.

The building user guide will allow non-technical occupants of the building to understand and operate the building efficiently and highlight how the design has reduced the overall environmental impact of the building which will create environmental awareness.

2. *What consideration has been given to resource use, energy consumption and pollution in terms of the construction site impacts?*

The principal contractor will operate an environmental management system certified to ISO14001 standard. The principal contractor will be responsible for monitoring all construction site impacts including energy and transport consumption

The principal contractor will achieve credits for Man 03 Responsible Construction Practices, two credits will be awarded for responsible construction management.

3. *Will site investigation and appropriate remedial action be undertaken?*

Yes, if the land is found to be contaminated, advice will be sought and remedial works will be undertaken before the site is developed.

4. *Will community and stakeholders be involved in the design process encouraging flexibly designed buildings which cater for shared use with the local community?*

The local community and stakeholders will be consulted with regards to the planning application. Further details for a communal space will be discussed with the operator and local community groups to discuss the use of a communal space for activities such as toddler groups etc.

5. *How has the building been designed to reduce the opportunity for and the fear of crime?*

A security consultant will be appointed to prepare a security needs assessment which will address the crime risks and recommend security measures to improve the security of the site to provide a secure, safe environment for occupants/visitors accessing and using the site. This is accordance with credit Hea 06 Security.

6. *What consideration has been given to the maintenance of the building?*

The maintenance requirements will be considered during detailed design stage.

7.2 Health and Well-being

*Aim: To ensure a good quality amenity level is afforded to occupants of buildings.*

7. *How has the development been designed to ensure users have sufficient daylight, an external view, adequate and appropriate lighting, ventilation, air quality and drinking water?*

The design will seek to maximise daylight and view out where possible within the building. The internal and external lighting will meet the requirements of credit Hea 01.

An indoor air quality plan will be carried out and VOC testing will be undertaken to ensure the internal air quality meets the requirements of credit Hea 02.

Thermal modelling will be undertaken to ensure the internal thermal comfort levels will be suitably for occupants.

7.3 Energy

*Aim: To conserve energy and maximise the use of energy efficiency techniques.*

8. *How has the building been designed to minimise CO<sub>2</sub> emissions associated with their operational energy consumption?*

The development will be designed to achieve a reduction of CO<sub>2</sub> emissions from the target emission rate set by Part L regulations. The design will incorporate energy efficient lighting and a form of renewable or low carbon technologies to further reduce the CO<sub>2</sub> emissions.

9. *How has the development been designed to optimise the use of the energy from the sun, natural daylighting and controlled natural ventilation?*

The building will be designed to maximise daylight and natural ventilation where possible, this will be investigated during the passive design analysis undertaken in accordance with credit Ene 04.

10. *How will the design of the building make efficient use of energy, i.e. use of thermally massive materials, levels of insulation and use of green/brown roofs?*

The building will make use of natural ventilation where possible, to reduce the operational energy for building services. A passive design analysis will be carried out to identify measures that will reduce the overall energy demand.

11. *Have renewable energy sources or decentralised energy been considered for this development and if so, how would they be incorporated within the development?*

Renewable/low carbon technologies will be considered for this development during the preparation of the feasibility study which will be prepared in accordance with credit Ene 04.

#### 7.4 Transport

*Aim: To reduce the need to travel through appropriately located development.*

*12. How has the design and layout incorporated measures to reduce the need to travel, especially by car, and promote alternative and sustainable modes of transport such as walking, cycling, and the use of public transport?*

Secure cycle storage spaces will be provided to encourage occupants/visitors to cycle to the site. A number of sustainable travel measures will be included within the travel plan which will be implemented by the occupier. Please refer to Transport Assessment prepared by David Tucker Associates.

*13. How have public transport networks been considered in terms of the location of the development and proximity to local amenities?*

A Transport Assessment has been prepared by David Tucker Associates which considers the public transport networks and proximity to local amenities.

The transport assessment confirms the location of local amenities within 2km walking distance which includes food outlets, places of worship and hospitals, please refer to section 3.6 of the Transport Assessment.

Section 3.5 of the Transport Assessment confirms the location and frequency of the public transport services available within close proximity to the site.

*14. How have deliveries and the manoeuvring of delivery vehicles been considered?*

Please refer to Section 4.0 Development Proposals of the Transport Assessment by David Tucker Associates which considers the access into the site and service vehicles/refuse collections.

#### 7.5 Water

*Aim: To improve efficiency in the use of water, conserve water resources and minimise vulnerability to flooding.*

*15. How will the development incorporate the use of water saving devices to achieve a maximum consumption of 5.5m<sup>3</sup> per year per person for office developments? (or the most appropriate benchmark for other types of development)*

The development will achieve two credits under credit Wat 01 which is the equivalent of achieving a 25% improvement upon the benchmark.

*16. Will the development and access to and from it such as roads and paths be located away from areas of potential flooding?*

The site is located with flood zone 1 and is at low risk from surface water flooding, please refer to Flood Risk Assessment prepared by Baker Hall Ltd.

*17. How will the development incorporate harvesting and re-use of rainwater?*

Greywater harvesting and re-use of rainwater will be considered at the detailed design stage.

*18. Does this development meet the requirements of EN18?*

The site is located with flood zone 1, the drainage strategy proposes to use SuDS principles to ensure the surface water run off is not exceed from pre-development levels, please refer to Flood Risk Assessment prepared by Baker Hall Ltd.

## 7.6 Materials

*Aim: To retain local character and promote the use of materials with a low environmental impact.*

*19. How will the selected materials help retain local character, ensure long life and ensure a low environmental impact, including the consideration of embodied energy?*

A building life cycle assessment will be carried out to assess the amount of embodied carbon within the materials specified for the development. An analysis will be conducted for the materials used within the superstructure, substructure and hard landscaping to investigate options for reducing the embodied carbon.

*20. What consideration has been given to reusing materials in-situ, responsibly sourcing of materials and re-using existing structures?*

A pre-demolition audit will be carried out to identify any potential materials for re-use and re-use of existing structures. Responsible sourcing of materials will be required in accordance with credit Mat 03. It is proposed that existing structure will be reused within the main house area.

## 7.7 Waste

*Aim: To minimise the production of waste and maximise re-use and recycling.*

*21. Has an audit of the materials present on site been conducted with an assessment of the extent to which materials could be re-used?*

A pre-demolition audit will be carried out to determine the feasibility of re-using materials. The pre-demolition audit will be carried out in accordance with credit Wst 01 Construction Waste Management and will include:

- i) Identification and quantification of the key materials present
- ii) Potential application and any related issues for the reuse and recycling of the key materials
- iii) Opportunities for reuse and recycling within the development

- iv) Identification of recycling and reuse targets
- v) Identification of overall landfill diversion rates for all key materials

*22. How will the development make the maximum use of construction, demolition waste and recycled materials?*

The principal contractor will operate a site waste management plan which will outline targets for waste including diversion from landfill and identify measures to reduce the amount of waste generated.

In line with credit Wst 01 Construction Waste Management, the principal contractor shall ensure the non-hazardous waste generated does not exceed <6.5tonnes per 100m<sup>2</sup> of gross internal floor area and at least 80% of non-hazardous waste and 90% of non-hazardous demolition waste will be diverted from landfill.

*23. How will provision be made for the storage and recycling of waste for all users of the site?*

In accordance with credit Wst 03 Operational Waste, a dedicated space for the segregation and storage of operational recyclable waste will be provided. The size and location will be determined based on the predicted waste volumes. The waste storage area will have clearly labelled and segregated areas for storage of recyclable waste streams which will be easily accessible.

## 7.8 Land Use and Ecology

*Aim: To retain, protect and enhance wildlife habitats and natural features.*

*24. How have the wildlife habitats and natural features on and adjacent to the site been considered and how will they be retained, protected and enhanced?*

An ecologist has been appointed to advise the client on the ecology of the site in relation to UK/EU/International legislation and BREEAM Ecology LE02-LE05.

The proposed development will incorporate the recommendations advised by the ecologist and aim to increase the ecological value of the site where possible. A habitat management plan will be prepared for the site and will cover the first five years of occupation.

*25. What consideration has been given to not using previously developed land?*

The site is previously developed land.

*26. What consideration has been given to the removal of contamination from the land?*

The proposed development is located on a previously developed site, if the land is found to be contaminated, advice will be sought and remedial works will be undertaken before the site is developed.

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## 7.9 Pollution

*Aim: To minimise damage to the environment through air, ground-surface water, land, noise or light pollution.*

*27. What measures have been incorporated to ensure that noise and light pollution plus pollution transported through surface water runoff or infiltration will be minimised through the development?*

An acoustician will be appointed to advise on the background noise levels and to provide recommendations to ensure any new external plant meets the acoustic levels set out within credit Pol 05.

The external lighting will be designed to minimise light pollution in accordance with Table 2 (and its accompanying notes) of the Institution of Lighting Professional (ILP) Guidance notes for the reduction of obtrusive light, 2011.

*28. What measures have been incorporated to ensure that light pollution will be minimised through the development?*

The external lighting will be designed to minimise light pollution in accordance with Table 2 (and its accompanying notes) of the Institution of Lighting Professional (ILP) Guidance notes for the reduction of obtrusive light, 2011.

*29. What consideration has been given to reducing refrigerants and minimising nitrogen dioxide emissions?*

The design will consider using refrigerants with a low global warming potential to reduce the overall impact of the refrigerants.

*30. How has the development been sited to minimise the impact of flooding?*

The site is located within flood zone 1, low flood risk from surface water flooding. Please refer to the flood risk assessment prepared by Baker Hall Ltd.

*31. How has the design considered the use of sustainable drainage systems (SuDS) and how will they be incorporated within the development?*

A flood risk assessment has been prepared for the site, the drainage design will aim to reduce the surface water run off rate for the developed site. The drainage will be designed with an allowance for climate change and the design considers the use of sustainable drainage systems (SuDS). Please refer to Flood Risk Assessment prepared by Baker Hall Ltd.

## 7.10 Innovation

*Aim: To recognise innovation in the field of sustainability*

*32. What consideration has been given to innovative sustainability measures in terms of a procurement strategy, design features, management process or technological?*

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The scheme will incorporate design features to meet the requirements of Building Regulations and BREEAM. Use of innovative sustainability measures will be considered at detailed design stage.

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## 8.0 Summary

### 8.1 General

The proposed development with associated works and infrastructure will meet the sustainability targets as set out in Sustainable Design and Construction Supplementary Planning Document.

### 8.2 BREEAM

A BREEAM Bespoke pre-assessment has been undertaken for the scheme to identify feasible targeted credits. The proposed scheme could achieve a score of 61.79% which is above the 55% threshold for a Very Good rating, but below the 70% required for Excellent.

The proposed building will aim to score highly in each BREEAM category and meet the mandatory standards for an Excellent rating, however as it encompasses the existing building on the proposed site it is anticipated a Very Good rating would be the highest feasible.

### 8.3 Part L, Renewable and Low Carbon Energy

Energy efficiency measures will be incorporated where possible. The installation of local low carbon and renewable energy technologies will be investigated during technical design and incorporated where feasible to achieve compliance with Part L of the Building Regulations.

The use of decentralised energy will be investigated and if feasible included within the development. Grey water harvesting and re-use of rainwater will be considered at the detailed design stage.

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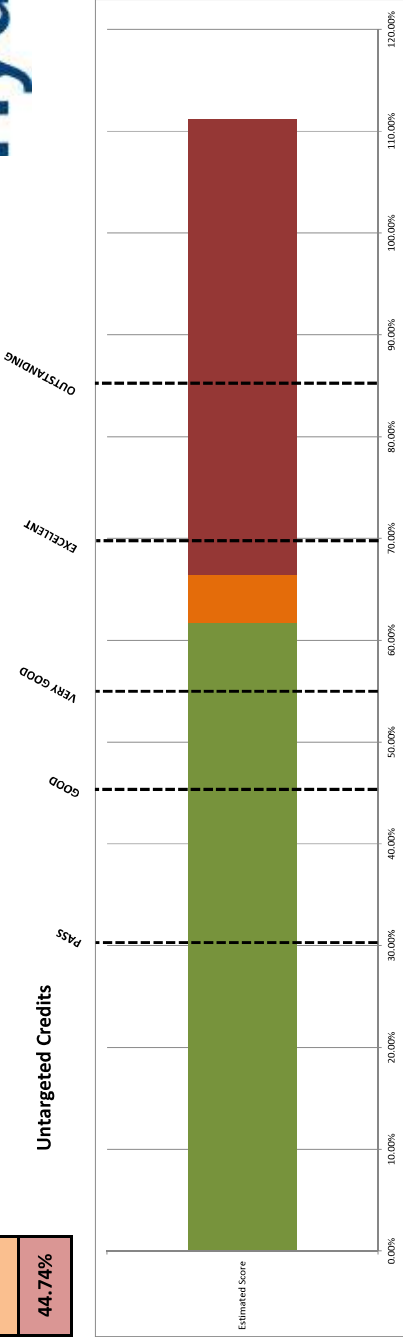
Appendix A: BREEAM Pre-assessment

Dellwood Care Home - Bespoke BREEM 2014 Pre-assessment



|        |
|--------|
| 61.79% |
| 4.67%  |
| 44.74% |

Target Credits  
Possible Credits  
Untargeted Credits



| Rev    | Date       | Notes                                                                                           |
|--------|------------|-------------------------------------------------------------------------------------------------|
| Rev 01 | 22/02/2022 | Desktop pre-assessment based upon existing Bespoke template. Target = 61.79%, Possible = 4.67%. |
|        |            |                                                                                                 |
|        |            |                                                                                                 |
|        |            |                                                                                                 |
|        |            |                                                                                                 |

| BREEAM 2014 Bespoke - (Parts 1, 2 and 3)          |                   |                |                  |                    |                                                                                                                                                                                                                             |                                               |
|---------------------------------------------------|-------------------|----------------|------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Credit                                            | Available Credits | Target Credits | Possible Credits | Untargeted Credits | Credit Information                                                                                                                                                                                                          | Comments                                      |
| Management                                        |                   |                |                  |                    |                                                                                                                                                                                                                             |                                               |
| Man 01<br>Project Brief and Design                | 1                 | 0              | 0                | 1                  | Stakeholder Consultation (Project Delivery)<br>• 1 credit where the design team have identified their roles and responsibilities through the construction process.                                                          | CONCEPT DESIGN (RIBA STAGE 2 OR EQUIVALENT)   |
|                                                   | 1                 | 0              | 0                | 1                  | Stakeholder Consultation (Third Party)<br>• 1 credit where a plan is in place to consult and provide feedback on the design to the relevant stakeholders and bodies.                                                        | CONCEPT DESIGN (RIBA STAGE 2 OR EQUIVALENT)   |
|                                                   | 1                 | 0              | 0                | 1                  | Sustainability Champion (Design)<br>• 1 credit for appointment of BREEAM AP by RIBA Stage 1 to produce a BREEAM pre-assessment and help confirm the BREEAM target for the scheme.                                           | CONCEPT DESIGN (RIBA STAGE 2 OR EQUIVALENT)   |
|                                                   | 1                 | 0              | 0                | 1                  | Sustainability Champion (Monitoring Progress)<br>• 1 credit for appointment of a BREEAM AP to monitor and report progress against BREEAM targets by attending key design team meetings and producing a design stage report. |                                               |
| Man 02<br>Life Cycle cost & Service Life Planning | 2                 | 0              | 0                | 2                  | Elemental Life Cycle Cost (LCC)<br>• 2 credits for undertaking a LCC analysis                                                                                                                                               | CONCEPT DESIGN (RIBA STAGE 2 OR EQUIVALENT)   |
|                                                   | 1                 | 0              | 0                | 1                  | Component Level LCC Plan<br>• 1 credit where a component level LCC plan has been produced                                                                                                                                   | TECHNICAL DESIGN (RIBA STAGE 4 OR EQUIVALENT) |
|                                                   | 1                 | 1              | 0                | 0                  | Capital Cost Reporting<br>• 1 credit where the capital cost of the building in E/m2 is reported via the BREEAM monitoring tool.                                                                                             |                                               |
|                                                   | 1                 | 0              | 0                | 0                  |                                                                                                                                                                                                                             |                                               |

|                            |                                    |        |       |        |       |                                                                                                                                                                                                                                                                            |                                     |  |  |                 |  |
|----------------------------|------------------------------------|--------|-------|--------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--|--|-----------------|--|
| Man 03                     | Responsible Construction Practices | -      | -     | -      | -     | Legally Harvested and Traded Timber<br>• A mandatory pre-requisite for the all the timber and timber-based products used are legally harvested and traded timber.                                                                                                          |                                     |  |  | MAIN CONTRACTOR |  |
|                            |                                    | 1      | 1     | 0      | 0     | Environmental Management<br>• 1 credit for the main contractor operating a EMS (ISO14001) covering their main operations and follows best practice pollution guidelines.                                                                                                   |                                     |  |  | MAIN CONTRACTOR |  |
|                            |                                    | 1      | 0     | 1      | 0     | Sustainability Champion (Construction)<br>• 1 credit where a sustainability champion is appointed to monitor and report ongoing compliance of the project against the relevant sustainability performance criteria during the construction, handover and close out stages. |                                     |  |  | MAIN CONTRACTOR |  |
|                            |                                    | 2      | 2     | 0      | 0     | Conscientate Construction<br>• 1 credit for achieving a CCS score of 25 - 34.<br>• 2 credits for achieving a CCS score of 35 - 39.                                                                                                                                         | ONE CREDIT MANDATORY FOR EXCELLENT. |  |  | MAIN CONTRACTOR |  |
|                            |                                    | 1      | 1     | 0      | 0     | Utility Consumption<br>• 1 credit for the monitoring, recording and reporting of on-site energy/carbon and water used during construction.                                                                                                                                 |                                     |  |  | MAIN CONTRACTOR |  |
| Man 04                     | Commissioning and Handover         | 1      | 1     | 0      | 0     | Transport of Construction Material<br>• 1 credit for the monitoring, recording and reporting of transport carbon emissions for the materials and waste.                                                                                                                    |                                     |  |  | MAIN CONTRACTOR |  |
|                            |                                    | 1      | 1     | 0      | 0     | Commissioning & Testing Schedule and Responsibilities<br>• 1 credit for undertaking monitoring, programming, pre-commissioning, commissioning and re-commissioning for building services and specialist systems.                                                           |                                     |  |  | M&E             |  |
|                            |                                    | 1      | 1     | 0      | 0     | Commissioning Building Services<br>• 1 credit for undertaking monitoring, programming, pre-commissioning, commissioning and re-commissioning for building services and specialist systems.                                                                                 |                                     |  |  | M&E             |  |
|                            |                                    | 1      | 0     | 0      | 1     | Testing & Inspecting Building Fabric<br>• 1 credit for thermographic study post-construction to confirm continuity of insulation, avoidance of excessive thermal bridging, air leakage paths and any remediation required.                                                 |                                     |  |  | MAIN CONTRACTOR |  |
|                            |                                    | 1      | 1     | 0      | 0     | Handover<br>• 1 credit for the production of a simple building user guide relevant to all building users. The guide covers all functions and uses of the building, ensuring building users can use the building effectively.                                               | ONE CREDIT MANDATORY FOR EXCELLENT  |  |  | MAIN CONTRACTOR |  |
| Category score             |                                    | 18     | 9     | 1      | 8     |                                                                                                                                                                                                                                                                            |                                     |  |  |                 |  |
| Category Weighting % Score |                                    | 12.20% | 6.10% | 12.20% | 0.68% | 5.42%                                                                                                                                                                                                                                                                      |                                     |  |  |                 |  |

| Health & Wellbeing |                    |   |   |   |   |   |                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |                |
|--------------------|--------------------|---|---|---|---|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|----------------|
| Hea 01             | Visual Comfort     | 3 | 0 | 0 | 0 | 3 | Daylighting<br>• Up to 3 credits where all occupied spaces achieve an average daylight factor of at least 2% as follows:<br>- 1 credit where the minimum area to comply is 40% of the RFO area, and 80% of the NC area.<br>- 2 credits where the minimum area to comply is 60% of the RFO area, and 80% of the NC area.<br>- 3 credits where the minimum area to comply is 80% of the RFO area, and 80% of the NC area. |  |  | ARCHITECT/ M&E |
|                    |                    | 2 | 0 | 0 | 0 | 2 | View Out<br>• 2 credits where 95% of the relevant building areas are within 7m of a suitably sized window that provides an adequate view out for the RFO area. At least 95% of the NC area must comply.<br>• 1 credit where 80% of the relevant building areas are within 7m of a suitably sized window that provides an adequate view out for the RFO area. At least 95% of the NC area must comply.                   |  |  | ARCHITECT      |
|                    |                    | 1 | 1 | 0 | 0 | 0 | External Lighting<br>• 1 credit for specification of external lighting levels in line with CIBSE guidance and British Standards.<br>Indoor Air Quality Plan<br>• 1 credit where a compliant Indoor Air Quality Plan is produced.                                                                                                                                                                                        |  |  | M&E            |
| Hea 02             | Indoor Air Quality | 1 | 0 | 0 | 0 | 1 | Ventilation<br>• 1 credit where intakes and extracts are a sufficient distance apart and any area subject to unpredictable occupancy is linked to CO <sub>2</sub> sensors.                                                                                                                                                                                                                                              |  |  | M&E            |
|                    |                    | 1 | 0 | 0 | 0 | 1 | Adaptability - Potential for Natural Ventilation<br>• 1 credit where occupied spaces are capable of providing sufficient fresh air to meet comfort requirements entirely through a natural ventilation strategy.                                                                                                                                                                                                        |  |  | -              |

|        |                     |                               |       |        |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             |  |             |
|--------|---------------------|-------------------------------|-------|--------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--|-------------|
| Hes 04 | Thermal Comfort     | 1                             | 1     | 0      | 0     | Thermal Modelling<br>• 1 credit where a dynamic thermal analysis has been undertaken to ensure CIBSE comfort levels are met and the building complies with the relevant 'Time out of Range' metric.<br>Adaptability - for a Projected Climate Change Scenario<br>• 1 credit for providing evidence through the thermal modelling how passive design features of the building have been included and how these influence thermal comfort future levels. |                                             |  | M&E         |
|        |                     | 1                             | 1     | 0      | 0     | Thermal Zoning and Controls<br>• 1 credit for appropriate zoning of heating controls in line with the thermal modelling analysis.                                                                                                                                                                                                                                                                                                                      |                                             |  | M&E         |
|        |                     | 2                             | 2     | 0      | 0     | Acoustic Performance<br>• 1 credit where sound insulation between acoustically sensitive rooms and other occupied areas complies with performance criteria given in Section 7 of BS 8233:2014.<br>• 1 credit where indoor ambient noise levels comply with the design ranges given in Section 7 of BS 8233:2014.                                                                                                                                       |                                             |  | ACOUSTICIAN |
| Hes 06 | Safety and Security | 1                             | 1     | 0      | 0     | Security of the Site and Building<br>• 1 credit for consultation with a 'Suitably Qualified Security Consultant' at Stage 2 on the design, confirming compliance with 'Secured by Design' principles and incorporating any recommendations. A Security Based Needs assessment must be produced.                                                                                                                                                        | CONCEPT DESIGN (RIBA STAGE 2 OR EQUIVALENT) |  | ARCHITECT   |
|        |                     | Category Score<br>15          | 8     | 12.13% | 0     | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |  |             |
|        |                     | Category Weighting<br>% Score | 6.47% | 12.13% | 0.00% | 5.66%                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |  |             |

| ENERGY                     |                                            |        |       |        |       |                                                                                                                                                                                                                                                                                                                                                                         |                                                |              |                                    |
|----------------------------|--------------------------------------------|--------|-------|--------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------|------------------------------------|
| Ene 01                     | Reduction of Energy Use & Carbon Emissions | 15     | 6     | 3      | 6     | Reduction of CO <sub>2</sub> emissions<br>• Up to 15 credits awarded based on the Part L analysis and the reduction in Energy Demand, Energy Consumption and Building Emission Rate.                                                                                                                                                                                    | FIVE CREDITS MANDATORY FOR EXCELLENT           |              | M&E/ ARCHITECT                     |
|                            |                                            | 1      | 1     | 0      | 0     | Sub-metering of Major Energy Consuming Systems<br>• 1 credit for energy metering of major energy consuming systems through accessible energy sub-meters with a pulsed output.                                                                                                                                                                                           | ONE CREDIT MANDATORY FOR VERY GOOD & EXCELLENT |              | M&E                                |
| Ene 02                     | Energy Monitoring                          | 1      | 0     | 0      | 1     | Sub-metering of High Energy Load and Tenancy Areas<br>• 1 credit for energy metering of major energy consuming load and tenancy areas through accessible energy sub-meters with a pulsed output.                                                                                                                                                                        |                                                |              | M&E                                |
| Ene 03                     | Energy Efficient External Lighting         | 1      | 1     | 0      | 0     | External Lighting<br>• 1 credit where the building is designed to operate without the need for external lighting or alternatively, where the building does have external lighting, the average initial luminous efficacy of the external lighting fittings is no less than 60 luminaire lumens per circuit Watt and all external fittings are appropriately controlled. |                                                |              | M&E                                |
|                            |                                            | 1      | 0     | 0      | 1     | Passive Design Analysis<br>• 1 credit where passive design solutions are incorporated by RIBA Stage 2 to reduce energy consumption of building services resulting in a >5% reduction in the total energy demand.                                                                                                                                                        |                                                | RIBA STAGE 2 | -                                  |
| Ene 04                     | Low Carbon Design                          | 1      | 0     | 0      | 1     | Free Cooling<br>• 1 credit where a free cooling strategy has been incorporated into the building design, or the building does not require any form of cooling.                                                                                                                                                                                                          |                                                |              | -                                  |
|                            |                                            | 1      | 0     | 0      | 1     | Low Zero Carbon Feasibility Study<br>• 1 credit for production of a compliant LZC feasibility study by an Energy specialist.                                                                                                                                                                                                                                            |                                                | RIBA STAGE 2 | M&E                                |
|                            | Energy Efficient Transportation System     | 1      | 1     | 0      | 0     | Energy Consumption<br>• 1 credit for carrying out a transportation demand and usage analysis and determining the energy consumption in accordance with BS EN ISO 25746.                                                                                                                                                                                                 |                                                |              | LIFT CONSULTANT/ LIFT MANUFACTURER |
| Ene 06                     |                                            | 2      | 2     | 0      | 0     | Energy Efficient Features<br>• 2 credits where energy efficiency features are specified.                                                                                                                                                                                                                                                                                |                                                |              | LIFT CONSULTANT/ LIFT MANUFACTURER |
| Category score             |                                            | 24     | 11    | 3      | 10    |                                                                                                                                                                                                                                                                                                                                                                         |                                                |              |                                    |
| Category Weighting % Score |                                            | 16.39% | 7.51% | 16.39% | 2.05% | 6.83%                                                                                                                                                                                                                                                                                                                                                                   |                                                |              |                                    |

| Transport          |                                 |       |       |       |       |                                                                                                                                                                                                                                                                                                                                        |  |  |  |           |
|--------------------|---------------------------------|-------|-------|-------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------|
| Tra 01             | Sustainable Transport Solutions | 3     | 1     | 0     | 2     | <ul style="list-style-type: none"> <li>Accessibility Index</li> <li>• Up to 3 credits based on availability of public transport. This is calculated on the number of transport nodes and frequency of services.</li> </ul>                                                                                                             |  |  |  | ARCHITECT |
| Tra 02             | Proximity to Amenities          | 1     | 1     | 0     | 0     | <ul style="list-style-type: none"> <li>Amenities</li> <li>• 1 credit where the building is within 50m at least two of the following amenities: <ul style="list-style-type: none"> <li>- Appropriate food outlet</li> <li>- Access to cash</li> <li>- Access to a recreation/leisure facility for fitness/sports</li> </ul> </li> </ul> |  |  |  | ARCHITECT |
| Tra 03             | Cyclist Facilities              | 1     | 1     | 0     | 0     | <ul style="list-style-type: none"> <li>Cycle Storage</li> <li>• 1 credit where 1 cycle space is provided for every <ul style="list-style-type: none"> <li>- 10 staff members.</li> </ul> </li> </ul>                                                                                                                                   |  |  |  | ARCHITECT |
|                    |                                 | 1     | 0     | 0     | 1     | <ul style="list-style-type: none"> <li>Cyclist Facilities</li> <li>• 1 credit where at least two of the following have been provided: <ul style="list-style-type: none"> <li>- Showers</li> <li>- Changing facilities</li> <li>- Lockers</li> <li>- Drying space</li> </ul> </li> </ul>                                                |  |  |  | ARCHITECT |
| Tra 05             | Travel Plan                     | 1     | 1     | 0     | 0     | <ul style="list-style-type: none"> <li>Travel Plan</li> <li>• 1 credit where a travel plan based on a site and building specific transport assessment has been produced, which influences the development design.</li> </ul>                                                                                                           |  |  |  | HYDROCK   |
| Category score     |                                 | 7     | 4     | 5.53% | 3     |                                                                                                                                                                                                                                                                                                                                        |  |  |  |           |
| Category Weighting |                                 | 5.53% | 3.16% | 0.00% | 2.37% |                                                                                                                                                                                                                                                                                                                                        |  |  |  |           |
| % Score            |                                 |       |       |       |       |                                                                                                                                                                                                                                                                                                                                        |  |  |  |           |

| Water              |                                     |                |       |       |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |  |  | ONE CREDIT MANDATORY FOR VERY GOOD & EXCELLENT |  |
|--------------------|-------------------------------------|----------------|-------|-------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--|--|------------------------------------------------|--|
| Wat 01             | Water Consumption                   | 5              | 2     | 0     | 2     | Sanitary Fittings and Grey/Rainwater <ul style="list-style-type: none"><li>• 1 credit for reducing potable water consumption by 12.5% over standard.</li><li>• 2 credits for reducing potable water consumption by 25% over standard.</li><li>• 3 credits for reducing potable water consumption by 40% over standard.</li><li>• 4 credits for reducing potable water consumption by 50% over standard.</li><li>• 5 credits for reducing potable water consumption by 55% over standard.</li></ul> |   |  |  | ARCHITECT                                      |  |
| Wat 02             | Water Monitoring                    | 1              | 1     | 0     | 0     | Water Monitoring <ul style="list-style-type: none"><li>• 1 credit for installation of a main water meter and sub-meters in areas with over 10% of building water demand. All meters must have a pulsed output.</li></ul>                                                                                                                                                                                                                                                                           |   |  |  | M&E                                            |  |
| Wat 03             | Water Leak Detection and Prevention | 1              | 0     | 0     | 1     | Leak Detection System <ul style="list-style-type: none"><li>• 1 credit for installation of a programmable water leak detection unit within the building and between the building and utilities water meter.</li></ul>                                                                                                                                                                                                                                                                              |   |  |  | M&E                                            |  |
|                    |                                     | 1              | 1     | 0     | 0     | Flow Control Devices <ul style="list-style-type: none"><li>• 1 credit for installation of flow-control devices to each WC area/facility to ensure water is only supplied when needed and prevent minor leaks.</li></ul>                                                                                                                                                                                                                                                                            |   |  |  | M&E                                            |  |
|                    |                                     | Category score |       | 8     | 4     | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3 |  |  |                                                |  |
| Category Weighting |                                     | 6.32%          | 3.16% | 0.00% | 2.37% |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |  |  |                                                |  |
| % Score            |                                     |                |       |       |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |  |  |                                                |  |

| Materials |                                   |   |   |   |   |                                                                                                                                                                                                                                            |                                                                                                                |  |  |                 |
|-----------|-----------------------------------|---|---|---|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--|--|-----------------|
| Mat 01    | Environmental Impact of Materials | 6 | 6 | 0 | 0 | <ul style="list-style-type: none"> <li>Green Guide rating of Materials</li> <li>• Up to 6 credits based on Life Cycle Assessment of the environmental impact of the refurbishment or fit-out.</li> </ul>                                   |                                                                                                                |  |  | ARCHITECT       |
| Mat 03    | Responsible Sourcing of Materials | 1 | 1 | 0 | 0 | <ul style="list-style-type: none"> <li>Sustainable Procurement Plan</li> <li>• Main contractor sources materials for the project in accordance with a documented sustainable procurement plan.</li> </ul>                                  | Mandatory: All timber and timber based products used on the project are 'legally harvested and traded timber'. |  |  | MAIN CONTRACTOR |
|           |                                   | 3 | 1 | 1 | 1 | <ul style="list-style-type: none"> <li>Responsible Sourcing of Materials</li> <li>• Up to 3 credits can be awarded where applicable building materials have been responsibly sourced in accordance with the BREEAM methodology.</li> </ul> |                                                                                                                |  |  | MAIN CONTRACTOR |
| Mat 04    | Insulation                        | 1 | 1 | 0 | 0 | <ul style="list-style-type: none"> <li>Embodied Impact</li> <li>• 1 credit where the insulation index for the building fabric and services insulation is the same as or greater than 2.5.</li> </ul>                                       |                                                                                                                |  |  | ARCHITECT/ M&E  |

|                                              |                                         |        |        |        |       |       |                                                                                                                                                                                                                                                                                                         |                       |             |
|----------------------------------------------|-----------------------------------------|--------|--------|--------|-------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|
| Mat 05                                       | Designing for Durability and Resilience | 1      | 1      | 0      | 0     | 0     | Protection from Damage and Degradation<br>• 1 credit for specifying suitable protection measures to areas vulnerable to high pedestrian traffic, internal fire and smoke movement and external vehicle collision. And building elements are designed to limit degradation due to environmental factors. |                       | ARCHITECT   |
| Mat 06                                       | Material Efficiency                     | 1      | 0      | 0      | 1     | 2     | Optimise Material Efficiency<br>• 1 credit where opportunities have been identified, investigated and implemented to optimise the materials through procurement, construction, maintenance and end-of-life.                                                                                             | PREPARATION AND BRIEF | DESIGN TEAM |
| Category score<br>Category Weighting % Score |                                         |        |        |        |       |       |                                                                                                                                                                                                                                                                                                         |                       |             |
|                                              |                                         | 13     | 10     | 1      | 2     |       |                                                                                                                                                                                                                                                                                                         |                       |             |
|                                              |                                         | 14.82% | 11.40% | 14.52% | 11.4% | 2.28% |                                                                                                                                                                                                                                                                                                         |                       |             |

|                                              |                              |       |       |       |       |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                               |                                        |
|----------------------------------------------|------------------------------|-------|-------|-------|-------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Waste                                        |                              |       |       |       |       |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                               |                                        |
| Wst 01                                       | Project Waste Management     | 7     | 1     | 0     | 0     | 0     | Pre-returbishment Audit<br>• 1 credit where an audit of all existing buildings, structures or hard surfaces within the scope of the refurbishment or fit-out zone is completed.                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                               | DEMO CONTRACTOR/<br>MAIN CONTRACTOR    |
|                                              |                              |       | 0     | 0     | 2     | 2     | Re-use and Direct Recycling of Materials<br>• Up to 2 credit where waste materials are either directly reused on-site or off-site or are sent back to the manufacturer for closed loop recycling.                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                               | MAIN CONTRACTOR                        |
|                                              |                              |       | 2     | 1     | 0     | 0     | Resource Efficiency<br>• 1 credit for the reduction of non-hazardous refurbishment or fit-out waste to be <11.45m <sup>3</sup> or <4.08 tonnes per 100m <sup>2</sup> gross internal floor area.<br>• 2 credits for the reduction of non-hazardous refurbishment or fit-out waste to be <4.72m <sup>3</sup> or <1.6 tonnes per 100m <sup>2</sup> gross internal floor area.<br>• 3 credits for the reduction of non-hazardous refurbishment or fit-out waste to be <2.19m <sup>3</sup> or <0.61 tonnes per 100m <sup>2</sup> gross internal floor area. |                                                                                                                                                                                                                                                                                                                                                                               | MAIN CONTRACTOR                        |
|                                              |                              |       | 1     | 0     | 0     | 0     | Diversion of Resources from Landfill<br>• 1 credit where 85% (volume) or 90% (mass) of non-hazardous refurbishment/fit-out waste is diverted from landfill and 90% (volume) or 95% (mass) of non-hazardous demolition waste is diverted from landfill and reused.                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                               | MAIN CONTRACTOR                        |
| Wst 02                                       | Recycled Aggregates          | 1     | 0     | 0     | 1     | 1     | Recycled Aggregates<br>• 1 credit where greater than 25% by weight or volume of high grade aggregates supplied from a recycled/secondary sources.                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                               | MAIN CONTRACTOR/<br>STRUCTURES/ CIVILS |
| Wst 03                                       | Operational Waste            | 1     | 1     | 0     | 0     | 0     | Operational Waste<br>• 1 credit where adequate storage space is provided for the expected general and recyclable waste streams operated on-site.                                                                                                                                                                                                                                                                                                                                                                                                       | ONE CREDIT MANDATORY FOR EXCELLENT<br>Once bespoke criteria are provided, the Architect Requirements will be sent to ARCHITECT. If targeting Excellent will need to aim for this.<br>Discussed at the meeting 28/02/2020, if targeting Excellent will need to ensure achievable. Requirements issued to ARCHITECT 06/03/2020 plus KB notes to ensure requirements can be met. | ARCHITECT                              |
| Wst 05                                       | Adaptation to Climate Change | 1     | 1     | 0     | 0     | 0     | Structural and Fabric Resilience<br>• 1 credit where a climate change adaptation strategy appraisal for structural and fabric resilience is produced                                                                                                                                                                                                                                                                                                                                                                                                   | CONCEPT DESIGN (RIBA STAGE 2 OR EQUIVALENT)                                                                                                                                                                                                                                                                                                                                   | ARCHITECT /<br>STRUCTURES/ CIVILS      |
| Wst 06                                       | Functional Adaptability      | 1     | 1     | 0     | 0     | 0     | Functional Adaptability<br>• 1 credit where a building specific functional adaptation strategy is undertaken which includes recommendations to facilitate future adaptation. These measures are implemented by RIBA Stage 4.                                                                                                                                                                                                                                                                                                                           | CONCEPT DESIGN (RIBA STAGE 2 OR EQUIVALENT)                                                                                                                                                                                                                                                                                                                                   | ARCHITECT                              |
| Category score<br>Category Weighting % Score |                              |       |       |       |       |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                               |                                        |
|                                              |                              | 11    | 7     | 1     | 3     |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                               |                                        |
|                                              |                              | 8.89% | 5.66% | 8.89% | 0.81% | 2.42% |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                               |                                        |

|                    |                                   |   |   |   |   |   |                                                                                                                                                                                                                           |                                           |                               |
|--------------------|-----------------------------------|---|---|---|---|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|
| Land Use & Ecology |                                   |   |   |   |   |   |                                                                                                                                                                                                                           |                                           |                               |
| LE 02              | Protection of Ecological Features | 1 | 1 | 0 | 0 | 0 | Protection of Ecological Features<br>• 1 credit where any ecologically valuable features are protected during construction in line with BS 42020:2013.                                                                    | Pre-site clearance - For Ecologist Report | ECOLOGIST/ MAIN<br>CONTRACTOR |
| LE 04              | Enhancing Site Ecology            | 1 | 1 | 0 | 0 | 0 | Ecologist Report and Enhancements<br>• 1 credit where a suitably qualified ecologist is employed to report on enhancing and protecting the ecology of the site and the Ecologists ecological enhancements are undertaken. |                                           | ECOLOGIST/ MAIN<br>CONTRACTOR |

|                            |                                  |        |        |       |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                           |                             |
|----------------------------|----------------------------------|--------|--------|-------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------|
| LE 05                      | Long Term Impact on Biodiversity | 2      | 2      | 0     | 0     | Biodiversity Protection and Enhancement<br>• A Suitably Qualified Ecologist is appointed before commencement of site activities to ensure UK and EU guidelines are followed, and a Landscaper Habitat Plan is produced.<br>• 1 credit awarded where 2 of the 5 items below are complied with.<br>• 2 credits awarded where 4 of the 5 items below are complied with.<br><i>Additional Criteria</i><br>- Nominate Biodiversity Champion<br>- Train Workforce in ecological protection on-site<br>- Records actions taken to protect biodiversity and monitor effectiveness through construction.<br>- New ecological habitat support legislation for UK BAP, LBAP or other scheme.<br>- Where Flora and Fauna exists, work is programmed to minimise disturbance to wildlife. | Pre-site clearance - For Ecologist Report | ECOLOGIST / MAIN CONTRACTOR |
| Category score             |                                  | 4      | 4      | 0     | 0     | 11.86%<br>11.86%<br>0.00%<br>0.00%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                           |                             |
| Category Weighting % Score |                                  | 11.86% | 11.86% | 0.00% | 0.00% |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                           |                             |

|                            |                                         |        |        |       |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                    |
|----------------------------|-----------------------------------------|--------|--------|-------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|
| Pollution                  |                                         |        |        |       |       |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                    |
| Poi 01                     | Refrigerants                            | 3      | 1      | 0     | 2     | Refrigerants<br>• 3 credits where no refrigerants are to be used.<br>OR IF REFRIGERANTS ARE TO BE USED:<br>• 2 credits where the direct effect life cycle CO <sub>2</sub> emissions are <100kgCO <sub>2</sub> /kW<br>• 1 credit where the direct effect life cycle CO <sub>2</sub> emissions are <1000kgCO <sub>2</sub> /kW<br>• 1 credit where compliant refrigerant detection and pump-down system is installed. |  | M&E                |
| Poi 02                     | NOx Emissions                           | 3      | 0      | 0     | 3     | NOx Emissions for Heating and Hot Water<br>• 1 credit where NOx emissions ≤10mg/kWh<br>• 2 credit where NOx emissions ≤70mg/kWh<br>• 3 credit where NOx emissions ≤40mg/kWh                                                                                                                                                                                                                                        |  | -                  |
|                            |                                         | 2      | 2      | 0     | 0     | Flood Risk<br>• 2 credits for location of site within a low risk flood zone.<br>• 1 credit for location of site within a medium/high risk flood zone with appropriate flood remediation measures.                                                                                                                                                                                                                  |  | STRUCTURES/ CIVILS |
| Poi 03                     | Surface Water Run-off                   | 1      | 1      | 0     | 0     | Surface Water Run-off - Neutral Impact on Surface Water<br>• 1 credit where there is no increase in impermeable surfaces as a result of the refurbishment work or appropriate SUDS have been implemented to mitigate the increase in surface water run-off.                                                                                                                                                        |  | STRUCTURES/ CIVILS |
|                            |                                         | 1      | 0      | 0     | 1     | Surface Water Run-off - Reducing Run-off<br>• 1 credit where there is a 30% decrease in the impermeable area due to refurbishment works or a 50% reduction in the area and volume of runoff is achieved through on-site source control measures. An allowance for climate change must have been included in the calculations.                                                                                      |  | -                  |
|                            |                                         | 1      | 0      | 0     | 1     | Minimising Watercourse Pollution<br>• 1 credit where suitable watercourse pollution measures (SUDS or oil separators) are specified. In addition there is no discharge from site for rainfall up to 5mm.                                                                                                                                                                                                           |  | -                  |
| Poi 04                     | Reduction of Night Time Light Pollution | 1      | 1      | 0     | 0     | Light Pollution<br>• 1 credit for the design of the external lighting strategy to reduce light pollution from the development. All external lighting is to be able to be switched off between 2300-0700 hours.                                                                                                                                                                                                     |  | M&E                |
| Poi 05                     | Reduction of Noise Pollution            | 1      | 1      | 0     | 0     | External Noise Attenuation<br>• 1 credit for appointing a 'Suitably Qualified Acoustician' to complete an external noise analysis to ensure building services plant will not disturb local noise-sensitive developments.                                                                                                                                                                                           |  | ACOUSTICIAN        |
| Category score             |                                         | 13     | 6      | 0     | 7     | 11.86%<br>5.47%<br>0.00%<br>6.39%                                                                                                                                                                                                                                                                                                                                                                                  |  |                    |
| Category Weighting % Score |                                         | 11.86% | 11.86% | 0.00% | 6.39% |                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                    |

|            |                                          |   |   |   |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                 |
|------------|------------------------------------------|---|---|---|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------|
| Innovation |                                          |   |   |   |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                 |
| Man 03     | Responsible Construction Practices       | 1 | 0 | 0 | 1 | Considerate Constructors Scheme<br>• 1 credit for achieving a CCS score of 40+.                                                                                                                                                                                                                                                                                                                                                                |  | MAIN CONTRACTOR |
| Hea 01     | Visual Comfort                           | 1 | 0 | 0 | 1 | Daylighting<br>• 1 credit where 80% of occupied spaces have a daylight factor of 3%+.                                                                                                                                                                                                                                                                                                                                                          |  | -               |
| Ene 01     | Reduction of Energy and Carbon Emissions | 5 | 0 | 0 | 5 | Zero Carbon to Carbon Negative<br>• 2 credits where the building achieves an EPC <sub>100</sub> ≥ 0.9 and zero net regulated CO <sub>2</sub> emissions.<br>• Up to 4 credits where ≥ 50% of unregulated delivered energy consumption is from carbon neutral sources.<br>• 5 credits where the building is carbon negative in terms of its total modelled operational delivered energy consumption, including regulated and unregulated energy. |  | -               |

|                            |                                   |        |       |        |        |                                                                                                                                                                                                                                                                                                                                                                                 |  |  |                            |
|----------------------------|-----------------------------------|--------|-------|--------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------|
| Wat 01                     | Water Consumption                 | 1      | 0     | 0      | 1      | Potable Water Reduction<br>• 1 credit where a 65% improvement over baseline building water consumption has been achieved.                                                                                                                                                                                                                                                       |  |  | -                          |
| Mat 01                     | Life Cycle Impacts                | 1      | 1     | 0      | 0      | Materials Embodied Impact<br>• 1 credit where at least 85% of BREEAM Mat 01 calculator points have been achieved                                                                                                                                                                                                                                                                |  |  | ARCHITECT/ MAIN CONTRACTOR |
| Mat 03                     | Responsible Sourcing of Materials | 1      | 0     | 0      | 1      | Responsibly Sourced Materials<br>• 1 credit where at least 70% of the FSM points have been achieved.                                                                                                                                                                                                                                                                            |  |  | -                          |
| Wat 01                     | Construction Waste Management     | 1      | 0     | 0      | 1      | Site Waste Management Plan<br>• 1 credit for the reduction of non-hazardous waste to be <1.41m³ or 0.42 tonnes per 100m² gross internal floor area.<br>OR<br>• 1 credit where 95% (volume) or 97% (mass) of non-hazardous refurbishment/fit-out waste is diverted from landfill and 95% (volume) or 97% (mass) of non-hazardous demolition waste is diverted from landfill and. |  |  | -                          |
| Wat 02                     | Recycled Aggregates               | 1      | 0     | 0      | 1      | Recycled Aggregates<br>• 1 credit for >35% of high grade aggregates from a recycled/secondary source.                                                                                                                                                                                                                                                                           |  |  | -                          |
| Category score             |                                   | 12     | 1     | 0      | 11     |                                                                                                                                                                                                                                                                                                                                                                                 |  |  |                            |
| Category Weighting % Score |                                   | 10.00% | 1.00% | 10.00% | 0.00%  |                                                                                                                                                                                                                                                                                                                                                                                 |  |  |                            |
|                            |                                   |        |       |        | 11.00% |                                                                                                                                                                                                                                                                                                                                                                                 |  |  |                            |