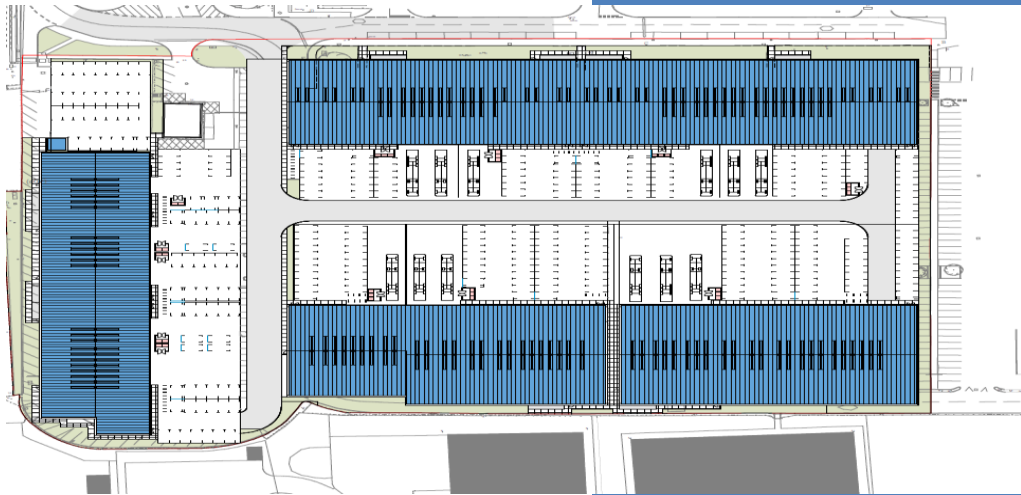


Langstone Technology Park Industrial Development

BREEAM Pre-assessment



Cudd Bentley Consulting Ltd.
Ashurst Manor, Church Lane,
Sunninghill,
Berkshire,
SL5 7DD
Tel: (01344) 628821
Fax: (01344) 623448
www.cuddbentley.co.uk

Document Ref: 5549-CBC-RGV-RP-Z-001-P02

Creation date: 30/05/2019

Revision: 2

Revision date: 26/06/2019



Cudd
Bentley
Consulting

Record of revisions.		
Date.	Revision.	Description of change.
30/05/2019	1	For issue.
26/06/2019	2	Update based on comments received.

Date: 26/06/2019

Revision: 2

Ref: 5549-CBC-RGV-RP-Z-001-P02

Page 1 of 13

Contents

Record of revisions.....	1
1.0 Executive Summary.....	3
2.0 Introduction	4
3.0 BREEAM Overview	5
4.0 Site Analysis	10
5.0 Summary	11
6.0 BREEAM Assessments.....	12

Date: 26/06/2019

Revision: 2

Ref: 5549-CBC-RGV-RP-Z-001-P02

Page 2 of 13

1.0 Executive Summary

The predicted BREEAM score and rating for the proposed Industrial Development at Langstone Technology Park in Havant, is shown in Table 1.1 below.

Building Type	BREEAM 2018 Rating
Industrial (Shell & Core)	59.06 % (Very Good)

Table 1.1 BREEAM score

The results of this assessment have been based on credits assigned with the objective of ascertaining the feasibility of achieving a BREEAM 'Very Good' rating for the proposed industrial development in Langstone. The relevant design team members should assess each of the credits that have been awarded to confirm and provide comments upon their validity.

The BREEAM pre-assessment for the proposed scheme has an anticipated score of 59.06 % therefore achieving a 'Very Good' rating which requires a percentage score greater than or equal to 55 %. The score also allows for an 4.06 % margin of contingency above the minimum score of 55 % required.

All credits which can be investigated to deliver a higher BREEAM score have been highlighted within Section 5.0 of this report. If all these credits were achieved, the development could potentially achieve a BREEAM score of 62.32 % which delivers a 'Very Good' rating with a higher margin of contingency of 7.32 %.

The credits that have not been achieved are highlighted in blue within the BREEAM pre-assessment and the issues which have been achieved are highlighted in green in the tables provided in Section 6.0 of this report.

This is a live document and the BREEAM score is subject to change throughout the development should the relevant criteria not be met, or, should further credits become achievable.

Date: 26/06/2019

Revision: 2

Ref: 5549-CBC-RGV-RP-Z-001-P02

Page 3 of 13

2.0 Introduction

This report has been prepared by Cudd Bentley Consulting Ltd with regard to the 12 Industrial Units at Langstone Technology Park in Havant. The intent is to determine the BREEAM New Construction 2018 rating achievable for the scheme.

The applicant seeks full planning permission for the part-demolition of Building 1000, installation of a new flank elevation to the East, a new elevation to the North of Building 4000 as a result of the aforementioned part-demolition of Building 1000, the erection of new buildings in flexible B1c, B2 and B8 use in the South-West corner of the site with associated parking; and the creation of new car parking areas and the rationalisation of existing parking areas. A separate BREEAM Pre-assessment for the Refurbishment of Office Building B1000 is provided in a separate report to support planning application.

In regards of BREEAM, the Havant Borough Council Local Plan/Core Strategy (2011), Sustainable Construction and High-Quality Design, Policy CS14, Efficient Use of Resources, Point 3, states that on completion, unless proven to be financially or technically unviable, meets the following standards:

- Residential development – Level 3 of the Code for Sustainable Homes
- Multi occupation homes and non-residential development over 500sqm - BREEAM standard 'Very Good'. Improvements to these standards throughout the plan period will be encouraged
- Particular attention should be paid to water efficiency measures.

Sushil Pathak of Cudd Bentley Consulting Limited has been appointed to assist with the BREEAM 2018 UK (Non-domestic & Multi Residential) Pre-assessment on the proposed development. Cudd Bentley Consulting and in particular the licensed assessor Sushil Pathak has been trained by the BRE to be able to undertake BREEAM assessments as an Accredited Professional (AP).

Date: 26/06/2019

Revision: 2

Ref: 5549-CBC-RGV-RP-Z-001-P02

Page 4 of 13

3.0 BREEAM Overview

BREEAM schemes are an environmental assessment method for buildings. Each standard sets the best practice in environmental design and has become the de facto measure to describe a buildings environmental performance.

BREEAM has the following aims:

- To mitigate the impacts of buildings on the environment;
- To enable buildings to be recognised according to their environmental benefits;
- To provide a credible, environmental label for buildings;
- To stimulate demand for sustainable buildings.

BREEAM has the following objectives:

- To provide market recognition to low environmental impact buildings;
- To ensure best environmental practice is incorporated in buildings;
- To set criteria and standards surpassing those required by regulations and challenge the market to provide innovative solutions that minimise the environmental impact of buildings;
- To raise awareness of owners, occupants, designers and operators of the benefits of buildings with a reduced impact on the environment;
- To allow organisations to demonstrate progress towards corporate environmental objectives.

Credits are awarded over 10 categories of sustainability consisting of a number of issues, summarised in Table 3.1 below.

Management • Project Brief and Design; • Life Cycle Cost and Service Life Planning; • Responsible Construction Practices; • Commissioning and Handover; • Aftercare.	Materials • Environmental Impacts from Construction Products – Building Life Cycle Analysis; • Environmental Impact from Construction Products – EPD; • Responsible Sourcing of Construction Products; • Designing for Durability and Resilience; • Material Efficiency.
Health & Wellbeing • Visual Comfort; • Indoor Air Quality; • Safe Containment in Laboratories; • Thermal Comfort; • Acoustic Performance; • Security; • Safe and Healthy Surroundings.	Waste • Construction Waste Management; • Use of Recycled and Sustainably Sourced Aggregates; • Operational Waste; • Speculative Finishes; • Adaptation to Climate Change; • Design for Disassembly and Adaptability.
Energy • Reduction of Energy Use and Carbon Emissions; • Energy Monitoring; • External Lighting; • Low Carbon Design; • Energy Efficient Cold Storage; • Energy Efficient Transportation Systems; • Energy Efficient Laboratory Systems; • Energy Efficient Equipment;	Land Use and Ecology • Site Selection; • Identifying and Understanding the Risks and Opportunities for the Project; • Managing Negative Impacts on Ecology; • Change and Enhancement of Ecological Value; • Long Term Ecology Management and Maintenance.
Transport • Transport Assessment and Travel Plan; • Sustainable Transport Measures.	Pollution • Impact of Refrigerants; • Local Air Quality; • Flood and Surface Water Management; • Reduction of Night-time Light Pollution; • Reduction of Noise Pollution.
Water • Water Consumption; • Water Monitoring; • Water Leak Detection; • Water Efficient Equipment.	Innovation • New technology, process and practices.

Table 3.1 Summary of Categories Covered by BREEAM

Date: 26/06/2019

Revision: 2

Ref: 5549-CBC-RGV-RP-Z-001-P02

Page 6 of 13

Scores and Rating

There are four main elements that determine the building rating:

1.) BREEAM Rating Benchmarks

Table 3.2 below summarises the overall percentage score that is required to classify within each rating.

BREEAM Rating	% Score
Unclassified	< 30
Pass	≥ 30
Good	≥ 45
Very Good	≥ 55
Excellent	≥ 70
Outstanding	≥ 85

Table 3.2 BREEAM Ratings

2.) BREEAM Environmental Weightings

Table 3.3 below outlines the environmental weightings that are adopted in each section to convert the credits awarded into an overall percentage score.

BREEAM Section	Weighting (%) 2018		
	Fully Fitted	Shell and Core	Shell Only
Management	11%	11%	12%
Health & Wellbeing	14%	8%	7%
Energy	16%	14%	9.5%
Transport	10%	11.5%	14.5%
Water	7%	7%	2%
Materials	15%	17.5%	22%
Waste	6%	7%	8%
Land Use & Ecology	13%	15%	19%
Pollution	8%	9%	6%
Innovation (additional)	10%	10%	10%

Table 3.3 Environmental Section Weightings

Date: 26/06/2019

Revision: 2

Ref: 5549-CBC-RGV-RP-Z-001-P02

Page 7 of 13

3.) Minimum BREEAM Standards

To achieve a BREEAM rating, the minimum percentage score must be achieved (Table 3.2) and the minimum standards (number of credits) applicable to that rating level, Table 3.4 below.

BREEAM Issue	Minimum standards by BREEAM rating level				
	Pass	Good	Very Good	Excellent	Outstanding
Man 03 – Responsible Construction Practices	None	None	None	1 (Responsible construction management)	2 (Responsible construction management)
Man 04 – Commissioning and Handover	None	None	1 (Commissioning test schedule and responsibilities)	1 (Commissioning test schedule and responsibilities)	1 (Commissioning test schedule and responsibilities)
Man 04 – Commissioning and Handover	None	None	Criteria 11 (Building User Guide)	Criteria 11 (Building User Guide)	Criteria 11 (Building User Guide)
Man 05 – Aftercare	None	None	None	1 (Commissioning implementation)	1 (Commissioning implementation)
Ene 01 – Reduction of CO ₂ Emissions	None	None	None	4	6
Ene 02 – Energy Monitoring	None	None	1 (First credit)	1 (First credit)	1 (First credit)
Wat 01 – Water Consumption	None	1	1	1	2
Wat 02 – Water Monitoring	None	Criteria 1 only	Criteria 1 only	Criteria 1 only	Criteria 1 only
Wst 01 – Construction Waste Management	None	None	None	None	1
Wst 03 – Operational Waste	None	None	None	1	1

Table 3.4 Minimum Standards

Date: 26/06/2019

Revision: 2

Ref: 5549-CBC-RGV-RP-Z-001-P02

Page 8 of 13

4.) BREEAM Credits for Innovation

Innovation credits provide additional recognition for a building that innovates in the field of sustainable performance, above and beyond the level that is currently recognised and rewarded within standard BREEAM issues.

Current Assessment – Design Parameters

For this 2018 pre-assessment, the following design parameters were used within the BREEAM Calculator Tool to commence the assessment:

- Scheme - BREEAM UK (Non-domestic Buildings) 2018;
- Building Type – Industrial – Warehouse/Storage/ Distribution;
- Project type – New Construction / Shell & Core;
- Functions/facilities specified in the building:
 - Scheme has landscaping
 - Office areas will be fitted out
 - Building transportation systems
 - Scheme has associated parking

Date: 26/06/2019

Revision: 2

Ref: 5549-CBC-RGV-RP-Z-001-P02

Page 9 of 13

4.0 Site Analysis

The proposed Industrial Development at Langstone Technology Park in Havant comprises 12 industrial units (B1C, B2 and B8 use) with ancillary office spaces and associated car park and landscaping located in the South-West corner of the site.

The proposed site plan is shown in Figure 4.1 below.

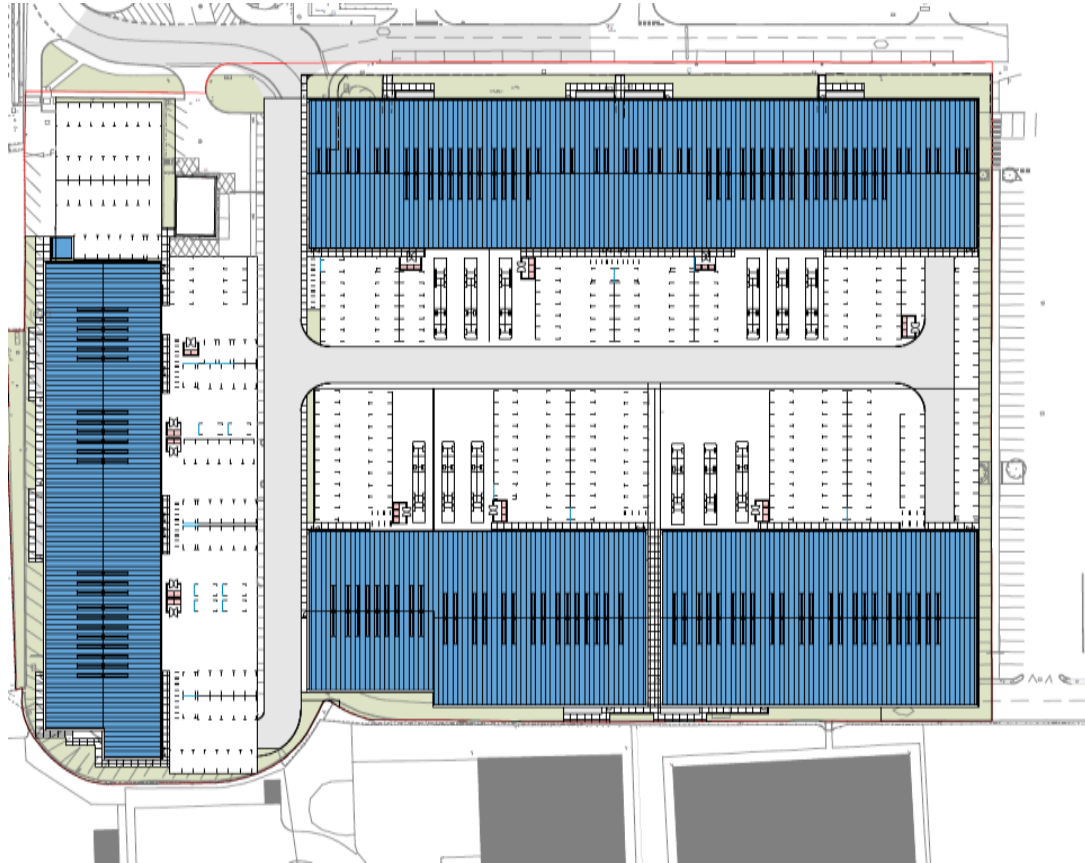


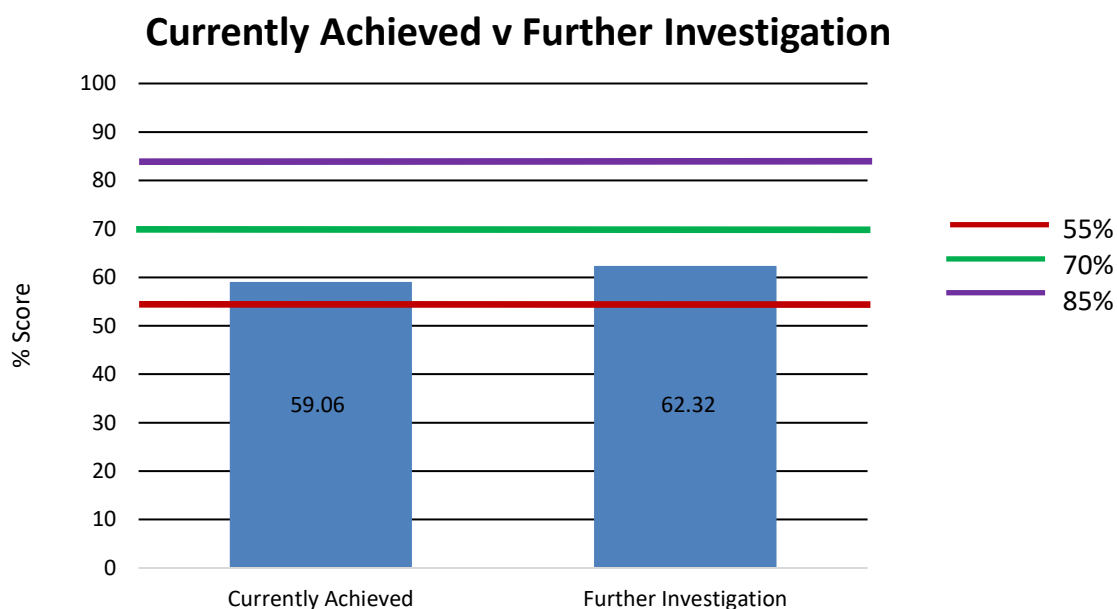
Figure 4.1 Proposed Site Plan

5.0 Summary

In summary, the BREEAM pre-assessment for the proposed building has an anticipated score of 60.50% therefore achieving a 'Very Good' rating, which requires a percentage score greater than 55 %.

All credits which can be investigated to deliver a higher BREEAM score have been highlighted within the Table below. If all these credits can be achieved the development could potentially achieve a BREEAM score of 66.19 % which delivers a 'Very Good' rating with an 11.19 % margin of contingency over the 55 % target. Both scores have been visually represented within Graph 5.1 below.

Credit for Further Investigation	Requirement	% Contribution Score
Hea 07, Safe and Healthy Surroundings	Will an outside amenity space be provided?	0.80 %
Tra 02 Sustainable Transport Measures	Will suitable existing amenities be available to building users?	0.96%
Pol 03 Flood and Surface Water Management	Will the site meet the BREEAM criteria for peak rate surface water run-off?	0.75%
Pol 03 Flood and Surface Water Management	Will the site meet the criteria for surface water volume run-off attenuation and/or limiting discharge?	0.75%



Graph 5.1 Currently Achieved

Date: 26/06/2019

Revision: 2

Ref: 5549-CBC-RGV-RP-Z-001-P02

Page 11 of 13

6.0 BREEAM Assessments

The following section highlights the BREEAM credits that have been awarded for the Industrial Development at Langstone Technology Park and the corresponding percentage score.

The design stage assessment and subsequent interim BREEAM Certification represents the performance of the building at the design stage of the assessment, typically prior to the beginning of operations on site. Certification at this stage does not, therefore, represent the buildings final 'as built' BREEAM performance.

The post construction stage assessment and subsequent BREEAM Certification represents the final 'as built' performance and BREEAM rating. A final post construction stage assessment is completed and certified after practical completion of the building works.

Title	Langstone, Industrial Units	BREEAM 2018 Pre-Assessment (Shell and Core) SD5078 Issue 2.0					
Credit	Description	Requirements	Achieved	Comments	Credits Available	Credits Achieved	Percentage %
Management							
Man 1 Project Brief and Design	To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.	Project delivery planning - Will roles and responsibilities defined in accordance with BREEAM and set a project delivery for stakeholder contributions?	Y		1	1	0.61%
		Stakeholder consultation - Will all relevant third parties been consulted with comments influencing the outcomes of the concept design?	N		1	0	0.00%
		BREEAM AP (Concept Design) - Will a Sustainability Champion be appointed during the preparation and brief stage to facilitate BREEAM performance targets?	Y		1	1	0.61%
		BREEAM AP (Developed Design) - Will the Sustainability Champion monitor progress throughout the design process?	Y		1	1	0.61%
Man 2 Life Cycle Cost and Service Life Planning	To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through life maintenance and operation.	Will and elemental life cycle cost analysis be carried out at RIBA stage 2 (concept design)?	N		2	0	0.00%
		Will a component level plan be developed by the end of RIBA stage 4 (technical design)?	N		1	0	0.00%
		Will the predicted capital cost for the building be reported?	Y		1	1	0.61%
Man 3 Responsible Construction Practices	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	Will the principal contractor operate under an Environmental Management System, use responsibly sourced timber and best practice pollution prevention policies?	Y		1	1	0.61%
		Will a Sustainability Champion be appointed to monitor the project during construction, handover and close out stages?	Y		1	1	0.61%
		Will the principal achieve the minimum requirements and six additional requirements of Table 4.1 (BREEAM 2018 manual V1.0)?	Y		2	2	1.22%
		Will responsibility be assigned for monitoring energy, water and transport data?	Y		2	2	1.22%
Man 4 Commissioning and Handover	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	Will an appropriate team member be appointed to monitor commissioning and will a commissioning schedule be provided?	Y		1	1	0.61%
		Will a Specialist Commissioning Manager be appointed?	Y		1	1	0.61%
		Will a thermographic survey and air tightness testing be undertaken?	N		1	0	0.00%
		Will a Building User Guide and Training Schedules be developed?	Y		1	1	0.61%
				Total	18	13	7.94%

Green - Achieved
Blue - Not Achieved
Orange - To be Investigated

Title	Langstone, Industrial Units	BREEAM 2018 Pre-Assessment (Shell and Core) SD5078 Issue 2.0			 Cudd Bentley Consulting		
Credit	Description	Requirements	Achieved	Comments	Credits Available	Credits Achieved	Percentage %
Health and Wellbeing							
Hea 1 Visual Comfort	To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.	Will all relevant building areas be designed to achieve the appropriate daylight factor(s) as per Table 5.1 (BREEAM 2018 manual v1.0)?	N		1	0	0.00%
		Will the design provide adequate view out for building users?	N		1	0	0.00%
		Will internal/external lighting be specified in accordance with the SLL Code for Lighting 2012, CIBSE Lighting Guide 7 and BS 5489-1?	Y		1	1	0.80%
Hea 2 Indoor Air Quality	To encourage and support healthy internal environments with good indoor air quality.	Will an Indoor Air Quality plan be developed?	N	Pre-requisite	-	-	
		Will the building ventilation be design to minimise the indoor concentration and recirculation of pollutants?	N		1	0	0.00%
Hea 4 Thermal Comfort	To ensure the building is capable of providing an appropriate level of thermal comfort.	Will Thermal Comfort modelling be undertaken?	Y		1	1	0.80%
		Will the Thermal Comfort modelling be measured against a climate change scenario?	Y		1	1	0.80%
Hea 5 Acoustic performance	To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users.	Will the building meet the relevant acoustic performance standards and testing requirements?	Y		1	1	0.80%
Hea 6 Security	To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.	Will a suitably qualified security consultant (Architectural Liaison Officer) be appointed and security considerations accounted for?	Y		1	1	0.80%
Hea 7 Safe and Healthy Surroundings	To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users.	Where external site areas are present, will safe access be designed for pedestrians and cyclists?	N		1	0	0.00%
		Will an outside amenity space with seating be provided?	FI	Credit highlighted for further investigation	1	0	0.00%
				Total	10	5	4.00%

Green - Achieved
Blue - Not Achieved
Orange - To be Investigated

Title	Langstone, Industrial Units	BREEAM 2018 Pre-Assessment (Shell and Core) SD5078 Issue 2.0			 Cudd Bentley Consulting		
Credit	Description	Requirements	Achieved	Comments	Credits Available	Credits Achieved	Percentage %
Energy							
Ene 1 Reduction of Energy Use and Carbon Emissions	To minimise operational energy demand, primary energy consumption and CO2 emissions.	A target number of BREEAM credits to be achieved have been defined	Y		13	4	2.67%
Ene 2 Energy Monitoring	To encourage the installation of energy sub-metering to facilitate the monitoring of operational energy consumption. To enable managers and consultants post-handover to compare actual performance with targets in order to inform ongoing management and help in reducing the performance gap.	Will energy metering be provided to cover at least 90% of the annual energy consumption of each fuel?	Y		1	1	0.67%
		Will high energy loads and tenancy areas be sub-metered?	Y		1	1	0.67%
Ene 3 External Lighting	To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.	Will external light fittings have a luminous efficacy of no less than 70 lumens per circuit Watt, as well as suitable controls?	Y		1	1	0.67%
Ene 4 Low Carbon Design	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	Will Hea 4 (Thermal Comfort) be achieved?	Y		3	2	1.33%
		Will an analysis of the buildings passive design features be carried out?	Y				
		Will the building use a BREEAM compliant free cooling strategy?	N				
		Will a feasibility study be undertaken and recommended LZC technology installed?	Y				
Ene 6 Energy Efficient Transportation Systems	To encourage the specification of energy efficient transportation systems within buildings.	Will a transport demand and energy consumption analysis of lifts be undertaken?	Y		1	1	0.67%
		Will energy efficiency features be installed within the specified lifts?	Y		1	1	0.67%
				Total	21	11	7.33%

Green - Achieved
Blue - Not Achieved
Orange - To be Investigated

Title	Langstone, Industrial Units	BREEAM 2018 Pre-Assessment (Shell and Core) SD5078 Issue 2.0					
Credit	Description	Requirements	Achieved	Comments	Credits Available	Credits Achieved	Percentage %
Transport							
Tra 1 Transport Assessment and Travel Plan	To reward awareness of existing local transport and identify improvements to make it more suitable.	Will a site specific Transport Assessment be undertaken?	Y		2	2	1.92%
		Will a Travel Plan be implemented based on the findings of the Transport Assessment?	Y				
		Buildings indicative Accessibility Index	<25				
Tra 2 Sustainable Transport Measures	To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site.	Is the existing Accessibility Index for the site >8?	N		1	0	0.00%
		Will the development itself demonstrate an increase in the site's Accessibility Index?	N		1	0	0.00%
		Will a public transport information system be provided in a public place?	Y		1	1	0.96%
		Will electric car charging stations be provided for at least 10% of the total car parking?	N		1	0	0.00%
		Will a car sharing scheme be developed?	N		1	0	0.00%
		Will consultation with the Local Authority regarding the local cycle network and pedestrian routes for the site, with improvement proposition agreed with the LA being implemented?	N		1	0	0.00%
		Will compliant cycle storage spaces be provided?	Y		1	1	0.96%
		Will compliant cyclist facilities be provided, in the form of either showers, changing facilities, lockers or drying spaces?	Y		1	1	0.96%
		Will suitable existing amenities be available to building users?	FI	Credit highlighted for further investigation	1	0	0.00%
		Will the development provide additional suitable amenities for building users?	N		1	0	0.00%
				Total	12	5	4.79%

Green - Achieved
Blue - Not Achieved
Orange - To be Investigated

Title	Langstone, Industrial Units	BREEAM 2018 Pre-Assessment (Shell and Core) SD5078 Issue 2.0					
Credit	Description	Requirements	Achieved	Comments	Credits Available	Credits Achieved	Percentage %
Water							
Wat 1 Water Consumption	To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components and water recycling systems.	Which Level of BREEAM criteria will be targeted for this credit?	Level 3		5	3	2.63%
Wat 2 Water Monitoring	To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.	Will there be a water meter on the mains water supply to the building(s)?	Y		1	1	0.88%
		Will metering/monitoring equipment be specified on the water supply to any relevant plant/ building areas?	NA				
		Will all specified water meters have a pulsed output?	Y				
		If the site/building has an existing BMS connection, will all pulsed meters be connected to the BMS?	N/A				
Wat 3 Water Leak Detection	To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.	Will a mains water leak detection system be installed on the buildings mains water supply?	N		1	0	0.00%
		Will flow control devices be specified within sanitary areas of the building?	Y		1	1	0.88%
				Total	8	5	4.38%

Green - Achieved
Blue - Not Achieved
Orange - To be Investigated

Title	Langstone, Industrial Units	BREEAM 2018 Pre-Assessment (Shell and Core) SD5078 Issue 2.0			 Cudd Bentley Consulting		
Credit	Description	Requirements	Achieved	Comments	Credits Available	Credits Achieved	Percentage %
Materials							
Mat 1 Environmental Impacts from Construction Products - Building Life Cycle Assessment	To reduce the burden on the environment from construction products by recognising and encouraging measure to optimise construction efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.	Has a target number of BREEAM credits been defined using the Mat 01 calculator?	Y		7	3	3.75%
Mat 2 Environmental Impacts from Construction Products - Environmental Product Declarations	To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.	Will construction products with EPD be specified to achieve a total EPD points of 20 (as calculated within the Mat 01 calculator)?	Y		1	1	1.25%
Mat 3 Responsible Sourcing of Construction Products	To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.	Will all timber used on the project be 'Legally harvested and traded timber'?	Y	Pre-requisite	4	3	3.75%
		Will a sustainable procurement plan be developed?	Y				
		Will materials specified for relevant elements will be responsibly sourced?	Y				
Mat 5 Designing for Durability and Resilience	To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape.	Will suitable durability/ protection measures be specified and installed to vulnerable areas of the building?	Y		1	1	1.25%
		Will exposed building elements incorporate measures to limit degradations due to environmental factors?	Y				
Mat 6 Material Efficiency	To avoid unnecessary materials use arising from over specification without compromising structural stability, durability or the service life of the building.	Will all appropriate parties be consulted in optimising the use of materials throughout the course of the project?	N		1	0	0.00%
				Total	14	8	10.00%

Green - Achieved
Blue - Not Achieved
Orange - To be Investigated

Title	Langstone, Industrial Units	BREEAM 2018 Pre-Assessment (Shell and Core) SD5078 Issue 2.0					
Credit	Description	Requirements	Achieved	Comments	Credits Available	Credits Achieved	Percentage %
Waste							
Wst 1 Construction Waste Management	To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.	Will a compliant Resource Management Plan and Pre-demolition Audit (where required) be implemented?	Y		4	2	1.40%
		Has a target resource efficiency per 100 m2 of gross internal area been agreed? One credit = <13.3 m3 or <11.1 tonnes Two credits = <7.5 m3 or <6.5 tonnes Three credits = <3.4 m3 or <3.2 tonnes	Y				
		Will at least 70% of non-demolition waste and 80% of any demolition waste (by volume) be diverted from landfill?	Y		1	1	0.70%
Wst 2 Use of Recycled and Sustainable Sourced Aggregates	To encourage the use of more sustainable sourced aggregates, encourage reuse where appropriate and avoid waste and pollution arising from disposal of demolition and other forms of waste.	Will a review of all reused and sustainably sourced aggregates be undertaken?	N		1	0	0.00%
Wst 3 Operational Waste	To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.	Will appropriate facilities for the storage of operational recyclable waste volumes be provided?	Y		1	1	0.70%
		If relevant, will a static waste compactor(s) or baler(s) be specified/installed?	N/A				
		If relevant, will a vessel for composting suitable organic waste be specified/installed?	N/A				
Wst 5 Adaptation to Climate Change	To minimise the future need of carrying out workshop adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns.	Will a Climate Change Adaptation Strategy appraisal be carried out by the end of RIBA Stage 2 (Concept design)?	N		1	0	0.00%
Wst 6 Design for Disassembly and Adaptability	To avoid unnecessary material use, cost and disruption arising from the need for future adaption works as a result of changing functional demands and to maximise the ability to reclaim and reuse materials at final demolition in line with the principles of a circular economy.	Will a Functional Adaptation Strategy appraisal be carried out by the end of RIBA Stage 2 (Concept design), as will the recommendation be implemented?	Y		2	1	0.70%
				Total	10	5	3.50%

Green - Achieved
Blue - Not Achieved
Orange - To be Investigated

Title	Langstone, Industrial Units	BREEAM 2018 Pre-Assessment (Shell and Core) SD5078 Issue 2.0					
Credit	Description	Requirements	Achieved	Comments	Credits Available	Credits Achieved	Percentage %
Land Use and Ecology							
LE 1 Site Selection	To encourage the use of previously developed and/or contaminated land and avoid land which has not been previously disturbed	Will at least 75% of the proposed developments footprint be located on previously developed land?	Y		1	1	1.15%
		Is the site deemed to be significantly contaminated?	N		1	0	0.00%
LE 2 Identifying and Understanding the Risks and Opportunities for the Project	To determine the ecological baseline and zone of influence of the site and identify risks and opportunities for achieving optimum outcomes.	Will a Suitably Qualified Ecologist be appointed to assess the value of the site? Additionally, will the Client or Contractor confirm that compliance will be monitored against relevant UK and EU legislation?	Y	Credit requires confirmation from ecologist.	2	2	2.31%
		Will the Ecologist report on current and potential ecological value, risks to the ecological value and capacity for enhancement?	Y	Credit requires confirmation from ecologist.			
		Will the ecological outcome from the development be determined, considering avoidance, protection, reduction of negative impacts, on site compensation and enhancement?	Y	Credit requires confirmation from ecologist.			
LE 3 Managing Negative Impacts on Ecology	To avoid, or limit as far as possible, negative impacts on the ecology of the site and its zone of influence arising as a result of the project.	Will the project team liaise with relevant stakeholders to consider collated and shared data in order to implement the best solutions during site preparation and construction works to prevent negative impacts?	Y	Credit requires confirmation from ecologist.	1	1	1.15%
		Will negative impacts on site be limited to allow for no overall loss of ecological value, or to be limited as much as possible?	Y	Credit requires confirmation from ecologist.	2	2	2.31%
LE 4 Change and Enhancement of Ecological Value	To enhance the ecological value of the site and areas within its zone of influence in support of local, regional and national priorities.	Will the project team liaise with relevant stakeholders to consider collated and shared data in order to implement the best solutions during site preparation and construction works to enhance site ecology?	Y	Credit requires confirmation from ecologist.	1	1	1.15%
		Will site ecology be enhanced inline with BREEAM Guidance Note 35?	Y	Credit requires confirmation from ecologist.	3	2	2.31%
LE 5 Long Term Ecology Management and Maintenance	To secure ongoing monitoring, management and maintenance of the site and, its habitats ecological features to ensure intended outcomes are realised for the long term?	Will the design team liaise with stakeholders to ensure effective management and maintenance systems are implemented?	Y	Credit requires confirmation from ecologist.	1	1	1.15%
		Will a landscape and ecology management plan be implemented?	Y	Credit requires confirmation from ecologist.	1	1	1.15%
				Total	13	11	12.69%

Green - Achieved
Blue - Not Achieved
Orange - To be Investigated

Title	Langstone, Industrial Units	BREEAM 2018 Pre-Assessment (Shell and Core) SD5078 Issue 2.0					
Credit	Description	Requirements	Achieved	Comments	Credits Available	Credits Achieved	Percentage %
Pollution							
Pol 1 Impact of Refrigerants	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.	Will the building be designed to operate without the need for refrigerant containing systems?	Y	Credit highlighted for further investigation	3	1	0.75%
Pol 2 Local Air Quality	To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.	Will the NOx emissions produced from the building heating source meet BREEAM criteria?	N		2	0	0.00%
Pol 3 Flood and Surface Water Management	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourse, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage.	What is the actual/likely annual probability of flooding for the assessed site?	Low	Credit requires confirmation from structural engineers	2	2	1.50%
		Will a Flood Risk Assessment be undertaken and ground level of the building/access meet BREEAM criteria?	Y	Credit requires confirmation from structural engineers			
		Will the site meet the BREEAM criteria for peak rate surface water run off?	Y	Credit requires confirmation from structural engineers	1	1	0.75%
		Will the site meet the criteria for surface water run off volume, attenuation and/or limiting discharge?	FI	Credit requires confirmation from structural engineers	1	0	0.00%
		Will the site be designed to minimise watercourse pollution in accordance with the BREEAM criteria?	FI	Credit requires confirmation from structural engineers	1	0	0.00%
Pol 4 Reduction of Night Time Light Pollution	To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties	Will the external lighting be designed to reduce light pollution?	Y		1	1	0.75%
Pol 5 Reduction of Noise Pollution	To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise sensitive buildings.	Will a Noise Impact Assessment be undertaken to determine the limiting dB levels of external plant equipment specified?	Y		1	1	0.75%
				Total	12	6	4.50%
			Total BREEAM Percentage Score				59.06%

Green - Achieved
Blue - Not Achieved
Orange - To be Investigated