Farrans Construction

BREEAM Pre-assessment Summary Report

LaSWAP 6th Form Centre, Parliament Hill School

712667R02

SEPTEMBER 2017

RSK GENERAL NOTES

Project No.: 712667R01

Title: BREEAM Pre-assessment Summary Report: LaSWAP 6th Form Centre, Parliament Hill School

Client: Farrans Construction

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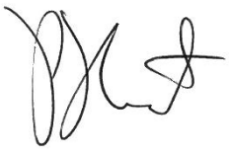
Signature	
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APPENDICES

1 BREEAM PRE-ASSESSMENT SUMMARY REPORT

The proposed development is the LaSWAP 6th Form Centre at Parliament Hill School in London. The aim is to provide an energy efficient building for the school providing an enhanced learning environment targeting a BREEAM 'Very Good' rating.

In order to help ensure a BREEAM 'Very Good' rating can be achieved as a minimum for the development, a BREEAM 2014 New Construction (v5.0 Guidance Manual) Pre-assessment has been carried out with associated credit tracker, to which the development has been registered with the BRE. The BREEAM Pre-assessment indicates that the following minimum score has been targeted:

- 58.80% with all relevant mandatory credits also targeted

A further 23.76% of potential credits (identified with a purple box on the credit tracker), have also been identified which could boost the score further but also act as a back-up in case targeted credits are lost through unforeseen circumstances. The completed BREEAM Pre-assessment is attached in the appendices, and key anticipated BREEAM provisions for the new development are summarised below under each BREEAM issue category. There are a number of mandatory credits and those with RIBA Stage requirements that must also be met for 'Very Good':

Mandatory credits (red boxes on credit tracker):

- Ene 02 Energy monitoring (1 credit - first sub-metering credit)
- Wat 01 Water consumption (1 credits)
- Wat 02 Water monitoring (criterion 1 only)
- Mat 03 Responsible sourcing of materials (criterion 1 only)
- LE 03 Minimising impact on existing site ecology (1 credit)

Pre-requisites (red boxes on credit tracker):

- Man 03 Responsible construction practices
- Pol 01 Impact of Refrigerants
- Pol 03 Surface Water Runoff

RIBA Stage credits (blue boxes on credit tracker):

RIBA Stage 2

- Man 01 Project Brief and Design: Stakeholder Consultation project delivery (full consultation of relevant stakeholders including consultation plan and third party consultation process e.g. DQI) - RIBA Stage 2 or equivalent
- Man 02 Service life planning and costing: Elemental Life Cycle Cost - Concept Design RIBA Stage 2Hea 06 Safety and security: security of site and building (consultation of a Security Consultant e.g. ALO or CPDA) - RIBA Stage 2 or equivalent
- Hea 06 Safety and security: security of site and building - RIBA Stage 2 or equivalent

- Ene 04 LZC Technologies: Passive design (analysis and statement of considered passive design features for the building) - RIBA Stage 2 or equivalent
- Ene 04 LZC Technologies: Low and zero carbon technologies (LZC feasibility study and energy modelling) - RIBA Stage 2 or equivalent
- Wst 05 Adaptation to Climate Change (consideration of fabric and structural resilience including hazard identification and risk assessment) - RIBA Stage 2 or equivalent
- LE04 Enhancing site ecology (ecological survey and site walkover by suitably qualified ecologist including compliant report) - RIBA Stage 1 or equivalent and RIBA Stage 2 or equivalent

RIBA Stage 4

- Man 01 Project Brief and Design: Stakeholder Consultation - third party (full consultation of relevant stakeholders including consultation plan) - RIBA Stage 4, Technical Design or equivalent
- Man 02 Service life planning and costing: Component Level LCC plan - Technical Design RIBA Stage 4
- Wst 06 Functional Adaptability (building-specific functional adaptation strategy study for future adaptation) - RIBA Stage 4 or equivalent

RIBA Stage 5 and 6

- Man 03 Responsible Construction Practices: Sustainability Champion - RIBA Plan of Works 2013, stages 5 and 6

We have also identified below additional surveys, testing and calculations; what we term 'feed-in services' for BREEAM, and the credits they will relate too to enable compliance. A number of the below will also be required to ensure the targeted 'Very Good' rating, and these have been identified in the BREEAM Pre-assessment and Credit Tracker:

- Thermographic Survey by suitably qualified person to comply with Man 04
- Seasonal commissioning of services 3, 6, 9 and 12 months after handover to comply with Man 05
- Post occupancy evaluation (POE) assessment after handover with interviews and case study to comply with Man 05
- Daylighting assessment to comply with Hea 01
- Indoor Air Quality Plan (IAQP) and post VOC and formaldehyde testing to comply with Hea 02
- Thermal comfort / overheating modelling, strategy and report to comply with Hea 03
- Acoustic advice and testing by suitably qualified acoustician to comply with Hea 05
- Energy modelling including BRUKL output to comply with Ene 01
- Site specific transport assessment and travel plan to comply with Tra 05
- Ground investigation and remediation strategy for contaminated land (if applicable) to comply with LE01
- Suitably qualified ecologist to comply with LE02, 03, 04 and 05
- Site specific flood risk assessment and SUDS and minimising watercourse pollution strategy to comply with Pol 03
- Noise assessment and testing with report by suitably qualified acoustician to comply with Pol 05

1.1 Management

13 credits have been targeted here to help ensure the 'Very Good' rating. Site works will need to be undertaken in accordance with the Considerate Constructors Scheme (CCS), with construction site impacts monitored and managed. Appropriate commissioning and seasonal commissioning of building services should be undertaken, and a non-technical building user guide prepared. Relevant consultation undertaken with the building users is also required. The capital cost of the building (£/m2) should be reported (this will be kept confidential by BRE), and 12 months of aftercare from handover of the building should be factored into the contractors scope of works. This should include a meeting between the aftercare team/individual and the building occupier/management, onsite FM training, for the first month on-site attendance on a weekly basis to support building users and management, a helpline for longer term support, and monitoring and reporting of energy and water consumption data for a minimum of 12 months, once the building is occupied. Consideration should also be given to preparing a Post Occupancy Evaluation (POE) and case study for the building.

1.2 Health & Wellbeing

A further 9 credits have been targeted here and a high quality internal environment is proposed including occupant controls for lighting, heating, energy efficient lighting, and glare controls using blinds. Thermal comfort and internal acoustics will also be considered to ensure a high standard of usable space, along with good daylighting levels within the occupied spaces. All finishes materials should be specified with low VOC and formaldehyde levels, intakes and extracts distances should also be considered and the distances to sources of external pollution.

1.3 Energy

8 credits have been targeted in this section to help ensure the 'Very Good' rating and the mandatory credits targeted. The development will be designed to meet current Building Regulations Part L, but going beyond this to be an efficient building. Energy consumptions will be sub-metered, and on-site zero or low carbon energy technology such as PV are anticipated to further reduce CO_2 emissions. All small power and plug in equipment for the community hub should be considered and reviewed against energy efficient standards including Government Buying Standards and Energy Star, and any small white goods have A+ ratings.

1.4 Transport

The location of the building ensures excellent access to public transport facilities such as bus stops, and London Underground with a PTAL score of 3, and also close by local amenities such as grocery shops, and cash machines. Cycle parking will be provided for the staff and pupils along with showers and changing facilities. A compliant transport survey will also need to be completed along with a site specific travel plan for the school.

1.5 Water

Efficient fixtures and fittings should be specified to ensure low water consumption for the building e.g. dual flush toilets and low flow taps, with water supplies metered and monitored and flow control devices installed e.g. solenoid valves on the cold water supply to the toilet areas. All soft landscaping and planting will be watered by natural irrigation and there will be no formalised irrigation.

1.6 Materials

Construction materials including insulation (both for the buildings and the hard landscaping / boundary protection where possible) with an appropriate Green Guide rating should be specified and sourced responsibly by the contractor to help minimise their environmental impact. The contractor should also ensure they have a Sustainable Procurement Plan and all timber is legally and responsibly sourced. The building should also be designed for robustness in areas of high use e.g. hard wearing and washable floors, corner protectors, high kerbs and bollards to help prevent vehicles hitting the building. The resilience of the external fabric should also be considered to ensure it can resist extreme weather, temperature, plant and insect infestation.

1.7 Waste

Construction waste should be managed and minimised under a Resource Management Plan (RMP) or Site Waste Management Plan and appropriate space provided for the storage and collection of recyclable operational waste streams of the building. The functional adaptability of the building should also be considered for future uses and if recycled or secondary aggregates can be used.

1.8 Land Use & Ecology

The site is on land previously developed (existing school site), and a landscaping / planting strategy should be prepared to minimise ecological impacts during construction and deliver ecological enhancement and long-term biodiversity benefits. It is assumed the land currently has low ecological value and that any ecological features will be protected.

1.9 Pollution

Night time light pollution will be avoided through the appropriate design and control of external lighting, and a noise survey completed to confirm the current noise levels of the site and those of future plant. The development site is at low risk of flooding, and surface water run-off and watercourse pollution should be considered and minimised if feasible. It is also assumed there will be an efficient gas boiler with less than 40mg/kWh NOx and a refrigerant leak detection system considered.

1.10 Exemplary

An Exemplary Credit has also been targeted going beyond best practice and standard BREEAM requirements in terms of the targeted CCS score.

2 CONCLUSION

The initial Pre-assessment will be reviewed and potentially updated with the design team as the development and design evolves, and will then be frozen, so the team can then provide all the necessary evidence to achieve the credits and the required 'Very Good' rating. The team will be provided with the 2014 Guidance Manual and also the Credit Tracker which will be updated by the Assessor as and when evidence is provided and credits achieved. The Credit Tracker works on a traffic light system. This will allow the team to know which credits have been targeted, which are potentials, which credits they have responsibilities for, any deadlines and the evidence required. Credits not targeted or have been filtered out of the assessment are grey, those outstanding are yellow, and when credits are achieved the rows will become green, so at a glance the team will know the progress of the BREEAM Assessment. This will allow control of the Assessment and help to keep the Assessment within the designated timescales.

Please note that changes to currently anticipated BREEAM credits may arise during detailed design, although the design team is committed to delivering the required BREEAM rating. Formal Design Stage and Post Construction Stage BREEAM Assessments and Certifications will be undertaken in due course to formally demonstrate the achieved BREEAM rating and the various contributions of the project to the sustainable development agenda and the client's requirements.

APPENDIX 1
BREEAM PRE-ASSESSMENT

APPENDIX 2
BREEAM CREDIT TRACKER

BREEAM UK New Construction 2014 Pre-Assessment Estimator

General information

BRE Assessment reference no.	BREEAM-0069-5452
Client name	Farrans Construction
Building end user/occupier	Parliament Hill School
Assessor name	Lorna Hurst
Assessor organisation	RSK Group plc

Building details

Building name	LaSWAP 6th form centre
Country	England
Building type (main description)	Education
Building type (sub-group)	Education - Secondary school
Building floor area (GIA) m^2	900
Building floor area (NIFA) m^2	900
BREEAM scheme	New Construction
BREEAM version	2014 (SD5076)
BREEAM UK 2014 technical manual issue number	SD5076 Issue 5.0
Project type	New Construction (Fully fitted)
Assessment stage	Pre-Assessment
Location type	London Borough
If applicable, does this industrial building have a heated or cooled operational area?	Option not applicable to building type
Does water heating contribute less than 10% of the buildings total energy consumption?	Yes
Commercial/industrial refrigeration and storage systems	No
Building user transportation systems (lifts and/or escalators)	No
Laboratory function/area and size category	No laboratory
Laboratory containment level	No laboratory
Fume cupboard(s) and/or other containment devices	No
Unregulated water uses present? (e.g. vehicle wash system, irrigation)	Yes
If applicable, will this healthcare building house inpatients?	Option not applicable to building type
If applicable, does this industrial building have an office area?	Option not applicable to building type
If applicable, does this building contain areas requiring SAP assessment?	Option not applicable to building type
If SAP used, what proportion of the building's total floor area (GIA) does it apply to?	Option not applicable to building type

BREEAM UK New Construction 2014 Pre-Assessment Estimator: Assessment Issue Scoring

BREEAM® UK

Building name	LaSWAP 6th form centre
Building score (%)	58.80%
Building rating	Very Good
Minimum standards level achieved	Excellent level

MANAGEMENT

Man 01 Project brief and design

No. of BREEAM credits available	4	Available contribution to overall score	2.29%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will stakeholder consultation (project delivery) take place?	Yes	1	1
Will stakeholder consultation (third party) take place?	No	1	0
Will a sustainability champion (design) be assigned?	No	1	0
Will a sustainability champion (monitoring progress) be assigned?	No	1	0

Total BREEAM credits achieved	1
Total contribution to overall building score	0.57%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Team to provide consulatation evidence from design team meetings, including agendas, invites, minutes, marked up drawings, notes, and a consultation plan.
Third party consultation is a potential credit as required a DQI to be completed - team to confirm.
As RIBA Stage 2 going into RIBA Stage 3, the sustainability champion credits are not achieveable.

Man 02 Life cycle cost and service life planning

No. of BREEAM credits available	4	Available contribution to overall score	2.29%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an elemental life cycle cost (LCC)analyses be carried out?	No	2	0
Will a component level LCC plan be developed?	No	1	0
Will the predicted capital cost be reported?	Yes	1	1
Expected capital cost of the project (if available)	TBC	£/m^2	

Total BREEAM credits achieved	1
Total contribution to overall building score	0.57%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

There is no full LCC but the team will provide the capital cost of the project for 1 credit.

The capital cost for the building includes the expenses related to the initial construction of the building:
- Construction, including preparatory works, materials, equipment and labour
- Site management
- Construction financing
- Insurance and taxes during construction
- Inspection and testing

Costs relating to land procurement, clearance, design, statutory approvals and post occupancy aftercare should not be included.

Man 03 Responsible construction practices

No. of BREEAM credits available	6	Available contribution to overall score	3.43%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Is all site timber used in the project 'legally harvested and traded timber'?	Yes		
Will/does the principal contractor operate a compliant Environmental Management System?	Yes	1	1
Will a construction stage sustainability champion be assigned?	No	1	0
Will a considerate construction scheme be used by the principal contractor? (One credit where 'compliance' has been achieved. Two credits where 'compliance' is significantly exceeded.)	2	2	2
Will construction site impacts be metered/monitored?	Yes		
Will site utility consumption be metered/monitored?	Yes	1	1
Will transport of construction materials and waste be metered/monitored?	Yes	1	1
Will exemplary level criteria be met?	Yes	1	1

Key Performance Indicators: Construction site energy use

Energy consumption (total) - site processes		Information not available at design stage
Energy consumption (intensity) - site processes		Information not available at design stage
Distance (total) - materials transport to site		Information not available at design stage
Distance (total) -waste transport from site		Information not available at design stage
Energy consumption (total) - materials transport to site		Information not available at design stage
Energy consumption (total) - waste transport from site		Information not available at design stage
Energy consumption (intensity) - materials transport to site		Information not available at design stage
Energy consumption (intensity) - waste transport from site		Information not available at design stage

Key Performance Indicators: Construction site greenhouse gas emissions

Process greenhouse gas emissions (total) - site processes		Information not available at design stage
Greenhouse gas emissions (intensity) - site processes		Information not available at design stage
Greenhouse gas emissions (total) - materials transport to site		Information not available at design stage
Greenhouse gas emissions (total) - waste transport from site		Information not available at design stage
Greenhouse gas emissions (intensity) - materials transport to site		Information not available at design stage
Greenhouse gas emissions (intensity) - waste transport from site		Information not available at design stage

Key Performance Indicators: Construction site use of freshwater resources

Use of freshwater resource (total) - site processes		Information not available at design stage
Use of freshwater resource (intensity) - site processes		Information not available at design stage

Total BREEAM credits achieved	5
Total contribution to overall building score	2.86%
Total BREEAM innovation credits achieved	1
Minimum standard(s) level	Outstanding level

Comments/notes:

Farrans to provide the above and monitor through construction. Targeting 40 out of 50 for CCS.

Man 04 Commisioning and handover

No. of BREEAM credits available	4	Available contribution to overall score	2.29%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will commissioning schedule and responsibilities be developed & accounted for?	Yes	1	1
Will a commissioning manager be appointed?	Yes	1	1
Will the building fabric be commissioned?	No	1	0
Will a building user guide be developed prior to handover?	Yes	1	1
Will a training schedule be prepared for building occupiers/managers?	Yes		

Total BREEAM credits achieved	3
Total contribution to overall building score	1.71%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Commissioning credits should be achievable and Farrans commit to providing a BUG and training schedule for the school. The thermographic survey credit is not targeted.

Man 05 Aftercare

No. of BREEAM credits available	3	Available contribution to overall score	1.71%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will aftercare support be provided to building occupiers?	Yes	1	1
Will seasonal commissioning occur over 12months once substantially occupied?	Yes	1	1
Will a post occupancy evaluation be carried out 1 year after occupation?	Yes	1	1
Will exemplary level criteria be met?	No	1	0

Total BREEAM credits achieved	3
Total contribution to overall building score	1.71%

Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Harvey will provide seasonal commissioning (3, 6, 9 and 12) months after handover along with a dedicated aftercare team. Farrans have committed to producing a POE and have a dedicated person to complete case studies now who is independent of the design team - please review full criteria.

HEALTH & WELLBEING

Hea 01 Visual Comfort

No. of BREEAM credits available	5	Available contribution to overall score	4.17%
No. of BREEAM innovation credits available	1	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the design provide adequate glare control for building users?	Yes	1	1
How many credits will be targeted for the daylighting criteria?	2	2	2
Will the design provide adequate view out for building users?	No	1	0
Will internal/external lighting levels, zoning and controls be specified in accordance with the relevant CIBSE Guides/British Standards?	Yes	1	1
Will exemplary level criteria be met?	No	1	0

Total BREEAM credits achieved	4
Total contribution to overall building score	3.33%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

All windows and rooflights and glazed doors will need to be fitted with glare control - ideally occupant controlled blinds.

Preliminary daylighting has alreayd been carried out and shows this credit should be achievable. Exemplary criteria unlikely to be achieved.

GSS to confirm view out criteria and if achievable.

Lighting to CIBSE Guides should be fine.

Hea 02 Indoor Air Quality

No. of BREEAM credits available	5	Available contribution to overall score	4.17%
No. of BREEAM innovation credits available	2	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an indoor air quality (IAQ) plan be produced and building designed to minimise air pollution?	No	1	0
Will the building be designed to minimise the concentration and recirculation of pollutants in the building?	No	1	0

Will the relevant products be specified to meet the VOC testing and emission levels required?	Yes	1	1
Will formaldehyde and total VOC levels be measured post construction?	No	1	0
Will the building be designed to, or have the potential to provide, natural ventilation?	No	1	0
Will exemplary level criteria be met?	0	2	0

Key Performance Indicators: Indoor air quality

Concentration levels of formaldehyde	INA	Information not available at design stage
Total volatile organic compound (TVOC) concentration	INA	Information not available at design stage

Total BREEAM credits achieved	1
Total contribution to overall building score	0.83%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Ventilation credit not achievable due to distances between intakes and extracts.

VOC credit should be fine, GSS to add to specification.

All other credits seen as potentials should they be required. Team to review IAQP criteria and natural ventilation criteria. Option for post construction VOC testing but must be completed prior to ocupancy.

Hea 03 Safe containment in laboratories

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an objective risk assessment of proposed laboratory facilities' design be completed?			
Will the manufacture & installation of fume cupboards and containment devices meet best practice standards?			
Will containment level 2 & 3 labs meet best practice safety & performance criteria?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Hea 04 Thermal comfort

No. of BREEAM credits available	3	Available contribution to overall score	2.50%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will thermal modelling of the design be carried out?	Yes	1	1
Will the building services system be adapted for a projected climate change scenario?	No	1	0
Will the modelling inform the development of a thermal zoning and control strategy?	Yes	1	1

Key Performance Indicators: Thermal comfort

Predicted Mean Vote (PMV)	INA
Predicted Percentage Dissatisfied (PPD)	INA

Total BREEAM credits achieved	2
Total contribution to overall building score	1.67%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Harvey confirmed thermal modelling will be completed and criteria for zoning and controls - likely to be TRVs, wall controls and openable windows in some areas. Climate change scenario credit not likely so not targeted.

Hea 05 Acoustic Performance

No. of BREEAM credits available	3	Available contribution to overall score	2.50%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Credits	Credits available	Credits achieved
Will the building meet the appropriate acoustic performance standards and testing requirements for: a. Sound insulation b. Indoor ambient noise level c. Reverberation times?	2	3	2

Total BREEAM credits achieved	2
Total contribution to overall building score	1.67%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Acoustician has been appointed - credits to be confirmed but likely to achieve 2, 3rd credit seen as a potential.

Hea 06 Safety and Security

No. of BREEAM credits available	2	Available contribution to overall score	1.67%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Where external site areas are present, will safe access be designed for pedestrians and cyclists?	No	1	0
Will a suitably qualified security consultant be appointed and security considerations accounted for?	No	1	0

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	N/A

Minimum standard(s) level	N/A

Comments/notes:

Site layout means safety credit not achievable.

Security credit seen as a potential credit - team to decide if targeting credit and speak with an ALO / CPDA asap as this is a RIBA Stage 2 credit.

ENERGY

Ene 01 Reduction of energy use and carbon emissions

No. of BREEAM credits available	12	Available contribution to overall score	9.00%
No. of BREEAM innovation credits available	5	Minimum standards applicable	Yes

How do you wish to assess the number of BREEAM credits achieved for this issue?	Define a target number of BREEAM credits achieved
Select the target number of BREEAM credits for the Ene01 issue:	5

Ene 01 Calculator

Country of the UK where the building is located		Confirm building regulation and version to be used:	

New Construction (Fully fitted)

Building floor area		m2
Notional building heating and cooling energy demand		MJ/m2yr
Actual building heating and cooling energy demand		MJ/m2yr
Notional building primary energy consumption		kWh/m2yr
Actual building primary energy consumption		kWh/m2yr
Target emission rate (TER)		kgCO2/m2yr
Building emission rate (BER)		kgCO2/m2yr
Building emission rate improvement over TER		
Heating & cooling demand energy performance ratio (EPR_{ED})		
Primary consumption energy performance ratio (EPR_{PC})		
CO_2 Energy performance ratio (EPR_{CO2})		
Overall building energy performance ratio (EPR_{NC})		

Where specified, please confirm the energy production from onsite or near site energy generation technologies	
Equivalent % of the building's 'regulated' energy consumption generated by carbon neutral sources and used to meet energy demand from 'unregulated' building systems or processes?	
Is the building designed to be 'carbon negative' ?	
If the building is defined as 'carbon negative' what is the total (modelled) renewable/carbon neutral energy generated and exported?	

Total BREEAM credits achieved	5
Total contribution to overall building score	3.75%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Excellent level

Comments/notes:

M&E confirmed this should be achievable and further credits may be achievable but this is sensible target for now. Draft BRUKL required.

Ene 02 Energy monitoring

No. of BREEAM credits available	2	Available contribution to overall score	1.50%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment criteria	Compliant?	Credits available	Credits achieved
Will a BMS or sub-meters be specified to monitor energy use from major building services systems?	Yes	1	1
Will a BMS or sub-meters be specified to monitor energy use by tenant/building function areas?	No	1	0

Total BREEAM credits achieved	1
Total contribution to overall building score	0.75%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Mandatory credit - must achieve 1st credit - M&E to review criteria.

Second credit is a potential credit - requires sub-metering of function areas e.g. Sports facilities from rest of building, science classrooms seperate from rest of building, etc. Team to confirm if this is feasible and good use of metering and fees.

Ene 03 External lighting

No. of BREEAM credits available	1	Available contribution to overall score	0.75%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria	Compliant?	Credits available	Credits achieved
Will external light fittings and controls be specified in accordance with the BREEAM criteria?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.75%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Credit should be fine to achieve, requires average initial luminous efficacy of the external light fittings within the construction zone not less than 60 luminaire lumens per circuit Watt. All external light fittings should be automatically controlled for prevention of operation during daylight hours and presence detection in areas of intermittent pedestrian traffic.

Ene 04 Low carbon design

No. of BREEAM credits available	3	Available contribution to overall score	2.25%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria	Compliant?	Credits available	Credits achieved
Will passive design measures be used in line with an analysis carried out during concept design stage (RIBA stage 2 or equivalent)?	No	1	0
Will free cooling measures be implemented in the whole building in line with the passive design analysis?	No	1	0
Will a LZC technology be specified in line with a feasibility study carried out by the completion of the Concept Design stage (RIBA Stage 2 or equivalent)?	Yes	1	1

KPI - Low and/or zero carbon energy generation

Total on-site and/or near-site LZC energy generation	INA	kWh/yr

Total BREEAM credits achieved	1
Total contribution to overall building score	0.75%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Passive design credit is a potential additional credit - team to confirm if an analysis will be completed - must be done RIBA Stage 2. The free cooling credit cannot be achieved without firts achieving the passive design credit - team to also confirm if there is a free cooling strategy:

As a minimum, the passive design analysis should cover:
1. Site location
2. Site weather
3. Microclimate
4. Building layout
5. Building orientation
6. Building form

Ene 05 Energy efficient cold storage

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment criteria	Compliant?	Credits available	Credits achieved

Will the refrigeration system be designed, installed & commissioned in accrodance with BREEAM criteria?	No	N/A	N/A
Will the refrigeration system demonstrate a saving in indirect greenhouse gas emissions?	No	N/A	N/A

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 06 Energy efficient transportation systems

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment criteria	Compliant?	Credits available	Credits achieved
Will a transportation system analysis be carried out to determine and specify the optimum number, size and type of lifts that is most energy efficient?			
Will the relevant energy-efficient features criteria be met?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 07 Energy efficient laboratory systems

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment criteria	Compliant?	Credits available	Credits achieved
Pre-requisite: Criterion 1 of Hea 03 - risk assessment of laboratory facilities			
Have the occupants' laboratory requirements & performance criteria been confirmed during the preparation of the initial project brief to minimise energy demand?			
Best Practice Energy Practices in Laboratories (table 27)			
Will the laboratory meet criteria item b) Fan power?			
Will the laboratory criteria item c) Fume cupboard volume flow rates?			
Will the lab meet item d) Grouping / isolation of high filtration/ventilation activities?			
Will the laboratory meet criteria item e) Energy recovery - heat?			
Will the laboratory meet criteria item f) Energy recovery - cooling?			

Will the laboratory meet criteria item g) Grouping of cooling loads?	
Will the laboratory meet criteria item h) Free cooling?	
Will the laboratory meet criteria item i) Load responsiveness?	
Will the laboratory meet criteria item j) Cleanrooms?	
Will the laboratory meet criteria item k) Diversity?	
Will the laboratory meet criteria item l) Room air-change rates?	

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 08 Energy efficient equipment

No. of BREEAM credits available	2	Available contribution to overall score	1.50%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria

Which of the following will be present and likely to be a/the major contributor to 'unregulated' energy use?	Present	Major impact
Ref A Small power and plug in equipment?	Yes	No
Ref B Swimming pool?	No	
Ref C Communal laundry?	No	
Ref D Data centre?	No	
Ref E IT-intensive operation areas?	No	
Ref F Residential areas?	No	
Ref G Healthcare?	No	
Ref H Kitchen and catering facilities?	Yes	Yes

	Compliant	Credits available	Credits achieved
Will the significant majority contributor(s) to 'unregulated' energy use above meet the BREEAM criteria?	No	2	0

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

These credits are potential credits only - team to liaise with school on criteria to be met, may be using legacy equipment - this still needs to comply with the criteria for BREEAM.

Ene 09 Drying space

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment criteria	Compliant?	Credits available	Credits achieved

Is there a risk of ligature for residents?			
Will internal/external drying space and fixings be provided?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

TRANSPORT

Tra 01 Public Transport Accessibility

No. of BREEAM credits available	3	Available contribution to overall score	3.86%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Building type category (for purpose of Tra01 issue assessment)	Pre-school, School and/or Sixth form

Assessment Criteria	Compliant	Credits available	Credits achieved
Indicative public transport accessibility index (AI):	10.00	3	3
Will the building have a dedicated bus service?			N/A

AI	Indicative Accessibility Index for pre-assessment
0	Poor or no public transport provision
1	A single BREEAM compliant public transport node available
2	Some BREEAM compliant public transport nodes/services available
4	A selection of BREEAM compliant public transport nodes/services available
8	Good provision of public transport i.e. small urban centre / suburban area
10	Very Good provision of public transport i.e. small/medium urban centre
12	Excellent provision of public transport, i.e. medium urban centre
18	Excellent provision of public transport, i.e. large urban/metropolitan city centre

Total BREEAM credits achieved	3
Total contribution to overall building score	3.86%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Assume due to site location in Camden that these credits will easily be achievable - will require marked up map / drawing showing location of school and all nearby bus stops (within 650m safe walking distance), and train / tube stations (within 1,000m safe walking distance), with distances marked on and corresponding timetables for each transport node.

Tra 02 Proximity to Amenities

No. of BREEAM credits available	1	Available contribution to overall score	1.29%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the building be in close proximity of and accessible to applicable amenities?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	1.29%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

This credit should be easily achievable due to site location. Must be within 500m safe walking distance of the amenities from the school (amenities can be on school site itself e.g. School canteen, sports hall, playing fields, pitches, etc.). Amenities required are at least 2 of the below:

Appropriate food outlet
Access to cash
Access to a recreation/leisure facility for fitness/sports

AND at least one of the below:

Access to an outdoor open space (public or private, provided suitably sized and accessible to building users)

Tra 03 Cyclist facilities

No. of BREEAM credits available	2	Available contribution to overall score	2.57%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Building type category (for purpose of Tra03 issue assessment)	Secondary schools & sixth form
How many compliant cycle storage spaces will be provided?	120
What cyclist facilities will be provided?	Showers and changing facilities

Assessment Criteria	Compliant?	Credits available	Credits achieved
Cycle storage spaces	Yes	2	2
Cyclist facilities	Yes		

Total BREEAM credits achieved	2
Total contribution to overall building score	2.57%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

The first credit is targeted but team to confirm either building user numbers or whole school numbers (staff and pupils). Will require 1 cycle storage space for eveyr 10 building users. If we achieve full credits under Tra 01 we can halve the cycle storage requirement for BREEAM. There will be showers and changing space in the sports facility function of the building for cyclists to use but team to confirm - see requirements for showers and changing rooms in Guidance.

Tra 04 Maximum Car Parking Capacity

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Building type category (for purpose of Tra04 issue)	
Building's indicative Accessibility Index (sourced from issue Tra01)	

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will BREEAM's maximum parking capacity criteria for the building type/Accessibility Index be met?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Tra 05 Travel Plan

No. of BREEAM credits available	1	Available contribution to overall score	1.29%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a transport plan based on site specific travel survey/assessment be developed?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	1.29%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Credit targted, require full site specific transport survey and travel plan for school. Team to confirm if one has already been completed.

WATER

Wat 01 Water Consumption

No. of BREEAM credits available	5	Available contribution to overall score	3.89%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

How do you wish to assess the BREEAM credits to be achieved for this issue?	Define a target % improvement over baseline sanitary fittings
What is the target for % reduction in potable water consumption for sanitary use in the building?	25% - two credits
Please select the calculation procedure used	

Standard approach data

Water Consumption from building micro-components	

Water demand met via greywater/rainwater sources	
Total net water consumption	
Improvement on baseline performance	

Key Performance Indicator - use of freshwater resource

Total net Water Consumption	
Default building occupancy	

Alternative approach data

Overall microcomponent performance level achieved	

Total BREEAM credits achieved	2
Total contribution to overall building score	1.56%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

One credit is mandatory for 'Very Good', but 2 credits should be achievable. Please see Table 36 in the Guidance for examples of Level 2 flow rates and flush volumes to aim for, for all sanitary and water fittings. Must account for:

a. WCs
b. Urinals
c. Taps (wash hand basins and where specified kitchen taps and waste disposal unit)
d. Showers
e. Baths
f. Dishwashers (domestic and commercial sized)
g. Washing machines (domestic and commercial or industrial sized).

Wat 02 Water Monitoring

No. of BREEAM credits available	1	Available contribution to overall score	0.78%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will there be a water meter on the mains water supply to the building(s)?	Yes	1	1
Will metering/monitoring equipment be specified on the water supply to any relevant plant/building areas?	Yes		
Will all specified water meters have a pulsed output?	Yes		
If the site/building has an existing BMS connection, will all pulsed meters be connected to the BMS?	Yes		

Total BREEAM credits achieved	1
Total contribution to overall building score	0.78%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Mandatory credit - must be a pulsed output meter on the mains water supply to the building. Team to confirm any further sub-metering and BMS.

Wat 03 Water Leak Detection and Prevention

No. of BREEAM credits available	2	Available contribution to overall score	1.56%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a mains water leak detection system be installed on the building's mains water supply?	No	1	0
Will flow control devices be installed in each sanitary area/facility?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.78%
Total BREEAM innovation credits achieved	N/A

Minimum standard(s) level	N/A

Comments/notes:

Currently water leak detection credit not targeted but might be achieveable depending on if mains water pipework needs replacing and so could look into leak detection system then - team will confirm.

Flow control credit targeted - requires PIRs, solenoids on cold water supply to toilet areas.

Wat 04 Water Efficient Equipment

No. of BREEAM credits available	1	Available contribution to overall score	0.78%
No. of BREEAM innovation credits available	No	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Has a meaningful reduction in unregulated water demand been achieved?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.78%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Credit targeted - requries: External landscaping and planting that relies solely on precipitation, during all seasons of the year.

Understood there may be a green wall(s) - team to cofirm asap and understand if formal irrigation is required here.

MATERIALS

Mat 01 Life Cycle Impacts

No. of BREEAM credits available	6	Available contribution to overall score	5.79%
No. of BREEAM innovation credits available	3	Minimum standards applicable	No

How do you wish to assess the number of BREEAM credits to be achieved for this issue?	Define the number of Mat 01 credits achieved

Assessment Criteria

Predicted total Mat01 credits achieved	5
Predicted total Mat01 points achieved	
Number of building elements assessed	
Green Guide exemplary level compliant?	No
Has IMPACT compliant software been used?	No

Key Performance Indicator - embodied green house gas emissions by element	Total area of element m^2	Total impact $kgCO_2$ eq.	Area of element impact data relevant to m^2
External walls			

Windows			
Roof			
Upper floor construction			
Internal wall			
Floor finishes/coverings			

Key Performance Indicator - embodied green house gas emissions for building (assessed elements only)

Total embodied green house gas emissions for building (by assessed elements)	Missing data	$kgCO_2$ eq.		$kgCO_2$ eq./m^2
Proportion of applicable building elements that data reported covers				

Total BREEAM credits achieved	5
Total contribution to overall building score	4.82%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Credits should be achievable as have been on past Farrans projects - GSS to confirm. 6th credit is a potential credit. GSS to review Green Guide online asap.

Mat 02 Hard Landscaping and Boundary Protection

No. of BREEAM credits available	1	Available contribution to overall score	0.96%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will ≥80% of all external hard landscaping and boundary protection achieve a Green Guide A or A+ rating?	No	1	0

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Potential credit - Doran to confirm hard landscaping material and review against Green Guide online.

For the purpose of assessment, hard landscaping includes (but is not limited to) parking areas (including manoeuvring areas, lanes, roads within the parking area), pedestrian walkways, paths, patios. The definition excludes basement parking, access or approach roads and designated vehicle manoeuvring areas, balconies, roof terraces, specialist sports areas (running tracks, netball areas etc.) and retaining walls.

Mat 03 Responsible Sourcing

No. of BREEAM credits available	4	Available contribution to overall score	3.86%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Assessment Criteria	Compliant	Credits available	Credits achieved
All timber and timber based products are 'Legally harvested and trader timber'	Yes		
Is there a documented sustainable procurement plan?	Yes	1	1
Percentage of available responsible sourcing of materials points achieved	18.00%	3	1

Please confirm the route used to assess Mat03	Route 1: Lowest RSCS point score

Total BREEAM credits achieved	2
Total contribution to overall building score	1.93%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Credits should be achievable - Farrans have timber policy and sustainable procurement policy already and team to confirm all relevant materials and procure from companies with responsible sourcing criteria e.g. FSC, ISO14001, BES6001, etc.

Mat 04 Insulation

No. of BREEAM credits available	1	Available contribution to overall score	0.96%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria		Credits available	Credits achieved	
What is the building's targeted insulating index?	2.50	1	1	Note: An insulatio

Total BREEAM credits achieved	1
Total contribution to overall building score	0.96%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Credit should be fine, please check chosen insulation (external wall, roof, ground floor slab, services) against those in Green Guide online.

Mat 05 Designing for durability and resilience

No. of BREEAM credits available	1	Available contribution to overall score	0.96%
No. of BREEAM innovation credits available	0	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will suitable durability/protection measures be specified and installed to vulnerable areas of the building?	Yes	1	1
Will suitable durability/protection measures be specified and installed to exposed parts of the building?	Yes		

Total BREEAM credits achieved	1
Total contribution to overall building score	0.96%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Credit now split into two parts: vulnerable areas of the building and fabric resilience - GSS to review all criteria and confirm compliance.

Mat 06 Material efficiency

No. of BREEAM credits available	1	Available contribution to overall score	0.96%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will material efficiency measures be identified & implemented during all RIBA stages?	No	1	0

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Potential credit: team confirmed there is already a materials section in the Stage 2 report which might work for this credit – team to review criteria:

The process of undertaking a building project to enable the most efficient use of materials over the life cycle of the building and its components. This includes using fewer materials, reusing existing demolition/strip-out materials and, where appropriate, procuring materials with higher levels of recycled content. It may also include the adoption of alternative means of design/construction that result in lower materials usage and lower wastage levels including off-site manufacture and use of pre-assembled service pods.

BS 8895 Designing for material efficiency in building projects
The standard outlines specific material efficiency processes, key tasks, team members and their responsibilities and outputs specific to each work stage, along with supporting guidance and tools. This serves as a useful tool to assist the design team in developing and implementing material efficiency strategies for their developments.

WASTE

Wst 01 Construction Waste Management

No. of BREEAM credits available	4	Available contribution to overall score	4.25%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

How do you wish to assess the number of BREEAM credits to be achieved for this issue?	Define a target number of BREEAM credits		
Select the number of BREEAM credits being targeted for issue Wst 01:	2	BREEAM Wst01 Innovation credits:	0

Assessment Criteria	Compliant?
Construction resource management plan	
Demolition Taking Place on Site?	
Compliant Pre-demolition audit	
Does the excavation waste meet the exemplary level requirements?	

Key Performance Indicators - Construction Waste

Measure/units for the data being reported	volume		
Non-hazardous construction waste (excluding demolition/excavation)		m3/100m2	
Total non-hazardous construction waste generated	INA	m3	Note: At the pre-assessment stage this t
Non-hazardous non-demolition const. waste diverted from landfill		%	Note: At this stage this will be a target b
Total non-hazardous non-demolition const. waste diverted from landfill	INA	m3	Note: At the pre-assessment stage this t
Total non-hazardous demolition waste generated		m3	Note: At this stage this will be a target b
Non-hazardous demolition waste diverted from landfill		%	Note: At this stage this will be a target b
Total non-hazardous demolition waste to disposal	INA	m3	Note: At the pre-assessment stage this t
Material for reuse		m3	Note: At this stage this will be a target b
Material for recycling		m3	Note: At this stage this will be a target b
Material for energy recovery		m3	Note: At this stage this will be a target b
Hazardous waste to disposal		m3	Note: At this stage this will be a target b

Total BREEAM credits achieved	2
Total contribution to overall building score	2.13%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Two credits should be fine:

13.3 m^3 OR 11.1 tonnes of waste generated per 100m^2 (gross internal floor area)
AND
Non demolition 70% volume OR 80% tonnage diversion from landfill
Demolition 80% volume OR 90% tonnage diversion from landfill

Wst 02 Recycled Aggregates

No. of BREEAM credits available	1	Available contribution to overall score	1.06%
No. of BREEAM innovation credits available	1	Minimum standards applicable	No

Assessment Criteria	Total
What is the target total % of high-grade aggregate that will be recycled/secondary aggregate?	0%

% of high-grade aggregate that is recycled/secondary aggregate - by application

Structural frame	
Bitumen/hydraulically bound base, binder and surface courses	
Building foundations	
Concrete road surfaces	
Pipe bedding	
Granular fill and capping	

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

There will be demolition and crushed material stock piled on site which we may be able to use as aggregate and may help achieve Wst 02 – Doran to review and confirm if %'s can be met.

Wst 03 Operational Waste

No. of BREEAM credits available	1	Available contribution to overall score	1.06%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will operational recyclable waste volumes be segregated and stored?	Yes	1	1
Will static waste compactor(s) or baler(s) be specified where appropriate?	N/A		
Will vessel(s) for composting suitable organic waste where appropriate?	Yes		

Total BREEAM credits achieved	1
Total contribution to overall building score	1.06%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

This credit should be fine - understand there will be new waste storage for each new building. Ensure it is the correct size, labelled and for general waste and recyclable waste. Any food waste would require a tap in the waste storage area to wash down the area.

Wst 04 Speculative Floor and Ceiling Finishes

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Wst 05 Adaption to climate change

No. of BREEAM credits available	1	Available contribution to overall score	1.06%
No. of BREEAM innovation credits available	1	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a climate change adaptation strategy appraisal for structural and fabric resilience be conducted by the end of Concept Design (RIBA Stage 2 or equivalent)?	No	1	0
Will exemplary level criteria – Responding to adaptation to climate change be met?	No	1	0

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Credit not targeted.

Wst 06 Functional adaptability

No. of BREEAM credits available	1	Available contribution to overall score	1.06%
No. of BREEAM innovation credits available	0	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a building specific functional adaptation strategy appraisal be conducted by Concept Design (RIBA Stage 2 or equivalent) and will functional adaptation measures be implemented?	No	1	0

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

credit achieved on previous scheme - Farrans and team to review criteria and see if feasible for this site. RIBA Stage 2 requirement though so needs looking at asap.

LAND USE & ECOLOGY

LE 01 Site Selection

No. of BREEAM credits available	2	Available contribution to overall score	2.00%

No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will at least 75% of the proposed development's footprint be located on previously occupied land?	Yes	1	1
Is the site deemed to be significantly contaminated?	No	1	0

Total BREEAM credits achieved	1
Total contribution to overall building score	1.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

1st credit will be fine, likely that 90-100% of the new building built on previously developed land.

Second credit not targeted as land is not contaminated.

LE 02 Ecological Value of Site and Protection of Ecological Features

No. of BREEAM credits available	2	Available contribution to overall score	2.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Ecological value of the land defined using	A Suitably Qualified Ecologist

Assessment Criteria	Compliant?	Credits available	Credits achieved
Can the land within the construction zone be defined as 'land of low ecological value'?	No	1	0
Will all features of ecological value surrounding the construction zone/site boundary be protected?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	1.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Assumption made by RSK, and using previous 2011 pre-assessment by Hoare Lea - ecologist required asap to confirm achievable credits.

LE 03 Mitigating Ecological Impact

No. of BREEAM credits available	2	Available contribution to overall score	2.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Data sourced for calculating the change in ecological value from	Suitably Qualified Ecologist site survey of plant species

Assessment Criteria

What is the likely change in ecological value as a result of the sites development?	<0≥-9 species (i.e. minimal negative change)	Plant species richn

Total BREEAM credits achieved	1
Total contribution to overall building score	1.00%

Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Assumption made by RSK, and using previous 2011 pre-assessment by Hoare Lea - ecologist required asap to confirm achievable credits.

LE 04 Enhancing Site Ecology

No. of BREEAM credits available	2	Available contribution to overall score	2.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved	
Will a suitably qualified ecologist be appointed to report on enhancing and protecting site ecology?	Yes	2	1	
Will the suitably qualified ecologist's general recommendations be implemented?	Yes			
What is the targeted/intended improvement in ecological value as a result of enhancement actions?	<6 species (small positive change)			Plant species richr

Total BREEAM credits achieved	1
Total contribution to overall building score	1.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Assumption made by RSK, and using previous 2011 pre-assessment by Hoare Lea - ecologist required asap to confirm achievable credits.

LE 05 Long Term Impact on Biodiversity

No. of BREEAM credits available	2	Available contribution to overall score	2.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a Suitably Qualified Ecologist be appointed to monitor/minimise impacts of site activities on biodiversity?	Yes	2	2
Will a landscape and habitat management plan be produced covering at least the first five years after project completion in accordance with British Standards?	Yes		
Number of applicable measures to improve biodiversity confirmed by SQE:	4		
Number of applicable measures implemented:	4		

Total BREEAM credits achieved	2

Total contribution to overall building score	2.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Assumption made by RSK, and using previous 2011 pre-assessment by Hoare Lea - ecologist required asap to confirm achievable credits.

Farrans to confirm they will meet the additonal criteria.

POLLUTION

Pol 01 Impact of Refrigerants

No. of BREEAM credits available	3	Available contribution to overall score	2.31%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria		Credits available	Credits achieved
Refrigerant containing systems installed in the assessed building?	Yes	2	0
Do all systems (with electric compressors) comply with the requirements of BS EN 378:2008 (parts 2 & 3) & where refrigeration systems containing ammonia are installed, the IoR Ammonia Refrigeration Systems Code of Practice?	Yes		
Global Warming Potential of the specified refrigerant(s) 10 or less?	No		
What is the target range Direct Effect Life Cycle CO2eq. emissions for the system?		kgCO2eq/kW coolth capacity	
Cooling/Heating capacity of the system		kW	
Will a refrigerant leak detection and containment system be specified/installed?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.77%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

there may be refrigerant containing services but they may also have a very low refrigerant charge – one credit assumed to date – Harvey's to confirm

Pol 02 NO_x Emissions

No. of BREEAM credits available	3	Available contribution to overall score	2.31%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria

NOx emission level - space heating	40.00	mg/kWh
NOx emission level - cooling		mg/kWh

Does this building meet BREEAM's definition of a highly insulated building?		
Energy consumption: heating and hot water		kWh/m2 yr

Total BREEAM credits achieved	3
Total contribution to overall building score	2.31%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Harvey's confirmed in meeting new gas boilers will ensure less than 40mg/kWh NOx

Pol 03 Surface Water Run off

No. of BREEAM credits available	5	Available contribution to overall score	3.85%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
What is the actual/likely annual probability of flooding for the assessed site?	Low	2	2
Will a Flood Risk Assessment be undertaken?	Yes		
Will the site meet the BREEAM criteria for peak rate surface water run off?	No	1	0
Will the site meet the criteria for surface water run off volume, attenuation and/or limiting discharge?	No	1	0
Will the site be designed to minimise watercourse pollution in accordance with the BREEAM criteria?	No	1	0

Total BREEAM credits achieved	2
Total contribution to overall building score	1.54%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Doran confirmed there is an existing FRA and so credits should be achievable. Doran to send and review criteria for surface water run-off and minimising watercourse pollution credits. There will be permeable surfaces, paving and storage, attenuation in each area and no increase of flow off site.

Pol 04 Reduction of Night Time Light Pollution

No. of BREEAM credits available	1	Available contribution to overall score	0.77%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the external lighting specification be designed to reduce light pollution?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.77%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

This credit should be fine to achieve - ensure the external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the ILP Guidance notes for the reduction of obtrusive light, 2011

Pol 05 Noise Attenuation

No. of BREEAM credits available	1	Available contribution to overall score	0.77%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant	Credits available	Credits achieved
Will there be noise-sensitive areas/buildings within 800m radius of the development?	Yes	1	1
Will a noise impact assessment be carried out and, if applicable, noise attenuation measures specified?	Yes		

Total BREEAM credits achieved	1
Total contribution to overall building score	0.77%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Requires suitably qualified acoustician, understand one is on board. Acoustician to confirm if credit can be achieved and they have completed the pre-testing.

INNOVATION

Inn 01 Innovation

No. of BREEAM innovation credits available	10	Available contribution to overall score	10.00%
		Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Man 03 Responsible construction practices	Yes	1	1
Man 05 Aftercare	No	1	0
Hea 01 Visual Comfort	No	1	0
Hea 02 Indoor Air Quality	No	2	0
Ene 01 Reduction of energy use and carbon emissions	No	5	0
Wat 01 Water Consumption	No	1	0
Mat01 Life Cycle Impacts	No	3	0
Mat03 Responsible Sourcing of Materials	No	1	0

Wst01 Construction Waste Management	No	1	0
Wst02 Recycled Aggregates	No	1	0
Wst 05 Adaption to climate change	No	1	0

Number of 'approved' innovation credits achieved?	0

Total BREEAM innovation credits achieved	1
Total contribution to overall building score	1.00%
Minimum standard(s) level	N/A

Comments/notes:

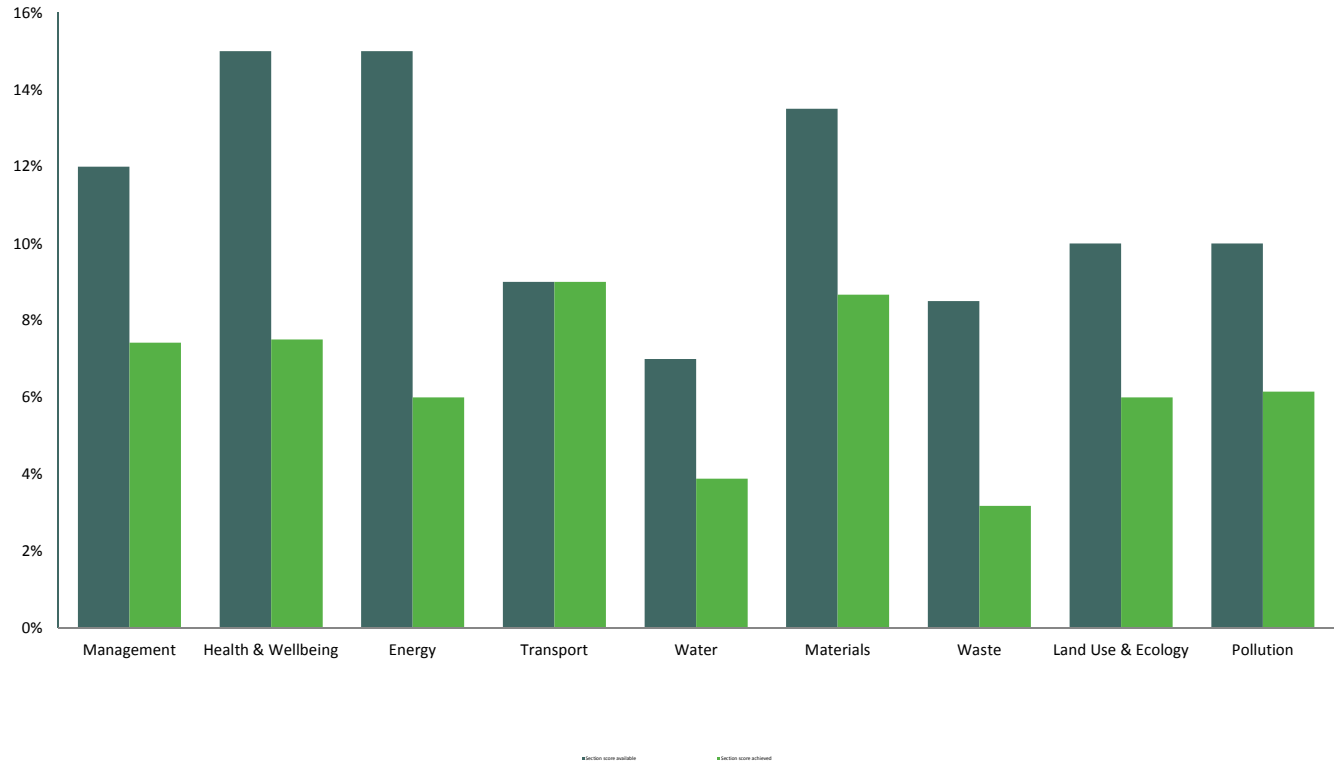
Please see above validation statements.

BREEAM UK New Construction 2014 Pre-Assessment Estimator: Indicative Rating & Building Performance

Overall Building Performance

Building name	LaSWAP 6th form centre
Indicative BREEAM rating	Very Good
Indicative Total Score	58.8%
Min. standards level achieved	Excellent level

Building Performance by Environment Section



Environmental Section	No. credits available	Indicative no. credits Achieved	% credits achieved	Section Weighting	Indicative Section Score
Management	21	13	61.90%	12.00%	7.42%
Health & Wellbeing	18	9	50.00%	15.00%	7.50%
Energy	20	8	40.00%	15.00%	6.00%
Transport	7	7	100.00%	9.00%	9.00%
Water	9	5	55.56%	7.00%	3.88%
Materials	14	9	64.29%	13.50%	8.67%
Waste	8	3	37.50%	8.50%	3.18%
Land Use & Ecology	10	6	60.00%	10.00%	6.00%
Pollution	13	8	61.54%	10.00%	6.15%
Innovation	10	1	10.00%	N/A	1

BREEAM UK New Construction 2014 Pre-Assessment Estimator: Version Control

Version	Release Date	Description of changes/additions made to the BREEAM UK NC 2014 Pre-Assessment Estimator Tool
Current Version		
5.1	27/04/2017	Assessment Details - Increased user-friendliness of building type drop-down menus Ene 07 - Updated filtering criteria to allow one credit to be achieved where labs are present but constitute less than 10% of the floor area Ene 09 - Added an option to filter Ene 09 out of the assessment where there is a ligature risk. Wat 04 - Credit is now awarded for Shell Only or Shell and Core Projects with no unregulated water consumption as per CN1.2 Wst 01 - Updated filtering so that diversion of resources from landfill credit can be achieved without achieving any Construction Resource Efficiency credits. LE 05 - Prevented credits being awarded where an ecologist was not confirmed to have been appointed Pol 02 - For industrial Projects calculation methodology has been updated to allow achievement of one credit
Previous Versions		
5.0	13/02/2017	All issues of the guidance now available for selection in the Assessment Details tab. All changes made in version 4.20 of this tool are applicable to developments assessed to issues 4.1 and 5.0 of the scheme. Hea 02 - amendments to the titles of credits. No functionality changed. Hea 04 - amendment so that no credits can be awarded for Shell Only assessments. Ene 01 - amended tool to reflect that Actual Demand must be less than Notional Demand, and that the BER must show an improvement over TER for any credits to be awarded. Ene 01 - removal of need for CO2 emission input for Shell Only assessments to achieve 12 credits. Ene 01 - when Shell Only is selected the Exemplary level credits have now been marked as N/A. Ene 04 - for Shell Only assessments, the need for the Thermal Modelling credit in Hea 04 to be achieved has been removed. A note has been added to confirm the criteria of Hea 04 needed for the Passive Design Analysis credit in Ene 04 to be awarded. Ene 09 - correction of applicability of this issue to supported living accommodation (see Compliance Notes). Tra 03 - the tool allows the second credit to be awarded with a non-compliant answer given for the 'facilities provided' question. Instructions included to help users complete the issue correctly. Wat 01 - removal of the Minimum Standard for Shell and Core assessments where the developer is not specifying any components. Wst 06 - amendment to cell 'Total contribution to building score'. This was not having an effect on the contribution of Wst 06 on the overall assessment. Le 04 - amendment to second credit to allow it to be awarded when an ecologist identifies an increase in ecological value (as detailed in the Compliance Notes). LE 05 - full credits awarded where a landscape and management plan is not applicable. The number of credits awarded for implementing different numbers of measures has been corrected. Innovation table corrected to show Ene 01 Exemplary credits not applicable when assessing a Shell Only development. Version control - change to numbering of tools. One decimal point to be used from this point onwards. Various formatting changes throughout the tool. All changes to the functionality of the tool are detailed above.
4.20	29/10/2015	Hea 01 - Glare Control is made not applicable for Shell only and Shell and core assessments where v.4.0 of the manual is selected. Ene 04 - It is made available for Shell only projects where Hea 04 is not applicable, when version 4.0 of the manual is selected. Wat 01 - Minimum standard not applicable to shell and core projects where components are not been specified and installed by the developer, but they will be specified by the tenant. This applies to version 4.0 of the manual. Wat 02 - Minimum standard not applicable to shell only assessments. This applies to version 4.0 of the manual.
4.10	21/10/2015	Fixed issue with Indicative Total Score in Summary of Performance tab.
4.00	13/10/2015	Assessment details - Version 4.0 of the manual added to the drop down list; allowed all building types to be assessed as shell and core or shell only; Fire stations and Visitors centres added to Building type (sub-group). Man 03 - 2 credits for CCS are made available for all building types. Hea 04 - The issue is made N/A for shell only project types. Ene 01 - Update with the new Scottish regs Wst 05 - The exemplary credits are made available for shell and core project types
3.00	11/08/2015	Man 04 - Criterion 10 has been scoped out for shell only assessments. Minimum standard amended. Note and applicability of second credit amended. Wat 04 - The credit is awarded by default for shell only and shell and core assessments where there is no unregulated water demand. Pol 02 - Fixed issue with credits awarded where water heating contribute less than 10% of the buildings total energy consumption.

2.00	27/05/2015	Added SD5076 Issue 3.0 to the assessment details tab Man 05 - Made credits independent of POE Man 05 - Unlocked summary box Hea 01 - Amended wording in relation to lighting and shell & core/shell only buildings Hea 02 - Made credits independent of IAQ Hea 02 - Exemplary lever criteria is made not available when VOC emission levels (product) criteria are not met Hea 04 - Made whole issue N/A for industrial buildings with no offices Ene 01 - The tool was not awarding the minimum standard correctly for buildings modelled using SAP and SBEM. The issue has been fixed Ene 01 - Fixed issue calculation for non-domestic buildings in Scotland Ene 07 - One credit has been made available when the laboratory area accounts for less than “10% of building's Gross Internal Floor Area” Ene 08 - Fixed scoring when Residential areas are a major contributor to unregulated energy use Tra 03 - The drop down list for 'cyclist facilities provided' has been amended and now includes all the options available Pol 02 - The credits were awarded by default when cells were empty. The issue has been sorted Innovation table has been amended Assessment Details tab has been amended so that when all mandatory fields are filled in the warning message does not appear anymore
1.00	06/08/2014	First version uploaded to Extranet

RSK BREEAM

LaSWAP 6th Form Centre, Parliament Hill School

Credit Name	Sub Credit	Max Available Credits	Targeted Credits	Potential Extra Credits	Targeted Credits Weighting	Potential Credits Weighitng	Achieved Credits	Achieved Score	Status	Responsibility and Deadline dates	Evidence Criteria	Data Requirement	Compliant Evidence Provided?		RSK / Team Comments
Management															
MAN 01 - Project Brief and Design	Stakeholder Consultation (project delivery)	1	1	0	0.57	0.00		0.00	Incomplete	Farrans, GSS, School	1-3	Consultation plan setting out the process and scope of the consultation.	No		
												Consultation Documents.	No		
	Stakeholder Consultation (third party)	1	0	1	0.00	0.57		0.00	Incomplete	Farrans, GSS	4-7	> Consultations documents > Letter	No	No	
	Sustainability Champion (design)	1	0	0	0.00	0.00		0.00	Not Sought		8-10	> Letter of appointment	No		
	Sustainability Champion (monitoring progress)	1	0	0	0.00	0.00		0.00	Not Sought		11-12	> Letter of appointment	No		
MAN 02- Service life planning and costing	Elemental Life Cycle Cost	4	1	0	0.57	0.00		0.00	Incomplete	Cost Consultant	1 -2	Elemental life cycle cost plan	No		
	Component Level LCC plan										3-4	Component level life cycle cost plan	No		
												> Design drawings or Specification > Letter / email	No	No	
	Capital Cost Report										5	Report the capital cost for the building in pounds per square metre (£k/ m2).	No		Will be kept confidential
MAN 03 - Responsible Construction Practices	Pre-requisite								Incomplete	Farrans	1	Letter	No		Ensure written into tender documenys for contractor agreement
	Environmental Management	1	1	0	0.57	0.00		0.00	Incomplete	Farrans	2-3	> ISO 14001 / EMAS or equivalent standard > Letter (criteria 3)	No	No	
	Sustainability Champion	1	0	0	0.00	0.00		0.00	Not Sought		4-6	> Letter (criteria 4) > Contract (criteria 5)	No	No	
	Considerate Construction	2	2	0	1.14	0.00		0.00	Incomplete	Farrans	7	CCS Certification	No		Ensure scoring at least 7 in each section, minimum score of 35, aiming for 40
	Monitoring of Construction Site Impacts	2	2	0	1.14	0.00		0.00	Incomplete	Farrans	8-17	> Letter of appointment > Contract	No	No	
MAN 04 Commissioning and Handover	Commissioning Schedule and Responsiblities	1	1	0	0.57	0.00		0.00	Incomplete	Harvey	1-4	> Schedule > Letter of appointment	No	No	
	Commissioning Building Services	1	1	0	0.57	0.00		0.00	Incomplete	Harvey	5 - 6	Letter of appointment	No		
	Commissioning Building Fabric	1	0	0	0.00	0.00		0.00	Not Sought		7-9	Thermographic Survey	No		
	Handover	1	1	0	0.57	0.00		0.00	Incomplete	Farrans	10-11	> Building User Guide or commitment to produce one > Training schedule or commitment to produce one	No	No	
MAN 05 Aftercare	Aftercare Support	1	1	0	0.57	0.00		0.00	Incomplete	Farrans, Harvey	1-2	Evidence of meeting, training and aftercare support already in place or Commitment Letter	No		Requires 12 months aftercare
	Seasonal Commissioning	1	1	0	0.57	0.00		0.00	Incomplete	Harvey	3	Letter of commitment	No		
	Post Occupancy Evaluation	1	1	0	0.57	0.00		0.00	Incomplete	Farrans	4-5	Letter of commitment	No		Must be done by a third party
Section Total		21	13	1	7.43	0.57	0	0.00							
Health and Wellbeing															
HEA 01 - Visual comfort	Glare control	1	1	0	0.83	0.00		0.00	Incomplete	GSS	1-2	> Design Drawings or Specification > Strategy or Letter	No	No	
	Daylighting	2	2	0	1.66	0.00		0.00	Incomplete	Harvey	3	Daylighting calculations	No		
												> Drawings > Calculations both for (a) or (b) & (c) table 11.	No	No	
	View Out	1	0	1	0.00	0.83		0.00	Incomplete	GSS	4-6	> Drawings > Calculations	No	No	
	Internal/External lighting levels and controls	1	1	0	0.83	0.00		0.00	Incomplete	Harvey	7-13	> Letter or Specification > Drawings	No	No	
HEA 02 - Indoor air quality	Minimising source of air pollution	1	0	1	0.00	0.83		0.00	Incomplete	Harvey	1	A compliant Indoor Air Quality Plan	No		
	Ventilation	1	0	0	0.00	0.00		0.00	Not Sought		2-5	> Specification > Drawings	No	No	
	VOCs (products)	1	1	0	0.83	0.00		0.00	Incomplete	GSS	6-7	Specification or Letter	No		
	VOCs (Post Construction)	1	0	1	0.00	0.83		0.00	Incomplete	Farrans	8-12	Specification or Letter	No		
	Potential for natural ventilation	1	0	1	0.00	0.83		0.00	Incomplete	Harvey and GSS	13-14	> Specification > Drawings	No	No	
HEA 03 - Safe Containment in Laboratories		0							Not Sought		1-3	> Risk Assessment > Specifcation	No	No	
											4-5	> Specification > Drawings	No	No	
HEA 04 - Thermal comfort		3	2	0	1.66	0.00		0.00	Incomplete	Harvey	1-4	Thermal Modelling Report	No		
											5-8	Thermal Modelling Report or Statement from project team	No		
											9-11	Thermal zoning and control stategy	No		
HEA 05 - Acoustic performance		3	2	1	1.66	0.83		0.00	Incomplete	Acoustician	1	Acoustian's report	No		
											2-3	Acoustian's report (and appointment letter if critera 3 targetted)	No		
											4 (Multi-Residential only)	Multi-residential specificWhere Robust Details are to be used, the following must be provided: >1. Design team confirmation that Robust Details chosen will achieve the required performance standards for sound insulation. > 2. Purchase Statement from RDL which confirms that the relevant plots are registered with RDL.			
HEA 06 - Safety and security		2	0	1	0.00	0.83		0.00	Incomplete	Farrans, GSS, Harvey	1-10	> Drawing > Specification or Statement	No	No	

											11-13	Letter or Statement from SQSS	No	
Section Total		18	9	6	7.47	4.98	0	0.00						
Energy														
ENE 01 - Reduction of CO2 emissions		12	5	1	3.75	0.75		0.00	Incomplete	Harvey	1	A copy of the Building Regulations Output Document from the approved software. The output documents must be based on the design stage of analysis. *The inp file must also be provided. *(where relevant for multi-residential buildings)A copy of the Building Regulations Output Document from the design stage SAP calculations	No	
											2-4	As above, plus evidence confirming: 1. The total carbon neutral energy generation (kWh/yr) 2. The source of the carbon neutral energy 3. Calculated estimate of energy consumption from unregulated systems/process (kWh/yr) (only required if confirming zero regulated carbon or carbon negative exemplary credits). 4. Calculated estimate of exported energy surplus (only required if confirming carbon negative status).	No	No
ENE 02 - Energy monitoring		2	1	1	0.75	0.75		0.00	Incomplete	Harvey	1-5	> Letter or; > Design drawings/specification	No	No
ENE 03 - Energy efficient external lighting		1	1	0	0.75	0.00		0.00	Incomplete	Harvey	1-3	> Letter or; > Design drawings/specification	No	No
ENE 04 - LZC Technologies	Passive Design	1	0	1	0.00	0.75		0.00	Incomplete	GSS, Harvey	1 -3	> Evidence to show analysis of building > Evidence to show passive design measures implemented.	No	No
	Free cooling	1	0	1	0.00	0.75		0.00	Incomplete	Harvey	4-6	Results from a dynamic simulation model demonstrating the feasibility of the free cooling strategy and meeting the first credit for Hea 04.	No	
												One or more of the appropriate evidence types listed.	No	No
	Low and zero carbon technologies	1	1	0	0.75	0.00		0.00	Incomplete	Harvey	7-8	>Feasibility Study	No	
												Two or more of the appropriate evidence types listed.	No	No
ENE 05 - Energy efficienct cold storage systems		0							Not Sought		1-2	Letter	No	
											3-4	Documentary evidence confirms the GHG savings	No	No
ENE 06 - Energy efficienct transportation systems		0							Not Sought		1	Documentary evidence confirming all criteria is met	No	No
											2-6	Manufacturer data sheets	No	
ENE 07 - Energy efficient laboratory systems	Pre-requisite								Not Sought		1	Hea 03 complete	No	
	Design Specification	0							Not Sought		2-5	Proof of consultation.	No	No
	Best practice energy efficient measures	0							Not Sought		6-9	One or more of the appropriate evidence types listed	No	No
ENE 08 - Energy efficient equipment (process)		2	0	2	0.00	1.50		0.00	Incomplete	School	1-3	One or more of the appropriate evidence types listed	No	No
ENE 09 - Drying space (building type specfic)		0							Not Sought		1-3	> Letter or; > Design drawings or; > Specification	No	
Section Total		20	8	6	6.00	4.50	0	0.00						
Transport														
TRA 01 - Public transport accessibility	Accesdibility index (building dependent)	3	3	0	3.87	0.00		0.00	Incomplete	GSS	1&2	A completed copy of the Tra 01 calculator.	No	
												Documentary evidence supporting the data used to complete the calculator tool. > Timetable > Scaled & annotated drawing / map /google streetview	No	No
	Dedicated bus service	0						0.00	Not Sought		3	One or more of the appropriate evidence types listed, right.	No	No
TRA 02 - Promixity to amenities		1	1	0	1.29	0.00		0.00	Incomplete	GSS	1-2	> Scaled & annotated drawing / map /google streetview OR Where the amenities do not currently exist but are due to be developed a letter from the client/developer confirming: 1. The location and type of amenities to be provided 2. The timescale for development of the amenities.	No	No
TRA 03 - Cyclist facilities		2	2	0	2.58	0.00		0.00	Incomplete	GSS, Harvey	1-4	Two or more of the appropriate evidence types listed, right.	No	No
TRA 04 - Maximum car parking capacity		0							Not Sought		All	One or more of the appropriate evidence types listed. Where relevant, a completed copy Tra 01 calculator confirming the building's Accessibility Index	No	No
TRA 05 - Travel plan		1	1	0	1.29	0.00		0.00	Incomplete	Transport Consultant	1 to 4	> Travel Plan AND if occupier is known > Evidence that they have been involved inb the development of the travel plan	No	No
Section Total		7	7	0	9.03	0.00	0	0.00						
Water														
WAT 01 - Water consumption		5	2	1	1.56	0.78		0.00	Incomplete	GSS	1-6	A completed copy of the BREEAM Wat 01 calculator Documentary evidence supporting the data used to complete the calculator tool.	No	
												One or more of the appropriate evidence types listed to show: > Water consumption of all water consuming components > Amount of all these components being installed.	No	No
WAT 02 - Water monitoring		1	1	0	0.78	0.00		0.00	Incomplete	Harvey	1-4	One or more of the appropriate evidence types listed, right.	No	No
WAT 03 - Water leak detection		2	1	1	0.78	0.78		0.00	Incomplete	Harvey	1-2	Two or more of the appropriate evidence types listed, right.	No	No
WAT 04 - Water efficient equipment		1	1	0	0.78	0.00		0.00	Incomplete	Farrans	1-2	One or more of the appropriate evidence types listed.	No	No
Section Total		9	5	2	3.89	1.56	0	0.00						
Materials														

MAT 01 - Life cycle impacts		6	5	1	4.82	0.96		0.00	Incomplete	GSS	1-5	> Building Specification showing all applicable materials > Design drawing showing locations of all applicable elements > Table or similar documentary evidence to show : Area (m2) of each applicable material Green Guide element number & rating Life cycle GHG emissions	No	No	
											1-5	A copy of the output from the BREEAM Mat 01 calculator tool, including the Green Guide rating and element number for each specification assessed The online Green Guide Calculator output (where relevant).	No		
											6-8	If targetted (Route 2) Documentary evidence detailing how the calculator tool has been completed.	No	No	
MAT 02 - Hard landscaping and boundary protection		1	0	1	0.00	0.96		0.00	Incomplete	Doran	1	One or more of the appropriate evidence types listed.	No	No	
												The Green Guide rating and element number for the assessed specifications.	No		
MAT 03 - Responsible sourcing of materials	Pre-requisite								Incomplete	Farrans	1	> Certfiticate or letter of commitment that all timeber based prodcuts are responsibly sourced.	No		
	Sustainable Procurement Plan	1	1	0	0.96	0.00		0.00	Incomplete	Farrans	2	Evidence of a Sustainable Procurement Plan	No		
	Responsible Sourcing of Materials	3	1	1	0.96	0.96		0.00	Incomplete	GSS, Harvey, Doran, Farrans	3	Route dependant: Route 1: Table or similar documentary evidence to show : > Location/use of each applicable material > Material Category of each applicable material > RSCS of each material Route 2: Table or similar documentary evidence to show : > Location/use of each applicable material > Material Category of each applicable material > RSCS of each material > Volume (m3)) of each applicable material Route 3: Volume m3 where available, otherwise just all other info.	No	No	
												Completed copy of the Mat 03 calculator tool	No		
MAT 04 - Insulation	Embodied Impact	1	1	0	0.96	0.00		0.00	Incomplete	GSS, Harvey	1-2	The following info on all..... Building Fabric insulation: > Area (m2) > Insulation thickness (m) >Thermal conductivity > GreenGuide Rating	No	No	
												Building Services Insulation: > Voulume (m3) >Thermal conductivity > GreenGuide Rating	No	No	
												A completed copy of the Mat 04 calculator tool	No		
MAT 05 - Designing for Durability and Resilience		1	1	0	0.96	0.00		0.00	Incomplete	GSS	1-2	One or more of the appropriate evidence types listed.	No	No	
MAT 06- Material Efficiency		1	0	1	0.00	0.96		0.00	Incomplete	GSS, Farrans	1-2	One or more of the appropriate evidence types listed.	No	No	
Section Total		14	9	3	8.68	2.89	0	0.00							
Waste															
WST 01 - Construction waste management	Construction resource efficiency	3	1	1	1.06	1.06		0.00	Incomplete	Farrans	1-3	One or more of the appropriate evidence types listed.	No	No	
												A copy of the Resource Management plan and, where relevant, pre-demolition audit.	No		
	Diversion of resources from landfill	1	1	0	1.06	0.00		0.00	Incomplete	Farrans	4-5	One or more of the appropriate evidence types listed.	No	No	
WST 02 - Recycled aggregates		1	0	1	0.00	1.06		0.00	Incomplete	Doran	1-3	One or more of the appropriate evidence types listed.	No	No	
												Calculation confirming the amount of recycled or secondary aggregate to be used.	No		
WST 03 - Operational waste		1	1	0	1.06	0.00		0.00	Incomplete	GSS, School	1-2	One or more of the appropriate evidence types listed.	No	No	
											3	HEALTHCARE:One or more of the appropriate evidence types listed.	No	No	
											4	MULTI-RESIDENTIAL: One or more of the appropriate evidence types listed.	No	No	
											5-7	MULTI-RESIDENTIAL: One or more of the appropriate evidence types listed.	No	No	
WST 04 - Speculative floor and ceiling finishes		0							Not Sought		1-2	One or more of the appropriate evidence types listed.	No	No	
Wst 05 Adaptation to Climate Change		1	0	0	0.00	0.00		0.00	Not Sought		1	One or more of the appropriate evidence types listed.	No	No	
Wst 06 Functional Adaptability		1	0	1	0.00	1.06		0.00	Incomplete	Farrans, GSS, Harvey	1-2	One or more of the appropriate evidence types listed.	No	No	
												Functional adaptation strategy and implementation plan report	No		
Section Total		9	3	3	3.18	3.18	0	0.00							
Land Use and Ecology															
LE 01 - Site selection	Previously occupied land	1	1	0	1.00	0.00		0.00	Incomplete	GSS	1	One or more of the appropriate evidence types listed.	No	No	
	Contaminated land	1	0	0	0.00	0.00		0.00	Not Sought		2-3	A letter confirming the remediation will take place	No		
												A copy of the remediation strategy and implementation plan	No		

LE 02 - Ecological value of site and protection of ecological features	Ecological Value of Site	1	0	1	0.00	1.00		0.00	Incomplete	Ecologist, Farrans	1	SQE report OR Where a Suitably Qualified Ecologist is not employed BREEAM checklist for defining land of low ecological value.	No		
	Protection of Ecological Features	1	1	0	1.00	0.00		0.00	Incomplete	Ecologist, Farrans	2-3	One or more of the appropriate evidence types listed.	No	No	
LE 03 - Minimising Impact on Existing Site Ecology		2	1	1	1.00	1.00		0.00	Incomplete	Ecologist, Farrans	1-2	A completed copy of the BREEAM LE 03/LE 04 calculator	No		
												Documentary evidence supporting the data used to complete the calculator tool.	No		
LE 04 - Enhancing site ecology		2	1	1	1.00	1.00		0.00	Incomplete	Ecologist, Farrans	1-6	> Ecology Report and SQE recommendations > Recommendations from the SQE implemented	No	No	
												Where relevant: A completed copy of the BREEAM LE 03/LE 04 calculator AND Documentary evidence supporting the data used to complete the calculator tool.	No		
LE 05 - Long term impact on biodiversity		2	2	0	2.00	0.00		0.00	Incomplete	Ecologist, Farrans	1-3	> SQE report or letter confirming criteria 1 > Letter of commitment on Landscape management plan or the plan itself. > Letter of commitment for as many aspects of table 58 as possible.	No	No	
													No		
Section Total		10	6	3	6.00	3.00	0	0.00							

Pollution

POL 01 - Impact of Refrigerants	No refrigerants	0							Not Sought		1	Letter or Specification	No		
	Pre-requisite (if refrigerants in building)								Incomplete	Harvey	2	One or more of the appropriate evidence types listed.	No	No	
	Impact of Refrigerant	2	0	1	0.77	0.77		0.00	Incomplete	Harvey	3-5	Completed copy of the Pol 01 calculator tool	No		
												Documentary evidence supporting the data used to complete the calculator tool. > Formal letter from manufacturer / data sheets	No		
	Leak Detection	1	1	0	0.00	0.00		0.00	Incomplete	Harvey	6-7	One or more of the appropriate evidence types listed.	No	No	
POL 02 - Nox emissions		3	3	0	2.31	0.00		0.00	Incomplete	Harvey	1-2	One or more of the appropriate evidence types listed.	No	No	
												Calculations showing the average NOx emissions for the building where multiple systems are present.	No		
POL 03 - Surface water run-off	Flood risk	2	2	0	1.54	0.00		0.00	Incomplete	Doran	1-3	A site Specific FRA	No		
	Pre-requisite								Incomplete	Doran	4	An Appropriate Consultant is appointed to carry out, demonstrate and/or confirm the development's compliance with 5-7	No	No	
	Surface water runoff	2	0	2	0.00	1.54		0.00	Incomplete	Doran	5-7	One or more of the appropriate evidence types listed.	No	No	
												Calculation results for the pre and post development peak rate of run-off	No		
	Minimising water course pollution	1	0	1	0.00	0.77		0.00	Incomplete	Doran	8-14	One or more of the appropriate evidence types listed.	No	No	
												Information showing the proposed drainage solution, system failure flood flow routes, potential flood ponding levels and ground floor levels.	No		
												Calculation results for the pre and post development volume of run-off.	No		
												Calculation results for the limiting discharge	No		
											15-22	One or more of the appropriate evidence types listed.	No	No	
POL 04 - Reduction of night time light pollution		1	1	0	0.77	0.00		0.00	Incomplete	Harvey	1-5	One or more of the appropriate evidence types listed.	No	No	
POL 05 - Reduction of Noise Pollution		1	1	0	0.77	0.00		0.00	Incomplete	Acoustician	1-5	One or more of the appropriate evidence types listed.	No	No	
Section Total		13	8	4	6.15	3.08	0	0.00							

Innovation

MAN 01 - Sustainable Procurement (SIMPLE BUILDINGS ONLY)	Project Brief and Design	0							Not Sought		ALL				
MAN 03- Responsible construction practices		1	1	0	1.00	0.00		0.00	Incomplete	Farrans	17	One or more of the appropriate evidence types listed in The BREEAM evidential requirements section can be used to demonstrate compliance with these criteria.			
MAN 05- Aftercare		1	0	0	0.00	0.00		0.00	Not Sought		6	One or more of the appropriate evidence types listed in The BREEAM evidential requirements section can be used to demonstrate compliance with these criteria.			
HEA 01 - Visual comfort	Daylighting	1	0	0	0.00	0.00		0.00	Not Sought		14	One or more of the appropriate evidence types listed in The BREEAM evidential requirements section can be used to demonstrate compliance with these criteria.			
HEA 02 - Indoor Air Quality		2	0	0	0.00	0.00		0.00	Not Sought		15-20	One or more of the appropriate evidence types listed in The BREEAM evidential requirements section can be used to demonstrate compliance with these criteria.			
ENE 01 - Reduction of CO2 emissions		1	0	0	0.00	0.00		0.00	Not Sought		2-4	A copy of the Building Regulations Output Document from the approved software. The output documents must be based on the design stage of analysis. A copy of the Building Regulations Output Document from the design stage SAP calculations (where relevant for multi-residential buildings). As above, plus evidence confirming: 1. The total carbon neutral energy generation (kWh/yr) 2. The source of the carbon neutral energy 3. Calculated estimate of energy consumption from unregulated systems/process (kWh/yr) (only required if confirming zero regulated carbon or carbon negative exemplary credits). 4. Calculated estimate of exported energy surplus (only required if confirming carbon negative status).			

WAT 01 - Water consumption	1	0	0	0.00	0.00		0.00	Not Sought		1-6	A completed copy of the BREEAM Wat 01 calculator Documentary evidence supporting the data used to complete the calculator tool. One or more of the appropriate evidence types listed in The BREEAM evidential requirements section can be used to demonstrate compliance with these criteria.			
MAT 01 - Life cycle impacts	1	0	0	0.00	0.00		0.00	Not Sought		4-8	One or more of the appropriate evidence types listed in The BREEAM evidential requirements section can be used to demonstrate compliance with these criteria. A copy of the output from the BREEAM Mat 01 calculator tool, including the Green Guide rating and element number for each specification assessed The online Green Guide Calculator output (where relevant). Documentary evidence detailing how the calculator tool has been completed. A copy of the statement demonstrating benefit of using IMPACT compliant software (or equivalent) AND a BRE Global email confirmation for receipt of the model			
MAT 03 - Responsible sourcing of materials	1	0	0	0.00	0.00		0.00	Not Sought		4	See The BREEAM evidential requirements section for a list of general evidence types that can be used to demonstrate compliance with the relevant criteria for this issue. Completed copy of the Mat 03 calculator tool Documentary evidence detailing how the calculator tool has been completed.			
WST 01 - Construction waste management	1	0	0	0.00	0.00		0.00	Not Sought		6-8	One or more of the appropriate evidence types listed in The BREEAM evidential requirements section can be used to demonstrate compliance with these criteria. A copy of the Resource Management plan and, where relevant, pre-demolition audit.			
WST 02 - Recycled Aggregates	1	0	0	0.00	0.00		0.00	Not Sought		4-6	One or more of the appropriate evidence types listed in The BREEAM evidential requirements section can be used to demonstrate compliance with these criteria.			
WST 05 - Adaptation to Climate Change	1	0	0	0.00	0.00		0.00	Not Sought		2	One or more of the appropriate evidence types listed in The BREEAM evidential requirements section can be used to demonstrate compliance with these criteria.			
Pol 03 - Surface Water Runoff (SIMPLE BUILDINGS ONLY)	0							Not Sought		All				
Section Total	12	1	0	1.00	0.00	0	0.00							
Overall Total	133	69	28	58.83	23.75	0	0.00							

	Score	Level
Targeted Score (Targeted and Potential Score)	58.83	Very Good
Achieved Credits	0.00	Unclassifed
Minimum Standards Reached		#REF!