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Shaviram Group

Friar Street Reading

210771

**BREEAM 2018 New Construction
(Retail) Pre-Assessment Report – Shell
Only**

Sustainability at our core.

Document Revision History			Ref	210771 Friar Street Reading	
Rev	Author	Verification By	Date	Suitability	Comments / Status
A	D. Ford		11/5/22	Breeam	First Draft

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Prepared on behalf of Couch Perry and Wilkes by

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11th May 2022

Signature:

A handwritten signature in black ink, which appears to read 'David Ford', is written over the signature line.

BREEAM 2018 New Construction Pre-Assessment Report



Executive Summary

Couch Perry and Wilkes LLP (CPW) has undertaken a BREEAM (Building Research Establishment's Environmental Assessment Method) pre-assessment of the Friar Street Reading. This report details the aspirational performance of the Friar Street Reading against the BREEAM 2018 New Construction Retail Design Stage criteria. The building currently targets a score of 57.2% which translates into a BREEAM rating of VERY GOOD. The object of the assessment was to establish a base score for the scheme against the current design.

BREEAM Very Good represents performance equivalent to the top 25% of UK new non-domestic buildings.

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1.0 Introduction

Couch Perry and Wilkes LLP (CPW) has undertaken a BREEAM (Building Research Establishment's Environmental Assessment Method) pre-assessment of the Friar Street Reading. The pre-assessment was conducted by David Ford of CPW on 15/2/22 via Microsoft teams and a further meeting on 21/3/22. This report has been compiled to summarise the findings of the pre-assessment against the BREEAM 2018 New Construction Retail criteria.

1.1 BREEAM

BREEAM is a voluntary scheme that aims to quantify and reduce the environmental burdens of buildings by rewarding those designs that take positive steps to minimise their environmental impacts. Projects are assessed using a system of credits. The credits are grouped within the following categories:

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

The assessment process results in a report covering the issues assessed together with a formal certification giving a rating on a scale of UNCLASSIFIED, PASS, GOOD, VERY GOOD, EXCELLENT and OUTSTANDING. The diagram and text below describe how BREEAM scores and rates an assessed building:

BREEAM Rating	Score (%)
UNCLASSIFIED	<30
PASS	≥30
GOOD	≥45
VERY GOOD	≥55
EXCELLENT	≥70
OUTSTANDING	≥85

The BREEAM categories contain a number of environmental issues, which reflect the options available when designing, procuring and constructing a building.

Tradable Credits

Each environmental issue has a set number of 'credits' available and these credits are awarded where the building demonstrates that it complies with the requirements of that issue.

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Minimum Standards

A number of issues within a category have set minimum standards, i.e. a minimum number of credits that must be achieved in order for a particular BREEAM rating level to be met.

Minimum Standards by BREEAM Rating Level					
BREEAM Issue	Pass	Good	Very Good	Excellent	Outstanding
Man 03: Responsible construction practices	None	None	None	One credit (Responsible construction mgmt.)	Two credits (Responsible construction mgmt.)
Man 04: Commissioning and handover	None	None	One credit (commissioning test schedule & responsibilities)	One credit (commissioning test schedule & responsibilities)	One credit (commissioning test schedule & responsibilities)
Man 04: Commissioning and handover	None	None	Criterion 11 (Building User Guide)	Criterion 11 (Building User Guide)	Criterion 11 (Building User Guide)
Man 05: Aftercare	None	None	None	One credit (commissioning implementation)	One credit (commissioning implementation)
Ene 01: Reduction of energy use and carbon emissions	None	None	None	Four credits	Six credits
Ene 02: Energy monitoring	None	None	One credit (First sub-metering credit)	One credit (First sub-metering credit)	One credit (First sub-metering credit)
Wat 01: Water consumption	None	One credit	One credit	One credit	Two credits
Wat 02: Water monitoring	None	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Mat 03: Responsible sourcing of construction products	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Wst 01: Construction waste management	None	None	None	None	One credit
Wst 03: Operational waste	None	None	None	One credit	One credit

Innovation Credits

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 by standard BREEAM issues.

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Innovation credits are awarded for either complying with pre-defined BREEAM issue exemplary level requirements, or via application to BRE Global to have a particular building feature, system or process recognised as 'innovative'.

Within each of the BREEAM categories outlined above, there are a number of credit requirements that reflect the options available to designers and managers of buildings.

An environmental weighting is applied to the scores achieved under each category, as shown below, in order to calculate the final BREEAM score. The weighting factors have been derived from consensus-based research with various groups such as government, material suppliers and lobbyists. This research was carried out by BRE Global to establish the relative importance of each environmental issue.

The environmental weightings are as follows:

BREEAM Section	Weighting (%)
Management	11.0
Health and Wellbeing	8.0
Energy	14.0
Transport	11.5
Water	7.0

BREEAM Section	Weighting (%)
Materials	17.5
Waste	7.0
Land Use and Ecology	15.0
Pollution	9.0
Innovation (additional)	10.0

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2.0 Summary of Building Performance and Score Calculation

The proposed Friar Street Reading development currently targets a score of 57.2% against the BREEAM 2018 New Construction Retail criteria based on Shell Only; this translates into an overall BREEAM rating of Very Good.

The table below illustrates how the BREEAM score has been calculated.

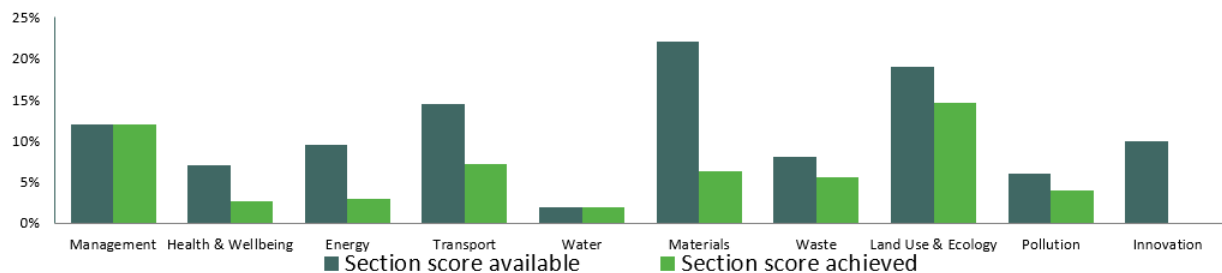
BREEAM UK New Construction 2018 Assessment Report: Rating & Key Performance Indicators

BREEAM® UK
delivered by bre

Overall Building Performance

Building name	Friar Street Reading
BREEAM rating	Very Good
Total Score	57.20%
Min. standards level achieved	Very Good level

Building Performance by Environment Section



Environmental Section	No. credits available	No. credits Achieved	% credits achieved	Section Weighting	Section Score
Management	15	15	100.00%	12.00%	12.00%
Health & Wellbeing	8	3	37.50%	7.00%	2.62%
Energy	13	4	30.77%	9.50%	2.92%
Transport	12	6	50.00%	14.50%	7.25%
Water	2	2	100.00%	2.00%	2.00%
Materials	14	4	28.57%	22.00%	6.28%
Waste	10	7	70.00%	8.00%	5.60%
Land Use & Ecology	13	10	76.92%	19.00%	14.61%
Pollution	6	4	66.67%	6.00%	4.00%
Innovation	10	0	0.00%	10.00%	0.00%

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3.0 Comments Relating to the Pre-Assessment

The full output from the BREEAM 2018 New Construction Friar Street pre-assessment has been sent as a separate document and shows a breakdown of the individual credits that have been targeted resulting in a BREEAM rating of Very Good.

The following section provides some comments relating to those credits already being pursued. In addition to the credits which have been targeted by the design, the table shows those credits that could potentially be targeted by the design team to increase the number of credits targeted and to improve the certainty that a Very Good rating will be achieved at the time of the post construction stage assessment.

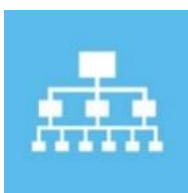
Mandatory credits that must be achieved for a Very Good rating have been highlighted in GREY.

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3.1 Management

This category encourages the adoption of sustainable management practices in connection with design, construction, commissioning, handover, and aftercare activities to ensure that robust sustainability objectives are set and followed through into the operation of the building. Issues in this section focus on embedding sustainability actions through the key stages of design, procurement and initial occupation from the initial project brief stage to the appropriate provision of aftercare.

01	Project Brief and Design	Available	Targeted	Potential	
	Project delivery planning	1	1		Meeting and meeting minutes need to be held/recorded to meet the requirements of the credit.
	Stakeholder consultation (Interested parties)	1	1		Third party consultation comments have influenced the initial project at early design stages.
	PRE-REQUISITE: BREEAM AP	N/A	Y	-	Evidence/Letter confirming a BREEAM Advisory Professional was appointed to formally agree strategic performance targets early in the design process.
	BREEAM AP (Concept design)	1	1		BREEAM Advisory Professional will be the sustainability champion for this stage.
	BREEAM AP (Developed design)	1	1		BREEAM Advisory Professional will be the sustainability champion for this stage.

02	Life Cycle Cost and Service Life Planning	Available	Targeted	Potential	
	Elemental Life Cycle Cost (LCC)	2	2		Outline LCC study to be undertaken at Stage 2.
	Component Level LCC option appraisal	1	1		In-depth, component level LCC plan at Stage 4, and implementing all the results.
	Capital cost reporting	1	1		Capital costs (excluding land purchase) to be confidentially provided to the BRE.

03	Responsible Construction Practices	Available	Targeted	Potential	
	PRE-REQUISITE: Legal and sustainable timber	N/A	Y	-	All timber must be legally and sustainably sourced to achieve the remaining credits in this section.

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	Environmental management	1	1		Any contractor managing the site to have ISO14001 certification.
	PRE-REQUISITE: BREEAM AP	N/A	Y		Client and main contractor to formally agree performance targets.
	BREEAM AP (Site)	1	1		Contractor to employ their own qualified BREEAM AP for Stage 4 onwards.
	Responsible construction management (Compliance)	2	2		'2' credits targeted for a Considerate Constructors Scheme (CCS) score between 35 and 39, achieving items listed as required plus 6 additional items in Table 4.1, plus clean, safe site at handover.
	Monitoring of construction-site impacts (Utilities)	1	1		Contractor must record data on water and energy use during construction.
	Monitoring of construction-site impacts (Transport of construction materials and waste)	1	1		Contractor records data on transport of materials from factory gate to site (including intermediate storage and distribution) AND transport of waste from site to disposal centre.
	EXEMPLARY CREDIT: Considerate construction	1	0		Not targeted. All responsible construction management items would have to be achieved. All fleet operators would also require specific 3rd party training.

04	Commissioning and Handover	Available	Targeted	Potential	
	Commissioning: Testing schedule and responsibilities	0	0		No included in shell only.
	Commissioning: Design and preparation	0	0		
	Testing and inspecting of building fabric	0	0		
	PRE-REQUISITE: Building User Guides	N/A	Y		Confirming commitment to produce Building User Guides and contents.
	Handover	1	1		Facilities Management: One non-technical BUG for building occupiers. Draft copies to be developed and discussed with users first where building occupants are known.

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					Two handover training schedules required: One technical and one non-technical.
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3.2 Health and Wellbeing

This category encourages the increased comfort, health and safety of building occupants, visitors and others within the vicinity. Issues in this section aim to enhance the quality of life in buildings by recognising those that encourage a healthy and safe internal and external environment for occupants.

01	Visual Comfort	Available	Targeted	Potential	
	Daylighting	2	0		Not targeted: Architect has confirmed that the daylight factors for 80% of occupied spaces and layout are unachievable on this project.
	View out	1	0		Not targeted: Architect has confirmed that the view out requirements are unachievable on this project.
	Internal and external lighting levels, zoning and control	1	1		Lighting to be designed to the relevant British Standards. Controls to be installed and lighting zoned in relevant areas.
	EXEMPLARY CREDIT: Daylighting	1	0		Criteria unlikely to be met as requires high levels of Daylight within rooms.

02	Indoor Air Quality	Available	Targeted	Potential	
	PRE-REQUISITE: Indoor Air Quality (IAQ) plan	N/A	Y	-	Not applicable for a shell only assessment.
	Ventilation	1	0		
	EXEMPLARY CREDITS: Minimising sources of air pollution - Emissions from construction products	1	0		

04	Thermal Comfort	Available	Targeted	Potential	
	Thermal modelling	1	0		Not applicable for a shell only assessment.
	Design for Future Thermal Comfort	1	0		

05	Acoustic Performance	Available	Targeted	Potential	
	Acoustic performance	1	1		Acoustician appointed to provide advice and carry out pre-completion testing, to ensure criteria are met.

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06	Security	Available	Targeted	Potential	
	Security of site and building	1	0		Not targeted: The implementation of the recommendations from the Security Consultant is not feasible on this project.
	EXEMPLARY CREDIT: Security of site and building	1	0		Not targeted. Requires specific security assessment by suitably qualified person.

07	Safe and Healthy Surroundings	Available	Targeted	Potential	
	Safe Access	1	1		Site drawings showing paths, cycle lanes, and vehicle delivery routes.
	Outside Space	1	-	1	Potential credit: Design drawings showing an external amenity area for building users that is non-smoking, has seating and avoids areas that have disturbances from noise.

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3.3 Energy

This category encourages the specification and design of energy efficient building solutions, systems and equipment that support the sustainable use of energy in the building and sustainable management in the building's operation. Issues in this section assess measures to improve the inherent energy efficiency of the building, encourage the reduction of carbon emissions and support efficient management throughout the operational phase of the building's life.

01	Reduction of Energy Use and Carbon Emissions	Available	Targeted	Potential	
	Energy performance	9	2		Two credits have been targeted.
	Prediction of Operational Energy Consumption	4	-		Not applicable for a shell only assessment.
	EXEMPLARY CREDITS: Beyond Zero Net Regulated Carbon OR Carbon Negative	3	0		
	EXEMPLARY CREDITS: Post-occupancy Stage	2	0		

02	Energy Monitoring	Available	Targeted	Potential	
	Sub-metering of End-use Categories	1	1		Not applicable for a shell only assessment.
	Sub-metering of high energy load and tenancy areas	1	-		

03	External Lighting	Available	Targeted	Potential	
	Luminaire efficiency and lighting control	1	1		External lighting to have a minimum 70lm/cW, switching and PIRs if necessary. All fittings to be automatically controlled.

04	Low Carbon Design	Available	Targeted	Potential	
	Passive design analysis	1	-		Not applicable for a shell only assessment.
	Free cooling	1	-		
	Low and Zero Carbon technologies	1	1		LZC feasibility study at Stage 2. LZC technology will need to be specified in line with the study's findings and achieve a meaningful CO ₂ emissions reduction of at least 5%.

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06	Energy Efficient Transportation Systems	Available	Targeted	Potential	
	Energy consumption	1	-		Not applicable for a shell only assessment.
	Energy efficient features	2	-		

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3.4 Transport

This category encourages better access to sustainable means of transport for building users. Issues in this section focus on the accessibility of public transport and other alternative transport solutions (cyclist facilities, provision of amenities local to a building) that support reductions in car journeys and, therefore, congestion and CO₂ emissions over the life of the building.

01	Transport Assessment and Travel plan	Available	Targeted	Potential	
	Transport assessment and travel plan	2	2		By Concept Design a site-specific transport assessment and travel plan to encourage sustainable travel must be developed. Existing amenities within 500m and disability access must be reported. Current levels of public transport to be included.

02	Sustainable Transport Measures	Available	Targeted	Potential	
	PRE-REQUISITE: Transport assessment and travel plan (Tra 01) achieved	N/A	Y	-	Travel plan and survey must be completed Must include AI figure, and disabled access.
	Transport options implementation	10	4		4 credits are targeted, which are in relation to improving local transport and providing an enhancement of amenities.

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3.5 Water

This category encourages sustainable water use in the operation of the building and its site. Issues in this section focus on identifying means of reducing potable water consumption (internal and external) over the lifetime of the building and minimising losses through leakage.

01	Water Consumption	Available	Targeted	Potential	
	Limiting water consumption	0	-		Not applicable for a shell only assessment.
	EXEMPLARY CREDIT: Improvement by 65% or more on the baseline performance	1	-		

02	Water Monitoring	Available	Targeted	Potential	
	PRE-REQUISITE: A water meter is specified on the mains to each building	N/A	Y		MINIMUM STANDARD: Water meter on the mains supply is required for a 'Very Good' rating.
	Consumption is monitored by suitable sub-meters	1	1		Areas with high water use (10% or more of total) e.g. kitchens, should be separately metered. Must be connected to BMS.

03	Water Leak Detection	Available	Targeted	Potential	
	Leak detection system	1	1		Leak detection system between site boundary and building entrance meter will be specified.
	Flow control devices	1	-		Not applicable for a shell only assessment.

04	Water Efficient Equipment	Available	Targeted	Potential	
	Large water consuming systems are designed to minimise unregulated consumption	1	-		Not applicable for a shell only assessment.

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3.6 Materials

This category encourages steps taken to reduce the impact of construction materials through design, construction, maintenance and repair. Issues in this section focus on the procurement of materials that are sourced in a responsible way and have a low embodied impact over their life including extraction, processing and manufacture and recycling.

01	Environmental Impacts from Construction Products - LCA	Available	Targeted	Potential	
	Life Cycle Assessment - Superstructure	6	0		Not targeted: Life Cycle Assessment is not being pursued due to limited benefit to the development and it being a high-cost exercise.
	Life Cycle Assessment - Substructure & hard landscaping	1	0		
	EXEMPLARY CREDIT: Core building services options appraisal during Concept Design	1	0		
	EXEMPLARY CREDITS: LCA and LCC alignment	1	1		
	EXEMPLARY CREDITS: Third party verification	1	1		

02	Environmental Impacts from Construction Products - EPD	Available	Targeted	Potential	
	Specification of products with a recognised environmental product declaration (EPD)	1	0		Not targeted: Difficult to find enough products with EPDs to gain the credit

03	Responsible Sourcing of Materials	Available	Targeted	Potential	
	PRE-REQUISITE: Legal and sustainable timber	N/A	Y	-	MINIMUM STANDARD: 100% of timber from a legal and sustainable source is required for a 'Very Good'.
	Enabling sustainable procurement	1	1		A sustainable procurement plan must be used by the design team and be in place by Concept Design.
	Measuring responsible sourcing	3	2		Superstructure, internal finishes, and substructure/hard landscaping to be responsibly sourced by main contractor. Materials making up each building element to have certification such as BES 6001 or ISO 14001.

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	EXEMPLARY CREDIT: >50% of the available measuring responsible sourcing points are achieved	1	0		Not targeted. Requires significant amount of recycled materials within the building.
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05	Designing for Durability and Resilience	Available	Targeted	Potential	
	Protecting vulnerable and exposed parts of the building from damage and degradation.	1	1		Confirmation of durability measures which will be implemented and how each applicable building element is protected from potential environmental degradation. Convenient access to roof and façade is achieved.

06	Material Efficiency	Available	Targeted	Potential	
	Target, report and implement material efficiency opportunities	1	0		Not targeted: The feasibility for collating extensive evidence at each RIBA stage is unlikely.

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3.7 Waste

This category encourages the sustainable management (and reuse where feasible) of construction, operational waste and waste through future maintenance and repairs associated with the building structure. By encouraging good design and construction practices, issues in this section aim to reduce the waste arising from the construction and operation of the building, encouraging its diversion from landfill. It includes recognition of measures to reduce future waste as a result of the need to alter the building in the light of future changes to climate.

01	Construction Waste Management	Available	Targeted	Potential	
	Pre-Demolition Audit	1	1		At Concept Design, existing buildings and hard surfaces should be considered for re-use/refurbishment/recovery potential. Pre-demolition audit required prior to demolition and to be updated against predicted waste volumes.
	Construction resource efficiency	3	2		Two credits achieved for less than 7.5m ³ by volume or 6.5 tonnes of non-hazardous construction waste generated per 100m ² GIFA
	Diversion of resources from landfill	1	1		One credit targeted for non-hazardous construction waste diverted from landfill: non-demolition waste 70% by volume/ 80% tonnage; demolition waste 80% by volume/ 90% tonnage. Excavation waste is excluded.
	EXEMPLARY CREDIT: Exceptional diversion from landfill and low waste production	1	0		Unavailable without achieving three credits for resource efficiency.

02	Use of Recycled and Sustainably Sourced Aggregates	Available	Targeted	Potential	
	PRE-REQUISITE: Pre-demolition audit	N/A	Y		Not targeted: Difficult to acquire enough materials with sustainable aggregate points for the credit to be achieved.
	Project sustainable aggregate points	1	0		
	EXEMPLARY CREDIT: Higher percentages of recycled aggregates used	1	0		Unavailable as requires higher levels of secondary or recycled local aggregate to come from within 30km.

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03	Operational Waste	Available	Targeted	Potential	
	Operational waste	1	1		Dedicated storage space for recyclable waste, with minimum size requirement to be met of 2m ² per 1,000m ² of net floor area. Water outlet to be provided for areas with organic waste storage.

04	Speculative Finishes (Offices Only)	Available	Targeted	Potential	
	Speculative floor and ceiling finishes	1	-		Not applicable for a shell only assessment.

05	Adaptation to Climate Change	Available	Targeted	Potential	
	Resilience of structure, fabric, building services and renewables installation	1	1		BREEAM compliant Climate Change adaptation strategy appraisal required at Stage 2. To be updated at Technical Design demonstrating how the recommendations proposed have been implemented.
	EXEMPLARY CREDIT: Responding to climate change	1	0		Not targeted: Dependent on the achievement of other credits – only targeting 2 credits under Ene 01

06	Design for Disassembly and adaptability	Available	Targeted	Potential	
	Design for disassembly and functional adaptability - recommendations	1	1		By the end of Concept Design conduct a study to explore ease of disassembly and functional adaptability potential of different design options.
	Disassembly and functional adaptability – implementation	1	0		Not targeted: It is unlikely that this credit will be achieved on this assessment

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3.8 Land Use and Ecology

This category encourages sustainable land use, habitat protection and creation, and improvement of long-term biodiversity for the building's site and surrounding land. Issues in this section relate to the reuse of brownfield sites or those of low ecological value, mitigation and enhancement of ecology and long-term biodiversity management.

01	Site Selection	Available	Targeted	Potential	
	Previously occupied land	1	1		75% of the development's footprint needs to be on land that was previously occupied by buildings or fixed surface infrastructure.
	Contaminated land	1	0		Not targeted: The current land does not pose risk to human health, property or the environment

02	Ecological Risks and Opportunities	Available	Targeted	Potential	
	PRE-REQUISITE: Statutory obligations	N/A	Y	-	The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.
	Survey and evaluation and determining ecological outcomes	2	2		An ecologist is required to target both credits. Must provide a copy of the Ecological Survey and Evaluation document, for Route 2 & maximum credits.
	EXEMPLARY CREDIT: Wider site sustainability	1	0		Both credits in Hea 07 need to be achieved, as well as Pol 03 and Pol 05.

03	Managing Impacts on Ecology	Available	Targeted	Potential	
	PRE-REQUISITE: Ecological risks and opportunities	N/A	Y	-	LE 02's Survey and Evaluation and Determining Ecological Outcomes criteria have been achieved.
	Planning and measures on site	1	1		Project team and relevant stakeholders collaborate to ensure negative ecological impacts are avoided or managed early enough to influence Concept Design. Measures for managing negative impacts are implemented.

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	Managing negative impacts	2	2		Negative impacts from site preparation and construction works have been managed. Loss of ecological value has been minimised. (No overall loss required for two credits).
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04	Ecological Change and Enhancement	Available	Targeted	Potential	
	PRE-REQUISITE: Managing negative impacts on ecology	N/A	Y	-	All relevant UK/EU legislation has been complied with. LE 03's Negative impacts from site preparation and construction works criteria have been achieved.
	Change and enhancement of ecology / Ecological enhancement	1	1		Relevant ecological measures have been implemented that enhance the site's ecological value (a) on site (b) off site within the zone of influence.
	Change and enhancement of ecology	3	1		One credit is targeted for no change in ecological value as a result from the project.
	EXEMPLARY CREDIT: Change and enhancement of ecology	1	0		The calculated change in ecological value would have to confirm significant net gain has been achieved.

05	Long Term Ecological Management and Maintenance	Available	Targeted	Potential	
	PRE-REQUISITE: Statutory obligations, planning and site implementation	N/A	Y	-	All relevant UK/EU legislation has been complied with. LE 03's Negative impacts from site preparation and construction works criteria have been achieved. (Route 2: Criterion 8 in LE 03 and one credit achieved in LE 04).
	Management and maintenance throughout the project	1	1		Measures have been implemented to manage and maintain ecology throughout the project. The success of which must be reviewed. Information on ecology and biodiversity passed on to the tenant.

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	Landscape and ecology management plan	1	1		A landscape and ecology management plan covering the first 5 years after handover is produced and provided to the tenant.
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3.9 Pollution

This category addresses the prevention and control of pollution and surface water run-off associated with the building's location and use. Issues in this section aim to reduce the building's impact on surrounding communities and environments arising from light-pollution, noise, flooding and emissions to air, land and water.

01	Impact of Refrigerants	Available	Targeted	Potential	
	PRE-REQUISITE: All systems comply with BS EN 378:2008	N/A	N		Not in scope for shell only.
	Impact of refrigerant	2	-		
	Leak detection	1	-		

02	Local Air Quality	Available	Targeted	Potential	
	NOx, PM10 and VOC emissions of heating fuels	2	-		Not in scope for shell only.

03	Flood and Surface Water Management	Available	Targeted	Potential	
	PRE-REQUISITE: Appropriate consultant engaged	N/A	Y		An appropriate consultant is appointed to carry out and demonstrate the development's compliance with all criteria.
	Flood resilience	2	2		Flood Risk Assessment to confirm site has a low risk of flooding from all sources (Site is in FZ1).
	PRE-REQUISITE: Surface water run-off	N/A	Y	-	Surface water run-off design solutions must be bespoke, i.e. site-specific.
	Surface water run-off - Rate	1	1		Brownfield sites: run-off shows a 30% improvement on pre-developed site, complying with the 1 year and 100 year return periods. Greenfield sites: run-off rate is no greater than the pre-developed site. Calculations should include an allowance for climate change.
	Surface water run-off - Volume	1	0		Not targeted: This credit cannot be achieved due to the landscaping around the site

BREEAM 2018 New Construction

Pre-Assessment Report

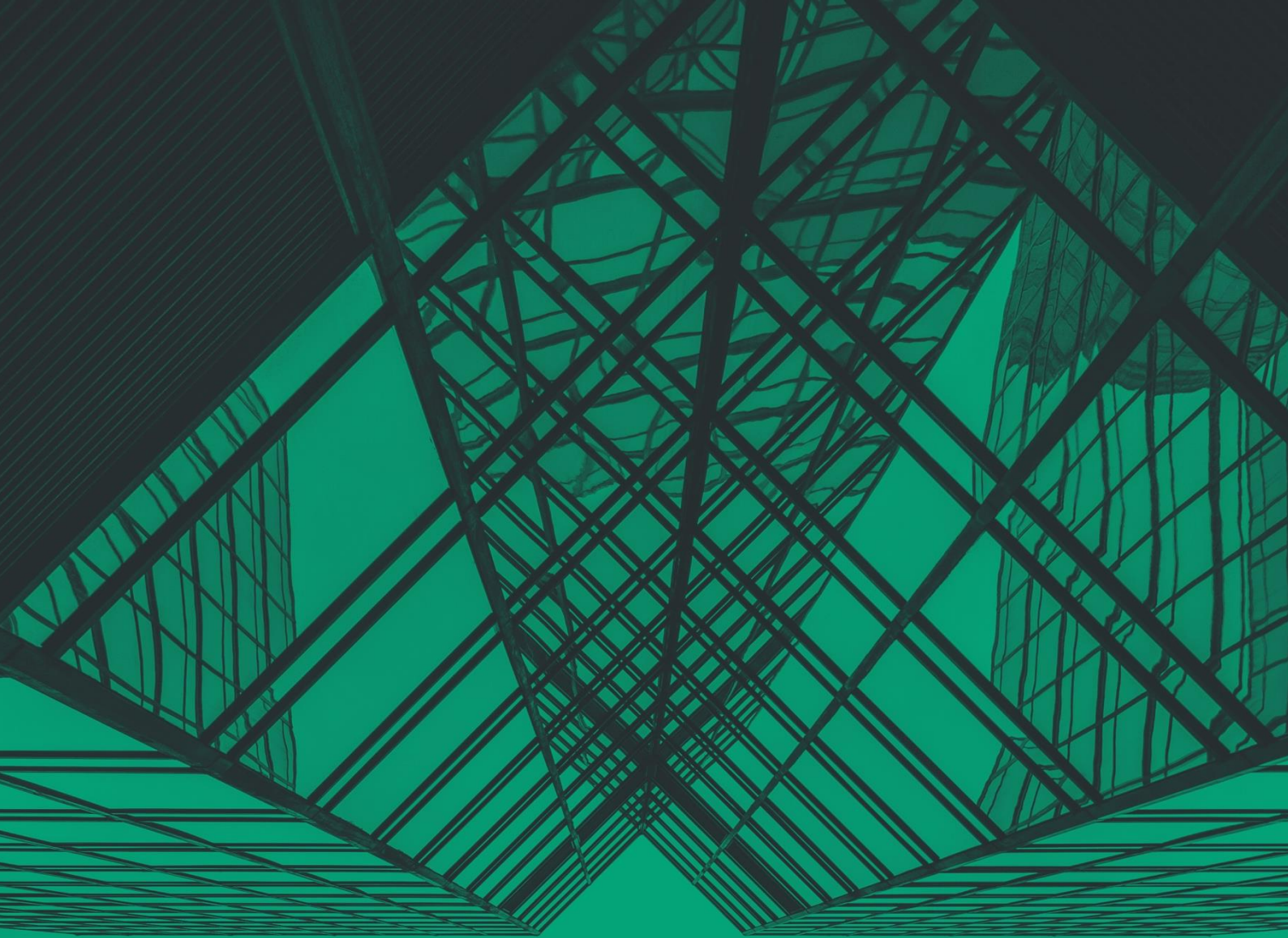


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	Minimising watercourse pollution	1	-		Not targeted: The implementation of this credit is not feasible on this site.
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04	Reduction of Night-time Light Pollution	Available	Targeted	Potential	
	External light pollution minimised	1	1		External lighting to follow ILP guidelines and can be switched down or off from 11pm to 7am.

05	Reduction of Noise Pollution	Available	Targeted	Potential	
	External plant noise reduced	1	-		Not applicable for a shell only assessment.



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