


**BREEAM Pre-Assessment  
ALDI Stores Ltd.**

**ALDI Foodstore,  
Porthcawl**

Prepared for:  
**ALDI Stores Ltd.**

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## EXECUTIVE SUMMARY

The **Building Research Establishments Environmental Assessment Method** (BREEAM) Scheme is the national standard for assessing the sustainability of new construction developments. BREEAM aims to differentiate between developments with higher environmental performance by providing a sustainability rating.

ALDI Stores Ltd is proposing a new ALDI foodstore at Porthcawl. The proposed development has been pre-assessed against the relevant BREEAM protocols to demonstrate the overall sustainability credentials. This assessment has been carried out in order to provide the design team with an indication of likely performance given current design intent and an understanding of the sustainability considerations that will need to be taken into account in the developing detailed design stages.

This report has been prepared by Sol Environment Ltd in cooperation with the applicant and in accordance with the Salt Lake North Development Brief (June, 2019) by the Bridgend County Borough Council which confirms BREEAM 'Very Good' is a requirement.

### The Proposed Development

The proposed retail development shall incorporate the construction of a new ALDI retail store with associated car parking and landscaping. The development will comprise of the following elements (refer to Figure ES1):

- A new ALDI foodstore with a proposed net sales area of 1,421m<sup>2</sup> and a gross external area of 2,045m<sup>2</sup>.
- Car parking for approximately 114 cars (including 5 DDA, 7 Parent & Child & EVCP spaces)
- Hard and soft landscaping.

This BREEAM Pre-assessment was informed by correspondence with the design team in addition to site feasibility drawings prepared by Kendall Kingscott.

The ALDI design team are committed to achieving a minimum **BREEAM 'Very Good'** rating for the proposed development. Due to the current stage of the development, where detailed proposals are yet to be developed, the design team worked on the principal that the credits awarded within this assessment would be only *likely* to be achieved by the final design.



Figure ES1 ALDI Proposed site layout

## Findings

Overall, the development is likely to gain a **BREEAM 'Very Good'** rating using the BREEAM 2018 New Construction tool. The total score of **64.56%** for the proposed scheme as a whole is within the 'Very Good' bracket of 55% - 69%.

## Graphical summary of findings

The figures below show a summary of the percentage of available credits which are likely to be achieved in each section (land use & ecology, management, etc.), given current design intent, for the proposed development.

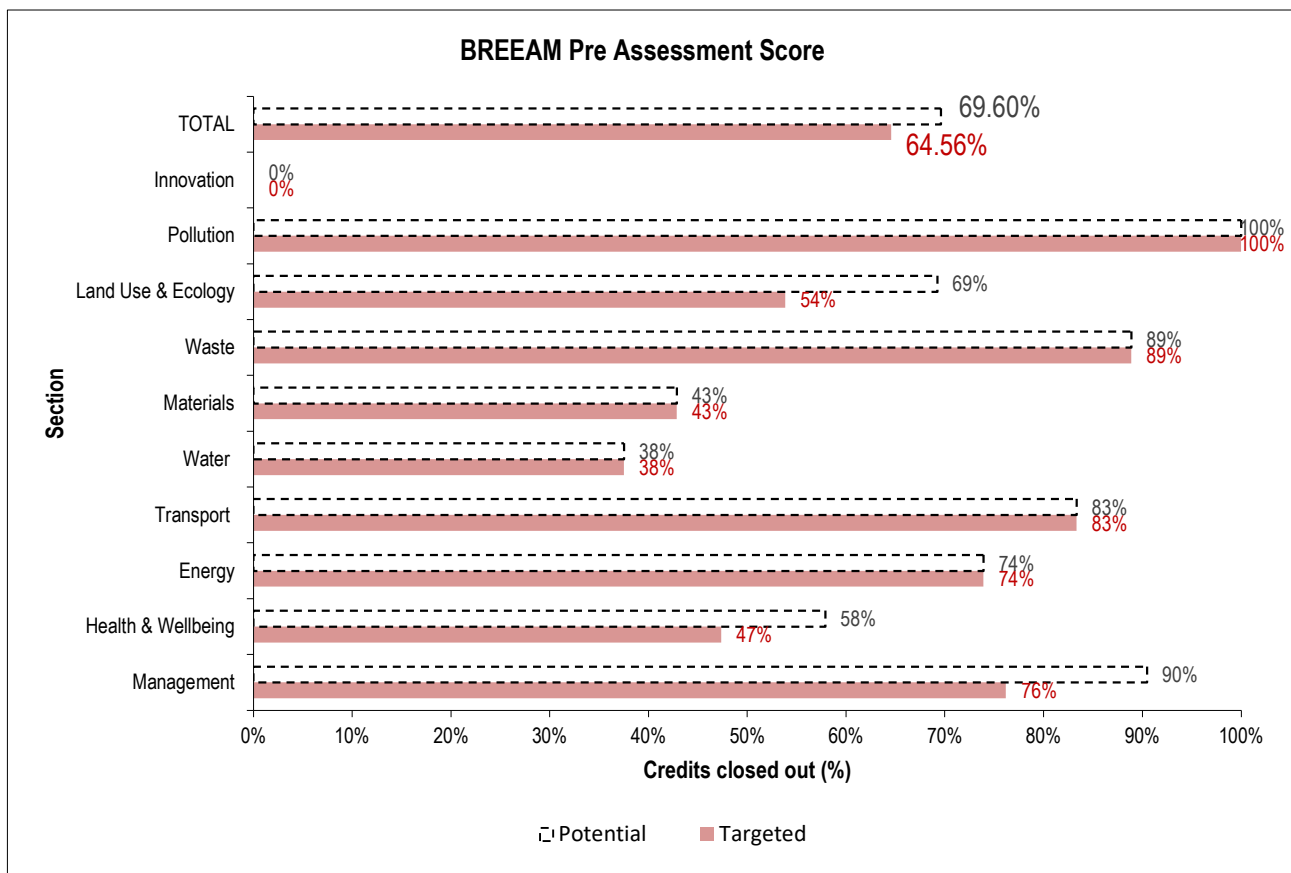


Figure ES2: Predicted percentage of the total score targeted and a breakdown of the percentage of credits closed out in each Section for the development. The potentially improved score, taking in consideration opportunities nominated in Section 5, is shown dashed.

## Summary

Figure ES2 shows that the proposals perform well in the following environmental categories:

- **Pollution:** Reduction in the building's impact on surrounding communities and environments arising from light pollution, noise, flooding and emissions to air, land, and water.
- **Waste:** Reduction of waste from construction and throughout the lifetime of the building.
- **Transport:** The provision of and improved access to local amenities and to sustainable means of transport.
- **Energy:** Efficient building and material selection, the specification of low carbon mechanical systems and lighting and metering throughout the building.

Irrespective of current predicted performance, there remains some further limited opportunity to increase the BREEAM score. These improvements mainly lie in the areas of land use & ecology, health & wellbeing, and management. These opportunities are identified in Section 5 of this report.

As this pre-assessment has been undertaken in the early stages of design, much of the evidence base required to demonstrate achievement of credits is yet to be finalised. It is possible that due to changes in the design or a lack of necessary evidence at the later design stages, there may be credits which cannot be awarded at the time the certification assessments are carried out. The project team should ensure that the requirement to demonstrate achievement of sufficient credits is fully taken into account during design development and construction.

- Section 6 of this report provides details outlining the Design and Post Construction Stages of BREEAM certification
- Appendix 1 provides details of the evidence needed from the design team to support the certification process
- Appendix 2 provides a glossary of all the technical terms used within the body of this report

## 1. INTRODUCTION: BREEAM

### 1.1 Background

The Building Research Establishments Environmental Assessment Method ('BREEAM' hereafter) is an environmental assessment method for rating and certifying the performance of new construction projects. It is a national standard for use in the design and construction of all new developments with a view to encouraging continuous improvement in sustainable building techniques.

The BREEAM New Construction 2018 Scheme is designed to evolve with increasingly progressive Building Regulations, and the development of technology and innovations, with the most recent version of BREEAM released in July 2019 (V3.0).

BREEAM covers nine categories of sustainable design (each of which contains a number of environmental issues), comprising of the following:

- Management
- Health & Wellbeing
- Energy
- Transport
- Water
- Materials
- Waste
- Land Use and Ecology; and
- Pollution.

A further '*Innovations*' section is provided to award developments that go above and beyond the levels set out in the standard criteria, where exemplary performance levels are achieved.

Each issue is a source of environmental impact which can be assessed against a performance target and awarded one or more credits. In addition to meeting minimum standards (which vary according to the BREEAM rating sought), achievement of the requirements in each category scores a number of percentage points. The overall total percentage 'score' then determines the BREEAM Rating achieved by the assessed development.



## 1.2 Scoring System

The number of available credits in each category for any particular assessment will vary depending on the developments' scheme type. Before the final score is calculated, each of the scores in the nine categories is multiplied by an 'Issue Weighting Factor' (see Table 1.1). The Weighting Factors reflect the relative importance of each of the categories.

Table 1.1: BREEAM 2018 Issue Weighting Factors				
Environmental Impact Categories	No of Credits in Category	Environmental Weighting Factor		
		Fully Fitted	Shell Only	Shell & Core
Category 1 – Management	21	11%	12%	11%
Category 2 – Health & Wellbeing	22	14%	7%	8%
Category 3 – Energy	31	16%	9.5%	14%
Category 4 – Transport	12	10%	14.5%	11.5%
Category 5 – Water	9	7%	2%	7%
Category 6 – Materials	14	15%	22%	17.5%
Category 7 – Waste	9	6%	8%	7%
Category 8 – Land Use & Ecology	10	13%	19%	15%
Category 9 – Pollution	13	8%	6%	9%
<b>Total</b>	<b>140</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

The BREEAM scoring runs from Unclassified to Outstanding, as depicted in Table 1.2 below.

Table 1.2: BREEAM Performance Ratings		
BREEAM Rating	Performance	Score
UNCLASSIFIED	Does not meet levels of standard good practice	<30
PASS	Top 75% of UK new non-domestic buildings (standard good practice)	30
GOOD	Top 50% of UK new non-domestic buildings (intermediate good practice)	45
VERY GOOD	Top 25% of UK new non-domestic buildings (advanced good practice)	55
EXCELLENT	Top 10% of UK new non-domestic buildings (best practice)	70
OUTSTANDING	Less than top 1% of UK new non-domestic buildings (innovator)	85

The BREEAM Rating is awarded on the basis of achieving both a set of mandatory minimum standards and a score level as set out above.

### 1.3 Minimum Standards

Before a development can start to be awarded points under **BREEAM "Very Good"** it must achieve minimum standards in the following categories:

- **Man 04: Commissioning and Handover – One credit (Commissioning test schedule and responsibilities)** There is a requirement to demonstrate that all relevant building services have been commissioned in line with the relevant BREEAM accepted standards, as well as ensuring an appropriate project team member is appointed to oversee all commissioning activities and commissioning has been accounted for in the principal contractor's budget and programme.
- **Man 04: Commissioning and Handover – Criterion 11 (Building user guide)** The team must demonstrate two Building User Guides (BUG) have been developed prior to handover – one for the building occupiers and the other for the facilities managers.
- **Ene 02: Energy Monitoring – 1 credit (First Sub-Metering Credit)** - Energy metering systems are installed that enable at least 90% of the estimated annual energy consumption of each fuel to be assigned to the various end-use categories of energy consuming systems.
- **Wat 01: Water Consumption – One Credit.** A minimum performance improvement of 12.5% over the national baseline standard benchmark for efficiency of water consuming fittings. Consideration must therefore be given to specifying water efficient sanitary items and the use of recycled rainwater or grey water.
- **Wat 02: Water Monitoring – Criterion 1.** Water meters are to be specified on the mains water supply of each building under assessment, and include water supplied from borehole or private sources. Note that a credit is not achieved for compliance with this criterion only.
- **Mat 03: Responsible Sourcing – Criterion 3.** All timber to be used on the project must be sourced in accordance with the UK Governments Timber Procurement Policy, ensuring that timber and wood derived products will be legally and sustainably sourced as outlined in the CPET 5th Edition.

### 1.4 BREEAM Assessment – a two-stage process

The BREEAM Scheme allows for a building to be assessed at the design stage and post-construction before the formal BREEAM Certification (and Rating) is awarded; this will ensure that the completed development meets sustainability performance as designed. The assessment stages are as follows:

1. Initial Design Stage certification – at this stage an Interim Certificate is issued, based on a provisional rating.
2. Post-Construction check – a further assessment is required to verify the rating in the final, built state before the final BREEAM Certificate can be issued.

A licensed assessor, who registers the assessment with the BRE, must carry out the Design Stage Assessment and Post-Construction Review.

This report forms the Pre-Assessment, which is the initial stage of the Design Stage Certification process.

## 2. APPROACH & METHODOLOGY

In order to gain an understanding of the likely BREEAM rating achievable for the application Site, Sol Environment Ltd (Sol) were appointed by the client, ALDI Stores Ltd ('ALDI' hereafter), to undertake a BREEAM pre-assessment for the proposed new ALDI foodstore at Porthcawl.

In addition to this appointment Sol, as a registered BRE Accredited Professional and Technical Advisor to the project, has provided design advice to the design team to ensure that the proposed development exceeds the minimum standards required by BREEAM.

At the time of the pre-assessment, the proposed development is at RIBA Design Stage 2 'Concept Design'. At this early design stage there is not sufficient information available to enable a full Design Stage assessment to be carried out.

The purpose of the pre-assessment is to identify how the ALDI foodstore will score when the current designs are formally assessed under BREEAM and identify opportunities to ensure that the project achieves the aspired **'Very Good'** rating.

### 3. DEVELOPMENT SUMMARY & RATING

#### 3.1 Rating Findings

The design team are committed to aiming to achieve a BREEAM **'Very Good'** rating for the development, where possible. The finding of the pre-assessment predicts that the proposed development *is likely to achieve BREEAM 'Very Good'*, with a provisional score of **64.56%** meeting the design team target.

Sol has provided an assessment of the predicted BREEAM performance of the development (based on limited information available at outline stage). In addition, Section 5 identifies opportunities for improvement (approximately ranked in terms of cost / difficulty and the potential score by which the total will increase) which, dependant on those incorporated into the site design (and associated evidence is provided, see Appendix 1), would provide an improvement in BREEAM performance.

Although this report provides recommendations, specific requirements of BREEAM can easily be misinterpreted or excluded at design stage. It is noted that a BREEAM Accredited Professional has been appointed for the pre-planning application stages, however it is recommended therefore that this appointment is continued throughout all design stages to ensure the development proceeds in a manner that complies with the relevant requirements of BREEAM (*particularly those mandatory minimum requirements, which must be satisfied in order for the aspired rating to be certified*).

Appendix 1 provides a summary of the BREEAM credits that are likely to be achieved, given current design intent as outlined by the design team.

## 4. PERFORMANCE SUMMARY

The pre-assessment process identified the credits and consequent rating likely to be achieved by the proposed new ALDI Foodstore at Porthcawl.

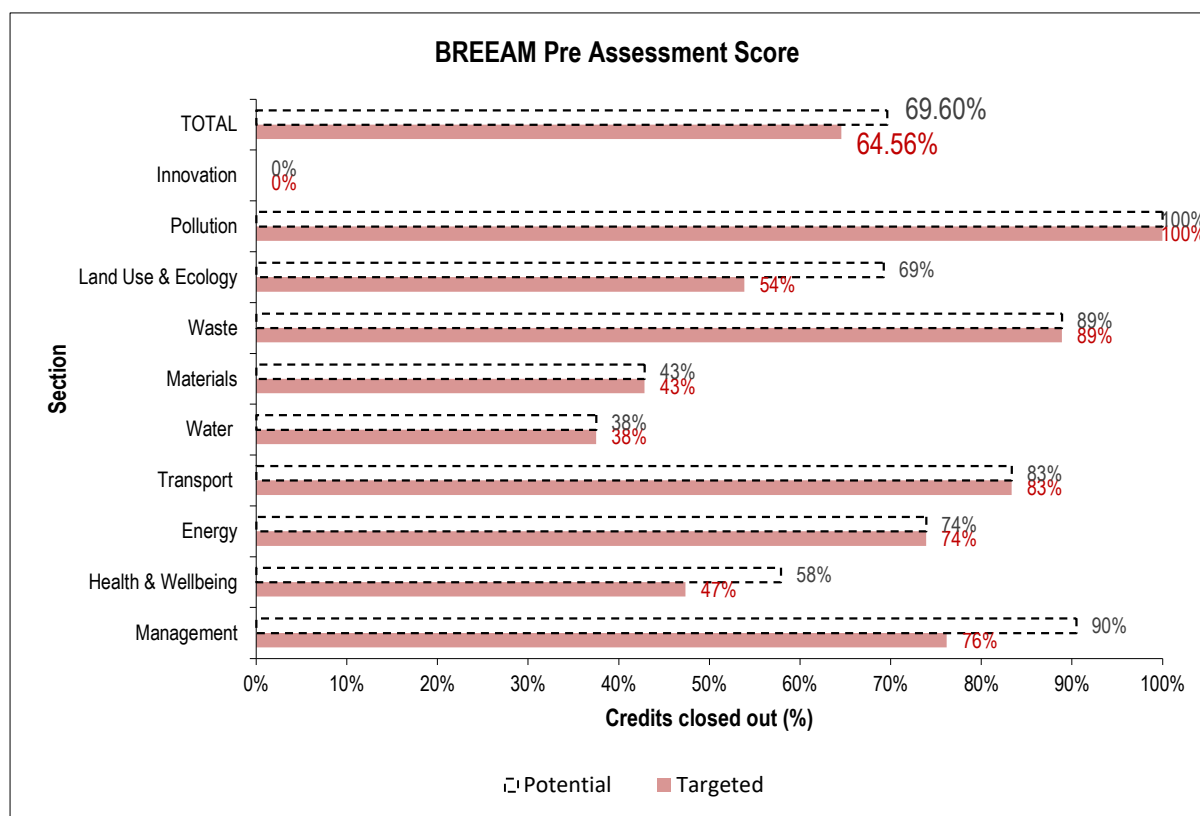


Figure 4.1: Predicted percentage of the total score targeted and a breakdown of the percentage of credits closed out in each section for the development. the potentially improved score, taking in consideration opportunities nominated in section 5, is shown dashed.

The proposed development is likely to achieve a **BREEAM 'Very Good'** rating, given current design intent: The development is likely to achieve a total overall score of approximately **64.56%**.

## 5. OPPORTUNITIES FOR IMPROVEMENT

Table 5.1 identifies credits, selectively chosen by the BREEAM Assessor that can be considered to improve the overall BREEAM score if required at a later stage in the design. The table also shows the BREEAM score increase associated with each credit (this can be added to the current predicted score in order to determine a revised total).

Table 5.1: Opportunities for Improvement			
Credit	Credit Description	Comment	%age of assessment
Man 02	Elemental LCC	The client could instruct a consultant to complete an Elemental LCC analysis, and show how the LCC plan has influenced the design	1.04
LE 03	Managing impacts on ecology	The ecologist shall complete BREEAM ecology calculations once more information becomes available and confirm the score achieved.	1
LE 05	Management and maintenance	The ecologist to confirm if their appointment/scope covers the management and maintenance of the ecological value throughout the design & construction process.	1
Hea 02	Ventilation	The M&E engineers to confirm if the mechanical ventilation system is designed in accordance with the requirements once ventilation system design has been developed.	0.78
Hea 06	Security	The SBDO to complete a SNA and the project team to adopt all recommendations into the design.	0.78
Man 02	Component LCC appraisal	The client could instruct a consultant to complete a Component LCC appraisal analysis.	0.52

### Points to note:

As this pre-assessment has been undertaken in the early stages of design, much of the required evidence has not been finalised. Where there are any changes made to the design or there is a lack of necessary evidence at the later design stages, there is a risk that credits may be lost and the overall BREEAM performance affected irreversibly in some cases. Therefore, it is strongly recommended as the design develops, the BREEAM assessor is kept informed of changes at the earliest possible stage so that they are able to check any impact on the BREEAM score and ultimately ensure that credit opportunities are not lost and the desired BREEAM performance level can be managed.

## 6. NEXT STEPS

### 6.1 Design Stage Assessment

The first stage of the BREEAM assessment is carried out on the detailed design, preferably before works begin on site. Before the design stage assessment can be formally submitted, sufficient evidence is required to 'close out' each credit; (see Appendix 2 for a list of the required evidence).

When the Assessor is satisfied they have received all the evidence required and has collated this into a formal report, this will be submitted by the BREEAM Assessor to the BRE. The BRE will then audit the assessment typically within 6-8 weeks and often return a Quality Assurance [QA] Feedback form with comments which the assessor (in cooperation with the design team where necessary) will need to address. Once these issues have been addressed and a formal response is collated and submitted by the BREEAM Assessor, the BRE then take approximately 3 weeks to process this – which then results in either further QA feedback or the BREEAM Assessor shall receive an 'Interim' BREEAM certificate.

### 6.2 Post Construction Stage Assessment

The second stage of the assessment can be carried out after practical completion; this stage of the assessment is called the 'Post Construction Review' or 'PCR'. As the name suggests, this is the stage at which the information provided at design stage will be re-reviewed to establish the 'as built' performance and rating. As before, the BREEAM Assessor will require a full set of evidence from the project team and collate this information into a final report. Where changes have occurred from the design stage assessment, the BREEAM assessor will recalculate the final score. When the Assessor is satisfied with the performance, they will submit a report to BRE to receive a 'Final' BREEAM Certification for the development. The BRE audit process at the final stage is often like that explained at design stage. Once the assessment has passed the QA process, the BREEAM Assessor shall receive a Final BREEAM certificate.

Note, where a design stage assessment is not carried out, a full Post Construction Stage Assessment or 'PCA' can be completed. The PCA will comprise of one report from the BREEAM Assessor which contains both design related and final 'as built' evidence. This will be submitted in the same way as described above, and once subject to the BRE audit process described, will eventually receive a Final BREEAM certificate.

### 6.3 Ongoing Consultation – Post Occupancy Stage [POS]

Although not currently proposed for this project, BREEAM do provide the option for an optional, third stage called the Post occupancy stage. This stage confirms the process of monitoring, reviewing and reporting on the performance of the building once occupied and is carried out a minimum of 12 months after occupation. This aims to understand the actual performance of the building and optimise this in line with design expectations. Note this option is only open to fully fitted or Shell & Core assessments and must have achieved the minimum credit requirements in the final PCR/PCA assessment.



## Appendix 1: BREEAM Report

BREEAM INFORMATION TRACKER							
Ref	Credit Title	Max available credits	% per credit	Targeted	Credit criteria	Pre-Assessment comment	Action
Management							
Man 01	Project Brief & Design	4	0.52	4	<b>One Credit – Project delivery planning</b> <b>Criterion 1</b> Prior to the completion of the Concept design, the project delivery stakeholders meet to identify and define the following for each key phase of project delivery; Roles, Responsibilities & Contributions.  <b>Criterion 2</b> Consider each of the items 2.a. – 2.h. in the BREEAM manual when defining the roles, responsibilities and contributions for each key phase of the project.  <b>Criterion 3</b> The project team demonstrate how the project delivery stakeholders' contributions and the consultation process outcomes influence the following: Initial Project Brief, Project Execution Plan, Communication Strategy, Concept Design.	The project team have met to define the roles, responsibilities and contributions, and extensive stakeholder consultation has taken place. This is demonstrated in the Man 01 matrix provided by the project team. Changes to the designs, plans or strategies have been documented.  1 credit assumed.	Architect
					<b>One Credit – Stakeholder consultation (interested parties)</b> <b>Criterion 4</b> Prior to the completion of the Concept Design, the design team consult with all interested parties on matters that cover the minimum consultation content.  <b>Criterion 5</b> Demonstrate how the stakeholder consultation contributions and consultation excursive outcomes influence the initial project brief and concept design.	The design team have confirmed a stakeholder consultation exercise has been carried out with the relevant third-party stakeholders, it is understood feedback shall be provided where appropriate.  1 credit assumed.	Planning Consultant/ Architect

					<b>Criterion 6</b> Prior to completion of the detailed design (RIBA Stage 4) all interested parties give and receive consultation feedback.		
					<b>Pre-Requisite Criterion 8</b> The project team including the client, formally agree strategic performance targets early in the design process with the support of the AP.	Performance targets have been set, in agreement with the BREEAM AP to reflect the requirements of the relevant Local Authority before planning permission is sought.	Architect c/o ALDI
					<b>One Credit – BREEAM AP (Concept Design) Criterion 9</b> Involve a BREEAM AP in the project at an appropriate time and level to: Work with the project team including the client to consider the links between BREEAM issues and assist them in maximising the project's overall performance against BREEAM; from their appointment and throughout Concept Design, Monitor progress against the performance targets; Proactively identify risks and opportunities related to the achievement of the targets agreed; Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets; Monitor and where relevant coordinate the generation of appropriate evidence by the project team.	Sol Environment have an ongoing appointment with ALDI to manage all BREEAM assessments, this appointment covers the scope of the BREEAM AP responsibilities as per the requirements of this credit.  1 credit assumed.	Architect c/o ALDI/ Sol
					<b>One Credit – BREEAM AP (Developed design) Criterion 10</b> Achieve criterion 8 & 9 as set out in BREEAM AP (Concept Design).  <b>Criterion 11</b> Involve a BREEAM AP in the project at an appropriate time and level to: Work with the project team including the client to consider the links between BREEAM issues and assist them in maximising the project's overall performance against BREEAM; from their appointment and throughout Developed Design, Monitor progress against the performance targets; Proactively identify risks and opportunities related to the achievement of the targets agreed; Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed	Sol Environment have an ongoing appointment with ALDI to manage all BREEAM assessments, this appointment covers the scope of the BREEAM AP responsibilities as per the requirements of this credit.  1 credit assumed.	Architect c/o ALDI/ Sol

					performance targets; Monitor and where relevant coordinate the generation of appropriate evidence by the project team.		
Man 02	Life Cycle Cost & Service Life Planning	4	0.52	1	<p><b>Two Credits – Elemental LCC</b></p> <p><b>Criterion 1</b> A competent person carries out an outline entire asset LCC plan by the end of the RIBA Stage 2 equivalent together with any design options appraisals in line with 'Standardised method of life cycle costing for construction procurement' PD 156865:2008.</p> <p><b>Criterion 2</b> The LCC plan must provide an indication of future replacement costs over a period of analysis as required by the client and include service life, maintenance and operation cost estimates.</p> <p><b>Criterion 3</b> The competent person should demonstrate using examples how the elemental LCC plan has been used to influence building and systems design and specification to minimise life cycle costs and maximise critical value.</p>	<p><b>POTENTIAL CREDIT</b></p> <p>This credit was not targeted due to time and cost constraints.</p> <p>0 credits targeted.</p>	N/A
					<p><b>One Credit – Component level LCC options appraisal</b></p> <p><b>Criterion 4</b> A competent person carries out an outline entire asset LCC plan by the end of the RIBA Stage 4 equivalent in line with PD 156865:2008. The Component LCC plans includes (where present); Envelope, services, finishes &amp; external spaces.</p> <p><b>Criterion 5</b> The competent person should demonstrate using examples how the elemental LCC plan has been used to influence building and systems design and specification to minimise life cycle costs and maximise critical value.</p>	<p><b>POTENTIAL CREDIT</b></p> <p>This credit was not targeted due to time and cost constraints.</p> <p>0 credits targeted.</p>	N/A
					<p><b>One credit – Capital cost reporting</b></p> <p><b>Criterion 6</b> Report the capital cost for the building in £/m<sup>2</sup> of GIFA.</p>	<p>It is assumed the client shall confirm the capital cost.</p> <p>1 credit assumed.</p>	<b>Construction Manager</b>

Man 03	Responsible Construction Practices	6	0.52	5	<b>Pre-Requisite</b> <b>Criterion 1</b> All timber and timber-based products used during the construction process of the project are 'legally harvested and traded timber'  <b>Criterion 2</b> NHS buildings only	This requirement forms part of the ALDI standard specification, meaning it is a contractual requirement.	Construction Manager
					<b>One Credit - Environmental Management</b> <b>Criterion 3</b> Any party who at any stage manages the construction site (e.g. the principal contractor, the demolition contractor) operates an Environmental Management System (EMS).  <b>Criterion 4</b> All parties who at any point manage the construction site (e.g. the principal contractor, the demolition contractor) implement best practice pollution prevention policies and procedures on site in accordance with Working at construction and demolition sites: PPG6, Pollution Prevention Guidelines.	The main contractor/construction manager does not operate an EMS.  0 credit assumed.	N/A
					<b>Pre-Requisite</b> <b>Criterion 5</b> The client and the contractor formally agree performance targets.	The contractor must agree to build the project in accordance with the contractual and local authority requirements.	Construction Manager
					<b>One Credit – BREEAM AP (site)</b> <b>Criterion 6</b> Involve a BREEAM AP in the project at an appropriate time and level to: a. Work with the project team, including the client, to consider the links between BREEAM issues and assist them in achieving and if possible going beyond the design intent, to maximise the project's performance against the agreed performance targets throughout the Construction, Handover and Close Out stages; b. Monitor construction progress against the performance targets agreed under criterion 5 above throughout all stages where decisions critically impact BREEAM performance; c. Proactively identify risks and opportunities related to the procurement and construction process and the achievement of the targets agreed under criterion on the previous page; d. Provide feedback to the constructors and the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets; e. Monitor and,	Sol Environment have an ongoing appointment with ALDI to manage all BREEAM assessments, this appointment covers the scope of the BREEAM AP responsibilities as per the requirements of this credit.  1 credit assumed.	Architect c/o ALDI/ Sol

					where relevant, coordinate the generation of appropriate evidence by the project team and the provision to the assessor.		
					<p><b>MINIMUM STANDARD [1 CREDIT] EXCELLENT [2 CREDITS] OUTSTANDING</b>  <b>Up to two credits – Responsible construction management</b>  <b>One Credit – Criterion 7</b>  The contractor evaluates the risks, plans and implements actions to minimise the identified risks covering the following where appropriate; a. Manage the construction site entrance to minimise the impacts arising from vehicles approaching and leaving the development footprint. d. Minimise the risks of air, land and water pollution f. Practices ensure the development footprint is safe, clean and organised at all times. This includes but is not limited to, facilities, materials and waste storage. g. Ensure clear and safe access in and around the buildings at the point of handover. h. Provide processes and equipment to respond to medical emergencies. j. Establish management practices and facilities encouraging equality, fair treatment and respect of all site operatives. n. Ensure ongoing training is provided, and up to date, for personnel and visitors o. The principal contractor ensures that site operatives are trained for the tasks they are undertaking. r. All visitor, workforce and community accidents, incidents and near misses are recorded and actions is taken to reduce the likelihood of them reoccurring. <b>OR</b></p> <p><b>Two Credits – Criterion 8 &amp; 9</b>  Where criterion 7 is achieved PLUS six additional items from table 4.1 in the BREEAM 2018 Manual.</p>	<p>As per the ALDI standard specification, all necessary measures shall be implemented.</p> <p>2 credits assumed.</p>	<b>Construction Manager</b>
					<p><b>Exemplary</b>  <b>Criterion 23</b>  Achieve all items in Table 4.1 of the BREEAM Manual 2018 on page 47.</p>	<p>This credit has not been targeted.</p> <p>0 credits assumed.</p>	N/A
					<p><b>Monitoring on construction site impacts</b>  <b>Criterion 10</b>  Assign responsibility to an individual for monitoring, recording and reporting energy use, water consumption and transportation data resulting from all on-site construction processes throughout the build programme.</p>	<p>As per the ALDI standard specification, monitoring, reporting and management of water, energy and transport use on site is a requirement on all projects.</p> <p>2 credits assumed.</p>	<b>Construction Manager</b>

					<p><b>One Credit – Utility consumption</b> <b>Criterion 11 – 14</b> 11. Criterion 10 must be achieved 12. Set targets for site energy consumption (in kWh) as a result of the use of construction plant, equipment and site accommodation. 13. Monitor and record the energy consumption data. 14. Report the total carbon emissions (kgCO<sub>2</sub>/project value) from the construction process via BREEAM Projects.</p> <p><b>Criterion 15 - 18</b> 15. Achieve criterion 10 16. Set targets for the potable water consumption (m<sup>3</sup>) arising from the use of construction plant, equipment and site accommodation. 17. Monitor and record data for the potable water consumption. 18. Use the collated data to report the total net water consumption (minus any recycled water from the construction process) via BREEAM Projects.</p> <p><b>Two Credits – Transportation of construction materials and waste</b> <b>Criterion 19 – 22</b> 19. Achieve criterion 10 20. Set targets for transportation movements, this must cover; Transportation of materials from the point of supply to the building site; Materials used in major building elements; Ground works and landscaping materials; Transportation of construction waste from the construction gate to waste disposal processing or recovery centre gate. 21. Monitor and record data for the transportation movements in criterion 20. 22. Using the collated data, report separately for materials and waste, the total transport related carbon dioxide emissions, plus total distance travelled (km) via BREEAM Projects.</p>		
Man 04	Commissioning & Handover	4	0.52	3	<p><b>MINIMUM STANDARD [1 CREDIT] VERY GOOD, EXCELLENT &amp; OUTSTANDING</b> <b>One Credit – Commissioning – testing schedule and responsibilities</b> <b>Criterion 1</b> Prepare a schedule of commissioning and testing. The schedule identifies and includes a suitable timescale for commissioning and re-commissioning of all complex and non-complex building services and control systems and for testing and inspecting building fabric.</p>	<p>As per the ALDI standard specification, commissioning shall be carried out in full and in accordance with the latest relevant standards.</p> <p>2 credits assumed.</p>	<p><b>M&amp;E/ Construction Manager</b></p>

				<p><b>Criterion 2</b> The schedule identifies the appropriate standards for all commissioning activities to conducted (where applicable) in accordance with; Current building regulation, BSIRA guidelines, CIBSE guidelines, Other appropriate standards.</p> <p><b>Criterion 3</b> Where a BMS is specified, additional commissioning activities must be carried out (see 3.a. to 3.e. in the BREEAM 2018 Manual)</p> <p><b>Criterion 4</b> Appoint an appropriate project team member to monitor and programme pre-commissioning, commissioning and testing. Where necessary, include re-commissioning on behalf of the client.</p> <p><b>Criterion 5</b> The principal contractor accounts for the commissioning and testing programme, responsibilities and criteria within their budget and the main programme of works. Allow the required time to complete all commissioning and testing activities prior to handover.</p>		
				<p><b>One Credit – Commissioning – design and preparation</b></p> <p><b>Criterion 6</b> Achieve criterion 1 -5</p> <p><b>Criterion 7</b> During the design stage the client or principal contractor appoints an appropriate project team member, provided they are not involved in the general installation works for the building services systems, with responsibility for: a. Undertaking design reviews and giving advice on suitability for ease of commissioning; b Providing commissioning management input to construction programming and during installation stages; c Management of commissioning, performance testing and handover or post-handover stages.</p> <p>Note: For buildings with complex building services and systems, this role needs to be carried out by a specialist commissioning manager</p>	<p>It is assumed a specialist commissioning manager shall be appointed at the design stage.</p> <p>1 credit assumed.</p>	M&E



				<p><b>One Credit – Testing and inspecting building fabric</b></p> <p><b>Criterion 8</b> Achieve criterion 1 – 5</p> <p><b>Criterion 9</b> Complete post construction testing and inspection to quality assure the integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths. A suitably qualified professional undertakes the survey and testing in accordance with the appropriate standard.</p> <p><b>Criterion 10</b> Rectify any defects identified during post construction testing and inspection prior to building handover and close out. Any remedial work must meet the required performance characteristics for the building or element as defined at the design stage.</p>	<p>This credit was not targeted due to time and cost constraints.</p> <p>0 credits targeted.</p>	N/A
				<p><b>MINIMUM STANDARD [CRITERION 11 ONLY] VERY GOOD, EXCELLENT &amp; OUTSTANDING</b></p> <p><b>One Credit – Handover</b></p> <p><b>Criterion 11</b> Prior to handover, develop two building user guides for the following users; 1. A non-technical user for distribution to the building occupiers 2. A technical user guide for the premises facilities manager</p> <p><b>Criterion 12</b> Prepare two training schedules timed appropriately around handover and proposed occupation plans for the following users: 1. A non-technical training schedule for the building occupiers 2. A technical training schedule for the premises facilities managers</p>	<p>Sol shall complete a building user guide for both technical and non-technical users. As per the ALDI standard specification, the Construction Manager shall complete training schedules for the technical and non-technical users.</p> <p>1 credit assumed.</p>	<b>Construction Manager</b>

Man 05	Aftercare Support	3	0.52	3	<b>One Credit – Aftercare support</b> <b>Criterion 1</b> Provide after-care support to the building occupiers through having in place operational infrastructure and resources. See the 1.a. – 1.b in the BREEAM 2018 for more detailed requirements.  <b>Criterion 2</b> Establish operational infrastructure and resources to co-ordinate the collection and monitoring of energy and water consumption data for a minimum of 12 months, once the building becomes occupied.	As per the ALDI standard specification, the Construction Manager shall provide adequate aftercare services.  1 credit assumed.	<b>Construction Manager</b>
					<b>MINIMUM STANDARD [1 CREDIT] EXCELLENT &amp; OUTSTANDING</b> <b>One Credit – Commissioning implementation</b> <b>Criterion 3</b> Complete the relevant commissioning activities over a minimum 12-month period, once the building becomes substantially occupied. See 3.a for complex systems and 3.b for simple systems.	It is assumed the mechanical and electrical designers shall complete full commissioning of the building systems once occupied, over a 12-month period.  1 credit assumed.	<b>M&amp;E</b>
					<b>One Credit – Post occupancy evaluation</b> <b>Criterion 4</b> The client or building occupier commits to carry out a POE exercise one year after the building is substantially occupied.  <b>Criterion 5</b> The POE shall be carried out by an independent party. This must cover a minimum content, see 5.b. in the BREEAM 2018 manual.  <b>Criterion 6</b> The independent party provides a report with lessons learned to the client and building occupiers.  <b>Criterion 7</b> The client or building occupier commits funds to pay for the POE in advance. This requires an indecent party to be appointed to carry out the POE as described in criterion 5.	It is assumed an independent third party shall be instructed to carry out a POE exercise 12 months after the building's initial occupation.  1 credit assumed.	<b>M&amp;E</b>

Health and Wellbeing							
Hea 01	Visual Comfort	5 + 2	0.78	1	<b>One credit – Control of glare from sunlight</b> <b>Criterion 1</b> Identify areas at risk AND not at risk of glare using a glare control assessment.  <b>Criterion 2</b> Where risk has been identified within a relevant building area, a glare control strategy is used to design out the potential for glare.  <b>Criterion 3</b> The glare control strategy does not increase energy consumption used for lighting. This is achieved by: Maximising daylight levels in all weather, cloudy or sunny AND ensuring the use or location of shading does not conflict with the operation of lighting control systems.	The proposals indicate the requirements of this credit are not likely to be achieved.  0 credits assumed.	N/A
					<b>Up to two credits – Daylight</b> <b>Criterion 4</b> Daylighting criteria have been met using <b>either</b> of the following options: <ul style="list-style-type: none"> <li>The relevant building areas meet good practice daylight factors and other criteria as outlined in Table 5.1 of the BREEAM 2018 Manual. <b>OR</b></li> <li>The relevant building areas meet good practice average and minimum point daylight illuminance criteria as outlined in Table 5.3 of the BREEAM 2018 Manual.</li> </ul>	The proposals indicate the requirements of this credit are not likely to be achieved.  0 credits assumed.	N/A
					<b>Exemplary performance</b> <b>Criterion 14</b> Daylighting criteria have been met using either of the following options: <ul style="list-style-type: none"> <li>Relevant building areas meet exemplary daylight factors and the relevant criteria in Table 5.8 on the facing page. <b>OR</b></li> <li>Relevant building areas meet exemplary average and minimum point daylight illuminance criteria in Table 5.9 on the facing page.</li> </ul>	The proposals indicate the requirements of this credit are not likely to be achieved.  0 credits assumed.	N/A

				<p><b>One credit – View out</b></p> <p><b>Criterion 5</b> 95% of the floor area in 95% of spaces for each relevant building area is within 6m of an external wall that has a window or permeant opening that provides an adequate view out.</p> <p><b>Criterion 6</b> The window or opening must be &gt;20 of the surrounding wall area OR where the room depth is greater than 8m, compliance is only possible where the percentage of window or opening is the same as or greater than the values in Table 1.0 of BS8206: part 2.</p>	<p>The proposals indicate the requirements of this credit are not likely to be achieved.</p> <p>0 credits assumed.</p>	N/A
				<p><b>One credit – Internal and external lighting levels, zoning and control</b></p> <p><b>Criterion 7</b> Internal lighting in all relevant areas of the building is designed to provide illuminance levels and colouring rendering index in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard.</p> <p><b>Criterion 8</b> For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7 sections 2.4,2.13 to 2.15, 2.20 and 6.10 to 6.20.</p> <p><b>Criterion 9 &amp; 10</b> All external lighting located within the construction zone is specified in accordance with BS5489-1:2013 Code for the practice for the design of road lighting. Light and lighting – Lighting of work places – Part 2: Outdoor work places. <b>OR</b> Where no external light fittings are specified the criteria relating to external lighting do not apply.</p> <p><b>Criterion 11</b> Internal lighting is zoned to allow for occupant control. Zoning is in accordance with the criteria below for relevant areas present within the building.</p> <p><b>Criterion 12</b> Areas used for teaching, seminar or lecture purposes have lighting controls provided in accordance with CIBSE Lighting Guide 5.</p>	<p>As per the ALDI standard specification, internal and external lighting systems shall be designed in accordance with the relevant standards.</p> <p>1 credit assumed.</p>	M&E

					<b>Criteria 13</b> In addition, the building type criteria in Table 5.7 below (where relevant).		
					<b>Exemplary performance</b> <b>Criterion 15</b> Lighting in each zone can be manually dimmed by occupants down to 20% of the maximum light output using dimmer switches positioned in accessible locations. Dimming and control gear should avoid flicker and noise.	It is not anticipated that the retail area shall have dimming control gear as this was not deemed appropriate for a retail store.  0 credits assumed.	N/A
Hea 02	Indoor air quality	4 + 1	0.78	2	<b>Pre-requisite</b> <b>Criterion 1</b> A site-specific indoor air quality plan has been produced and implemented in accordance with the guidance in Guidance Note GN06. The objective of the plan is to facilitate a process that leads to design, specification and installation decisions and actions that minimise indoor air pollution during occupation of the building. This covers: 1.a Removal of contaminant sources 1.b Dilution and control of contaminant sources: 1.b.i Where present, consideration is given to the air quality requirements of specialist areas such as laboratories 1.c Procedures for pre-occupancy flush out 1.d Third party testing and analysis 1.e Maintaining good indoor air quality in-use.	Sol have produced a site-specific Indoor Air Quality Plan in collaboration with the design team which covers the required content.	Sol
					<b>One credit – Ventilation</b> <b>Criterion 2</b> The building has been designed to minimise the indoor concentration and recirculation of pollutants in the building as follows: <ul style="list-style-type: none"> <li>a) Provide fresh air into the building in accordance with the criteria of the relevant standard for ventilation</li> <li>b) Ventilation pathways are designed to minimise the ingress and build-up of air pollutants inside the building</li> <li>c) Where present, HVAC systems must incorporate suitable filtration to minimise external air pollution, as defined in BS EN 13779:2007 Annex A3(46). The specified filters should achieve a minimum Indoor Air Quality of IDA2</li> <li>d) Areas of the building subject to large and unpredictable or variable occupancy patterns have carbon dioxide (CO<sub>2</sub>) or air quality sensors specified and:</li> </ul>	<b>POTENTIAL CREDIT</b>  The ventilation system is not detailed enough at this stage to confirm compliance, this will be reviewed at a later stage.  0 credits assumed.	M&E

					<p>I. In mechanically ventilated buildings or spaces: sensors are linked to the mechanical ventilation system and provide demand-controlled ventilation to the space</p> <p>II. In naturally ventilated buildings or spaces: sensors either have the ability to alert the building owner or manager when CO<sub>2</sub> levels exceed the recommended set point, or are linked to controls with the ability to adjust the quantity of fresh air, i.e. automatic opening windows or roof vents</p> <p>e) For naturally ventilated or mixed mode buildings, the design demonstrates that the ventilation strategy provides adequate cross flow of air to maintain the required thermal comfort conditions and ventilation rates in accordance with CIBSE AM10(47).</p>		
					<p><b>Up to two credits – Emissions from construction products</b> <b>One credit</b> <b>Criterion 3</b> Three out of the five product types meet the emission limits, testing requirements and any additional requirements listed in Table 5.11. Where wood-based products are not one of three selected product types, all wood-based products used for internal fixtures and fittings must be tested and classified as formaldehyde E1 class as a minimum.</p> <p><b>OR</b> <b>Two credits</b> <b>Criterion 4</b> All of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.11.</p>	<p>Based on products detailed in the ALDI standard specification, it is assumed the requirements of this credit shall be achieved.</p> <p>2 credits assumed.</p>	Architect/ Construction Manager
					<p><b>Exemplary</b> <b>Criterion 11</b> Three of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.12 of the BREEAM 2018 Manual.</p>	<p>Based on products detailed in the ALDI standard specification, it is assumed the requirements of this credit shall not be achieved.</p> <p>0 credits assumed.</p>	Architect/ Construction Manager
					<p><b>One credit - Post-construction indoor air quality measurement</b> <b>Criterion 5</b> The formaldehyde concentration in indoor air is measured post construction (but pre-occupancy) and does not exceed 100µg/m<sup>3</sup> averaged</p>	<p>This credit was not targeted due to time and cost constraints.</p> <p>0 credits targeted.</p>	N/A

					<p>over 30 minutes (World Health Organization guidelines for indoor air quality: Selected pollutants, 2010).</p> <p><b>Criterion 6</b> The formaldehyde sampling and analysis is performed in accordance with ISO 16000-2 (58) and ISO 16000-3 (59).</p> <p><b>Criterion 7</b> The total volatile organic compound (TVOC) concentration in indoor air is measured post construction (but pre-occupancy) and does not exceed 500µg/m³ over 8 hours.</p> <p><b>Criterion 8</b> The TVOC sampling and analysis is performed in accordance with ISO 16000-5 (60) and ISO 16000-6 (61) or ISO 16017-1 (62).</p> <p><b>Criterion 9</b> Where levels are found to exceed these limits, the project team confirms the measures that have, or will be, undertaken in accordance with the IAQ plan, to reduce the TVOC and formaldehyde levels to within the above limits.</p> <p><b>Criterion 10</b> The measured concentration levels of formaldehyde (µg/m³) and TVOC (µg/m³) are reported, via the BREEAM Scoring and Reporting Tool.</p>		
Hea 04	Thermal Modelling	3	0.78	3	<p><b>One Credit – Thermal modelling</b></p> <p><b>Criterion 1</b> Thermal modelling has been carried out using software in accordance with CIBSE AM11 Building Energy and Performance Modelling.</p> <p><b>Criterion 2</b> The software used to carry out the simulation at the detailed design stage provides full dynamic thermal analysis.</p> <p><b>Criterion 3</b> The modelling demonstrates that:</p>	<p>Sol has been appointed to complete thermal comfort analysis on the proposed building, it is assumed based on other similar stores the relevant requirements shall be met. It is also assumed the results shall be considered in the heating and cooling strategy.</p> <p>1 credit assumed.</p>	Sol

				<p>For air-conditioned buildings, summer and winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design, Table 1.5; or other appropriate industry standard (where this sets a higher or more appropriate requirement or level for the building type) or the thermal environment in occupied spaces meet the Category B requirements for PPD, PMV and local discomfort set out in Table A.1 of Annex A of ISO 7730:2005.</p> <p><b>OR</b></p> <p>For naturally ventilated buildings:</p> <ul style="list-style-type: none"> <li>I. Winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design, Table 1.5. Or other appropriate industry standard (where this sets a higher or more appropriate requirement or level for the building type)</li> <li>II. The building is designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in either of the following standards as appropriate; CIBSE TM52: The limits of thermal comfort: avoiding overheating in European buildings or CIBSE TM59: Design methodology for the assessment of overheating risk in homes.</li> </ul> <p><b>Criterion 4</b> For air-conditioned buildings, the PMV (predicted mean vote) and PPD (predicted percentage of dissatisfied) indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.</p>		
				<p><b>One Credit – Design for future thermal comfort</b></p> <p><b>Criterion 5</b> Criteria 1 to 4 are achieved.</p> <p><b>Criterion 6</b> The thermal modelling demonstrates that the relevant requirements set out in criterion 3 above are achieved for a projected climate change environment.</p> <p><b>Criterion 7</b> Where criterion 6 above is not met, the project team demonstrates how the building has been adapted, or designed to be easily adapted in future</p>	<p>Sol has been appointed to complete thermal comfort analysis on the proposed building, it is assumed based on other similar stores the relevant requirements shall be met. It is also assumed the results shall be considered in the heating and cooling strategy.</p> <p>1 credit assumed.</p>	<b>Sol</b>



					<p>using passive design solutions in order to subsequently meet the requirements under criterion 6 above.</p> <p><b>Criterion 8</b> For air-conditioned buildings, the PMV and PPD indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.</p>		
					<p><b>One Credit – Thermal zoning and controls</b> <b>Criterion 9</b> Criteria 1 above to 4 above are achieved</p> <p><b>Criterion 10</b> The thermal modelling analysis (criteria 1 on the previous page to 4 on the previous page) has informed the temperature control strategy for the building and its users.</p> <p><b>Criterion 11</b> The strategy for proposed heating or cooling systems demonstrates that it has addressed 11.a – 11.d.</p>	<p>Sol has been appointed to complete thermal comfort analysis on the proposed building, it is assumed based on other similar stores the relevant requirements shall be met. It is also assumed the results shall be considered in the heating and cooling strategy.</p> <p>1 credit assumed.</p>	Sol/ M&E
Hea 05	Acoustic Performance (Sound Insulation)	3	0.78	3	<p><b>Up to three Credits – Acoustic performance</b> For all building types except Residential institutions (short term and long-term stay)</p> <p><b>Criterion 1</b> Where a suitably qualified acoustician [SQA] confirms the building meets the appropriate acoustic performance standards and testing requirements defined in the relevant table below. These tables define criteria for the acoustic principles of:</p> <ul style="list-style-type: none"> <li>a) Sound insulation</li> <li>b) Indoor ambient noise level</li> <li>c) Room acoustics.</li> </ul> <p><b>OR</b> <b>Criterion 2</b> A suitably qualified acoustician [SQA] is appointed to define a bespoke set of performance requirements for all function areas in the building.</p>	<p>It is assumed ALDI shall appoint an acoustician to carry out pre-completion acoustic performance testing.</p> <p>3 credits assumed.</p>	Architect c/o ALDI/ Acoustician

Hea 06	Security	1 + 1	0.78	0	<b>One Credit - Security of site and building</b> <b>Criterion 1</b> A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent) to identify attributes of the proposal, site and surroundings which may influence the approach to security for the development.  <b>Criterion 2</b> The SQSS develops a set of security controls and recommendations for incorporation into the proposals. Those controls and recommendations shall directly relate to the threats and assets identified in the preceding SNA.  <b>Criterion 3</b> The controls and recommendations shall be incorporated into proposals and implemented in the as-built development. Any deviation from those controls and recommendations shall be justified and agreed with the SQSS.	<b>POTENTIAL CREDIT</b>  The architect has engaged the SBDO for comments on the proposals, pending a full SNA and recommendations, this credit may be achieved.  0 credits assumed.	Architect
					<b>One credit - Exemplary</b> <b>Criterion 4</b> A compliant risk-based security rating scheme has been used. The performance against the scheme has been confirmed by independent assessment and verification.	This credit was not targeted due to time and cost constraints.  0 credits targeted.	N/A
Hea 07	Safe and Healthy surroundings	2	0.78	0	<b>One credit - Safe access</b> Where external site areas form part of the assessed development the following apply:  <b>Criterion 1</b> Dedicated and safe cycle paths are provided from the site entrance to any cycle storage and connect to offsite cycle paths where applicable.  <b>Criterion 2</b> Dedicated and safe footpaths are provided on and around the site providing suitable links for the following: a) The site entrance to the building entrance b) Car parks (where present) to the building entrance c) The building to outdoor space	The proposals do not appear to comply with the requirements of this credit, as the delivery bay is accessed via the general customer car park.  0 credits assumed.	N/A

					<p>d) Connecting to off-site paths where applicable.</p> <p><b>Criterion 3</b> Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths. Where vehicle delivery access and drop-off areas form part of the assessed development, the following apply:</p> <p><b>Criterion 4</b> Delivery areas are not accessed through general parking areas and do not cross or share the following: a) pedestrian and cyclist paths; b) outside amenity areas accessible to building users and general public.</p> <p><b>Criterion 5</b> There is a dedicated parking or waiting area for goods vehicles with appropriate separation from the manoeuvring area and staff and visitor car parking.</p> <p><b>Criterion 6</b> Parking and turning areas are designed for simple manoeuvring according to the type of delivery vehicle likely to access the site, thus avoiding the need for repeated shunting.</p>		
					<p><b>One credit - Outside space</b> <b>Criterion 7</b> There is an outside space providing building users with an external amenity area.</p>	<p>The proposals do not appear to comply with the requirements of this credit. 0 credits assumed.</p>	N/A
<b>Energy</b>							
Ene 01	Reduction of CO <sub>2</sub> Emissions	13 + 5	0.7	8	<p><b>MINIMUM STANDARD [FOUR CREDITS] EXCELLENT OR [SIX CREDITS] OUTSTANDING</b> <b>Up to nine Credits – Energy performance</b> <b>Criterion 1</b> Calculate an Energy Performance Ratio for New Construction. Compare this with the benchmarks in Table 6.1 of the BREEAM 2018 Manual.</p>	<p>ALDI shall appoint an appropriate person to provide a BRUKL document using recommended software. Based on other, similar stores, it is believed six credits could be achieved. 4 credits assumed.</p>	<b>Energy Assessor</b>

					<b>Exemplary</b> <b>Two Credits – Beyond zero net regulated carbon</b> <b>Criterion 6</b> The building achieves an EPR NC $\geq 0.9$ and zero net regulated CO <sub>2</sub> emissions.  <b>Criterion 7</b> Energy generation from on-site and near-site LZC sources is sufficient to offset carbon emissions from regulated energy use plus a percentage of emissions from unregulated energy use.  <b>Criterion 8</b> Award the exemplary credits based on the percentage of additional emissions from unregulated energy that are offset by LZC sources.	It is not anticipated these requirements will be achieved based on similar projects.  0 credits assumed.	N/A
					<b>Three Credits – Carbon negative - Exemplary</b> <b>Criterion 9</b> The building is deemed carbon negative where > 100% (see Table 6.2 in the BREEAM 2018 Manual) of carbon emissions from unregulated (and regulated) energy use are offset by energy generated from on-site and near-site LZC sources	It is not anticipated these requirements will be achieved based on similar projects.  0 credits assumed.	N/A
					<b>MINIMUM STANDARD [FOUR CREDITS] EXCELLENT OR [SIX CREDITS] OUTSTANDING (where operational energy performance has been substantially improved)</b> <b>Four Credits – Energy modelling and reporting</b> <b>Criterion 2</b> Involve relevant members of the design team in an energy design workshop focusing on operational energy performance.  <b>Criterion 3</b> Undertake additional energy modelling during the design and post-construction stage to generate predicted operational energy consumption figures.  <b>Criterion 4</b> Report predicted energy consumption targets by end use, design assumptions and input data (with justifications).  <b>Criterion 5</b>	Sol have been appointed to carry out a workshop and risk assessment covering Operational Energy Performance.  4 credits assumed.	Sol

					Carry out a risk assessment to highlight any significant design, technical, and process risks that should be monitored and managed throughout the construction and commissioning process.		
					<p><b>Exemplary</b>  <b>Two credits – Post-occupancy stage</b>  <b>Criterion 10</b>  Achieve maximum available credits in Ene 02 Energy monitoring.</p> <p><b>Criterion 11</b>  The client or building occupier commits funds to pay for the post occupancy stage. This requires an assessor to be appointed and to report on the actual energy consumption compared with the targets set.</p> <p><b>Criterion 12</b>  The energy model is:  a Submitted to BRE and  b Retained by the building owner.</p>	<p>This credit was not targeted due to time and cost constraints however operational energy is monitored using the BMS and managed using an energy management company.</p> <p>0 credits assumed.</p>	N/A
Ene 02	Energy Monitoring	2	0.7	2	<p><b>MINIMUM STANDARD [1 CREDIT] VERY GOOD, EXCELLENT &amp; OUTSTANDING</b>  <b>One Credit – Sub-metering of major energy consuming systems</b>  <b>Criterion 1</b>  Install energy metering systems so that at least 90% of the estimated annual energy consumption of each fuel is assigned to the end-use categories.</p> <p><b>Criterion 2</b>  Meter the energy consumption in buildings according to the total useful floor area:  a) If the area is greater than 1,000 m<sup>2</sup>, by end-use category with an appropriate energy monitoring and management system.  b) If the area is less than 1,000 m<sup>2</sup>, use either:  I. an energy monitoring and management system or  II. separate accessible energy sub-meters with pulsed or other open protocol communication outputs, for future connection to an energy monitoring and management system.</p> <p><b>Criterion 3</b></p>	<p>As per the ALDI standard specification, an energy metering system shall be installed so that at least 90% of the estimated annual energy consumption of each fuel is assigned to the end-use categories, this shall be monitored by a Building Management System [BMS].</p> <p>1 credit assumed.</p>	M&E

					Building users can identify the energy consuming end uses, for example through labelling or data outputs.		
					<p><b>One credit - Sub-metering of high energy load and tenancy areas.</b>  <b>Criterion 4</b>  Monitor a significant majority of the energy supply with:</p> <p>a) An accessible energy monitoring and management system for:</p> <ul style="list-style-type: none"> <li>I. tenanted areas or</li> <li>II. relevant function areas or departments in single occupancy buildings.</li> </ul> <p>OR</p> <p>b) Separate accessible energy sub-meters with pulsed or other open protocol communication outputs for future connection to an energy monitoring and management system for:</p> <ul style="list-style-type: none"> <li>I. tenanted areas or</li> <li>II. relevant function areas or departments in single occupancy buildings.</li> </ul> <p><b>Criterion 5</b>  Sub-meter per floor plate in large single occupancy or single-tenancy buildings with one homogeneous function, for example hotel bedrooms, offices.</p>	<p>As per the ALDI standard specification, an energy metering system shall be installed so a significant majority of the energy supply to the relevant function areas can be monitored separately, this is done automatically using the Building Management System [BMS].</p> <p>1 credit assumed.</p>	<b>M&amp;E</b>
Ene 03	External lighting	1	0.7	1	<p><b>One Credit – External lighting</b>  <b>Criterion 1</b>  One credit is achieved where no external lighting is specified/installed OR</p> <p><b>Criterion 2</b>  External light fittings within the construction zone with:</p> <ul style="list-style-type: none"> <li>a) Average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt</li> <li>b) Automatic control to prevent operation during daylight hours</li> <li>c) Presence detection in areas of intermittent pedestrian traffic.</li> </ul>	<p>As per the ALDI standard specification, external lighting shall be of a high energy efficiency type and controlled via automatic controls and presence detection.</p> <p>1 credit assumed.</p>	<b>M&amp;E</b>
Ene 04	Low Carbon Design	3	0.7	2	<p><b>One Credit - Passive design analysis</b>  <b>Criterion 1</b>  Achieve Hea 04 first credit.</p>	<p>Sol completed a passive design analysis has been completed; this demonstrates meaningful savings in CO<sub>2</sub> has been achieved.</p> <p>1 credit assumed.</p>	<b>Sol</b>

				<p><b>Criterion 2</b> The project team analyses the proposed building design and development during Concept Design to identify opportunities for the implementation of passive design measures.</p> <p><b>Criterion 3</b> Implement passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption in line with the passive design analysis findings.</p> <p><b>Criterion 4</b> Quantify the reduced total energy demand and carbon dioxide (CO<sub>2</sub>) emissions resulting from the passive design measures.</p>		
				<p><b>One Credit - Free cooling</b> <b>Criterion 5</b> Achieve the passive design analysis credit.</p> <p><b>Criterion 6</b> Include a free cooling analysis (see Free cooling analysis on the next page) in the passive design analysis carried out under criterion 2.</p> <p><b>Criterion 7</b> Identify opportunities for the implementation of free cooling solutions.</p> <p><b>Criterion 8</b> The building is naturally ventilated or uses any combination of the free cooling strategies listed in Free cooling analysis on the next page.</p>	<p>It is likely that artificial cooling shall be specified, therefore credits are not likely achieved under this issue.</p> <p>0 credits assumed.</p>	N/A
				<p><b>One Credit - Low zero carbon feasibility study</b> <b>Criterion 9</b> An energy specialist completes a feasibility study by the end of Concept Design.</p> <p><b>Criterion 10</b> Establish the most appropriate recognised local (on-site or near-site) low or zero carbon (LZC) energy sources for the building or development (see Scope of LZC systems and how they are assessed on page 146), based on the feasibility study.</p>	<p>Sol have completed a Low Zero Carbon technology feasibility study for the site, this demonstrates meaningful savings in CO<sub>2</sub> shall be achieved.</p> <p>1 credit assumed.</p>	<p>Architect c/o ALDI/ M&amp;E/ Sol</p>

					<b>Criterion 11</b> Specify local LDC technologies for the building or development in line with the feasibility study recommendations.  <b>Criterion 12</b> Quantify the reduced regulated carbon dioxide (CO <sub>2</sub> ) emissions resulting from the feasibility study.		
Ene 05	Energy Efficient Cold Storage	2	0.7	2	<b>One Credit – Refrigeration energy consumption</b> <b>Criterion 1</b> Design, install and commission the refrigeration system: a) In accordance with the Code of Conduct for carbon reduction in the refrigeration retail sector (124) (see Additional information on page 153) and BS EN 378-2:2016(125). b) Using robust and tested refrigeration systems or components included on the Enhanced Capital Allowance (ECA) Energy Technology Product List (ETPL) (126) or an equivalent list (see Components on the ECA Energy Technology Product List below for a list of components).  <b>Criterion 2</b> Commission the refrigeration plant in compliance with the commissioning criteria in BREEAM issue Man 04 Commissioning and handover on page 54.	As per the ALDI standard specification, the refrigeration system shall be designed, installed and commissioned in accordance with the relevant requirements.  1 credit assumed.	Refrigeration Consultant
					<b>One Credit - Indirect greenhouse gas emissions</b> <b>Criterion 3</b> Achieve criteria 1 and 2.  <b>Criterion 4</b> Demonstrate a saving in indirect greenhouse gas emissions (CO <sub>2</sub> -eq) from the installed refrigeration system over the course of its operational life.	As per the ALDI standard specification, the refrigeration system shall achieve a reduction in indirect greenhouse gas emissions based on a typical store.  1 credit assumed.	Refrigeration Consultant
Ene 08	Energy Efficient Equipment	2	0.7	2	<b>Two Credits - Energy Efficient Equipment</b> <b>Criterion 1</b> Identify the building's unregulated energy consuming loads. Estimate their contribution to the total annual unregulated energy consumption of the building, assuming a typical or standard specification.  <b>Criterion 2</b> Identify the systems or processes that use a significant proportion of the total annual unregulated energy consumption of the building.	As per the ALDI standard specification, all white goods shall be specified in accordance with the relevant energy efficiency standards.  2 credits assumed.	ALDI



					<b>Criterion 3</b> Demonstrate a meaningful reduction in the total annual unregulated energy consumption of the building.		
Transport							
Tra 01	Transport assessment and travel plan	2	0.83	2	<b>Two Credits – Transport assessment and travel plan</b> <b>Criterion 1</b> No later than Concept Design stage, undertake a site-specific transport assessment (or develop a travel statement) and draft travel plan, which can demonstrably be used to influence the site layout and built form; see Methodology on the facing page.  <b>Criterion 2</b> The site-specific travel assessment or statement covers as a minimum: 2.a If relevant, travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities. 2.b Predicted travel patterns and transport impact of future building or site users. 2.c Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors. 2.d Reporting of the number and type of existing accessible amenities, see Table 7.1 below, within 500m of the site. 2.e Disabled access accounting for varying levels and types of disability, including visual impairment. 2.f Calculation of the existing public transport Accessibility Index (AI), see Methodology on the facing page. 2.g Current facilities for cyclists.  <b>Criterion 3</b> Following a transport assessment (in accordance with the requirements set out in criteria 2), develop a site-specific travel plan that provides a long term management strategy which encourages more sustainable travel. The travel plan includes measures to increase or improve more sustainable modes of transport and movement of people and goods during the building's operation see Methodology on the facing page.  <b>Criterion 4</b> If the occupier is known, involve them in the development of the travel plan.	A Transport Assessment and Travel Plan has been completed in collaboration with the client. The Travel Plan confirms measures to increase/improve sustainable modes of transport of people and goods. A travel plan co-ordinator is appointed to implement and manage the travel plan.  2 credits assumed.	<b>Architect c/o ALDI/ Transport Consultant</b>

					<b>Criterion 5</b> Demonstrate that the travel plan will be implemented post construction and be supported by the building's management in operation.		
Tra 02	Sustainable transport measures	10	0.83	8	<b>Pre-requisite</b> <b>Criterion 1</b> Achieve criteria 3-5 in the Tra 01 Transport assessment and travel plan.	A travel plan and travel assessment shall be completed.	Architect c/o ALDI/ Transport Consultant
					<b>Ten Credits – Transport options implementation</b> <b>Criterion 2</b> Identify the sustainable transport measures as per Table 7.4 in the BREEAM 2018 Manual.  <b>Criterion 3</b> Award credits according to the Accessible Index (AI) of the project, and the total number of points achieved for the options implemented as per Table 7.3 in the BREEAM 2018 Manual.	Sustainable transport measures have been/shall be implemented; these include: <ul style="list-style-type: none"> <li>• Cycle spaces</li> <li>• Cycle facilities</li> <li>• Existing amenities</li> <li>• Pedestrian/cycle way improvements</li> <li>• Increase in AI due to new bus stop</li> </ul> 8 credits assumed.	Architect c/o ALDI/ Transport Consultant

Water							
Wat 01	Water Consumption	5	0.88	1	<b>MINIMUM STANDARD [1 CREDIT] GOOD, VERY GOOD, EXCELLENT [2 CREDITS] OUTSTANDING</b> <b>Five Credits – Water consumption</b> <b>Criterion 1- 4</b> Use the BREEAM Wat 01 calculator to assess the efficiency of the domestic water-consuming components. Use the standard Wat 01 method to compare the water consumption (litres/person/day) for the assessed building against a baseline performance.  12.5% = 1 credit 25% = 2 credits 40% = 3 credits 50% = 4 credits 55% = 5 credits 65% = Exemplary Performance	Based on the typical sanitary specification used on other stores, it is assumed that one credit can be achieved.  1 credit assumed.	Architect

					<b>Exemplary Criterion 7</b> Achieve criteria 1 to 4.  <b>Criterion 8</b> The water consumption (litres/person/day) for the assessed building achieves the 65% improvement described as exemplary performance.	Based on the typical sanitary specification used on other stores, it is unlikely the requirements of this credit shall be met as no rainwater/greywater system is specified.  0 credits assumed.	N/A
Wat 02	Water Monitoring	1	0.88	1	<b>MINIMUM STANDARD [CRITERION 1 ONLY] GOOD, VERY GOOD, EXCELLENT &amp; OUTSTANDING</b> <b>One Credit – Water monitoring</b> <b>Criterion 1</b> Specify a water meter on the mains water supply to each building. This includes instances where water is supplied via a borehole or other private source.  <b>Criterion 2</b> For water-consuming plant or building areas consuming 10% or more of the building's total water demand: <ul style="list-style-type: none"> <li>Fit easily accessible sub-meters OR</li> <li>Install water monitoring equipment integral to the plant or area.</li> </ul> <b>Criterion 3</b> For each meter; <ul style="list-style-type: none"> <li>Install a pulsed communication output OR</li> <li>Connect it to an appropriate utility monitoring and management system</li> </ul> <b>Criterion 4</b> In buildings with swimming pools/large tanks/aquariums, fit separate sub meters on the water supply of the above any associated changing facilities.  <b>Criterion 5</b> In building containing laboratories, fit a separate water meter on the water supply to any process or cooling loop and plumbed in laboratory process equipment.  <b>Criterion 6</b>	As per the ALDI standard specification, a pulsed output water meter shall be installed on the incoming supply to the building.  1 credit assumed.	M&E

					At PCR, the water monitoring strategy used enables the identification of all water consumption for sanitary uses as assessed under Wat 01.		
Wat 03	Water Leak Detection and Prevention	2	0.88	1	<b>One Credit – Leak detection system</b> <b>Criterion 1</b> Install a leak detection system capable of detecting a major water leak on the utilities water supply within the buildings, to detect any major leaks within the buildings AND between the buildings and the utilities water supply, to detect any major leaks between the utilities supply and the buildings under assessment.  <b>Criterion 2</b> The leak detection system is in accordance with the requirements 2.a – 2.e of the BREEAM 2018 Manual.	As per the ALDI standard specification, a water leak detection system shall be installed.  1 credit assumed.	M&E
					<b>One Credit – Flow control devices</b> <b>Criterion 3</b> Install flow control devices that regulate the water supply to each WC area or sanitary facility according to the demand.	Solenoid Valves are not specified for this project  0 credits targeted	M&E
<b>Materials</b>							
Mat 01	Life Cycle Impact of Materials	7 + 3	1.07	3	<b>Comparison with the BREEAM LCA benchmark during Concept Design OFFICES, INDUSTRIAL AND RETAIL BUILDINGS ONLY</b> <b>Criterion 1</b> During the Concept Design, demonstrate the environmental performance of the building as follows: a) Carry out a building LCA on the superstructure design using the BREEAM Simplified building LCA tool or an IMPACT Compliant LCA Tool b) Submit the Mat 01/02 Results Submission Tool to the BRE at the end of Concept Design and before planning permission is applied for.	Sol has completed an LCA, including options appraisals at the concept design stage (including the sub structure and hard landscaping). A technical design stage LCA shall be completed at the appropriate time. It is assumed, based on other stores, 3 credits can be achieved.  3 credits assumed.	Architect c/o ALDI/ Sol
					<b>Comparison with the BREEAM LCA benchmark during Technical Design</b> <b>Criterion 2</b> During Technical Design, demonstrate the environmental performance of the building as follows: a) As criterion 1a		

					<p>b) Submit the Mat 01/02 Results Submission Tool to BRE at the end of Technical Design</p>		
					<p><b>Option appraisal during Concept Design (all building types)</b>  <b>Criterion 3</b>  For offices, industrial and retail buildings, achieve criterion 1.</p> <p><b>Criterion 4</b>  During Concept Design, identify opportunities for reducing environmental impacts as follows:</p> <ul style="list-style-type: none"> <li>a) Carry out building LCA options appraisal of 2 -4 significantly different superstructures</li> <li>b) Use a building LCA tool that is recognised by BREEAM</li> <li>c) For each design option, fulfil the functional requirements by the client and all statutory requirements</li> <li>d) Integrate the LCA options appraisal activity within the wider design decision-making process. Record this in an options appraisal summary document.</li> <li>e) Record the following in the Mat01/02 Results Submission Tool: The differences between the design options; the design option selected by the client to be progressed beyond Concept Design; the reasons for collecting it and the reasons for not selecting the other design options</li> <li>f) Submit the Mat 01/02 Results Submission Tool to BRE at the end of Concept Design, before planning permissions is applied for.</li> </ul>		
					<p><b>Option appraisal during Technical Design (all building types)</b>  <b>Criterion 5</b>  During Technical Design identify opportunities for reducing environmental impacts as follows:</p> <ul style="list-style-type: none"> <li>a) Carry out building LCA options appraisal of 2 -3 significantly different superstructure design options</li> <li>b) Use a building LCA tool that is recognised by BREEAM</li> <li>c) As criterion 4.c – 4.e. above. Update options appraisal summary document.</li> <li>d) Submit the Mat 01/02 Results Submission Tool to BRE at the end of Technical Design.</li> </ul>		

				<p><b>One Credit – Substructure and hard landscaping options appraisal</b> <b>Criterion 6</b> Criteria 3 and 4 are achieved</p> <p><b>Criterion 7</b> During Concept Design identify opportunities for reducing environmental impacts as follows:</p> <ul style="list-style-type: none"> <li>a) Carry out building LCA options appraisal for at least six significantly different substructure or hard landscaping design options (min. of 2 substructure and 2. Hard landscaping)</li> <li>b) Using a building LCA tool that is recognised by BREEAM</li> <li>c) As criteria 4.c to 4.f above.</li> </ul>		
				<p><b>Exemplary - One Credit – Core building services option appraisal</b> <b>Criterion 8</b> Criteria 3 to 4 are achieved.</p> <p><b>Criterion 9</b> During Concept Design identify opportunities for reducing environmental impacts as follows;</p> <ul style="list-style-type: none"> <li>a) Carry out building LCA options appraisal for at least 3 significantly different core building services design options</li> <li>b) Use a building LCA tool recognised by BREEAM</li> <li>c) As criteria 4.c to 4.f above.</li> </ul>	<p>This credit was not targeted due to cost and time constraints.</p> <p>0 credit assumed.</p>	N/A
				<p><b>Exemplary – One Credit – LCA and LCC alignment</b> <b>Criterion 10</b> Achieve criteria 3 – 5.</p> <p><b>Criterion 11</b> Achieve Elemental LCC plan and Component LCC options appraisal credits.</p> <p><b>Criterion 12</b> Include design options appraised for criteria 3 – 4.</p> <p><b>Criterion 13</b> Include the design options appraised for criterion 5 during Concept Design in the ‘Component level LCC option appraisal’.</p>	<p>This credit was not targeted due to cost and time constraints.</p> <p>0 credit assumed.</p>	N/A

					<b>Criterion 14</b> Integrate the aligned LCA and LCC options activity within the wider design decision-making process, record this in an options appraisal summary document including the relevant cost information from the 'element LCC plan' and 'Component level LCC option appraisal'.		
					<b>Exemplary - One Credit – Third party verification</b> <b>Criterion 15</b> Criteria 1 -7 are achieved  <b>Criterion 16</b> A suitably qualified third party carries out the buildings LCAs.  <b>Criterion 17</b> For each LCA option, itemise the findings of the verification checks made by the suitably qualified third person in the report.  <b>Criterion 18</b> Include details of the suitably qualified third party's relevant skills and experience and declaration of their third-party independence from the client and design team.	This credit was not targeted due to cost and time constraints.  0 credit assumed.	N/A
Mat 02	Environmental impacts from construction products – Environmental Product Declarations (EPD)	1	1.07	0	<b>One Credit - Specification of products with a recognised environmental product declaration (EPD)</b> <b>Criterion 1</b> Specify construction products with EPD that achieve a total EPD points score of at least 20.  <b>Criterion 2</b> Enter the details of each EPD into the Mat 01/02 Results Submission Tool, including the material category classification. The Mat 01/02 Results Submission Tool, including the material category classification.	Based on a review of the ALDI standard specification, it is believed no credits shall be achieved, therefore this credit was not targeted due to cost and time constraints.  0 credit assumed.	N/A
Mat 03	Responsible sourcing of construction products	4 + 1	1.07	2	<b>MINIMUM STANDARD [CRITERION 1 ONLY] BREEAM PASS, GOOD, VERY GOOD, EXCELLENT &amp; OUTSTANDING.</b> <b>Prerequisite - Legally harvested and traded timber</b> <b>Criterion 1</b>	This requirement forms part of the ALDI standard specification, therefore it is a contractual agreement.	Construction Manager

					100% of timber and timber-based products used on the project are 'Legal' and 'Sustainable' as per the UK Government's Timber Procurement Policy (TPP)		
					<b>One credit - Enabling sustainable procurement</b> <b>Criterion 2</b> A sustainable procurement plan must be used by the design team to guide specification towards sustainable construction products. The plan must: <ul style="list-style-type: none"> <li>a) Be in place before Concept Design.</li> <li>b) Include sustainability aims, objectives and strategic targets to guide procurement activities. Note: targets do not need to be achieved for the credit to be awarded but justification must be provided for targets that are not achieved.</li> <li>c) Include a requirement for assessing the potential to procure construction products locally. There must be a policy to procure construction products locally where possible.</li> <li>d) Include details of procedures in place to check and verify the effective implementation of the sustainable procurement plan.</li> </ul>	The Construction Manager has provided a copy of the Sustainable Procurement Plan.  1 credit assumed.	Construction Manager
					<b>Up to three credits - Measuring responsible sourcing</b> <b>Criterion 3</b> Use the Mat 03 calculator tool and methodology to determine the number of credits achieved for the construction products specified or procured. Credits are awarded in proportion to the scope of the assessment and the number of points achieved, as set out in Table 9.10. <ul style="list-style-type: none"> <li>• Superstructure [&gt;10% = 1 credit] OR</li> <li>• Superstructure, Internal finishes &amp; Substructure &amp; hard landscaping [&lt;20% = 2 credits or &lt;30% 3 credits]</li> </ul>	It is assumed that at least 10% of the available MAT 3 points shall be achieved.  1 credit assumed.	Architect/ Construction Manager
					<b>One credit – Exemplary - Measuring responsible sourcing</b> Where 50% of the following: <ul style="list-style-type: none"> <li>• Superstructure +</li> <li>• Internal finishes +</li> <li>• Substructure &amp; hard landscaping +</li> <li>• Core Building services</li> </ul> is responsibly sourced.	This credit was not targeted due to resource constraints.  0 credit assumed.	N/A



Mat 05	Designing for Robustness	1	1.07	1	<p><b>Criterion 1 – Protecting vulnerable parts of the building from damage</b></p> <p>Where protection measures are incorporated into the building’s design and construction to reduce damage to the building’s fabric or materials in case of accidental or malicious damage occurring. These measures must protect against:</p> <ul style="list-style-type: none"> <li>• Negative impacts of high user numbers</li> <li>• Damage from vehicle/trolley movement</li> <li>• External building damage from a vehicle</li> <li>• Potential malicious damage to the building materials and finishes.</li> </ul>	The design team have considered the potential causes of damage to the building and have implemented appropriate measures to limit this as far as is practical.	Architect
					<p><b>Protecting Exposed Parts of the Building Material Degradation</b></p> <p><b>Criterion 2</b></p> <p>Key exposed building elements [External walls, cladding, roof/balconies, glazing and hard landscaping] have been designed and specified to limit long and short-term degradation due to environmental factors. This can be demonstrated through one of the following:</p> <ul style="list-style-type: none"> <li>• The element achieves an appropriate quality or durability standard (see table 9.14 in the manual) <b>OR</b></li> <li>• A detailed assessment of the element’s resilience when exposed to the applicable material degradation and environmental factors.</li> </ul> <p><b>Criterion 3</b></p> <p>Include convenient access to the roof and façade.</p> <p><b>Criterion 4</b></p> <p>Design the roof and facade to prevent water damage, ingress and detrimental ponding.</p>	<p>The design team have considered the potential causes of material degradation to the building and have implemented appropriate measures to limit this as far as is practical.</p> <p>A Façade access &amp; maintenance strategy shall be provided.</p> <p>1 credit assumed.</p>	Architect
Mat 06	Material Efficiency	1	1.07	0	<p><b>One Credit – Material efficiency</b></p> <p><b>Criterion 1</b></p> <p>At the Preparation and Brief and Concept Design stages, set targets and report on opportunities and methods to optimise the use of materials. These must be done from the ‘Preparation and brief’ stage through to the ‘Construction’ stage.</p> <p><b>Criterion 2</b></p>	<p>Due to the cost and resource implications, it is assumed this credit will not be achieved.</p> <p>0 credit assumed.</p>	N/A

					Develop and record the implementation of material efficiency during developed design, technical design and construction – using the BREEAM material efficiency strategy.		
					<b>Criterion 3</b> Report the targets and actual material efficiencies achieved		

Waste							
Wst 01	Construction Waste Management	4 + 1	0.6	4	<p><b>One credit - Pre-demolition audit</b></p> <p><b>Criterion 1</b> Complete a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment or reuse is feasible and, in the case of demolition, to maximise the recovery of material for subsequent high grade or value applications. The audit must cover the content of Pre-demolition audit scope and:</p> <ul style="list-style-type: none"> <li>a) Be carried out at Concept Design stage (RIBA Stage 2) by a competent person (see Definitions on page 262) prior to strip-out or demolition works</li> <li>b) Guide the design, consider materials for reuse and set targets for waste management</li> <li>c) Engage all contractors in the process of maximising high grade reuse and recycling opportunities</li> </ul> <p><b>Criterion 2</b> Make reference to the audit in the resource management plan (RMP).</p> <p><b>Criterion 3</b> Compare actual waste arisings and waste management routes used with those forecast and investigate significant deviations from planned targets.</p>	<p>The site is greenfield, therefore no demolition works are required.</p> <p>0 credits assumed.</p>	N/A
					<p><b>MINIMUM STANDARD [1 CREDIT] OUTSTANDING</b></p> <p><b>Up to three credits - Construction resource efficiency</b></p> <p><b>Criterion 4</b> Prepare a compliant Resource Management Plan (RMP) covering:</p>	<p>A site waste management plan shall be used throughout construction to monitor and manage waste levels in accordance with the targets.</p> <p>It is assumed three credits can be achieved under this issue.</p>	<b>Construction Manager</b>

			<p>a) Non-hazardous waste materials (from on-site construction and dedicated off-site manufacture or fabrication, see Definitions on page 262), including demolition and excavation waste</p> <p>b) Accurate data records on waste arisings and waste management routes.</p> <p><b>Criterion 5</b> Meet or improve upon the benchmarks in Table 10.1 for non-hazardous construction waste, excluding demolition and excavation waste.</p> <ul style="list-style-type: none"> <li>One credit - &lt;13.3 m<sup>3</sup> or &lt;11.1 tonnes</li> <li>Two credits - &lt;7.5m<sup>3</sup> or &lt;6.5 tonnes</li> <li>Three credits - &lt;3.4m<sup>3</sup> or &lt;3.2 tonnes</li> </ul>	3 credits assumed.	
			<p><b>One credit - Diversions of resources from landfill</b></p> <p><b>Criterion 6</b> Meet, where applicable, the diversion from landfill benchmarks in Table 10.2 for non-hazardous construction waste and demolition and excavation waste generated. These are as follows:</p> <ul style="list-style-type: none"> <li>Non demolition – 70% by volume or 80% by tonnage</li> <li>Demolition – 80% by volume or 90% by tonnage</li> <li>Excavation – N/A</li> </ul> <p><b>Criterion 7</b> Sort waste materials into separate key waste groups as per Table 10.3 on page 265, either on-site or through a licensed contractor for recovery.</p>	<p>Waste shall be diverted from landfill wherever possible.</p> <p>1 credit assumed.</p>	Construction Manager

					<p><b>Exemplary Criterion 8</b></p> <p>Non-hazardous construction waste generated, excluding demolition and excavation waste, is less than or equal to the exemplary level resource efficiency benchmarks (see Table 10.1).</p> <ul style="list-style-type: none"> <li>Exemplary - &lt;1.6m3 or &lt;1.9 tonnes</li> </ul> <p><b>Criterion 9</b></p> <p>The percentage of non-hazardous construction, demolition and excavation waste (if relevant) diverted from landfill meets or exceeds the exemplary level percentage benchmarks in Table 10.2.</p> <ul style="list-style-type: none"> <li>Non demolition – 85% by volume or 90% by tonnage</li> <li>Demolition – 85% by volume or 95% by tonnage</li> <li>Excavation – 95% by volume or tonnage</li> </ul> <p><b>Criterion 10</b></p> <p>All key waste groups for diversion from landfill are covered in the RMP.</p> <p><b>Criterion 11</b></p> <p>Waste data obtained from licensed external waste contractors is reliable and verifiable, by using data from EA/SEPA/EA Wales/NIEA Waste Return Forms or from a PAS 402:2013 compliant company</p>	<p>It is assumed this credit is not likely to be achieved.</p> <p>0 credits assumed.</p>	N/A
Wst 02	Use of recycled and sustainably sourced aggregates	1 + 1	0.6	0	<p><b>Pre-requisite Criterion 1</b></p> <p>Where relevant, complete a pre-demolition audit of any existing buildings, structures or hard surfaces</p> <hr/> <p><b>One Credit – Project Sustainable Aggregate Points</b></p> <p><b>Criterion 2</b></p> <p>Identify all aggregate uses and types on the project.</p> <p><b>Criterion 3</b></p> <p>Determine the quantity in tonnes for each identified use and aggregate type.</p> <p><b>Criterion 4</b></p> <p>Identify the region in which the aggregate source is located.</p>	<p>This credit is not targeted due to constraints in sourcing the appropriate aggregate within a set distance, and the expected significant impacts on the design and budget.</p> <p>0 credits assumed.</p>	

					<b>Criterion 5</b> Calculate the distance in kilometres travelled by all aggregates by transport type.  <b>Criterion 6</b> Enter the information into the BREEAM Wst 02 calculator to calculate the Project Sustainable Aggregate points.		
					<b>Exemplary Criterion 7</b> Achieve exemplary performance as per Criterion 1-6	This credit is not targeted due to constraints in sourcing the appropriate aggregate within a set distance, and the expected significant impacts on the design and budget.  0 credits assumed.	N/A
Wst 03	Operational Waste	1	0.6	1	<b>MINIMUM STANDARD [1 CREDIT] EXCELLENT &amp; OUTSTANDING</b> <b>Criterion 1– Operational Waste</b> Provide a dedicated space for the segregation and storage of operational recyclable waste generated. The space is; a) Clearly labelled b) Accessible to building occupants c) Of a capacity appropriate to the building type/size/no. of units  <b>Criterion 2</b> For consistent and large amounts of operational waste, provide: a) Static waste compactor/baler b) Vessel for compositing organic waste c) A water outlet for hygiene purposes	All stores provide adequate waste facilities, including a general waste store/bins, recyclable waste storage areas/bins, a compactor/baler and a water outlet in the near vicinity.  1 credit assumed.	Architect
Wst 05	Adaptation to Climate Change	1 + 1	0.6	1	<b>One credit - Resilience of structure, fabric, building services and renewables installation</b> <b>Criterion 1</b> Conduct a climate change adaptation strategy appraisal using a systematic risk assessment to identify the impact of expected extreme weather conditions arising from climate change on the building over its projected life cycle. The assessment covers the installation of building services and	The project team have carried out a climate change adaptation strategy appraisal using a systematic risk assessment, it is concluded that all significant risks/impacts have been considered and all appropriate measures have been incorporated into the design.	Architect/ Civils

					<p>renewable systems, as well as structural and fabric resilience aspects and includes:</p> <p>1.a.i Hazard identification 1.a.ii Hazard assessment 1.a.iii Risk estimation 1.a.iv Risk evaluation 1.a.v Risk management.</p> <p><b>Criterion 2</b> Develop recommendations or solutions based on the climate change adaptation strategy appraisal, before or during Concept Design, that aim to mitigate the identified impact.</p> <p><b>Criterion 3</b> Provide an update during Technical Design demonstrating how the recommendations or solutions proposed at Concept Design have been implemented where practical and cost effective. Omissions have been justified in writing by the assessor.</p>		
					<p><b>Exemplary Criterion 4</b> Meet criteria 1 to 3 above.</p> <p><b>Criterion 5</b> Meet the criteria or achieve credits of the assessment issues given in Table 10.11 of the BREEAM Manual</p>	<p>It is assumed Wat 01 – Three credits, will not be achieved.</p> <p>0 credits assumed.</p>	N/A
Wst 06	Design for disassembly and adaptability	2	0.6	2	<p><b>One credit - Design for disassembly and functional adaptability – recommendations</b></p> <p><b>Criterion 1</b> Conduct a study to explore the ease of disassembly and the functional adaptation potential of different design scenarios by the end of Concept Design.</p> <p><b>Criterion 2</b> Develop recommendations or solutions based on the study (criterion 1 above), during or prior to Concept Design, that aim to enable and facilitate disassembly and functional adaptation.</p>	<p>The design team have carried out a functional adaptability appraisal of the design and all appropriate measures have already been incorporated into the design and no further recommendations were made.</p> <p>As per the ALDI standard specification, a building adaptability and disassembly guide shall be produced.</p> <p>1 credit assumed.</p>	Architect/ Civils/ M&E

					<p><b>One credit – Disassembly and functional adaptability – implementation</b> <b>Criterion 3</b> Achieve criteria 1 and 2</p> <p><b>Criterion 4</b> Provide an update, during Technical Design, on:</p> <ul style="list-style-type: none"> <li>a) How the recommendations or solutions proposed by Concept Design have been implemented where practical and cost effective.</li> <li>b) Changes to the recommendations and solutions during the development of the Technical Design.</li> </ul> <p><b>Criterion 5</b> Produce a building adaptability and disassembly guide to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants.</p>		
<b>Ecology</b>							
LE 01	Site Selection	2	1	0	<p><b>One Credit - Previously occupied land</b> <b>Criterion 1</b> At least 75% of the proposed development's footprint is on previously occupied land.</p>	<p>Drawings indicate this credit is not likely to be achieved.</p> <p>0 credits assumed</p>	N/A
					<p><b>One Credit - Contaminated land</b> <b>Criterion 2</b> A contaminated land professional undertakes a site investigation, risk assessment and appraisal, which deems that land within the development footprint to be affected by contamination. This report identifies:</p> <ul style="list-style-type: none"> <li>a) The degree of contamination</li> <li>b) The contaminant sources or types</li> <li>c) The options for remediating sources of contamination which present an unacceptable risk.</li> </ul> <p><b>Criterion 3</b> The client or principal contractor confirms that a remediation strategy will be implemented, in line with the report.</p>	<p>Based on information provided to date, it is assumed this credit is not likely to be achieved.</p> <p>0 credits assumed</p>	N/A

LE 02	Ecological risks and opportunities	2+1	1	2	<b>Pre-requisite – Assessment route selection</b> <b>Criterion 1</b> The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.	The contractor is legally obliged to meet all UK and EU legislation.	<b>Ecologist/ Construction Manager</b>
					<b>Survey and Evaluation [Route 1 &amp; 2]</b> <b>Foundation Route – [Route 1]</b> <b>Criterion 2</b> The site is evaluated using the BREEAM Ecological Risk Evaluation Checklist (Guidance Note 34) confirming that the Foundation route can be used.  <b>Comprehensive Route – [Route 2]</b> <b>Criterion 3</b> A Suitably Qualified Ecologist (SQE) carries out a survey and evaluation (see Methodology) for the site early enough to influence site preparation works, layout and, where necessary, strategic planning decisions  <b>Criterion 4</b> The SQE's survey and evaluation determines the site's ecological baseline (see Definitions), including: <ul style="list-style-type: none"> <li>a) Current and potential ecological value and condition of the site, and related areas within the zone of influence.</li> <li>b) Direct and indirect risks to current ecological value from the project</li> <li>c) Capacity and feasibility for enhancement of the site's ecological value of the site and, where relevant, areas within the zone of influence.</li> </ul> <b>Criterion 5</b> Recommendations and data collected from the survey and evaluation are shared with appropriate project team members to influence decisions made for activities during site preparation, design and construction works, which can support ecological features.	A suitably qualified ecologist (SQE) has completed a site survey and evaluation for the site prior to the end of Stage 2, this confirms the ecological baseline, current and potential ecological value of site, risks to ecological value, capacity and feasibility for enhancement.  The SQE has determined the site shall be assessed using the most appropriate route, Route 2.  1 credit assumed.	<b>Ecologist</b>
					<b>Determining the ecological outcomes for the site Foundation and Comprehensive Routes [Route 1 &amp; 2]</b> <b>Criterion 6</b>	The project team have collaborated with appropriate stakeholders to identify the optimal ecological outcomes for the site and identify, appraise and select measures to meet the optimal ecological outcomes for the site in line with the mitigation hierarchy of action.	<b>Ecologist/ Landscape Architect</b>



					<p>Survey and evaluation criteria (criteria 3–6 above) relevant to the chosen route have been achieved.</p> <p><b>Criterion 7</b> The project team liaise and collaborate with representative stakeholders (see Methodology) early enough to influence key planning decisions (typically Concept Design stage), to:</p> <ul style="list-style-type: none"> <li>a) Identify the optimal ecological outcomes for the site.</li> <li>b) Identify, appraise and select measures to meet the optimal ecological outcomes for the site (criterion 7.a), in line with the mitigation hierarchy of action, according to the route being used (see Definitions)</li> </ul>	1 credit assumed.	
					<p><b>Exemplary</b> <b>Determine the ecological outcomes for the site (sustainability-related activities) – One credit</b></p> <p><b>Criterion 8</b> Achieve criterion 7 on the previous page.</p> <p><b>Criterion 9</b> Wider sustainability related activities and potential ecosystem service benefits (see Definitions) are considered as part of determining the optimal ecological outcomes for the site (criterion 7), including the areas outlined in the Methodology below.</p> <p><b>Criterion 10</b> Achieve the credits of the assessment issues outlined below:</p> <ul style="list-style-type: none"> <li>a) Hea 07 Safe and healthy surroundings - Both credits</li> <li>b) Pol 03 Flood and surface water management - Achieve credits for 'Surface water run-off' and 'Minimising watercourse pollution'</li> <li>c) Pol 05 Reduction of noise pollution</li> </ul>	It is assumed that based on the nature of the project and the scope of the soft landscaping, it is not assumed there shall be any wider sustainability benefits.	N/A
LE 03	Managing impacts on ecology	3	1	2	<p><b>Pre-requisite – Ecological risks and opportunities</b></p> <p><b>Criterion 1</b> LE 02 'Survey and Evaluation' and 'Determining ecological outcomes' has been achieved</p>	It is assumed that LE 02 shall be achieved, see above.	Ecologist

				<p><b>One Credit – Planning and measures on site.</b></p> <p><b>Criterion 2</b> Further planning to avoid and manage negative ecological impacts on-site is carried out early enough to influence the concept design and design brief as well as site preparation planning.</p> <p><b>Criterion 3</b> On-site measures for managing negative ecological impacts during site preparation and construction are implemented in-practice (e.g. mitigation measures to protect existing ecological features)</p> <p><b>Criterion 4</b> Criteria 2-3 are based on input from the project team in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 Ecological risks and opportunities (see Methodology).</p>	<p>The project team shall avoid and manage negative ecological impacts during the design and construction by ensuring all recommendations made by appropriate stakeholders (including the ecologist) are implemented at the appropriate stage. To this end, the project team have completed an ecology matrix which confirms roles and responsibilities for ecological matters.</p> <p>It is assumed on-site measures shall be implemented in-practice by the construction manager and relevant persons.</p> <p>1 credit assumed.</p>	Ecologist/ Construction Manager
				<p><b>Up to two credits - Managing negative impacts of the project</b></p> <p><b>Route 1 (one credit)</b></p> <p><b>Criterion 5</b> Criteria 2 and 3 have been achieved.</p> <p><b>Criterion 6</b> Negative impacts from site preparation and construction works are managed according to the mitigation hierarchy and no overall loss of ecological value has occurred.</p> <p><b>Route 2 (up to two credits)</b></p> <p><b>Criterion 7</b> Criteria 2-4 have been achieved</p> <p><b>Criterion 8</b> Negative impacts from site preparation and construction works have been managed according to the mitigation hierarchy, in line with the SQE's recommendations and, either:</p> <p style="padding-left: 20px;">a. No overall loss of ecological value has occurred (two credits).</p> <p>OR where criterion 8.a is not possible:</p>	<p><b>POTENTIAL CREDIT</b></p> <p>No BREEAM ecology calculations have been completed by the ecologist yet as the landscaping strategy has not been finalised however is currently assumed 1 credit can be achieved.</p> <p>1 credit assumed.</p>	Ecologist/ Construction Manager

					b. The loss of ecological value has been minimised (Minimising Loss) (one credit).		
LE 04	Ecological change and enhancement	4	1	2	<p><b>Pre-requisite – Managing negative impacts on ecology</b></p> <p><b>Criterion 1</b> Criterion 6 (Route 1) and Criterion 8 (Route 2) in LE 03 have been achieved.</p> <p><b>Criterion 2</b> The client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.</p>	It is assumed that LE 03 shall be achieved and the contractor is legally obliged to comply with all UK and EU legislation.	Ecologist/ Construction Manager
					<p><b>One credit – Change and Enhancement of ecology [Route 1]</b></p> <p><b>Criterion 3</b> Locally relevant ecological measures have been implemented that enhance the site's ecological value. The measures adopted are based on:</p> <ul style="list-style-type: none"> <li>a. Recommendations from recognised 'local' ecological expertise and specialist input and guidance.</li> <li>b. Input from the project team in collaboration with representative stakeholders and data collated as part of 'Determining ecological outcomes' in LE 02.</li> </ul>	<p>The SQE has confirmed Route 2 shall be used to assess the site.</p> <p>0 credits assumed.</p>	N/A
					<p><b>One credit – Ecological Enhancement [Route 2]</b></p> <p><b>Criterion 4</b> Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02. Measures are implemented in the following order:</p> <ul style="list-style-type: none"> <li>a. On site, and where this is not feasible,</li> <li>b. Off site within the Zone of Influence.</li> </ul> <p><b>Criterion 5</b> Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.</p>	<p>The project team shall implement solutions and measures on site which shall enhance ecological value on site in accordance with the ecologist's (and other relevant stakeholders) recommendations.</p> <p>1 credit assumed.</p>	Landscape Architect/ Ecologist

					<b>Up to 3 credits – Change and Enhancement of ecology [Route 2]</b> <b>Criterion 6</b> Up to three credits are awarded, based on the calculation of the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2.  Credits are awarded as follows: a) Minimising loss of ecological value (one credit - percentage score of 75-94) b) No net loss of ecological value (two credits - percentage score of 95-104) c) Net gain of ecological value (three credits - percentage score of 105-109)	<b>POTENTIAL CREDIT</b>  No BREEAM ecology calculations have been completed by the ecologist yet as the landscaping strategy has not been finalised however is currently assumed 1 credit can be achieved.  1 credit assumed.	<b>Ecologist/ Construction Manager</b>
					<b>One credit - Exemplary Level criteria [Route 2]</b> <b>Criterion 7</b> To achieve one exemplary performance credit the change in ecological value occurring is calculated in accordance with the process set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2. This must result in a significant net gain of ecological value (percentage score of 110 or above).	It is not assumed this can be achieved.  0 credits assumed.	N/A
LE 05	Long Term ecological management and maintenance	2	1	1	<b>Pre-requisite –Statutory obligations, planning and site implementation.</b> <b>Criterion 1</b> The client or contractor has confirmed that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site.  <b>Criterion 2</b> The following must be achieved, according to the route being assessed: a) Route 1 - Criteria 6 in LE 03 have been achieved. b) Route 2 – Criterion 8 in LE 03 has been achieved, and at least one credit under LE 04 for 'Change and Enhancement of Ecology' has been awarded.	It is assumed criterion 8 in LE 03 (not net loss in ecological value) shall be achieved as well as one credit under LE 04 Change and Enhancement of ecology.	<b>Ecologist/ Construction Manager</b>
					<b>One credit – Management and maintenance throughout the project – Foundation and comprehensive routes.</b>	<b>POTENTIAL CREDIT</b>	<b>Ecologist</b>

				<p><b>Criterion 3</b> Measures have been implemented to manage and maintain ecology throughout the project. These measures are based on input from the project team in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 (see Methodology). To ensure the optimal ecological outcomes agreed in LE 02 are met in-practice, these measures must monitor and review the effectiveness of the mitigation and enhancement measures in place for LE 03 &amp; LE 04 to ensure they are implemented.</p> <p><b>Criterion 4</b> A section on Ecology and Biodiversity has been included as part of the tenant or building owner information supplied, to inform the owner or occupant of local ecological features, value and biodiversity on or near the site (see Methodology). This should include detailed management and maintenance plans as required by landscape and asset managers as well as relevant parts of the handover information for occupiers written in a format that encourages understanding and supportive behaviours.</p>	<p>It is assumed this credit will not be targeted due to the limited, simple nature of the proposed ecological outcome which does likely not require extensive management and maintenance.</p> <p>0 credits assumed.</p>	
				<p><b>One credit - Landscape and Ecology management plan</b> <b>Criterion 5</b> A Landscape and Ecology Management Plan, or equivalent, has been developed in accordance with BS 42020:2013 Section 11.1(213) covering at least the first five years after project completion as a minimum and including:</p> <ul style="list-style-type: none"> <li>a) Actions and responsibilities, prior to handover, to give to relevant individuals prior to handover</li> <li>b) The ecological value and condition of the site over the development life at handover and how this is expected to develop and change over time</li> <li>c) Identification of opportunities for ongoing alignment with activities beyond external to the development project and which supports the aims of BREEAM's Strategic Ecology Framework</li> <li>d) Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts</li> </ul>	<p>It is assumed a Landscape and Ecology management plan shall be produced and handed over to the client prior to PC.</p> <p>1 credit assumed.</p>	<p>Architect c/o ALDI/ Ecologist</p>

					e) Clearly defined and allocated roles and responsibilities for delivering the plan.		
					<b>Criterion 6</b> The landscape and management plan or similar will be updated as appropriate to support maintenance of the ecological value of the site.		
<b>Pollution</b>							
Pol 01	Impact of Refrigerants	3	0.67	3	<b>Three credits - No refrigerant use</b> <b>Criterion 1</b> No refrigerant use within the installed plant or systems.	Due to the fact the store is a food store, the building shall contain refrigerants.  0 credits assumed.	N/A
					<b>Pre-requisite</b> <b>Criterion 2</b> All systems with electric compressors comply with the requirements of BS EN 378:2016(211) (parts 2 and 3). Refrigeration systems containing ammonia comply with the Institute of Refrigeration Ammonia Refrigeration Systems code of practice.	As per the ALDI standard specification, the refrigeration systems shall comply with all relevant standards.	Refrigeration Consultant
					<b>Two credits - Impact of refrigerant</b> <b>Criterion 3</b> The direct effect life cycle CO <sub>2</sub> equivalent emissions (DEL <sub>C</sub> ) of ≤ 100 CO <sub>2</sub> -eq/kW. For systems which provide cooling and heating, the worst performing output based on the lower of kW cooling output and kW heating output is used to complete the calculation <b>OR</b>  <b>Criterion 4</b> All refrigerants used have a global warming potential (GWP) ≤ 10.	As per the ALDI standard specification, the refrigeration systems shall have a DEL <sub>C</sub> of <100 CO <sub>2</sub> eq/kW.  2 credits assumed.	Refrigeration Consultant
					<b>One credit - Impact of refrigerant</b> <b>Criterion 5</b> Systems using refrigerants have a DEL <sub>C</sub> of ≤ 1000 kgCO <sub>2</sub> -eq/kW cooling and heating capacity.		
					<b>One Credit - Leak detection</b> <b>Criterion 6</b> All systems are hermetically sealed or only use environmentally benign refrigerants <b>OR</b>	As per the ALDI standard specification, the refrigeration systems shall use a benign refrigerant for the cold storage system and any other systems shall be hermetically sealed.  1 credit assumed.	Refrigeration Consultant

					<b>Criterion 7</b> Where the systems are not hermetically sealed, systems have: <ul style="list-style-type: none"> <li>I. A permanent automated refrigerant leak detection system, that is robust and tested, and capable of continuously monitoring for leaks <b>OR</b></li> <li>II. An inbuilt automated diagnostic procedure for detecting leakage is enabled</li> </ul> In the event of a leak, the system must be capable of automatically responding and managing the remaining refrigerant charge to limit loss of refrigerant.		
Pol 02	Local air quality	2	0.67	2	<b>Up to two credits</b> <b>Criterion 1</b> All heating and hot water is supplied by non-combustion systems. For example, only powered by electricity. <b>OR</b> <b>Criterion 2</b> Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the levels set in Table 12.4 and Table 12.5 on the facing page.	It is assumed no combustion systems shall be used, as per the ALDI standard specification.  2 credits assumed.	M&E
Pol 03	Flood and surface water management	5	0.67	5	<b>Pre-requisite</b> <b>Criterion 1</b> An appropriate consultant is appointed to carry out and demonstrate the development's compliance with all criteria.	An appropriate consultant shall be appointed to carry out and demonstrate the development's compliance with all criteria.	Civils
					<b>Up to two credits – Flood resilience</b> <b>Criterion 2</b> A site-specific flood risk assessment (FRA) confirms the development is in a flood zone that is defined as having a low annual probability of flooding. The FRA takes all current and future sources of flooding into consideration <b>OR</b> <b>Criterion 3</b> A site-specific FRA confirms the development is in a flood zone that is defined as having a medium or high annual probability of flooding and is not in a functional floodplain. The FRA must take all current and future sources of flooding into consideration (see Sources of flooding on page 314). For smaller sites refer to Level of detail required in the FRA for smaller sites on page 314, which overrides criterion 2 above.	A Flood Risk Assessment has been carried out, this confirms the risk of flooding from all sources is deemed to be low.  2 credits assumed.	Civils

				<p><b>Criterion 4</b> To increase the resilience and resistance of the development to flooding, one of the following must be achieved:</p> <p>a) The ground level of the building and access to both the building and the site, are designed (or zoned) so they are at least 600 mm above the design flood level of the site's flood zone (see 600 mm threshold on page 314).</p> <p>The final design of the building and the wider site reflects the recommendations made by an appropriate consultant in accordance with the hierarchy approach outlined in section 5 of BS 8533:2017</p>		
				<p><b>Pre-requisite</b> <b>Criterion 5</b> Surface water run-off design solutions must be bespoke, i.e. they must take account of the specific site requirements and natural or man-made environment of and surrounding the site. The priority levels detailed in the Methodology must be followed, with justification given by the appropriate consultant where water is allowed to leave the site.</p>	Surface water run-off design solutions shall be bespoke.	Civils
				<p><b>Two credits – Surface Water Run-Off – Rate</b> <b>Criterion 6</b> For brownfield sites, drainage measures are specified so that the peak rate of run-off from the site to the watercourses (natural or municipal) shows a 30% improvement for the developed site compared with the pre-developed site. This should comply at the 1-year and 100-year return period events.</p> <p><b>Criterion 7</b> For Greenfield sites, drainage measures are specified so that the peak rate of run-off from the site to the watercourses (natural or municipal) is no greater for the developed site than it was for the pre-development site. This should comply at the 1-year and 100-year return period events.</p> <p><b>Criterion 8</b> Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified Sustainable Drainage Systems (SuDS) are in place.</p> <p><b>Criterion 9</b></p>	<p>The drainage strategy confirms that drainage measures are specified so that the peak rate of run-off from the site to the watercourses (natural or municipal) is no greater for the developed site than it was for the pre-development site. This shall comply at the 1-year and 100-year return period events.</p> <p>ALDI shall be responsible for the management and maintenance of all SuDS.</p> <p>1 credit assumed.</p>	Civils



				<p>Calculations include an allowance for climate change. This should be made in accordance with current best practice planning guidance.</p>	
				<p><b>Two credits – Surface Water Run-Off – Volume</b></p> <p><b>Criterion 10</b> Flooding of property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance); <b>AND EITHER:</b></p> <p><b>Criterion 11</b> Drainage design measures are specified so that the post-development run-off volume, over the development lifetime, is no greater than it would have been prior to the assessed site's development. This must be for the 100-year 6-hour event, including an allowance for climate change.</p> <p><b>Criterion 12</b> Any additional predicted volume of run-off for this event is prevented from leaving the site by using infiltration or other SuDS techniques.</p> <p><b>Criterion 13</b> Justification from the appropriate consultant indicating why the above criteria cannot be achieved, i.e. where infiltration or other SuDS techniques are not technically viable options.</p> <p><b>Criterion 14</b> Drainage design measures are specified so that the post-development peak rate of run-off is reduced to the limiting discharge. The limiting discharge is defined as the highest flow rate from the following options:</p> <ul style="list-style-type: none"> <li>a) The pre-development one-year peak flow rate</li> <li>b) The mean annual flow rate (Qbar)</li> <li>c) 2L/s/ha.</li> </ul> <p>For the one-year peak flow rate, the one-year return period event criterion applies.</p> <p><b>Criterion 15</b> Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place.</p>	<p>It is assumed flooding will not occur in the event of a local drainage system failure.</p> <p>The drainage strategy confirms that the post development run off volume shall be no greater than it would have been prior to the assessed site's development (including an allowance for climate change).</p> <p>ALDI shall be responsible for the management and maintenance of all SuDS.</p> <p>1 credit assumed.</p>

				<p><b>Criterion 16</b> For either option, above calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance.</p>	
				<p><b>One Credit – Minimising watercourse pollution</b></p> <p><b>Criterion 17</b> There is no discharge from the developed site for rainfall up to 5mm.</p> <p><b>Criterion 18</b> Areas with a low risk source of watercourse pollution, an appropriate level of pollution prevention treatment is provided, using appropriate SuDS techniques.</p> <p><b>Criterion 19</b> Areas with a high risk of contamination or spillage of substances, such as petrol and oil, have separators (or an equivalent system) are installed in surface water drainage systems.</p> <p><b>Criterion 20</b> Chemical or liquid gas storage areas have a means of containment fitted to the site drainage system (i.e. shut-off valves). This is to prevent the escape of chemicals to natural watercourses in the event of a spillage or bunding failure.</p> <p><b>Criterion 21</b> All water pollution prevention systems have been designed and installed in accordance with the recommendations of documents such as the SuDS manual (219) and other relevant industry best practice. They must be bespoke solutions taking account of the specific site requirements and natural or man-made environment of and surrounding the site.</p> <p><b>Criterion 22</b> A comprehensive and up to date drainage plan of the site will be made available for the building or site occupiers.</p> <p><b>Criterion 23</b> Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS must be in place.</p>	<p>Based on discussions with Craddys, these requirements shall be achieved.</p> <p>1 credit assumed.</p>

					<b>Criterion 24</b> All external storage and delivery areas are designed and detailed in accordance with the current best practice planning guidance.		
Pol 04	Reduction of Night-time Pollution	1	0.67	1	<p><b>One Credit</b></p> <p><b>Criterion 1</b> External lighting pollution has been eliminated through effective design that removes the need for external lighting. This does not adversely affect the safety and security of the site and its users <b>OR</b></p> <p><b>Criterion 2</b> The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the Institution of Lighting Professionals (ILP) Guidance notes for the reduction of obtrusive light, 2011.</p> <p><b>Criterion 3</b> All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00.</p> <p><b>Criterion 4</b> If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP guidance notes.</p> <p><b>Criterion 5</b> Illuminated advertisements are designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements.</p>	<p>As per the ALDI standard specification, all external lighting and illuminated signage shall be designed in accordance with the ILP guidance.</p> <p>1 credit assumed.</p>	<b>M&amp;E</b>
Pol 05	Reduction of noise pollution	1	0.67	1	<p><b>Criterion 1</b> Where there are, or will be, no noise-sensitive areas or buildings within 800m radius of the assessed development <b>OR</b></p> <p><b>Criterion 2</b> Where there are noise-sensitive areas within the assessed building or noise-sensitive areas within 800 m radius of the assessed site, a noise impact assessment compliant with BS 4142:2014(227) is commissioned. Noise levels must be measured or determined for:</p>	<p>A noise impact assessment shall be completed, and services plant shall be specified to ensure noise levels are no more than -5dB below background noise levels at the nearest sensitive receptor.</p> <p>1 credit assumed.</p>	<b>Acoustician</b>

				<p>a) Existing background noise levels:</p> <p>    i. at the nearest or most exposed noise-sensitive development to the proposed assessed site 2.a.ii including existing plant on a building, where the assessed development is an extension to the building</p> <p>b) Noise rating level from the assessed building.</p> <p><b>Criterion 3</b> The noise impact assessment must be carried out by a suitably qualified acoustic consultant.</p> <p><b>Criterion 4</b> The noise level from the assessed building, as measured in the locality of the nearest or most exposed noise-sensitive development, must be at least 5dB lower than the background noise throughout the day and night.</p> <p><b>Criterion 5</b> If the noise sources from the assessed building are greater than the levels described in criterion 4, measures have been installed to attenuate the noise at its source to a level where it will comply with the criterion.</p>		
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## Appendix 2: BREEAM Evidence Types

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Ref	Document/Evidence Type	Comment
E1	As constructed information	Information produced at the end of a project to represent what has been constructed. This will comprise a mixture of 'as built' information/drawings and surveys from specialist subcontractors and the 'final construction issue' from design team members.
E2	Building information model (BIM)	The BIM (or BIM files) used for the project containing relevant information/evidence of compliance.
E3	BRE Global correspondence reference number	For example, the reference number for a BRE Global response to an assessor's technical query
E4	BREEAM Assessor's site inspection report	A formal report based on the BREEAM Assessor's own survey of the site/building to confirm compliance with BREEAM criteria. An assessor's site inspection report will be distinct from their formal BREEAM assessment report, serving as a form of evidence of compliance in its own right, and it may include photographs taken by the assessor as part of the survey.
E5	Building contract(s)	The building contract (or excerpts/clauses from it) between the client and the contractor for the construction of the project. In some instances, the building contract may contain design duties for specialist subcontractors and/or design team members.
E6	Certificates of compliance (third party)	Examples include ISO 14001, BES 6001, FSC (Forest Stewardship Council), EPC (environmental profile certificate), EPD (environmental product declaration), Considerate Constructors etc.
E7	Communication records	Formal communication records between/from relevant project stakeholders and/or other third parties confirming an appointment, action or outcome. This may be in the form of a letter, meeting minutes, email correspondence, publication or another form of media (see also additional guidance on following pages).
E8	Communication strategy	The strategy that sets out when the project team will meet, how they will communicate effectively and the protocols for issuing information between the various parties, both informally and at information exchanges

E9	Computer aided modelling results/outputs	Examples include thermal modelling, flooding, life cycle assessment, life cycle costing, ventilation modelling etc.
E10	Construction specification	The specification for the project/building.
E11	Construction stage data/information	For example, purchase orders, metering data, log books, commissioning records/reports etc.
E12	Contractual tree	A diagram that clarifies the contractual relationship between the client and the parties undertaking the roles required on a project.
E13	Cost information	Project costs, including the cost estimate and life cycle costs.
E14	Design drawings	Developed Design and Technical Design, including the coordinated architectural, structural and building services design. Site plans, drainage designs.
E15	Design programme	A programme setting out the strategic dates in relation to the design process. It is aligned with the Project Programme but is strategic in its nature, due to the iterative nature of the design process, particularly in the early stages.
E16	Design responsibility matrix	A matrix that sets out who is responsible for designing each aspect of the project and when. This document sets out the extent of any performance specified design.
E17	Feasibility study	Studies undertaken to test the feasibility of the Initial Project Brief for the site or in a specific context and to consider how site-wide issues will be addressed.
E18	Final project brief	The Initial Project Brief amended so that it is aligned with the Concept Design and any briefing decisions made during this stage.
E19	Other third party information	For example, maps, public transport timetables, product data/details, manufacturers' literature, government/EU standards or codes, EU labelling.
E20	Professional services contract	An agreement to provide professional or consulting services such as, designing, feasibility studies, or legal or technical advice.
E21	Professional specialist reports	Professional reports resulting from specialist surveys/studies/test results, e.g. contaminated land, ecology, flood risk assessment, surface water run-off report, site investigation, acoustics, indoor air quality plan, low and zero carbon technologies study, transportation analysis, commissioning reports, passive design analysis report, free cooling analysis report, life cycle assessment, landscape and habitat management plan etc.

E22	Project Execution or Quality Plan	The Project Execution Plan is produced in collaboration between the project lead and lead designer, with contributions from other designers and members of the project team. The Project Execution Plan sets out the processes and protocols to be used to develop the design.
E23	Project programme	The overall period for the briefing, design, construction and post completion activities of a project.
E24	Project roles table	A table that sets out the roles required on a project as well as defining the stages during which those roles are required and the parties responsible for carrying out the roles.
E25	Project strategy	The strategies developed in parallel with the Concept Design to support the design and, in certain instances, to respond to the Final Project Brief as it is concluded. Examples include strategies for sustainability, acoustics, handover, maintenance and operational, fire engineering, building control, technology, health and safety, construction, travel plan, sustainable procurement plan.
E26	Risk assessment	The risk assessment considers the various design risks and other risks on a project and how each risk will be managed and the party responsible for managing each risk.
E27	Schedule of services	A list of specific services and tasks to be undertaken by a party involved in the project which is incorporated into their professional services contract.
E28	Strategic or initial project brief	The brief prepared following discussions with the client to ascertain the project objectives, the client's business case and, in certain instances, in response to site feasibility studies.



## Appendix 4: Glossary of Terms

**Accredited Energy Assessor [Ene 01]:** A person registered with an accredited energy assessment scheme provider. The scheme provider will be licensed by the relevant government department to accredit competent persons in the energy assessment of non-domestic or domestic buildings for the purposes of demonstrating compliance with the building regulations.

**Approved building energy calculation software**

Software approved for the purpose of demonstrating compliance with the energy efficiency and carbon emission requirements of the building regulations. The definition includes the SBEM and its interface iSBEM, as well as third party software approved by the relevant government department.

**Appropriately qualified professional [Ene 05]:** A building services engineer

**Appropriate consultant [Pol 03]:** A consultant with qualifications and experience relevant to designing SuDS and flood prevention measures and completing peak rate of run-off calculations. Where complex flooding calculations and prevention measures are required, this must be a specialist hydrological engineer.

**BREEAM AP [Advisory Professional]:** Accredited BREEAM 'Advisory Professional'

**BREEAM Simplified Building LCA Tool:** The BREEAM Simplified Building LCA tool is an elemental construction level LCA tool that is free to use by BREEAM Assessors and design team members working on a registered BREEAM assessment.

**Capital cost:** The capital cost for the building includes the expenses related to the initial construction of the building:

- Construction, including preparatory works, materials, equipment and labour
- Site management
- Construction financing
- Insurance and taxes during construction
- Inspection and testing

Costs related to land procurement, clearance, design, statutory approvals and post occupancy aftercare are not included.

**Competent Person [Man 02]:** An individual who has acquired substantial expertise or a recognised qualification for undertaking life cycle costing studies and is not professionally connected to a single manufacturer.

**Complex systems [Man 04]:** These include, but are not limited to, air-conditioning, comfort cooling, mechanical ventilation, displacement ventilation, complex passive ventilation, BMS, renewable energy sources, microbiological safety cabinets and fume cupboards, cold storage enclosures and refrigeration plant.

**Compliant test body [Hea 05]:** A compliant test body is defined as:

1. Organisations having United Kingdom Accreditation Scheme (UKAS) accreditation to the appropriate Scope OR
2. Organizations or individuals registered with the ANC Registration Scheme OR

3. Companies or individuals that have been declared competent by an organization who can provide evidence that they follow the relevant principles of BS EN ISO/IEC 17024

**Construction zone:** The construction zone is defined as the site which is being developed for the BREEAM-assessed building and its external site areas, i.e. the scope of the new works

**Contaminated land:** Land affected by contamination Land that could not be legally or safely developed or built on to the proposed end use without the remediation of the contamination. Contamination is defined as any substance or agent in, or on the ground within the development footprint, which presents an unacceptable risk to human health, property or the environment. For the purposes of BREEAM, substances or agents that could present unacceptable contamination risks are defined as those that act as a barrier to the development of land, which could include certain plant species such as, but not limited to, Japanese knotweed and giant hogweed. Where asbestos is found to be present in the ground this is classed as contamination for the purposes of this issue. If asbestos is present in existing building fabric, the site cannot be classified as contaminated land.

**Design flood event:** An historic or notional flood event of a given annual flood probability, against which the suitability of a proposed development is assessed and mitigation measures, if any, are designed.

**Design flood level:** The maximum estimated water level during the design storm event. A site's design flood level can be determined through known historical data or modelled for the specific site.

**Direct effect life cycle (DELCL) carbon dioxide equivalent:** A measure of the effect on global warming arising from emissions of refrigerant from the equipment to the atmosphere over its lifetime (units: kgCO<sub>2</sub>-eq). The calculation involves estimating the total refrigerant release over the period of operation and subsequent conversion to an equivalent mass of carbon dioxide. Should the system use several different refrigerants (e.g. a primary refrigerant and a secondary coolant) or a cascade system, individual calculations are made for all refrigerants which contribute to the direct effect.

**ECA Energy Technology Product List (ETPL)** The ETPL is part of the UK Government's Enhanced Capital Allowance Scheme, a key part of its programme to manage climate change.

**Ecological baseline:** The ecological baseline is the ecological value of the site before construction

**Energy monitoring and management system:** Examples include automatic meter reading systems and building energy management systems (BEMS). Automatic monitoring and targeting) is an example of a management tool that includes automatic meter reading and data management.

**Energy specialist:** An individual who has acquired substantial expertise or a recognised qualification for undertaking assessments, designs and installations of low or zero carbon solutions in the commercial buildings sector and is not professionally connected to a single low or zero carbon technology or manufacturer.

**EMS:** Environmental management system.

**EU Energy Efficiency Labelling Scheme:** The EU energy label rates products from A (the most efficient) to G (the least efficient).

**Environmental Product Declaration (EPD):** An EPD compliant with BREEAM is an independently verified environmental label (i.e. ISO Type III label) according to the requirements of ISO 14025.

**Formally agreed:** The term 'formally agreed' relates to performance targets. Examples of formal agreements include a contract or letters of appointment with the architect and with other relevant project team members.

**Free cooling:** The ability of the building to provide cooling to the internal occupied areas without the need to rely on energy consuming mechanical cooling

**IMPACT:** IMPACT is a specification and database for software developers to incorporate into their tools to enable consistent LCA.

**Independent party [Man 01 & Man 04]:** A third party or a person or body internal to a party involved (parties involved are typically a supplier (1st party) or purchaser (2nd party)), who shall not be involved in the issue in question and shall not have conflicts of interests resulting from their position. To comply with the criterion relating to the use of an independent party, the client or design team needs to demonstrate either:

1. They have used a party independent of the design process to conduct the necessary consultation exercise; OR
2. If the consultation is to be carried out by an organisation involved with the design of the building, e.g. the project architect, then they must present the assessor with evidence that robustly demonstrates the independence of the consultation process. BREEAM has not attempted to define what form this evidence must take; the onus is on the design team or relevant individual to clearly demonstrate to the BREEAM Assessor a credible level of independence.

**Indirect operational greenhouse gas emissions:** These are the indirect greenhouse gas emissions that result from the production of energy used to power the refrigeration system's cooling plant.

**Interested parties [Man 01]:** This includes but is not limited to:

1. Actual or intended building users (if known) including facilities management staff or those responsible for the day-to-day operation of the building and grounds.
2. Representative consultation group from the existing community (if the building is a new development in an existing community) or for a community still under construction.
3. Existing partnerships and networks that have knowledge of, and experience of working on, existing buildings of the same type.
4. Potential users of any shared facilities, e.g. operators of clubs and community groups.
5. AND the following where relevant:
6. In educational building types, representatives of local education authorities, board of governors etc.
7. Local or national historic or heritage groups (over and above any requirements relating to statutory consultees).
8. Specialist service and maintenance contractors or representatives where the building function has particular technical requirements in complex environments, e.g. buildings containing laboratories.

9. For stations, passenger focus groups, train and station operations groups

**Flood Risk Assessment (FRA):** A study to assess the risk of a site flooding, and to assess the impact that any changes or development on the site will have on flood risk to the site and elsewhere. A FRA should be prepared according to relevant planning policy and technical guidance documents. The FRA must account for future climate change and detail any necessary adaptation measures if required. Where more than five years have passed since the FRA was carried out, evidence is required to demonstrate that the basis of the FRA has not changed in that time.

**FSC:** Forest Stewardship scheme

**Green lease agreement:** A formal contractually binding agreement between a building developer or owner and their tenants.

**Indirect operational greenhouse gas emissions:** These are the indirect greenhouse gas emissions that result from the production of energy used to power the refrigeration system's cooling plant. This includes the emissions from the production of grid electricity or an on-site source of energy generation, e.g. gas CHP. In the case of refrigeration systems, the term 'direct greenhouse gas emissions' is also used; this refers to the emissions that occur as a direct result of leakage of refrigerant from the system. The impacts of direct greenhouse gas emissions from refrigeration systems are dealt with in the BREEAM issue Pol 01 Impact of refrigerants on page 300. Therefore, only indirect emissions resulting from the energy consumption of the system are covered in this issue.

**Legally harvested and traded timber:** Timber that meets the requirements as outlined in the Central Point of Timber (CPET) 5th Edition of the UK Government Timber Procurement Policy (TPP).

**Options appraisal summary document:** The options appraisal summary document is produced by the design team after LCA options appraisal has been completed to record: the options appraised by the design team and client; how the options appraisal process was utilised to make better informed decisions; and the reasons for selecting or rejecting each option at Concept Design and Technical Design. It shall provide information on the environmental impacts of each design option along with the effect, if any, on other relevant factors such as (but not necessarily limited to) capital cost and delivery times.

**Occupied space:** A room or space within the assessed building that is likely to be occupied for 30 minutes or more by a building user.

**Peak run-off (rate) :** Referred to as  $Q_p$  [ $m^3/sec$ ], this is the highest rate of flow from a defined catchment area assuming that rainfall is uniformly distributed over the drainage area, considering the entire drainage area as a single unit and estimation of flow at the most downstream point only.

**PEFC:** Programme for the Endorsement of Forest Certification Schemes.

**Previously occupied land:** For the purposes of this issue BREEAM defines previously occupied land as that which is or was occupied by a permanent structure, including any associated fixed surface infrastructure.

**Project delivery stakeholders:** This includes the client, the building occupier (where known), the design team and the principal contractor. Contractors' involvement ensures their input in terms of formulating

sustainable design solutions, commenting or inputting on the practicality and buildability of (one or more) design solutions and their impact on programming, cost etc.

**Projected climate change environment:** Naturally ventilated buildings - Time period: 2050s: Emissions scenario: Medium (A1B) 50th percentile DSY 2 and DSY 3. Mechanically ventilated or mixed mode buildings -Time period: 2020s : Emissions scenario: High (A1F1) 50th percentile DSY 2 and DSY 3

**Recognised local LZC technologies:** Technologies eligible to contribute to achieving the criteria must produce energy from renewable sources and meet all other ancillary requirements as defined by Directive 2009/28/EC (119). The following requirements must also be met:

1. There must be a direct supply of energy produced to the building under assessment.
2. Technologies under 50 kWe or 45 kWth must be certified by a Microgeneration Certification Scheme (MCS), or equivalent, and installed by MCS (or equivalent) certified installers.
3. Combined heat and power (CHP) schemes above 50 kWe must be certified under the CHPQA standard. CHP schemes fuelled by mains gas are eligible to contribute to performance against this issue.
4. Heat pumps can only be considered as a renewable technology when used in heating mode. Refer to Annex VI of Directive 2009/28/EC for more detail on accounting for energy from heat pumps.
5. Where MCS or CHPQA certification is not available, the design team must investigate the availability of alternative accreditation schemes in line with the Directives listed above, or an equivalent country or regional directive or standard. Where an accreditation scheme exists, it should be used for the purpose of verifying compliance of the specified LZC technology. If no accreditation scheme exists in the country, the design team must demonstrate they have investigated the competence of the installer selected and are confident that they have the skill and competence to install the LZC technology appropriately.

**Regulated energy:** Building energy consumption resulting from the specification of controlled, fixed building services and fittings, including space heating and cooling, hot water, ventilation and lighting.

**Route 1 [Ecology]:** For sites where ecological opportunities and risks are limited in nature This route is only appropriate where the level of ecological risk associated with the site is of a level that can practically be understood and addressed by a project team member using general observation, non-specialist knowledge and publicly available resources and information. This would be assessed by completing the Ecological Risk Evaluation Checklist.

**Route 2 [Ecology]:** For sites where complex ecological systems are likely to be present This is the more comprehensive route of assessment and therefore can achieve a higher level of reward than Route 1. It must be conducted by a Suitably Qualified Ecologist (See Definitions). This route will be mandatory for more sensitive sites and optional for those eligible for assessment under Route 1 . This would be assessed by completing the Ecological Risk Evaluation Checklist.

**Security Needs Assessment (SNA):** The project and site-specific assessment of security needs, including:

1. A visual audit of the site and surroundings, identifying environmental cues and features pertinent to the security of the proposed development.

2. Formal consultation with relevant stakeholders, including the local ALO, CPDA and CTSA (as applicable), in order to obtain a summary of crime and disorder issues in the immediate vicinity of the proposed development.
3. Identify risks specific to the proposed, likely or potential use of the buildings.
4. Identify risks specific to the proposed, likely or potential user groups of the buildings.
5. Identify any detrimental effects the development may have on the existing community.

**Sources of external pollution:** This includes but is not limited to the following:

1. Highways and the main access roads on the assessed site
2. Car parks, delivery and vehicle waiting bays
3. Other building exhausts, including from building services plant industrial or agricultural processes

**SuDS:** As defined in the SuDS manual, sustainable drainage systems are an approach to surface water management that combines a sequence of management practices and control structures designed to drain surface water in a more sustainable fashion than some conventional techniques.

**Suitably qualified acoustician (SQA):** An individual achieving all the following items can be considered to be 'suitably qualified' for the purposes of a BREEAM assessment:

1. Has a minimum of three years relevant experience (within the last five years). Such experience must clearly demonstrate a practical understanding of factors affecting acoustics in relation to construction and the built environment; including, acting in an advisory capacity to provide recommendations for suitable acoustic performance levels and mitigation measures.
2. An individual who holds a recognised acoustic qualification and membership of an appropriate professional body. The primary professional body for acoustics in the UK is the Institute of Acoustics.

**Suitably qualified ecologist:** A suitably qualified ecologist is defined as an individual who:

1. Holds a degree or equivalent qualification (e.g. N/SVQ Level 5) in ecology or a related subject
2. Is a practising ecologist, with a minimum of three years' relevant experience (within the last five years)? Such experience must clearly demonstrate a practical understanding of factors affecting ecology in relation to construction and the built environment, including acting in an advisory capacity to provide recommendations for ecological protection, enhancement and mitigation measures. Examples of relevant experience are ecological impact assessments, Phase 1 and 2 habitat surveys, and habitat restoration
3. Is covered by a professional code of conduct and subject to peer review.

**Suitably qualified energy modeller [Ene 01]:** An individual who:

4. Holds a degree or equivalent qualification in building services or a sustainability related subject
5. Has a practical experience of conducting energy modelling and has appropriate knowledge of the tool being used, e.g. has attended training by independent providers.
6. Is a member of a professional body such as CIBSE

**Suitably qualified professionals [Man 04]:** thermographic survey and airtightness testing

Thermography surveys and airtightness testing are to be undertaken by suitably qualified professionals in accordance with the appropriate standards, as follows:

1. Airtightness testing: by professionals with membership of Air Tightness Testing and Measurement Association (ATTMA) OR
2. Thermographic survey: by professionals holding a valid Category 2, e.g. PCN (Personnel Certification in Non-Destructive Testing)

**Suitably qualified third party [Mat 01]:** An individual who:

1. Is a third party
2. Has received training on using the building LCA tool that is recognised by the tool supplier, and has passed the associated tests or exams (if any)
3. Has completed building LCA for at least three projects for paying customers in the last two years.
4. Is able to interpret construction documentation (drawings, specifications, schedules etc.), which may be evidenced by a suitable construction related qualification or relevant experience.

**Suitably qualified security specialist (SQSS):** An individual achieving 1–3 or 4 of the following can be considered to be suitably qualified for the purposes of compliance with BREEAM:

1. Minimum of three years' experience in a relevant security profession (in the last five years). This experience must clearly demonstrate a practical understanding of factors affecting security in relation to construction and the built environment, relevant to the type and scale of the project being undertaken.
2. Holds a qualification relevant to security.
3. Maintains a full membership to a relevant professional body, institute or certification scheme that has a professional code of conduct, to which members adhere.
4. A specialist registered with a BREEAM recognised third party licensing or registration scheme for security specialists.

An SQSS may be any practising security professional (e.g. a private security consultant or advisor, an ALO, CPDA, CTSA, or an individual associated with the client team), however they must demonstrate that they hold the experience, qualifications and memberships required by the SQSS criteria.

**Specialist commissioning managers:** The specialist commissioning manager is a specialist contractor rather than a general sub- contractor, able to independently verify the work carried out by the project team members installing the systems. The specialist commissioning manager can be appointed by the client or the contractor to perform the tasks described under the relevant criteria for buildings with complex building services and systems and defined in their contract. The specialist commissioning manager shall be a professional who, in the opinion of the assessor, has experience or qualifications that enable them to undertake the responsibilities described in this issue. As an example, membership to the Commissioning Specialists Association (CSA) is a relevant qualification.

**Sources of external pollution:** This includes but is not limited to the following:

1. Highways and the main access roads on the assessed site
2. Car parks, delivery and vehicle waiting bays
3. Other building exhausts, including from building services plant industrial or agricultural processes.



**Unregulated energy:** Building energy consumption resulting from a system or process that is not 'controlled', i.e. energy consumption from systems in the building on which building regulations do not impose a requirement.

**Utility monitoring and management system:** Examples include automatic meter reading systems and building energy management systems. Automatic monitoring and targeting is an example of a management tool that includes automatic meter reading and data management.

**Zone of influence:** Areas of land or water bodies impacted by the site undergoing assessment.