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22 Penarth Fire Station SWFRS

BREEAM 2008: Fire Stations

BREEAM (Stage C) Report

29th April 2014/ Revision 0.1

Legacy: McCann Sustainability

Project Reference:	5742
Report Issue Date:	29 th April 2014
Revision:	0.1
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Revision History:	<i>Rev0.0 @ 28-04-14</i>

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BREEAM (Stage C) Report



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BREEAM 'STAGE C' OBSERVATIONS AND HOW THESE MAY IMPACT THE PROPOSED DESIGN

Initial Observations: Scheme Classification

The '22 Penarth' Fire Station development, is being assessed using BREEAM 2008: Fire Stations¹, the current scheme for developments of this type. It is proposed to undertake one assessment and provide Certification at the Design Interim and Construction Stages. The assessment will incorporate both the new build and areas of proposed refurbishment dependant on the option chosen. The Assessment has been registered with the BRE and given the registration number BREEAM-0050-5701.

Basis of the Pre-Assessment: Observations on Indicative Scores

The development is required to achieve as a minimum a BREEAM 'Very Good' rating, although the aspiration is to achieve a BREEAM 'Excellent' rating. An initial pre-assessment has been prepared for 'Option 2' which indicated a potential score of 65.95% (rev0.0 @ 05-11-13), this has subsequently been reviewed and a revised potential score of 67.26% (rev0.1 @ 01-04-14) has been achieved. (Rev0.1 incorporates 1 credit for Ene5: Low and Zero Carbon (LZCT) and 1 additional credit for Tra1: Public Transport).

The threshold for 'Excellent' is 70.00% (plus applicable mandatory credits), however a target score in the region of 73.00% to 75.00% should be target at this stage. Therefore, to achieve the required 'Excellent' rating we have identified the following additional credits:

Credit	Number of Credits	Credit Value (%)	Note:
Hea1: Daylighting	1	1.15	Confirmed at pre-assessment meeting Nov. 2013 that this credit could be reviewed if required.
Hea7: Natural Ventilation	0.7	0.805	Confirmed at pre-assessment meeting Nov. 2013 that this credit could be reviewed if required.
Hea10: Thermal Comfort	1	1.15	Not Targeted, but worth reviewing?
Hea13: Acoustic Performance	1	1.15	Confirmation required as to whether an Acoustician is to be appointed.
Ene1: Reduction of CO ₂ Emissions	3	2.59	This would target PPW requirements and would require a combined EPC of 42.
Wat5: Water Recycling	1	0.545	Not Targeted, but worth reviewing?

¹ BREEAM Bespoke 2008 (SD5067 Issue 2.1) with Tailored Assessment Criteria for Fire Stations (Issue 2.0)

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Credit (Continued)	Number of Credits	Credit Value (%)	Note:
Mat2: Hard Landscaping	1	0.83	The Green Guide to Specification has been reviewed and confirms the following summary ratings: 822120034 - Asphalt with Recycled Sub-base: A+ rated. 822120036 - In-situ Reinforced Concrete with Recycled Sub-base: A rated.
Wst2: Recycled Aggregate	0.7	0.875	Confirmed at pre-assessment meeting Nov. 2013 that this credit could be reviewed if required.
Pol8: Noise Attenuation	1	0.83	Confirmation required as to whether an Acoustician is to be appointed.
		9.925	= Estimated Total additional % available which would make the maximum estimated score equal to 77.18%

It should be noted however that the inclusion of the Ene8: Lifts credit will have the following effect:

Credit	Number of Credits	Credit Value (%)	Note:
Ene8: Lifts	2	1.58	Pre-assessment Rev0.0 @ 05-11-13 indicated that lifts would be Platform type only and therefore these credits have not been included within the pre-assessment – if this changes we will need to include this credit – its value will be 1.58% (2 credits) but it should be noted that its inclusion affects the value of the remaining credits within the Energy Section. i.e. Without Lift Credits: Section Value 19% with 22 credits = 0.86% With Lift Credits: Section Value 19% with 24 credits = 0.79%

All credits other than those confirmed as having 'mandatory elements' are 'tradable' therefore credits proposed above for the indicative 'Excellent' score may be selected as deemed appropriate as the design develops.

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Appendix A

BREEAM Credit Checklist (Rev0.0 @ 01-04-14) based on Assessment Spreadsheet (Rev0.1 @ 01-04-14)

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