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BREEAM PRE-ASSESSMENT REPORT
KING'S CROSS METHODIST CHURCH

RAMBOLL

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KING'S CROSS METHODIST CHURCH

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APPENDICES

1. EXECUTIVE SUMMARY

Ramboll UK has been commissioned by West London Mission (the 'client') to complete a Building Research Establishment Environmental Assessment Method (BREEAM) Multi-Residential Pre-assessment for the redevelopment proposals of a site at King's Cross Methodist Church (the 'Site') in the London Borough of Camden (LB Camden). This pre-assessment report provides an indication of the score and rating that can be achieved if the proposed development is formally assessed under the BREEAM New Construction 2018 scheme.

It is expected that the development will achieve a BREEAM 'Very Good' for the ancillary subsidised accommodation to the church. In line with Camden's Development Policy DP22 and Planning Guidance CPG 3 additional credits have also been identified to demonstrate what would be required to achieve an 'Excellent' rating.

The new church and facilities are a unique construction within the larger development. Following consultation with the Sustainability Officer (planning), it was agreed that due to the nature of these uses, its site context within a Conservation Area and the scale of the development proposed, the achievement of a specific score was not considered necessary or appropriate. Nonetheless, although the church itself will not be formally assessed under BREEAM, these areas will benefit from the application of BREEAM principles. A stand-alone Sustainability Statement has been prepared in support of the planning application, which details the broader sustainability benefits associated with the design, construction and operation of the proposed development that are not specifically addressed as part of the BREEAM certification.

This BREEAM Pre-Assessment of the proposed development predicts that credits can be awarded in all BREEAM categories and is expected to perform well across all categories.

The pathway to a BREEAM 'Very Good' rating is based on the current design of the Proposed Development and a realistic set of assumptions regarding the likelihood of evidence being available at the later detailed design and construction stages. In addition, several credits, where appropriate, have been progressed at the pre-planning stage to ensure that the maximum number of credits have been made available to the design team.

The team is committed to achieving the highest BREEAM rating considering the constraints of the development and taking a conservative approach to avoid situations where credits are lost during formal certification. Additional credits have also been proposed if the design team were to target a higher BREEAM 'Excellent' rating.

On this basis, this report identifies the approach taken as well as the commitment made by the applicant and design team to achieve a BREEAM 'Very Good' rating.

2. INTRODUCTION

2.1 Scope of appointment

Ramboll has been commissioned by West London Mission (WLM) to complete a BREEAM New Construction 2018 pre-assessment for redevelopment proposals of a Site located between Crestfield Street and Birkenhead Street (the 'Site') in the London Borough of Camden (LB Camden). The proposals comprise the demolition of an existing collection of buildings for redevelopment into a mixed development which would include: new church facilities and community facilities in the

basement, ground floor and part of the 1st floor; a new onsite Manse; ancillary, subsidised accommodation for selected community members and residential apartments, as shown in Figure 5.1 (the 'proposed development').

In line with the requirements set out in Policy DP22 of LB Camden's Development Policies document, this report has been prepared to accompany the application to demonstrate the green credentials of the scheme and the application of BREEAM assessment tools. The requirements of DP22 are that the council expects new non-domestic developments of 500m^2 or greater to achieve BREEAM 'Excellent'.

Due to the unique, atypical nature of the development, at an early stage of the design process, it was agreed with the Sustainability Officer (planning), that the church and associated community elements of the Proposed Development will not be included in the assessment, which will focus solely on BREEAM Multi-residential for the ancillary subsidised accommodation.

Ramboll has prepared this BREEAM Pre-assessment report, to accompany the Planning Application and in order to provide an indication of the commitments that are required in order to achieve a BREEAM 'Very Good' rating and aspire to a BREEAM 'Excellent' rating, for the previously stated areas of the development.

3. INFORMATION ABOUT BREEAM 2018 NEW CONSTRUCTION

3.1 Background

BREEAM was launched in 1990 in the UK as the first system to offer an environmental label for buildings. In 2011, the scheme was updated, and a new scheme published for new buildings, with specific criteria for different building types. This scheme was replaced in 2014 with a new version and has recently been updated once more. BREEAM 2018 New Construction provides an update on the environmental issues covered and provides greater flexibility for the type of construction and level of fit-out.

Some of the key strengths of the BREEAM scheme are that it:

- Ensures environmental quality through an accessible, holistic and balanced measure of environmental impacts.
- Uses quantified measures for determining environmental quality.
- Adopts a flexible approach that encourages and rewards positive outcomes, avoiding prescribed solutions.
- Uses robust science and best practice as the basis for quantifying and calibrating a cost effective and rigorous performance standard for defining environmental quality.
- Integrates building professionals in the development and operational processes to ensure wide understanding and accessibility.
- Adopts third party certification to ensure independence, credibility and consistency of the label.
- Adopts existing industry tools, practices and other standards wherever possible to support developments in policy and technology, build on existing skills and understanding and minimise costs.
- Aligns technically and operationally with relevant international standards, including the suite of standards on the 'Sustainability of Construction Works' prepared by the European Committee for Standardisation Technical Committee CEN/TC 350, as well as other

international initiatives that promote harmonisation in the assessment of sustainability performance of built environment assets across their life cycle.

The BREEAM 2018 New Construction assessment methodology requires that a Post Construction Assessment is carried out for final certification. At design stage an 'interim' certificate is awarded, based on design stage drawings and commitments made by the client/developer.

3.2 Scoring

The BREEAM 2018 New Construction credits are divided into nine issue categories addressing the different environmental impacts arising from a building's construction and fit out.

The nine categories are listed below:

- Management: the management of the site during construction and operations;
- Health and Well-Being: internal and external issues relating to health and comfort;
- Energy: operational energy and CO_2 emissions and Low/Zero Carbon Technologies;
- Transport: location issues primarily related to employee transport;
- Water: internal and external consumption;
- Materials: environmental implications of materials selection, responsible sourcing;
- Waste: construction waste management, storage and segregation of operational waste, recycled aggregate;
- Land Use and Ecology: ecological value of the site, planting and landscaping; and
- Pollution: air and water pollution (excluding CO_2).

In addition, 'innovation credits' can be awarded for exemplary level performance across several issue categories.

To calculate an assessment score, the percentage of the credits achieved is calculated for each BREEAM categories. The percentage of credits achieved is then multiplied by the corresponding environmental weighting to give the section score. The section scores are then added together to give the overall BREEAM score. An additional 1% can be added to the final BREEAM score for each Innovation credit achieved (up to a maximum of 10%).

The BREEAM rating is awarded according to the following rating bands, subject to certain minimum standards:

- Unclassified <30%
- Pass ≥30%
- Good ≥45%
- Very Good ≥55%
- Excellent ≥70%
- Outstanding ≥85%

The BREEAM rating benchmark levels enable a client or other stakeholder to compare an individual building's performance with other BREEAM rated buildings and the typical sustainability performance of new non-domestic buildings in the UK.

In this respect, each BREEAM rating level broadly represents performance equivalent to:

- Outstanding: Less than top 1% of UK new non-domestic buildings (innovator);
- Excellent: Top 10% of UK new non-domestic buildings (best practice);
- Very Good: Top 25% of UK new non-domestic buildings (advanced good practice);
- Good: Top 50% of UK new non-domestic buildings (intermediate good practice); and

- Pass: Top 75% of UK new non-domestic buildings (standard good practice).

In order for developments to achieve a BREEAM rating, developments must achieve a minimum percentage score (as outlined above) and in addition, the minimum credits applicable to that rating level (as set out in the table below) must be complied with.

Minimum Standards for BREEAM 'Very Good' and 'Excellent'			
Credit	**Minimum standards**	**Very Good**	**Excellent**
		Required	
Man 03: Responsible construction practices	One credit (Considerate construction)		✓
Man 04: Commissioning and handover	Criterion 10 (Commissioning test schedule and responsibilities)	✓	✓
Man 04: Commissioning and handover	Criterion 10 (Building User Guide)	✓	✓
Man 05: Aftercare	One credit (commissioning - implementation)		✓
Ene 01: Reduction of energy use and carbon emissions	Four credits (energy performance)	✓	✓
Ene 02: Energy monitoring	One credit (First sub-metering credit)	✓	✓
Wat 01: Water consumption	One credit	✓	✓
Wat 02: Water monitoring	Criterion 1 only	✓	✓
Mat 03: Responsible sourcing of materials	Criterion 1 only	✓	✓
Wst 03: Operational waste	One credit		✓
Note: if the minimum standards are not met then the targeted rating will not be achieved regardless of the overall score			

4. APPROACH

The BREEAM 2018 New Construction Assessment was used for a 'Multi-residential' development, which was considered to the most appropriate building type for the ancillary, subsidised accommodation as it most closely matches the function of this element of the proposed development.

Information on the Site, the Proposed Development and its key features, where available, was provided by the design team, namely:

- West London Mission - Applicant;
- Dexter Moren Associates - Architects;
- TPHS - Transport consultants;
- Conisbee – Structural Engineers;
- Delva Patman Redler – Rights of Light Surveyors;
- Ramboll UK – Sustainability & BREEAM Assessors.

Following receipt of the requested information, the assessors worked through the BREEAM 2018 New Construction assessment methodology for a Multi-residential building to establish the credits that could be awarded as part of the pre-assessment and determine the likely performance of the assessed area within the proposed development.

Where appropriate, commitments were sought from the applicant and other members of the design team to confirm that key actions would be undertaken and thus credits could be targeted.

5. PROPOSED DEVELOPMENT

5.1 Overview

The Site is located south of King's Cross and St Pancras Stations, located at 58a Birkenhead Street facing onto both Birkenhead Street and Crestfield Street, and covers an area of approximately 744 m^2 as shown in Figure 5.1.

Figure 5-1: Location of the Site within the wider surroundings

5.2 Site Description

The Site lies within an urbanised and developed context comprising a mix of predominantly residential, hotel and commercial uses. The site has frontages onto both Birkenhead Street and Crestfield Street and is bound by 4 to 5 storey Victorian era residential buildings to the south. To the north there is a combination of hotels and commercial buildings. Due to the site's location within a heavily urbanised area, the nearest sensitive receptors (including residential, hotel and commercial units) are located directly adjacent to the site.

The site currently comprises a Methodist church originally dating back to the 1820s; since which a number of additions and alterations have occurred to form the collections of buildings as is presently found, with little original features remaining. The current collection of buildings offers a combination of uses: a church, associated community spaces and accommodation for 24 students, a warden and a manager. However, little work has been undertaken since the 1970's and the current facilities are deemed inadequate and would require considerable financial cost to maintain over the next 20 years. As such the Church and West London Mission (WLM) Circuit wish to update the facilities to enable the continuation and growth of their work within the community.

5.3 Proposal Description

The proposed strategy of demolition and reconstruction was decided following two feasibility reports into: repairs, replacement & maintenance and refurbishment & fit-out; which concluded neither strategy would be viable over a 10 year period.

The Proposed Development involves the demolition of the existing building on the Site and the construction of a mixed use development comprising:

- Church and community facilities, including: multi-purpose meeting hall, a Chapel, meeting rooms and offices, areas for charity groups, kitchens, children and family rooms, toilets and washing facilities, administration areas and storage areas;
- Methodist Chaplaincy House: a 26 person subsidised accommodation with individual en-suite rooms, visitors area, kitchen, dining areas, works spaces, laundry, cycle storage, communal areas and a wardens flat or 'Manse';
- 11 lease hold apartments: of one and two bedroom apartments.

The proposed Development aims to ensure that the site's potential is maximised as it has a central London location with excellent public transport access and wider regeneration within the area. through provision of a number of privet residences the proposed Development will positively contribute to housing in the area, in line with the Borough's aims as set out in the Core Strategy, without compromising the public activities of the Church.

The proposed ground floor layout is shown in Figure 5.2.

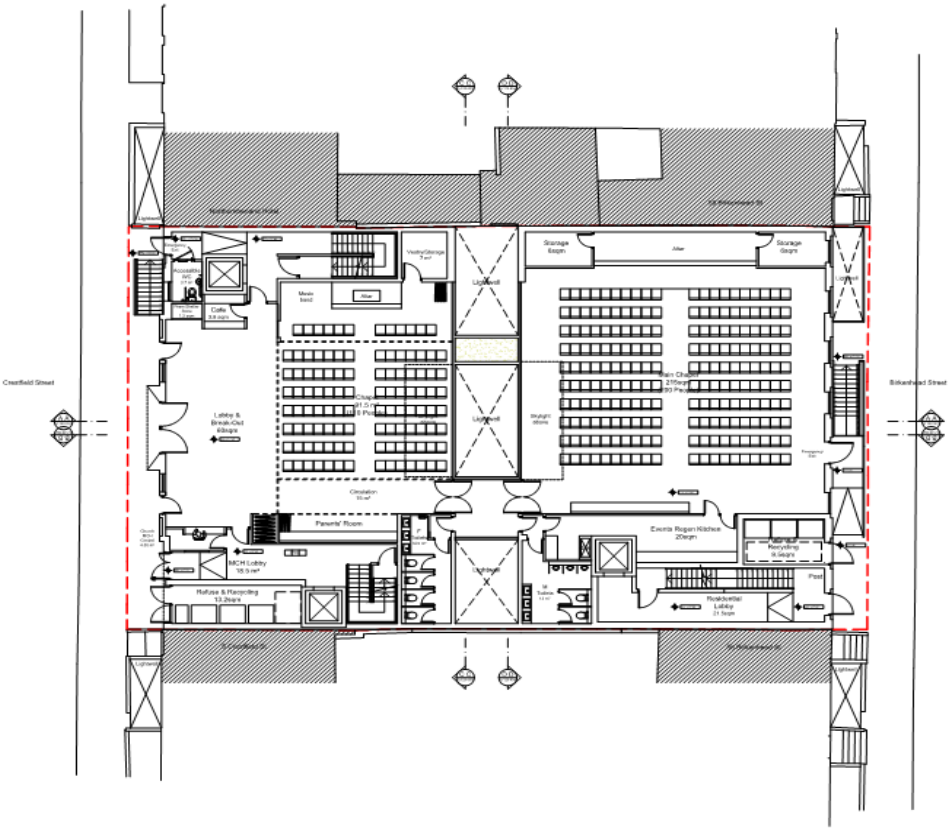


Figure 5-2: Proposed Ground Floor Layout

6. PRE-ASSESSMENT SUMMARY

The purpose of the pre-assessment is to establish a baseline of issues/credits, which can be targeted based on the project details in the early stages and several assumptions. The pre-assessment gives a broad overview of the process and provides a strategy to achieve a desired rating.
The results from the pre-assessment carried out under BREEAM New Construction 2018 for multi-residential building type are detailed below.
A breakdown of credits targeted against credits available is provided in Table 1, which also shows the weighted percentage value for each section.

Table 1. King's Cross Methodist Church - Pre-assessment BREEAM result

BREEAM Section	Credits Available	Credits Targeted	% of Credits Achieved	Section Weighting	Section Score
Management	21	16	76.19%	11.00%	8.38%
Health & Wellbeing	19	12	63.16%	14.00%	8.84%
Energy	22	12	54.55%	16.00%	8.72%
Transport	12	11	91.67%	10.00%	9.16%
Water	9	7	77.78%	7.00%	5.44%
Materials	14	7	50.00%	15.00%	7.50%
Waste	10	7	70.00%	6.00%	4.20%
Land Use & Ecology	13	6	46.15%	13.00%	6.00%
Pollution	12	8	66.67%	8.00%	5.33%
Total Score				63.50%	
Innovation Credits Achieved				0.00%	
FINAL BREEAM Score				**63.50%**	
BREEAM Rating				**Very Good**	

The pre-assessment shows that a score of 63.50% can be targeted for the development which corresponds to a 'Very Good' rating. This score provides a generous buffer (8.50%) above the minimum required score for a 'Very Good' (55%), therefore providing a high degree of confidence for achieving the targeted rating.

The development performs well against most BREEAM categories, achieving the highest number of credits for the transport, water, waste and management categories. It easily meets the requirement to achieve 60% of the water credits and 40% of the material credits.
However, despite achieving the majority of the energy credits against most energy issues and meeting the Ene 01 minimum standard for an 'Excellent' rating (4 credits) it only achieves 54.55% of the energy credits. This is directly related to the fact that the building is being assessed under the new BREEAM NC 2018 scheme. Under Ene 01, credits are now awarded based on the energy performance of the building and on the prediction of the operational energy use, which requires modelling at design and 1 year after the building has been occupied.
The number of credits targeted for Ene 01 is currently based on the proposals included in the energy strategy and is based on a conservative approach. It is likely that as the design progresses and the energy model is updated and refined, the energy performance of the building will improve, and a higher number of credits will be obtained.

A detailed pre-assessment summary is included in Appendix A, showing the targeted credits for each issue.

7. POTENTIAL CREDITS

Several additional credits were selected during the pre-assessment as potential credits to increase the targeted score.
A breakdown of the potential credits against credits available is provided in Table 2, which also shows the weighted percentage value for each section.

Table 2. King's Cross Methodist Church – Potential credits

BREEAM Section	Credits Available	Potential credits	% of Credits Achieved	Section Weighting	Section Score
Management	21	21	100.00%	11.00%	11.00%
Health & Wellbeing	19	14	73.68%	14.00%	10.31%
Energy	22	14	63.64%	16.00%	10.18%
Transport	12	11	91.67%	10.00%	9.17%
Water	9	7	77.78%	7.00%	5.44%
Materials	14	8	57.14%	15.00%	8.57%
Waste	10	8	80.00%	6.00%	4.80%
Land Use & Ecology	13	6	46.15%	13.00%	6.00%
Pollution	12	9	75.00%	8.00%	6.00%
Total Score				71.40%	
Innovation Credits Achieved				0.00%	
FINAL BREEAM Score				**71.40%**	
BREEAM Rating				**Excellent**	

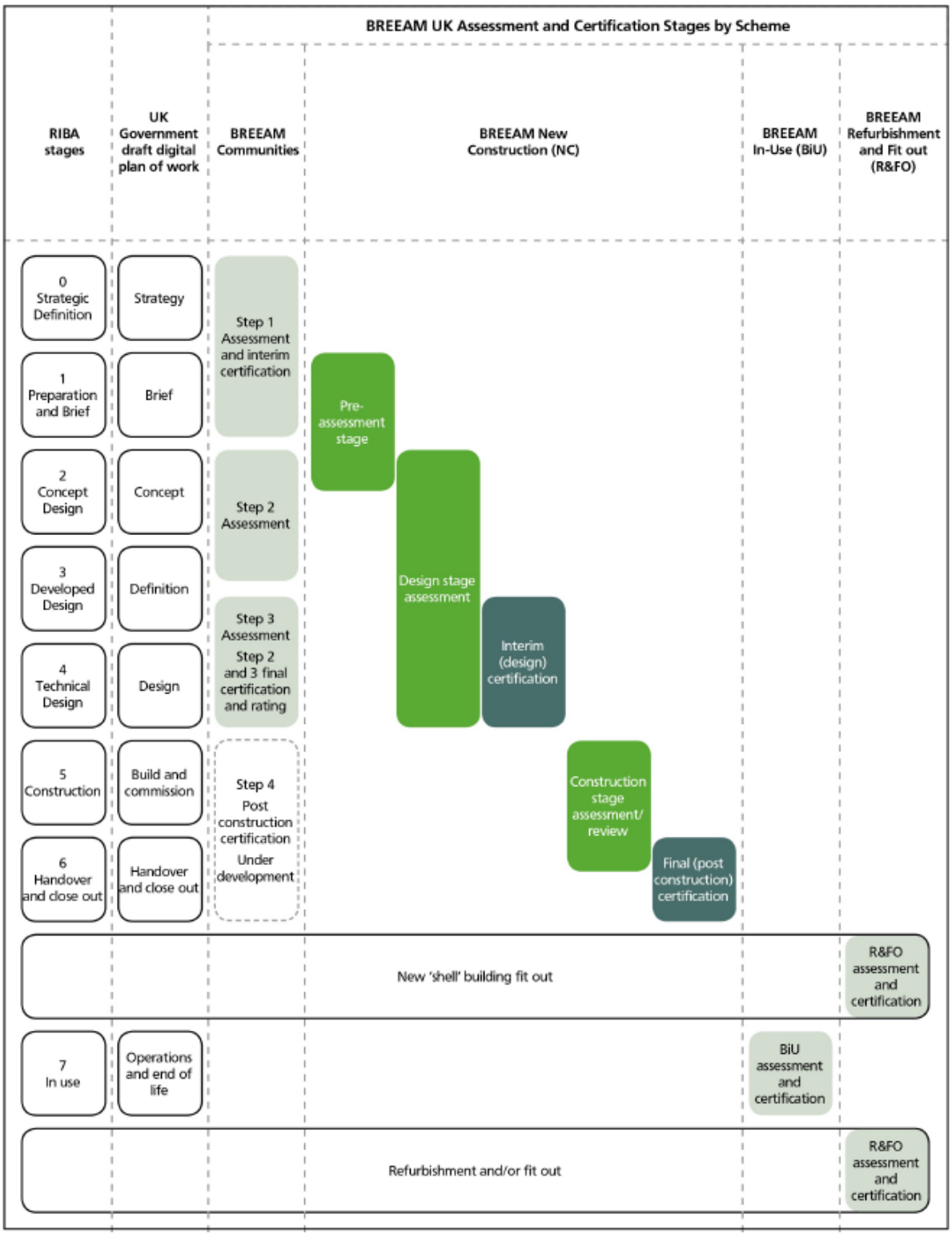
If the additional potential credits are achieved a potential score of 71.40% and an 'Excellent' rating may be awarded.

With two additional potential credits under Ene 01 more than 60% of the available energy credits could potentially be achieved for this alternative scenario.

A detailed pre-assessment summary is included in Appendix A, showing the potential credits for each issue.

8. NEXT STEPS

The figure below outlines the BREEAM assessment and certification stages and how these relate to the RIBA stages of design and construction.



8.1 Design Stage Assessment

The first stage of the BREEAM New Construction assessment is carried out on the detailed building design. It is possible to undertake the design stage assessment during the period up to construction mobilisation (RIBA Stages 2-4). However, to gain the greatest number of credits it is advisable to undertake the design stage assessment as soon as the required information to demonstrate the achievement of each credit becomes available.

When the Assessor is satisfied with performance against BREEAM requirements for the design stage assessment, a report would be submitted to BRE to receive an 'Interim' BREEAM New Construction certification. This report would contain details of the documentary evidence for each credit, together with an 'auditable trail' for all specification, clauses, drawings, letters and reports.

8.2 Post Construction Review

A post construction review will be carried out on the assessed development after practical completion. The Assessor will collate evidence (either documentary, photographic, or site survey evidence) to demonstrate that the proposed development has been built in accordance with the details given at the Design Stage. This assessment is called a 'Post Construction Stage' (PCS) assessment.

If changes are made to the proposed development following the design stage assessment, which affect the BREEAM score, the Assessor will re-calculate the 'Final' score. This may be different to the Interim score. When the Assessor is satisfied with the performance against BREEAM New Construction requirements, they will submit a report to BRE to receive a 'Final' BREEAM New Construction certification for the development.

APPENDIX 1
BREEAM PRE-ASSESSMENT

King's Cross Methodist Church - Accommodation

BREEAM Pre-Assessment Summary Report

Pre-assessment

Uncontrolled revision

31 Oct 2018

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1.0 Introduction

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

Project Name	King's Cross Methodist Church - Accommodation
BREEAM Version	BREEAM 2018 NC
Assessment Stage	Pre-Assessment Stage
Lead Assessor	Diana de Bastos
Target Rating	Very Good (55%)
Downloaded By	Diana de Bastos
Download Date	31/10/18
Download Time	11:22:57 (GMT)

Please note that this is an uncontrolled copy and is for information only and a more detailed, formal pre-assessment report may be issued by your appointed assessor. If you have any queries on the content of this report or the award of any of the credits please contact your licensed assessor as noted above.

2.0 Scoring scenarios

It should be noted that the pre-assessment scores have been based on the following scoring scenarios;

- Very Good - Targeted score.
- Excellent - Targeted score, plus potential credits.

On this basis, the following scores are considered achievable under each scenario;

Scenario	Score	BREEAM Rating
Very Good	63.50	Very Good
Excellent	71.40	Excellent

2.1 Minimum Standards

In addition performance against the minimum standards (required for the specified target rating) under each scenario is summarised below;

Issue	Very Good	Excellent
Man 03 - Responsible construction practices	Yes	Yes
Man 04 - Commissioning and handover	Yes	Yes
Man 04 - Commissioning and handover	Yes	Yes
Man 05 - Aftercare	Yes	Yes
Ene 01 - Reduction of energy use and carbon emissions	Yes	Yes
Ene 02 - Energy monitoring	Yes	Yes
Wat 01 - Water consumption	Yes	Yes
Wat 02 - Water monitoring	Yes	Yes
Mat 03 - Responsible sourcing of construction products	Yes	Yes
Wst 01 - Construction waste management	Yes	Yes
Wst 03 - Operational waste	Yes	Yes

If the required minimum standards are not met then the target rating will not be achieved regardless of overall score.

3.0 - Credits and Comments Table

		Available	Very Good	Excellent	RIBA Stage	Comments
Management						
Man 01	Project brief and design	4	2	4	**2**	**Project delivery planning - 1/1 credit targeted** **Stakeholder consultation (interested parties) - 1/1 credit targeted** **BREEAM AP (concept design) - 0/1 targeted** **BREEAM AP (developed design) - 0/1 targeted**
Man 02	Life cycle cost and service planning	4	1	4	**4**	**Elemental LCC - 0/2 credit not targeted (2 credits added as potential)** **Component level LCC options appraisal - 0/1 credit not targeted (1 credit added as potential)** **Capital cost reporting - 1/1 credit targeted**
Man 03	Responsible construction practices	6	6	6	**4**	**Prerequisite - Legally harvested and traded timber - targeted** **Environmental management - 1/1 credit targeted** **BREEAM AP (site) - 1/1 credit targeted** **Responsible construction management - 2/2 credit targeted** **Monitoring of construction site impacts - 2/2 credit targeted**
Man 04	Commissioning and handover	4	4	4	**4**	**Prerequisite - targeted** **Commissioning - testing schedule and responsibilities - 1/1 credit targeted** **Commissioning - design and preparation - 1/1 credit targeted** **Testing and inspecting building fabric - 1/1 credit targeted** **Handover - 1/1 credit targeted**
Man 05	Aftercare	3	3	3	**4**	**Aftercare support - 1/1 credit targeted** **Commissioning - implementation - 1/1 credit targeted** **Post occupancy evaluation (POE) - 1/1 credit targeted**
Management Totals: (+exemplary)		**21 (+1)**	**16**	**21**		
Management score totals:		**11**	**8.381**	**11**		
Health & Wellbeing						

		Available	Very Good	Excellent	RIBA Stage	Comments
Hea 01	Visual comfort	5	2	2	**2,3**	**Control of glare from sunlight - 1/1 credit targeted** **Daylighting - 0/2 not targeted** **View out - 0/1 credit not targeted** **Internal and external lighting levels, zoning and control - 1/1 credit targeted**
Hea 02	Indoor air quality	4	2	3	**2,3,4,5,6**	**Indoor air quality (IAQ) plan - pre-requisite targeted** Produced until completion of **Stage 2**. **Ventilation - 0/1 not targeted** **Emissions from construction products - 1/1 credits targeted** **Emissions from building products - 1/2 credits targeted (2 added as potential)** **Post-construction indoor air quality measurement - 1/1 credit targeted**
Hea 04	Thermal comfort	3	3	3	**3**	**Thermal modelling - 1/1 credit targeted** **Design for future thermal comfort - 1/1 credit targeted** **Thermal zoning and controls - 1/1 credits targeted**
Hea 05	Acoustic performance	4	2	3	**3,4,5,6**	**Acoustic performance - 2/4 credits targeted**
Hea 06	Security	1	1	1	**2**	**Security of site and building - 1/1 credit targeted** SQSS carries out a Security Needs Assessment prior to completion of **Stage 2**.
Hea 07	Safe and healthy surroundings	2	2	2	**2**	**Safe access - 1/1 credit not targeted** **Outside space - 1/1 credit targeted**
Health & Wellbeing Totals: (+exemplary)		**19 (+4)**	**12**	**14**		
Health & Wellbeing score totals:		**14**	**8.842**	**10.316**		
Energy						
Ene 01	Reduction of energy use and carbon emissions	13	4	6	**2,4,6**	**Energy performance - 3/9 credits targeted (5 potential credits)** **Prediction of operational energy consumption - 0/4 not targeted** Requires preliminary operational energy workshop to be carried out prior to completion of ***Stage 2.*** Additional energy modelling during design and post-construction (12 months after building occupation) to predict operational energy use by end use. In addition a risk assessment will also need to be carried out.
Ene 02	Energy monitoring	1	1	1	**3,4**	**Sub-metering of end use categories - 1/1 credit targeted**

		Available	Very Good	Excellent	RIBA Stage	Comments
Ene 03	External Lighting	1	1	1	**3,4**	**External lighting - 1/1 credit targeted**
Ene 04	Low carbon design	3	2	2	**2**	**Passive design - 1/1 targeted** Report prepared prior to ***completion of Stage 2***. **Free cooling - 0/1 not targeted** **Low zero carbon technologies - 1/1 credit targeted** Report prepared prior to ***completion of Stage 2***.
Ene 06	Energy efficient transportation systems	2	2	2	**3,4**	**Energy consumption - 1/1 credit targeted** **Energy efficient features - 1/1 credit targeted**
Ene 08	Energy efficient equipment	2	2	2	**4**	**2/2 credits targeted**
	Energy Totals: (+exemplary)	**22 (+5)**	**12**	**14**		
	Energy score totals:	**16**	**8.727**	**10.182**		
					Transport	
Tra 01	Transport assessment and travel plan	2	2	2	**2,3**	**Travel plan - 2/2 credit targeted**
Tra 02	Sustainable transport measures	10	9	9	**3,4**	**Pre-requisite – Tra 01 targeted** **Transport options implementation - 9/10 credits achieved** 9 credits based on an AI above 40 and achieving 5 points from implementing: Assessment options 1, 7, 8, 9, 11.
	Transport Totals: (+exemplary)	**12**	**11**	**11**		
	Transport score totals:	**10**	**9.167**	**9.167**		
Water						
Wat 01	Water consumption	5	3	3	**3**	**3/5 credits targeted**
Wat 02	Water monitoring	1	1	1	**3**	**1/1 credit targeted**
Wat 03	Water leak detection	2	2	2	**3,4**	**Leak detection system - 1/1 credit targeted** **Flow control devices - 1/1 credit targeted**
Wat 04	Water efficient equipment	1	1	1	**3,4**	**1/1 credit targeted**
	Water Totals: (+exemplary)	**9 (+1)**	**7**	**7**		
	Water score totals:	**7**	**5.44**	**5.44**		
Materials						

		Available	Very Good	Excellent	RIBA Stage	Comments
Mat 01	Environmental impacts from construction products - Building life cycle assessment (LCA)	7	3	3	**2,3,4**	**Superstructure - 3/6 credits targeted** **Substructure and hard landscaping options appraisal during Concept Design - 0/1 not targeted**
Mat 02	Mat 02 Environmental impacts from construction products - Environmental Product Declarations (EPD)	1	0	0	**3,4**	**0/1 not targeted**
Mat 03	Responsible sourcing of construction products	4	3	3	**3**	**Sustainable and responsibly sourced timber - pre-requisite targeted** **Enabling sustainable procurement - 1/1 credit targeted** **Measuring responsible sourcing - 1/3 credits targeted (2 credits as potential)**
Mat 05	Designing for durability and resilience	1	1	1	**3**	**1/1 credit targeted**
Mat 06	Material efficiency	1	0	1		**0/1 credit not targeted (added as potential)**
	Materials Totals: (+exemplary)	**14 (+3)**	**7**	**8**		
	Materials score totals:	**15**	**7.50**	**8.57**		
Waste						
Wst 01	Construction waste management	5	3	3	**2,3,4**	**Pre-demolition audit - 1/1 credit targeted** Must be carried out at **Stage 2** by a competent person. **Construction resource efficiency - 1/3 credit targeted** **Diversion of resources from landfill - 1/1 credit targeted**
Wst 02	Use of recycled and sustainably sourced aggregates	1	1	1	**3,4**	**1/1 credit targeted**
Wst 03	Operational waste	1	1	1	**3,4**	**1/1 credit targeted**
Wst 05	Adaptation to climate change	1	0	1	**2**	**0/1 credit not targeted (added as potential)** Study to be prepared before end of ***Stage 2***.
Wst 06	Design for disassembly and adaptability	2	2	2	**2**	**2/2 credits targeted** Study to be prepared before end of ***Stage 2***.
	Waste Totals: (+exemplary)	**10 (+3)**	**7**	**8**		
	Waste score totals:	**6**	**4.2**	**4.8**		
Land Use & Ecology						
LE 01	Site selection	2	1	1	**1,2**	**Previously occupied land - 1/1 credit targeted** **Contaminated land - 0/1 not targeted**

		Available	Very Good	Excellent	RIBA Stage	Comments
LE 02	Identifying and understanding the risks and opportunities for the site	2	1	1	**2**	**Assessment route selection - pre-requisite** The BREEAM survey will need to be complete to determine whether route 1 or route 2 can be used to assess the site under this issue. **Survey and evaluation/Determining the site-wide outcome - 1/2 credits targeted** Survey and evaluation carried out during ***Stage 2.***
LE 03	Managing negative impacts on ecology	3	2	2	**2**	**Identification and understanding the risks and opportunities for the site - pre-requisite targeted** **Planning, liaison, implementation and data collation - 0/1 credit targeted** Roles and responsibilities are outlined during **Stage 2.** **Managing negative impacts of the project - 1/2 credit targeted**
LE 04	Enhancement of Ecological value	4	1	1	**2,3**	**Identification and understanding the risks and opportunities for the site - pre-requisite targeted** **Planning, liaison, implementation and data collation - 0/1 credit targeted** Roles and responsibilities are outlined during ***Stage 2***. **Enhancement of ecology - 1/3 credit targeted**
LE 05	Long term management and maintenance	2	1	1	**3,4**	**Planning, liaison, data, monitoring and review management and maintenance/Landscape and ecology management plan (or similar) development - 0/1 credit not targeted** Monitoring of LE03 and LE04. **Landscape and ecology management plan (or similar) development - 1/1 credit targeted**
Land Use & Ecology Totals: (+exemplary)		**13 (+1)**	**6**	**6**		
Land Use & Ecology score totals:		**13**	**6**	**6**		
Pollution						
Pol 01	Impact of refrigerants	3	1	2	**3,4**	**Impact of refrigerants - 0/2 credit not targeted (added as potential)** **Leak detection system - 1/1 targeted**
Pol 02	Local air quality	2	1	1	**3**	Building is a high pollution location, however as the council already has stringent NOx emission limits in place, it may be possible to achieve 1 credit. **1/2 credits targeted**
Pol 03	Flood and surface water management	5	4	4	**3**	**Flood resilience - 2/2 credits targeted** It is likely that the site will have a low risk of flooding from all sources. **Surface water run-off - 2/2 credits targeted** **Minimising watercourse pollution - 0/1 credit not targeted**

		Available	Very Good	Excellent	RIBA Stage	Comments
Pol 04	Reduction of night time light pollution	1	1	1	**3,4**	**1/1 credit targeted**
Pol 05	Reduction of noise pollution	1	1	1	**2,3,4**	**1/1 credit targeted**
	Pollution Totals: (+exemplary)	**12**	**8**	**9**		
	Pollution score totals:	**8**	**4.667**	**5.333**		
					Innovation	
AI	Approved Innovation	1	0	0		
	Innovation Totals: (+exemplary)	**1**	**0**	**0**		
	Innovation score totals:	**1**	**0**	**0**		
	OVERALL SCORE TOTALS:	**101**	**62.23**	**71.05**		