

Aylesbury Plot 18: Health Centre, Community Facility and Early Years Nursery

BREEAM 2014 New Construction Pre-Assessment

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Rev No	Comments	Checked by	Approved by	Date
1	Draft for Comment: BREEAM pre-assessment for Health Centre and Community Facility within plot 18 of the site	JW	GS	12.4.2016
2	Final: BREEAM pre-assessment for Health Centre and Community Facility within plot 18 of the site	JW	GS	19.05.2016
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1 Introduction

The site is bounded by Albany Road, Portland Street, Bagshot Street, Alvey Street, East Street and Dawes Street in London SE17 and will hereafter be referred to as 'the site'.

Outline planning consent (14/AP/3844) was granted for the site by the London Borough of Southwark with a number of conditions attached including:

"33 BREEAM

- a) *All commercial units over 1,000sqm (GEA) shall be designed and constructed to achieve a minimum BREEAM rating of 'Excellent' or in the case of Class D1 community uses over 1,000sqm a minimum rating of 'Very Good' for those units unless otherwise agreed in writing by the Local Planning Authority."*

'Commercial Units' is defined in the Section 106 to be:

"Any individual unit or unit re-configured from or any part of the floorspace comprised in the Development and being within Classes A1, A3, B1, D1 and D2 as defined by the Town and Country Planning (Use Classes) Order 1987 (as amended) and in force at the date of this deed."

The site contains several plots. AECOM Sustainable Buildings Team has been providing advice and guidance to the client and their design team for the Health Centre, Community Facility and Early Years Nursey Facility to be contained within Plot 18.

The Health Centre, Class D1, has a gross internal area of 3343m² and the Early Years Nursery Facility, Class D1, has a gross internal area of 946m²¹. The Community Facility, Class D1, has a gross external area of 889m²² and it is proposed to include a:

- Library;
- 'Stay and Play' Room; and
- Creation Trust Office.

¹ GL Hearn Glossary of Terms, 17.05.16

² HTA, 31.03.2016. Aylesbury Estate Regeneration, Plot 18- North Building Schedule of Areas.

In BREEAM terms the Health Centre, Community Facility and Early Years Nursey are all considered to be separate units.

The advice and guidance provided by the Sustainable Buildings Team has culminated in the production of this BREEAM 2014 New Construction Pre-Assessment for three units.

2 BREEAM Process

2.1 BREEAM Process

The Building Research Establishment Environmental Assessment Method (BREEAM) UK 2014 New Construction Scheme has been used to guide and inform the design and construction of the Health Centre and Community Facility.

It is essential that environmental sustainability measures are incorporated into a scheme at the correct RIBA Stages. It is best practice to undertake a BREEAM Pre-Assessment during RIBA Stage 1, 2 and 3 to guide the design process and target credits and a rating.

2.2 Design Stage

The Design Stage (DS) Assessment will represent the performance of the unit being assessed at the technical design stage. This is typically undertaken post planning but prior to commencement on site.

2.3 Construction Stage

The Construction Assessment represents the final 'as built' performance of the unit being assessed. This assessment is typically undertaken during the construction phase of the development.

2.4 Scoring System

The individual credits are weighted by the BRE to provide percentage point(s) which combined relate to a specific rating as set out in Table 2.2.

Table 2.2 BREEAM 2014 New Construction Scores

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

In addition to a % point score there are mandatory requirements which have to be achieved for specific ratings³:

BREEAM issue	Minimum standards by BREEAM rating level				
	Pass	Good	Very Good	Excellent	Outstanding
Man 03: Responsible construction practices	None	None	None	One credit (Considerate construction)	Two credits (Considerate construction)
Man 04: Commissioning and handover	None	None	None	Criterion 10 (Building User Guide)	Criterion 10 (Building User Guide)
Man 5: Aftercare	None	None	None	One credit (Seasonal commissioning)	One credit (Seasonal commissioning)
Ene 01: Reduction of energy use and carbon emissions	None	None	None	Five credits	Eight credits
Ene 02: Energy monitoring	None	None	One credit (First sub-metering credit)	One credit (First sub-metering credit)	One credit (First sub-metering credit)
Wat 01: Water consumption	None	One credit	One credit	One credit	Two credits
Wat 02: Water monitoring	None	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Mat 03: Responsible sourcing of materials	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only

³ BRE, 2014. BREEAM UK New Construction Non-domestic Buildings (United Kingdom) Technical Manual Reference Number: SD5076: 4.1 – 2014.

BREEAM issue	Minimum standards by BREEAM rating level				
	Pass	Good	Very Good	Excellent	Outstanding
Wst 01: Construction waste management	None	None	None	None	One credit
Wst 03: Operational waste	None	None	None	One credit	One credit
LE03: Minimising impact on existing site ecology	None	None	One credit	One credit	One credit

3 Methodology

The work to date with the client and design team has resulted in items being incorporated into the: site layout; design; building envelope; specification; principal contractor requirements and procedures; and working to enable informed decisions to be made.

These are specific to each of the units. The information relating to each item is entered into a scoped BREEAM pre-assessment. This contains the:

- Topic reference;
- Topic title;
- Aim of the topic;
- Credits available;
- Credits targeted by the unit; and
- Comments.

The completed pre-assessment for the Health Centre is contained in Appendix A, the Community Facility in Appendix B, and the Early Years Nursery in Appendix C.

4 Results

The BREEAM 2014 New Construction targeted credits contained in the pre-assessment have been entered into a calculator tool which has applied the BRE weighting. It has also taken account of the mandatory requirements for a specific rating. The resulting targeted rating for the Health Centre is shown in Table 3.1, the Community Facility in Table 3.2, and the Early Years Nursey in Table 3.3.

Table 3.1 Targeted Results for the Health Centre

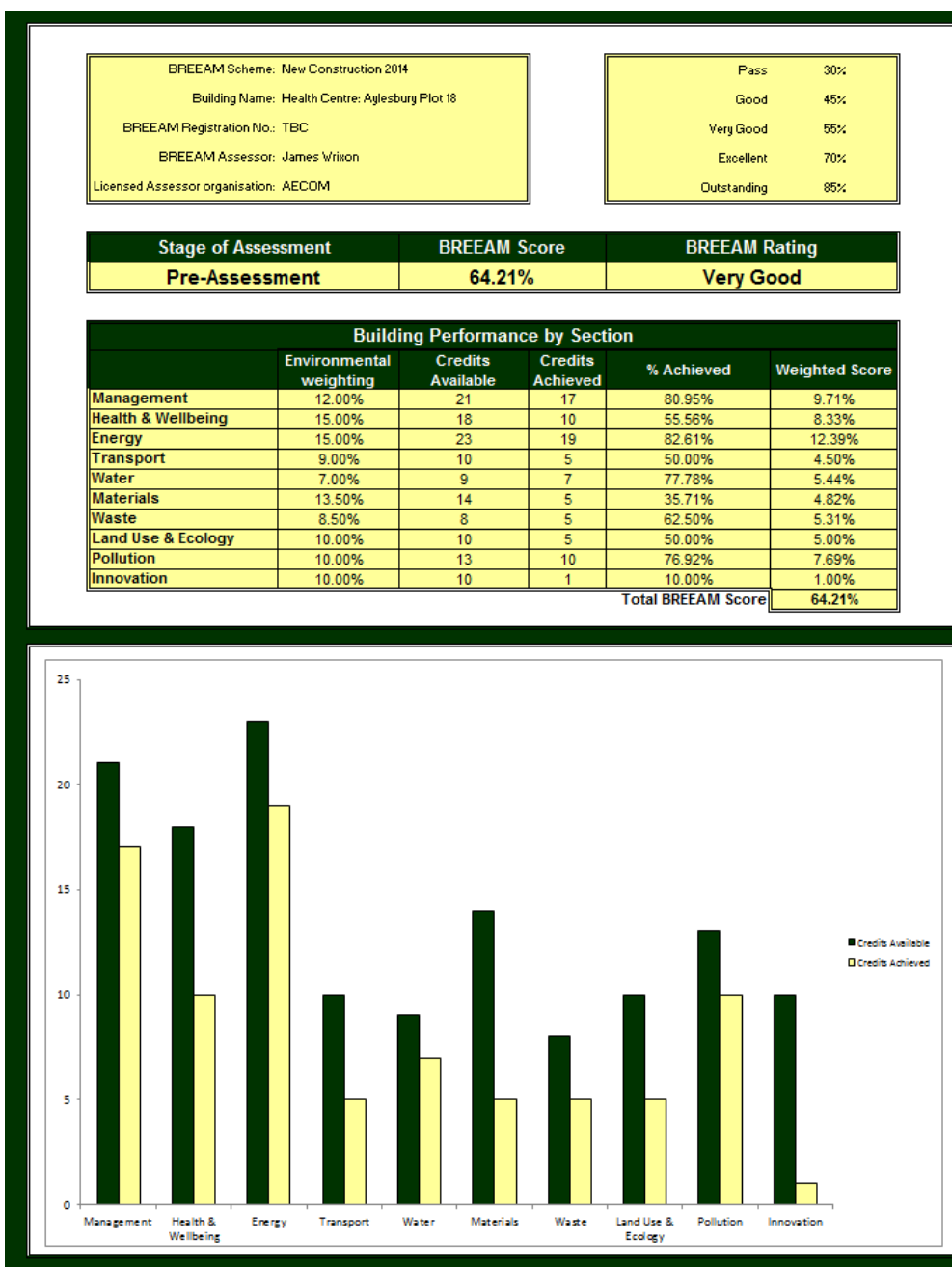


Table 3.2 Targeted Results for the Community Facility

BREEAM Scheme: New Construction 2014
 Building Name: Community Facility: Aylesbury Plot 18
 BREEAM Registration No.: TBC
 BREEAM Assessor: James Wrixon
 Licensed Assessor organisation: AECOM

Pass 30%
 Good 45%
 Very Good 55%
 Excellent 70%
 Outstanding 85%

Stage of Assessment	BREEAM Score	BREEAM Rating
Pre-Assessment	57.84%	Very Good

Building Performance by Section					
	Environmental weighting	Credits Available	Credits Achieved	% Achieved	Weighted Score
Management	12.00%	21	11	52.38%	6.29%
Health & Wellbeing	15.00%	17	9	52.94%	7.94%
Energy	15.00%	20	14	70.00%	10.50%
Transport	9.00%	11	6	54.55%	4.91%
Water	7.00%	9	7	77.78%	5.44%
Materials	13.50%	14	5	35.71%	4.82%
Waste	8.50%	8	4	50.00%	4.25%
Land Use & Ecology	10.00%	10	5	50.00%	5.00%
Pollution	10.00%	13	10	76.92%	7.69%
Innovation	10.00%	10	1	10.00%	1.00%
Total BREEAM Score					57.84%

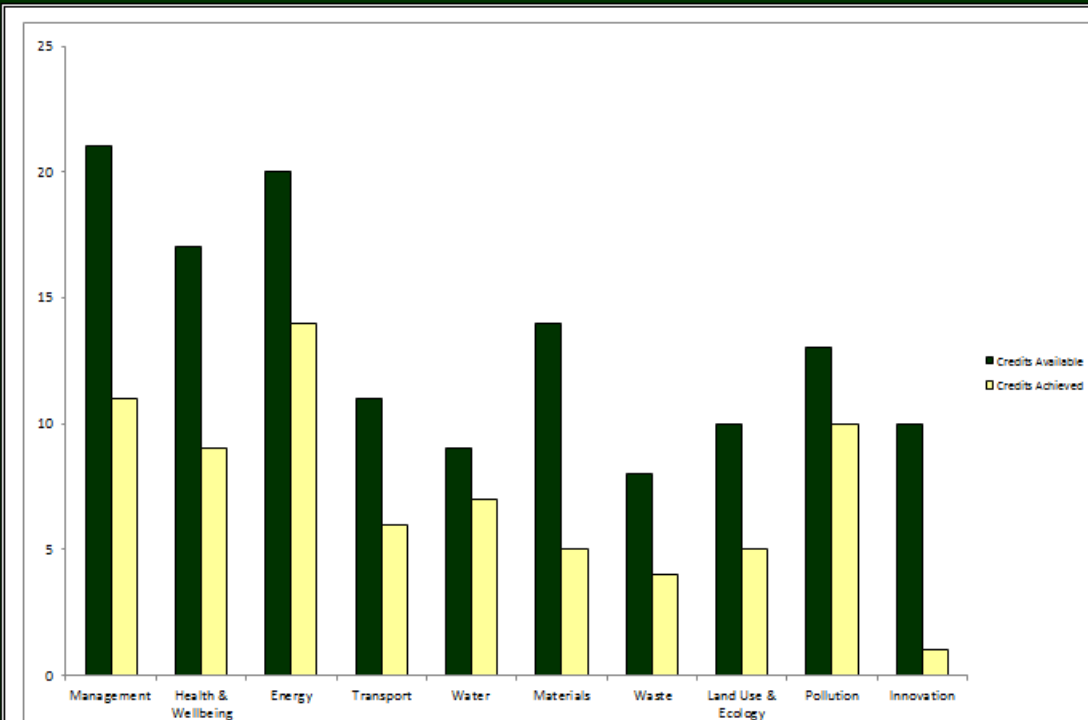
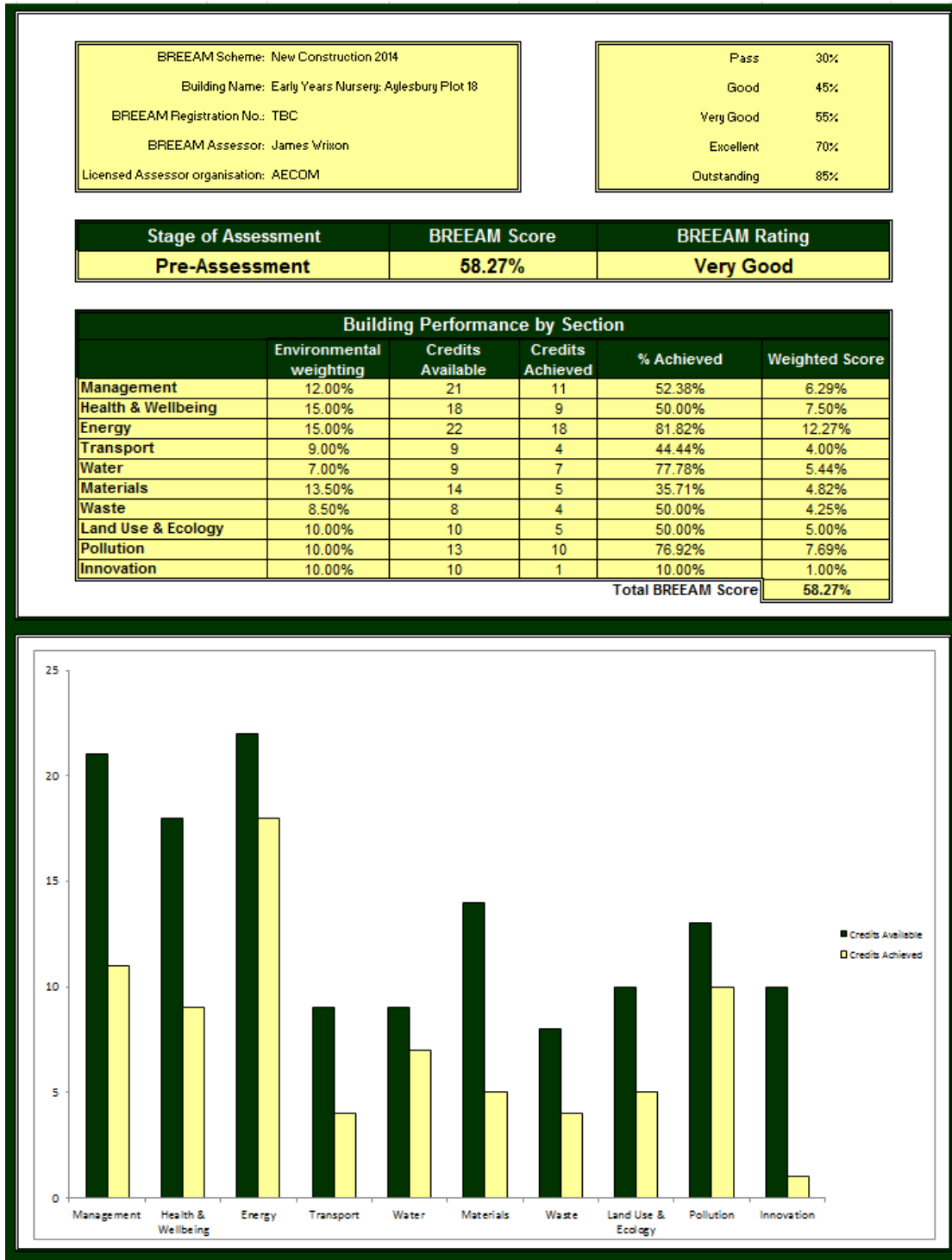


Table 3.3 Targeted Results for the Early Years Nursery



As can be seen in Table 3.1, 3.2 and 3.3, all units are targeting a rating of Very Good. This accords with the outline consent condition 33 requirement.

Appendix A: Health Centre BREEAM Pre-Assessment

BREEAM Scheme: New Construction 2014, Health Care
Building Name: Health Centre - Aylesbury Plot 18
BREEAM Assessor: James Wrixon
Licensed Assessor Organisation: AECOM



Ref	Title	Aim	Credits Available	Credits Targeted	Comments
Management					
Man 1	Project Brief and Design	To recognise and encourage an integrated design process that optimises building performance.	4	1	A Public Consultation exercise was undertaken for the Aylesbury Estate Regeneration Project and a Statement of Community Involvement was produced by Soundings Consultants dated August 2014 for the associated Outline Planning Application. Notting Hill Housing Trust (NHHT) are undertaking a consultation exercise for the Aylesbury Plot 18 proposals, and have confirmed that it will meet the BREEAM requirements and a Statement of Community Involvement will be submitted with the Reserved Matters Planning Application (email 21.03.16, 11:41). 1 credit can be targeted.
Man 2	Life Cycle Cost and Service Life Planning	To deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation , and through the dissemination of capital cost reporting promote economic sustainability	4	3	Anthony Waterman of ADW Developments is being appointed to undertake a BREEAM compliant Life Cycle Costing Exercise for the Health Centre (email 20.04.16, 14:15). 3 credits can be targeted.
Man 3	Responsible Construction Practices	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	6	6	To enable BREEAM best practice construction site environmental management Arcadis (the project managers) have confirmed that the Principal Contractor will be required to (email 23.02.16, 10:05): <ul style="list-style-type: none"> • Achieve a Considerate Constructors Scheme score of at least 40 with at least 7 in each section; • Ensure all timber used on site is FSC, PEFC or recycled/reclaimed; • Operate an Environmental Management System (e.g. ISO 14001); • Accord with PPG6 (Pollution Prevention Guidelines); • Appoint a BREEAM AP/SSM to ensure construction compliance with BREEAM targets; • Assign an individual to monitor, record and report construction energy & water consumption data; and • Assign an individual to monitor, record and report transport data (email 03.02.16, 17:35). 6 credits can be targeted.
Man 4	Commissioning and Handover	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	4	4	To enable BREEAM best practice set up and handover process Arcadis have confirmed that the Principal Contractor will be required to (email 14.03.16, 14:00): <ul style="list-style-type: none"> • Undertake pre-commissioning, commissioning, and re-commissioning of building services; • Appoint a specialist commissioning manager for all complex services/systems to provide input, design reviews, advice, management, testing etc.; • Undertake a thermographic study and air tightness testing and rectify any defects identified. • Produce a BREEAM Compliant Building User Guide to be supplied to the building users; and • Produce an implement a BREEAM compliant training schedule for building occupiers. 4 credits can be targeted.
Man 5	Aftercare	To provide post-handover aftercare to the building owner/occupants during the first year of occupation to ensure the building operates and adapts, where relevant, in accordance with the design intent and operational demands.	3	3	Notting Hill Housing Trust (NHHT) have confirmed that the following aftercare will be provided for the Health Centre (email 14.03.16, 14:00): <ul style="list-style-type: none"> • Seasonal commissioning of building services for at least 12 months after occupation; • The collection of energy and water consumption for at least 12 months after occupation; and • The provision of BREEAM compliant aftercare support such as FM training, weekly visits for the first month, and a helpline for the first 12 months of occupation. NHHT have also confirmed that Post Occupancy Evaluation will be undertaken 1 year after occupation (email 11.04.16, 16:08). 3 credits can be targeted.

Ref	Title	Aim	Credits Available	Credits Targeted	Comments
Health and Wellbeing					
Hea 1	Visual Comfort	To ensure daylighting, artificial lighting and occupant controls are considered at the design stage to ensure best practice in visual performance and comfort for building occupants.	5	2	<p>Duggan Morris Architects Ltd (architects for the Health Centre) have confirmed that glare reduction devices will be provided for all windows in rooms with workstations (email 07.09.15, 16:19).</p> <p>The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) requires lighting to be designed so that:</p> <ul style="list-style-type: none"> • All fluorescent and compact fluorescent lighting to be fitted with high frequency ballasts; • All external lighting to comply with British Standards BS 5489-1:2013 & BS EN 12464-2:2014; • All internal lighting to comply with SLL Code for Lighting 2012 and areas with computers to comply with SLL Lighting Guide 7; • Areas likely to contain computers to comply with SLL Code for Lighting Guide 7; and • All appropriate rooms have occupant controlled lighting. <p>2 credits can be targeted.</p>
Hea 2	Indoor Air Quality	To recognise and encourage a healthy internal environment through the specification and installation of appropriate ventilation, equipment and finishes.	5	2	<p>NHHT have confirmed that a BREEAM compliant Air Quality Plan will be produced at the appropriate stage of design to enable 1 credit to be targeted (email 14.03.16, 14:00).</p> <p>The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) states that all ventilation intakes / extracts will be positioned in accordance with BS EN 13779:2007.</p> <p>2 credits can be targeted.</p>
Hea 4	Thermal Comfort	To ensure that appropriate thermal comfort levels are achieved through design, and controls are selected to maintain a thermally comfortable environment for occupants within the building.	3	2	<p>NHHT have confirmed that a BREEAM compliant Temperature Control Strategy will be produced at the appropriate stage of design to enable 1 credit to be targeted (email 14.03.16, 14:00).</p> <p>The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) requires cooling systems to provide operative temperatures in accordance with CIBSE Guide A within occupied areas.</p> <p>2 credits can be targeted.</p>
Hea 5	Acoustic Performance	To ensure the building's acoustic performance including sound insulation meet the appropriate standards for its purpose.	3	3	<p>To enable BREEAM best practice acoustic standards to be met Arcadis have confirmed that the Health Centre will be designed and constructed to the following standards (email 23.02.16, 10:05):</p> <ul style="list-style-type: none"> • Airborne sound insulation performance compliant with Section 2 of HTM 08-01 2013; • HTM 08-01 2013 indoor ambient noise requirements for noise intrusion from external sources are not exceeded; and • Sound absorption compliant with Section 2 of HTM 08-01 2013. <p>3 credits can be targeted.</p>
Hea 6	Safety and Security	To recognise and encourage effective measures that promote safe and secure use and access to and from the building.	2	1	<p>HTA Design LLP (landscaping for the whole of Plot 18 and are the Architects for the Community Facility) have consulted with the local Designing Out Crime Officer (DOCO) who has provided recommendations for enhancing the security of Plot 18 (email 17.09.15, 15:05). The DOCO's recommendations regarding the Health Centre comprise Hea 1 compliant external lighting and a CCTV system and Arcadis have confirmed that these have been included for delivery (email 15.03.16, 11:17).</p> <p>1 credit can be targeted providing the compliant lighting and CCTV are installed.</p>
Energy					
Ene 1	Reduction of Energy Use and Carbon Emissions	To recognise and encourage buildings designed to minimise operational energy demand, primary energy consumption and CO ₂ emissions.	12	10	<p>An 'As Designed' BRUKL has been produced for the Health Centre (Aylesbury South Building, 11.04.16) which allows 10 credits to be targeted.</p>

Ref	Title	Aim	Credits Available	Credits Targeted	Comments
Ene 2	Energy Monitoring	To recognise and encourage the installation of energy sub-metering that facilitates the monitoring of operational energy consumption.	2	2	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) contains the requirements for: <ul style="list-style-type: none"> • Sub-meters to be installed to account for 90% of annual consumption for each fuel type; • Sub-meters to be installed to monitor energy use from each function areas / department; and • The provision of an Automatic Meter Reading (AMR) system or Building Energy Management System (BMS) connected to all energy meters. 2 credits can be targeted.
Ene 3	External Lighting	To recognise and encourage the specification of energy efficient light fittings for external areas of the development.	1	1	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) contains the requirements for external lighting to be designed so that: <ul style="list-style-type: none"> • All external lighting will have either an automatic time switch or daylight sensors, as well as presence detectors in areas of intermittent pedestrian traffic (where appropriate); and • The average initial luminous efficacy of external fittings is not less than 60 lumens per circuit watt. 1 credit can be targeted.
Ene 4	Low Carbon Design	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	3	1	A Low and Zero Carbon Feasibility Study has been produced by WSP (February 2015) which meets the BREEAM requirements and states that it is viable for Plot 18 to connect into the District CHP system which is being constructed as part of the wider Site development. 1 credit can be targeted.
Ene 6	Energy Efficient Transportation Systems	To recognise and encourage the specification of energy efficient transportation systems.	3	3	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) contains the requirements for: <ul style="list-style-type: none"> • All lifts to be specified with regenerative drives (where the energy saved would be greater than the energy used by the drives themselves); and • All lifts to be specified with a stand-by mode for off-peak periods; energy efficient lighting (greater than 55 lumens per circuit watt); and a VVVF drive motor. 3 credits can be targeted.
Ene 8	Energy Efficient Equipment	To recognise and encourage procurement of energy efficient equipment to ensure optimum performance and energy savings in operation.	2	2	Arcadis have confirmed that BREEAM small electrical appliance best practice will be followed Arcadis (email 23.02.16, 10:05) as: <ul style="list-style-type: none"> • All office equipment, small powered equipment and supplementary electric heating supplied will have an Energy Star Rating or be procured in accordance with the Government Buying Standards; • All domestic kitchen appliances supplied will meet the EU ratings specified by BREEAM; and • All medical equipment supplied will be procured in accordance with HTM07-02. 2 credits can be targeted.
Transport					
Tra 1	Public Transport Accessibility	To recognise and encourage development in proximity of good public transport networks, thereby helping to reduce transport-related pollution and congestion.	5	2	The Accessibility Index for the site was calculated using the Transport for London's (TfL) Planning Information Database and as at 16/03/2016 was 6.58 which allows 2 credits to be targeted.
Tra 2	Proximity to Amenities	To encourage and reward a building location that facilitates easy access to local services and so reduces the environmental, social and economic impacts resulting from multiple or extended building user journeys, including transport-related emissions and traffic congestion.	1	1	As at 16.03.16 the proposed development is located within 500m of a post box, open space and grocery store and therefore 1 credit can be targeted.
Tra 4	Maximum Car Parking	To encourage the use of alternative means of transport other than the private car to and from the building, thereby helping to reduce transport-related emissions and traffic congestion associated with the building's operation.	1	1	Ground and First Floor Plans (Drawing No's B02 Rev A and B03 Rev A, 29.04.16) show that the Health Centre includes 26 treatment rooms, while Basement Plan (Drawing No. B01 Rev A, 29.04.16) shows that 22 standard car parking spaces will be provided. BREEAM says this ratio represents good environmental practice to enable 1 credit can be targeted.
Tra 5	Travel Plan	To recognise the consideration given to accommodating a range of travel options for building users, thereby encouraging the reduction of reliance on forms of travel that have the highest environmental impact.	1	1	A Transport Assessment (dated September 2014) was produced by WSP to support the Outline Planning Application for the Site. WSP are in the process of producing a Travel Plan for the Aylesbury Plot 18 Health Centre (email 19.10.15, 8:19). 1 credit can be targeted.

Ref	Title	Aim	Credits Available	Credits Targeted	Comments
Water					
Wat 1	Water Consumption	To reduce the consumption of potable water for sanitary use in new buildings from all sources through the use of water efficient components and water recycling systems.	5	3	<p>The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) contains the requirements for the specification of sanitaryware which does not exceed the following consumption figures:</p> <ul style="list-style-type: none"> • WCs: 4 litres effective flush volume (4.5/3 dual flush) • Urinals: 1.5 litres/bowl/hour • Hand Basin Taps: 4.5 litres/min • Kitchen Taps: 5 litres/min • Domestic Dishwashers: 12 litres/cycle <p>This combination, when entered into the potable water calculator, reduced potable water consumption by 40%. 3 credits can be targeted.</p>
Wat 2	Water Monitoring	To ensure water consumption can be monitored and managed, and therefore encourage reductions.	1	1	<p>The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) contains the requirements for:</p> <ul style="list-style-type: none"> • A water meter with a pulsed output to be installed on the mains water supply; and • Sub-meters to be installed for all plant and/or building areas which consume over 10% of the buildings demand. <p>1 credit can be targeted.</p>
Wat 3	Water Leak Detection	To reduce the impact of water leaks that may otherwise go undetected.	2	2	<p>The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) contains the requirements for:</p> <ul style="list-style-type: none"> • A water leak detection system to be installed on the mains water supply which can detect leaks within the building and between the building and the utilities water meter; and • Flow control devices to be installed for each WC area. <p>2 credits can be targeted.</p>
Wat 4	Water Efficient Equipment	To reduce unregulated water consumption by encouraging specification of water efficient equipment.	1	1	<p>The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) contains the requirements for any irrigation systems installed to be a BREEAM compliant drip fed subsurface systems. 1 credit can be targeted.</p>
Materials					
Mat 1	Life Cycle Impacts	To recognise and encourage the use of construction materials with a low environmental impact (including embodied carbon) over the full life cycle of the building.	6	1	<p>Duggan Morris Architects Ltd have confirmed the following provisional material build ups for the major building elements of the Health Centre (email 21.03.16, 9:20) and BRE Green Guide ratings for each have been added in brackets;</p> <ul style="list-style-type: none"> • External walls - Precast concrete panels (D rated) • Windows - Structural Glazing (D rated) • Roof and Upper Floors - Reinforced Concrete Slabs (D rated) • Internal walls - Plasterboard (A+ rated) <p>This information along with areas obtained from plan series P18-B (Revision A) has been entered into the BREEAM Mat 1 calculator which shows this combination enables 1 credit to be targeted.</p>
Mat 3	Responsible Sourcing of Materials	To recognise and encourage the specification and procurement of responsibly sourced materials for key building elements.	4	2	<p>Arcadis have confirmed that the Principal Contractor will be required to produce, utilise and abide by a BREEAM compliant Sustainable Procurement Plan (email 23.02.16, 10:05). 1 credit can be targeted.</p> <p>Arcadis have confirmed that the Principal Contractor will be required to source all materials from manufacturers / suppliers certified under a Responsible Sourcing Certification Scheme where possible (email 23.02.16, 10:05). Duggan Morris Architects Ltd have confirmed the provisional material build ups for the major building elements of the Health Centre (contained in Mat 1) (email 21.03.16, 9:20). This information has been entered into the BREEAM Mat 3 calculator which shows that a score of 1 credit can be targeted.</p>
Mat 4	Insulation	To recognise and encourage the use of thermal insulation which has a low embodied environmental impact relative to its thermal properties.	1	1	<p>Arcadis have confirmed that the building fabric and services insulation used within the Health Centre will achieve an insulation index of 2.5 (email 23.02.16, 10:05). 1 credit can be targeted.</p>

Ref	Title	Aim	Credits Available	Credits Targeted	Comments
Mat 5	Designing for Durability and Resilience	To recognise and encourage adequate protection of exposed elements of the building and landscape, therefore minimising the frequency of replacement and maximising materials optimisation.	1	1	Duggan Morris Architects Ltd have confirmed that building protection measures such as bollards, kick plates, durable panels, robust finishes etc. will be incorporated into the design (email 07.09.15, 16:19). 1 credit can be targeted.
Waste					
Wst 1	Construction Waste Management	To promote resource efficiency via the effective management and reduction of construction waste.	4	3	Arcadis have confirmed that the Principal Contractor will be required to (email 23.02.16, 10:05): <ul style="list-style-type: none"> • Conduct a pre-demolition audit and reuse materials if feasible, or if not then maximise the recovery of materials for high-grade/value applications; • Produce a utilise a Resource Management Plan; • Produce no more than 7.5m³ of non-hazardous construction waste (excluding demolition + excavation waste) per 100m² GIA; and • Divert 70% of non-demolition waste, and 80% demolition waste (by volume) from landfill. 3 credits can be targeted.
Wst 3	Operational Waste	To recognise and encourage the provision of dedicated storage facilities for a building's operational-related recyclable waste streams, so that this waste is diverted from landfill or incineration.	1	1	The Ground Floor Plan (Drawing No. B02 Rev A, 29.04.16) shows a c.27sqm dedicated refuse storage room with external access doors to allow it to be accessible to waste management contractors. 1 credit can be targeted.
Wst 5	Adaption to Climate Change	To recognise and encourage measures taken to mitigate the impact of extreme weather conditions arising from climate change over the lifespan of the building.	1	1	Anthony Waterman of ADW Developments is being appointed to undertake a BREEAM compliant Adaptation to Climate Change Strategy for the Health Centre (email 20.04.16, 14:15). 1 credit can be targeted.
Land Use and Ecology					
LE 1	Site Selection	To encourage the use of previously occupied and/or contaminated land and avoid land which has not been previously disturbed.	2	2	The Site Constraints Plan (Drawing No. 9682-CNS-01 Rev A) shows that over 75% of the pre-development site, and the area associated with the unit, comprises buildings and hard landscaping. The ground within the pre-development site has been found to contain contaminants and a Remediation Method Statement has been produced by WSP (April 2016). 2 credits can be targeted.
LE 3	Minimising Impact on Existing Site Ecology	To minimise the impact of a building development on existing site ecology.	2	1	WSP have stated that to achieve 1 credit the proposed landscaping would need to incorporate 10 native shrub species and 5 trees species (BREEAM Feasibility Table, November 2015). HTA have confirmed that 10 native shrub species and 5 trees species will be incorporated into the landscaping scheme at the appropriate stage (email 19.11.15, 08:53). 1 credit can be targeted.
LE 5	Long Term Impact on Biodiversity	To minimise the long term impact of the development on the site and the surrounding area's biodiversity.	2	2	NHHT have confirmed that a BREEAM compliant Landscape and Habitat Management Plan will be produced at the appropriate stage of design to enable 1 credit to be targeted (email 14.03.16, 14:00). Arcadis have confirmed that the Principal Contractor will be required to comply with the ecological protection measures recommended by a Suitably Qualified Ecologist (email 23.02.16, 10:05). The second credit can therefore be targeted.
Pollution					
Pol 1	Impact of Refrigerants	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.	3	1	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) requires a refrigerant leak detection system to be installed for all cooling systems with a total refrigerant charge of over 6kg (email 12.04.16, 16:34). 1 credit can be targeted.
Pol 2	NOx Emissions	To contribute to a reduction in national NOx emission levels through the use of low emission heat sources in the building.	3	3	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) contains the requirements for dry NOx emissions from space heating and hot water systems to be less than 40 mg/kWh. 3 credits can be targeted.

Ref	Title	Aim	Credits Available	Credits Targeted	Comments
Pol 3	Surface Water Run-Off	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on and off-site, watercourse pollution and other environmental damage.	5	4	<p>A Flood Risk Assessment (FRA) was undertaken by WSP (dated October 2014) to support the Outline Application for the Aylesbury Estate Regeneration Project. The FRA found that the site was at low risk of flooding from all sources and is located in defended Flood Zone 3a. As part of the FRA WSP liaised with the Environmental Agency (FRA Appendix G) who confirmed WSP's assessment of flood risk.</p> <p>The Outline Planning approval for the Aylesbury Redevelopment includes Planning Condition 5 which requires all development to demonstrate a reduction in surface water run-off rates of at least 50% above the existing rate of the site. WSP Drainage Engineers have confirmed that the Aylesbury Plot 18 Development will exceed the 50% reduction requirement through the use of an attenuation tank(s) (email 07.09.15 12:42). WSP have also confirmed that the site will be designed so as not to flood in the event of a drainage failure (email 10.11.15, 14:03).</p> <p>4 credits can be targeted.</p>
Pol 4	Reduction of Night Time Light Pollution	To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.	1	1	<p>The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016) contains the requirement to design external lighting so that:</p> <ul style="list-style-type: none"> • It is compliant with ILP Guidance for the Reduction of Obtrusive Light 2011; • All external lighting (except safety and security lighting but including signage) is automatically turned off between 23:00 and 07:00; • Safety and security lighting complies with lower levels of ILP Table 2 Guidance between 23:00 and 07:00; and • Illuminated advertisements comply with ILE Technical Report 5. <p>1 credit can be targeted.</p>
Pol 5	Reduction of Noise Pollution	To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.	1	1	<p>The Outline Planning Application for the Aylesbury Estate Regeneration Project underwent an Environmental Impact Assessment (EIA) which included a Noise and Vibration Environmental Statement informed by a Noise Impact Assessment produced by WSP. Outline Planning Condition 37 surpasses BREEAM requirements, requiring plant noise to be reduced to 10dB below background noise levels. NHHT have confirmed the BREEAM requirements will be achieved (email 14.03.16, 14:00), and they have been included within the AECOM Aylesbury Plot 18: South Building MEP Stage D Report (April 2016). 1 credit can be targeted.</p>
Exemplary					
Man 3	Responsible Construction Practices	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	1	1	<p>Arcadis have confirmed that the Principal Contractor will be required to achieve a Considerate Constructors Scheme score of at least 40 with at least 7 in each section (email 23.02.16, 10:05).</p>

Appendix B: Community Facility BREEAM Pre-Assessment

BREEAM Scheme: New Construction 2014
 Building Name: Community Facility - Aylesbury Plot 18
 BREEAM Assessor: James Wrixon
 Licensed Assessor Organisation: AECOM



Ref	Title	Aim	Credits Available	Credits Targeted	Comments
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Management

Man 1	Project Brief and Design	To recognise and encourage an integrated design process that optimises building performance.	4	1	A Public Consultation exercise was undertaken for the Aylesbury Estate Regeneration Project and a Statement of Community Involvement was produced by Soundings Consultants dated August 2014 for the associated Outline Planning Application. Notting Hill Housing Trust (NHHT) are undertaking a consultation exercise for the Aylesbury Plot 18 proposals, and have confirmed that it will meet the BREEAM requirements and a Statement of Community Involvement will be submitted with the Reserved Matters Planning Application (email 21.03.16, 11:41). 1 credit can be targeted.
Man 3	Responsible Construction Practices	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	6	6	To enable BREEAM best practice construction site environmental management Arcadis (the project managers) have confirmed that the Principal Contractor will be required to (email 23.02.16, 10:05): <ul style="list-style-type: none"> • Achieve a Considerate Constructors Scheme score of at least 40 with at least 7 in each section; • Ensure all timber used on site is FSC, PEFC or recycled/reclaimed; • Operate an Environmental Management System (e.g. ISO 14001); • Accord with PPG6 (Pollution Prevention Guidelines); • Appoint a BREEAM AP/SSM to ensure construction compliance with BREEAM targets; • Assign an individual to monitor, record and report construction energy & water consumption data; and • Assign an individual to monitor, record and report transport data (email 03.02.16, 17:35). 6 credits can be targeted.
Man 4	Commissioning and Handover	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	4	4	To enable a BREEAM best practice set up and handover process Arcadis have confirmed that the Principal Contractor will be required to (email 14.03.16, 14:00): <ul style="list-style-type: none"> • Undertake pre-commissioning, commissioning, and re-commissioning of building services; • Appoint a specialist commissioning manager for all complex services/systems to provide input, design reviews, advice, management, testing etc.; • Undertake a thermographic study and air tightness testing and rectify any defects identified. • Produce a BREEAM Compliant Building User Guide to be supplied to the building users; and • Produce an implement a BREEAM compliant training schedule for building occupiers. 4 credits can be targeted.

Health and Wellbeing

Hea 1	Visual Comfort	To ensure daylighting, artificial lighting and occupant controls are considered at the design stage to ensure best practice in visual performance and comfort for building occupants.	4	2	HTA Design LLP (architects for the Community Facility) have confirmed that glare reduction devices will be provided for all windows in rooms with workstations (email 07.09.15 16:19). The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) requires lighting to be designed so that: <ul style="list-style-type: none"> • All fluorescent and compact fluorescent lighting to be fitted with high frequency ballasts; • All external lighting to comply with British Standards BS 5489-1:2013 & BS EN 12464-2:2014; • All internal lighting to comply with SLL Code for Lighting 2012 and areas with computers to comply with SLL Lighting Guide 7; • Areas likely to contain computers to comply with SLL Code for Lighting Guide 7; and • All appropriate rooms have occupant controlled lighting. 2 credits can be targeted.
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Hea 2	Indoor Air Quality	To recognise and encourage a healthy internal environment through the specification and installation of appropriate ventilation, equipment and finishes.	5	2	NHHT have confirmed that a BREEAM compliant Air Quality Plan will be produced at the appropriate stage of design to enable 1 credit to be targeted (email 14.03.16, 14:00). The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) states that all ventilation intakes / extracts will be positioned in accordance with BS EN 13779:2007. 2 credits can be targeted.
Hea 4	Thermal Comfort	To ensure that appropriate thermal comfort levels are achieved through design, and controls are selected to maintain a thermally comfortable environment for occupants within the building.	3	2	NHHT have confirmed that a BREEAM compliant Temperature Control Strategy will be produced at the appropriate stage of design to enable 1 credit to be targeted (email 14.03.16, 14:00). The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) requires cooling systems to provide operative temperatures in accordance with CIBSE Guide A within occupied areas. 2 credits can be targeted.
Hea 5	Acoustic Performance	To ensure the building's acoustic performance including sound insulation meet the appropriate standards for its purpose.	3	2	To enable BREEAM best practice acoustic standards to be met Arcadis have confirmed that the Community Facility will be designed and constructed to the following standards (email 23.02.16, 10:05): • Indoor ambient noise levels compliant with BS8233:2014; and • Any acoustically sensitive rooms to have internal sound insulation compliant with BS 8233:2014. 2 credits can be targeted.
Hea 6	Safety and Security	To recognise and encourage effective measures that promote safe and secure use and access to and from the building.	2	1	HTA Design LLP (landscaping for the whole of Plot 18 and are the architects for the Community Facility) have consulted with the local Designing Out Crime Officer (DOCO) who has provided recommendations for enhancing the security of Plot 18 (email 17.09.15, 15:05). The DOCO's recommendations regarding the Community Facility comprise Hea 1 compliant external lighting and a CCTV system and Arcadis have confirmed that these have been included for delivery (email 15.03.16, 11:17). 1 credit can be targeted, providing the compliant lighting and CCTV are installed.

Energy

Ene 1	Reduction of Energy Use and Carbon Emissions	To recognise and encourage buildings designed to minimise operational energy demand, primary energy consumption and CO ₂ emissions.	12	8	An 'As Designed' BRUKL has been produced for the Community Facility (North Block Part L, 12.04.16) which allows 8 credits to be targeted.
Ene 2	Energy Monitoring	To recognise and encourage the installation of energy sub-metering that facilitates the monitoring of operational energy consumption.	2	2	The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) contains the requirements for: • Sub-meters to be installed to account for 90% of annual consumption for each fuel type; • Sub-meters to be installed to monitor energy use from each function areas / department; and • The provision of an Automatic Meter Reading (AMR) system or Building Energy Management System (BMS) connected to all energy meters. 2 credits can be targeted.
Ene 3	External Lighting	To recognise and encourage the specification of energy efficient light fittings for external areas of the development.	1	1	The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) contains the requirements for external lighting to be designed so that: • All external lighting will have either an automatic time switch or daylight sensors, as well as presence detectors in areas of intermittent pedestrian traffic (where appropriate); and • The average initial luminous efficacy of external fittings is not less than 60 lumens per circuit watt. 1 credit can be targeted.
Ene 4	Low Carbon Design	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	3	1	A Low and Zero Carbon Feasibility Study has been produced by WSP (February 2015) which meets the BREEAM requirements and states that it is viable for Plot 18 to connect into the District CHP system which is being constructed as part of the wider Site development. 1 credit can be targeted.

Ene 8	Energy Efficient Equipment	To recognise and encourage procurement of energy efficient equipment to ensure optimum performance and energy savings in operation.	2	2	Arcadis have confirmed that BREEAM small electrical appliance best practice will be followed (email 23.02.16, 10:05) as: <ul style="list-style-type: none"> All office equipment, small powered equipment and supplementary electric heating supplied will have an Energy Star Rating or be procured in accordance with the Government Buying Standards; and All domestic kitchen appliances supplied will meet the EU ratings specified by BREEAM. 2 credits can be targeted.
Transport					
Tra 1	Public Transport Accessibility	To recognise and encourage development in proximity of good public transport networks, thereby helping to reduce transport-related pollution and congestion.	5	2	The Accessibility Index for the Site was calculated using the Transport for London's (TfL) Planning Information Database and as at 16/03/2016 was 6.58 which allows 2 credits to be targeted.
Tra 2	Proximity to Amenities	To encourage and reward a building location that facilitates easy access to local services and so reduces the environmental, social and economic impacts resulting from multiple or extended building user journeys, including transport-related emissions and traffic congestion.	1	1	As at 16.03.16 the proposed development is located within 500m of a post box, open space and grocery store and therefore 1 credit can be targeted.
Tra 4	Maximum Car Parking	To encourage the use of alternative means of transport other than the private car to and from the building, thereby helping to reduce transport-related emissions and traffic congestion associated with the building's operation.	2	2	The Ground Floor Plan (HTA Ground Floor Plan, Drawing No. A01) shows that no dedicated car parking is being provided for the Community Facility. 2 credits can be targeted.
Tra 5	Travel Plan	To recognise the consideration given to accommodating a range of travel options for building users, thereby encouraging the reduction of reliance on forms of travel that have the highest environmental impact.	1	1	A Transport Assessment (dated September 2014) was produced by WSP to support the Outline Planning Application for the Site. WSP are in the process of producing a Travel Plan for the Aylesbury Plot 18 Community Facility (email 19.10.15, 8:19). 1 credit can be targeted.
Water					
Wat 1	Water Consumption	To reduce the consumption of potable water for sanitary use in new buildings from all sources through the use of water efficient components and water recycling systems.	5	3	The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) contains the requirements for the specification of sanitaryware which does not exceed the following consumption figures: <ul style="list-style-type: none"> WCs: 4 litres effective flush volume (4.5/3 dual flush) Urinals: 1.5 litres/bowl/hour Hand Basin Taps: 4.5 litres/min Kitchen Taps: 5 litres/min Domestic Dishwashers: 12 litres/cycle This combination, when entered into the potable water calculator, reduces potable water consumption by 40%. 3 credits can be targeted.
Wat 2	Water Monitoring	To ensure water consumption can be monitored and managed, and therefore encourage reductions.	1	1	The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) contains the requirements for: <ul style="list-style-type: none"> A water meter with a pulsed output to be installed on the mains water supply; and Sub-meters to be installed for all plant and/or building areas which consume over 10% of the buildings demand. 1 credit can be targeted.
Wat 3	Water Leak Detection	To reduce the impact of water leaks that may otherwise go undetected.	2	2	The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) contains the requirements for: <ul style="list-style-type: none"> A water leak detection system to be installed on the mains water supply which can detect leaks within the building and between the building and the utilities water meter; and Flow control devices to be installed for each WC area. 2 credits can be targeted.

Wat 4	Water Efficient Equipment	To reduce unregulated water consumption by encouraging specification of water efficient equipment.	1	1	The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) contains the requirements for any irrigation systems installed to be a BREEAM compliant drip fed subsurface systems. 1 credit can be targeted.
Materials					
Mat 1	Life Cycle Impacts	To recognise and encourage the use of construction materials with a low environmental impact (including embodied carbon) over the full life cycle of the building.	6	1	HTA Design LLP (architects) have confirmed the following provisional material build ups for the major building elements of the Community Centre (email 08.04.16, 11:30) and BRE Green Guide ratings for each have been added in the brackets: <ul style="list-style-type: none"> • External walls - Precast concrete panels (D rated) • Windows - Aluminium Windows (C rated) • Roof - Reinforced Concrete Slabs (D rated) • Internal walls - Plasterboard (A+ rated) This information along with areas obtained from plan series NHH-P18_HTA_A has been entered into the BREEAM Mat 1 calculator which shows this combination enables 1 credit to be targeted.
Mat 3	Responsible Sourcing of Materials	To recognise and encourage the specification and procurement of responsibly sourced materials for key building elements.	4	2	Arcadis have confirmed that the Principal Contractor will be required to produce, utilise and abide by a BREEAM compliant Sustainable Procurement Plan (email 23.02.16, 10:05). 1 credit can be targeted. Arcadis have confirmed that the Principal Contractor will be required to source all materials from manufacturers / suppliers certified under a Responsible Sourcing Certification Scheme where possible (email 23.02.16, 10:05). HTA Design LLP (architects) have confirmed the provisional material build ups for the major building elements of the Community Centre (contained in Mat 1) (email 08.04.16, 11:30). This information has been entered into the BREEAM Mat 3 calculator which shows that a score of 1 credit can be targeted.
Mat 4	Insulation	To recognise and encourage the use of thermal insulation which has a low embodied environmental impact relative to its thermal properties.	1	1	Arcadis have confirmed that the building fabric and services insulation used within the Community Facility will achieve an insulation index of 2.5 (email 23.02.16, 10:05). 1 credit can be targeted.
Mat 5	Designing for Durability and Resilience	To recognise and encourage adequate protection of exposed elements of the building and landscape, therefore minimising the frequency of replacement and maximising materials optimisation.	1	1	HTA Design LLP (architects) have confirmed that building protection measures such as bollards, kick plates, durable panels, robust finishes etc. will be incorporated into the design (email 11.09.15, 10:22). 1 credit can be targeted.
Waste					
Wst 1	Construction Waste Management	To promote resource efficiency via the effective management and reduction of construction waste.	4	3	Arcadis have confirmed that the Principal Contractor will be required to (email 23.02.16, 10:05): <ul style="list-style-type: none"> • Conduct a pre-demolition audit and reuse materials if feasible, or if not then maximise the recovery of materials for high-grade/value applications; • Produce a Resource Management Plan; • Produce no more than 7.5m³ of non-hazardous construction waste (excluding demolition + excavation waste) per 100m² GIA; and • Divert 70% of non-demolition waste, and 80% demolition waste (by volume) from landfill. 3 credits can be targeted.
Wst 3	Operational Waste	To recognise and encourage the provision of dedicated storage facilities for a building's operational-related recyclable waste streams, so that this waste is diverted from landfill or incineration.	1	1	The Ground Floor Plan (HTA Ground Floor Plan, Drawing No. A01) shows a c.12sqm dedicated refuse storage room with external access doors to allow it to be accessible to waste management contractors. 1 credit can be targeted.

Land Use and Ecology

LE 1	Site Selection	To encourage the use of previously occupied and/or contaminated land and avoid land which has not been previously disturbed.	2	2	<p>The Site Constraints Plan (Drawing No. 9682-CNS-01 Rev A) shows that over 75% of the pre-development site, and the area associated with the unit, comprises buildings and hard landscaping.</p> <p>The ground within the pre-development site has been found to contain contaminants and a Remediation Method Statement has been produced by WSP (April 2016).</p> <p>2 credits can be targeted.</p>
LE 3	Minimising Impact on Existing Site Ecology	To minimise the impact of a building development on existing site ecology.	2	1	<p>WSP have stated that to achieve 1 credit the proposed landscaping would need to incorporate 10 native shrub species and 5 trees species (BREEAM Feasibility Table, November 2015). HTA have confirmed that 10 native shrub species and 5 trees species will be incorporated into the landscaping scheme at the appropriate stage (email 19.11.15, 08:53). 1 credit can be targeted.</p>
LE 5	Long Term Impact on Biodiversity	To minimise the long term impact of the development on the site and the surrounding area's biodiversity.	2	2	<p>NHHT have confirmed that a BREEAM compliant Landscape and Habitat Management Plan will be produced at the appropriate stage of design to enable 1 credit to be targeted (email 14.03.16, 14:00).</p> <p>Arcadis have confirmed that the Principal Contractor will be required to comply with the ecological protection measures recommended by a Suitably Qualified Ecologist (email 23.02.16, 10:05). The second credit can therefore be targeted.</p>

Pollution

Pol 1	Impact of Refrigerants	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.	3	1	<p>The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) requires a refrigerant leak detection system to be installed for all cooling systems with a total refrigerant charge of over 6kg. 1 credit can be targeted.</p>
Pol 2	NOx Emissions	To contribute to a reduction in national NOx emission levels through the use of low emission heat sources in the building.	3	3	<p>The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) contains the requirements for dry NOx emissions from space heating and hot water systems to be less than 40 mg/kWh. 3 credits can be targeted.</p>
Pol 3	Surface Water Run-Off	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on and off-site, watercourse pollution and other environmental damage.	5	4	<p>A Flood Risk Assessment (FRA) was undertaken by WSP (dated October 2014) to support the Outline Application for the Aylesbury Estate Regeneration Project. The FRA found that the site was at low risk of flooding from all sources and is located in defended Flood Zone 3a. As part of the FRA WSP liaised with the Environmental Agency (FRA Appendix G) who confirmed WSP's assessment of flood risk.</p> <p>The Outline Planning approval for the Aylesbury Redevelopment includes Planning Condition 5 which requires all development to demonstrate a reduction in surface water run-off rates of at least 50% above the existing rate of the site. WSP Drainage Engineers have confirmed that the Aylesbury Plot 18 Development will exceed the 50% reduction requirement through the use of an attenuation tank(s) (email 07.09.15 12:42). WSP have also confirmed that the site will be designed so as not to flood in the event of a drainage failure (email 10.11.15, 14:03).</p> <p>4 credits can be targeted.</p>
Pol 4	Reduction of Night Time Light Pollution	To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.	1	1	<p>The AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016) contains the requirement to design external lighting so that:</p> <ul style="list-style-type: none"> • It is compliant with ILP Guidance for the Reduction of Obtrusive Light 2011; • All external lighting (except safety and security lighting but including signage) is automatically turned off between 23:00 and 07:00; • Safety and security lighting complies with lower levels of ILP Table 2 Guidance between 23:00 and 07:00; and • Illuminated advertisements comply with ILE Technical Report 5. <p>1 credit can be targeted.</p>

Pol 5	Reduction of Noise Pollution	To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.	1	1	The Outline Planning Application for the Aylesbury Estate Regeneration Project underwent an Environmental Impact Assessment (EIA) which included a Noise and Vibration Environmental Statement informed by a Noise Impact Assessment produced by WSP. Outline Planning Condition 37 surpasses BREEAM requirements, requiring plant noise to be reduced to 10dB below background noise levels. NHHT have confirmed the BREEAM requirements will be achieved (email 14.03.16, 14:00) and they have been included within the AECOM Aylesbury Plot 18: North Building MEP Stage D Report (April 2016). 1 credit can be targeted.
Exemplary					
Man 3	Responsible Construction Practices	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	1	1	Arcadis have confirmed that the Principal Contractor will be required to achieve a Considerate Constructors Scheme score of at least 40 with at least 7 in each section (email 23.02.16, 10:05).

Appendix C: Early Years Nursery BREEAM Pre-Assessment

BREEAM Scheme: New Construction 2014
 Building Name: Early Years Nursery - Aylesbury Plot 18
 BREEAM Assessor: James Wrixon
 Licensed Assessor Organisation: AECOM



Ref	Title	Aim	Credits Available	Credits Targeted	Comments
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Management

Man 1	Project Brief and Design	To recognise and encourage an integrated design process that optimises building performance.	4	1	A Public Consultation exercise was undertaken for the Aylesbury Estate Regeneration Project and a Statement of Community Involvement was produced by Soundings Consultants dated August 2014 for the associated Outline Planning Application. Notting Hill Housing Trust (NHHT) are undertaking a consultation exercise for the Aylesbury Plot 18 proposals, and have confirmed that it will meet the BREEAM requirements and a Statement of Community Involvement will be submitted with the Reserved Matters Planning Application (email 21.03.16, 11:41). 1 credit can be targeted.
Man 3	Responsible Construction Practices	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	6	6	To enable BREEAM best practice construction site environmental management Arcadis (the project managers) have confirmed that the Principal Contractor will be required to (email 23.02.16, 10:05): <ul style="list-style-type: none"> • Achieve a Considerate Constructors Scheme score of at least 40 with at least 7 in each section; • Ensure all timber used on site is FSC, PEFC or recycled/reclaimed; • Operate an Environmental Management System (e.g. ISO 14001); • Accord with PPG6 (Pollution Prevention Guidelines); • Appoint a BREEAM AP/SSM to ensure construction compliance with BREEAM targets; • Assign an individual to monitor, record and report construction energy & water consumption data; and • Assign an individual to monitor, record and report transport data (email 03.02.16, 17:35). 6 credits can be targeted.
Man 4	Commissioning and Handover	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	4	4	To enable a BREEAM best practice set up and handover process NHHT have confirmed that the Principal Contractor will be required to (email 12.05.16, 17:57): <ul style="list-style-type: none"> • Undertake pre-commissioning, commissioning, and re-commissioning of building services; • Appoint a specialist commissioning manager for all complex services/systems to provide input, design reviews, advice, management, testing etc.; • Undertake a thermographic study and air tightness testing and rectify any defects identified. • Produce a BREEAM Compliant Building User Guide to be supplied to the building users; and • Produce an implement a BREEAM compliant training schedule for building occupiers. 4 credits can be targeted.

Health and Wellbeing

Hea 1	Visual Comfort	To ensure daylighting, artificial lighting and occupant controls are considered at the design stage to ensure best practice in visual performance and comfort for building occupants.	5	2	NHHT have confirmed that glare reduction devices will be provided for all windows in rooms with workstations (email 12.05.16 17:57). The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) requires lighting to be designed so that: <ul style="list-style-type: none"> • All fluorescent and compact fluorescent lighting to be fitted with high frequency ballasts; • All external lighting to comply with British Standards BS 5489-1:2013 & BS EN 12464-2:2014; • All internal lighting to comply with SLL Code for Lighting 2012 and areas with computers to comply with SLL Lighting Guide 7; • Areas likely to contain computers to comply with SLL Code for Lighting Guide 7; and • All appropriate rooms have occupant controlled lighting. 2 credits can be targeted.
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Hea 2	Indoor Air Quality	To recognise and encourage a healthy internal environment through the specification and installation of appropriate ventilation, equipment and finishes.	5	2	NHHT have confirmed that a BREEAM compliant Air Quality Plan will be produced at the appropriate stage of design to enable 1 credit to be targeted (email 12.05.16 17:57). The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) states that all ventilation intakes / extracts will be positioned in accordance with BS EN 13779:2007. 2 credits can be targeted.
Hea 4	Thermal Comfort	To ensure that appropriate thermal comfort levels are achieved through design, and controls are selected to maintain a thermally comfortable environment for occupants within the building.	3	2	NHHT have confirmed that a BREEAM compliant Temperature Control Strategy will be produced at the appropriate stage of design to enable 1 credit to be targeted (email 12.05.16 17:57). The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) requires cooling systems to provide operative temperatures in accordance with CIBSE Guide A within occupied areas. 2 credits can be targeted.
Hea 5	Acoustic Performance	To ensure the building's acoustic performance including sound insulation meet the appropriate standards for its purpose.	3	2	To enable BREEAM best practice acoustic standards to be met NHHT have confirmed that the Nursery will be designed and constructed to the following standards (email 12.05.16 17:57): • Indoor ambient noise levels compliant with BS8233:2014; and • Any acoustically sensitive rooms to have internal sound insulation compliant with BS 8233:2014. 2 credits can be targeted.
Hea 6	Safety and Security	To recognise and encourage effective measures that promote safe and secure use and access to and from the building.	2	1	HTA Design LLP (landscaping for the whole of Plot 18 and are the architects for the Community Facility) have consulted with the local Designing Out Crime Officer (DOCO) who has provided recommendations for enhancing the security of Plot 18 (email 17.09.15, 15:05). The DOCO's recommendations regarding the Nursery comprise Hea 1 compliant external lighting and a CCTV system and Arcadis have confirmed that these have been included for delivery (email 15.03.16, 11:17). 1 credit can be targeted, providing the compliant lighting and CCTV are installed.

Energy

Ene 1	Reduction of Energy Use and Carbon Emissions	To recognise and encourage buildings designed to minimise operational energy demand, primary energy consumption and CO ₂ emissions.	12	10	An 'As Designed' BRUKL has been produced for the Nursery (11.04.16, 12:27) which allows 10 credits to be targeted.
Ene 2	Energy Monitoring	To recognise and encourage the installation of energy sub-metering that facilitates the monitoring of operational energy consumption.	1	1	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) contains the requirements for: • Sub-meters to be installed to account for 90% of annual consumption for each fuel type; and • The provision of an Automatic Meter Reading (AMR) system or Building Energy Management System (BMS) connected to all energy meters. 1 credits can be targeted.
Ene 3	External Lighting	To recognise and encourage the specification of energy efficient light fittings for external areas of the development.	1	1	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) contains the requirements for external lighting to be designed so that: • All external lighting will have either an automatic time switch or daylight sensors, as well as presence detectors in areas of intermittent pedestrian traffic (where appropriate); and • The average initial luminous efficacy of external fittings is not less than 60 lumens per circuit watt. 1 credit can be targeted.
Ene 4	Low Carbon Design	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	3	1	A Low and Zero Carbon Feasibility Study has been produced by WSP (February 2015) which meets the BREEAM requirements and states that it is viable for Plot 18 to connect into the District CHP system which is being constructed as part of the wider Site development. 1 credit can be targeted.

Ene 6	Energy Efficient Transportation Systems	To recognise and encourage the specification of energy efficient transportation systems.	3	3	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) contains the requirements for: <ul style="list-style-type: none"> • All lifts to be specified with regenerative drives (where the energy saved would be greater than the energy used by the drives themselves); and • All lifts to be specified with a stand-by mode for off-peak periods; energy efficient lighting (greater than 55 lumens per circuit watt); and a VVVF drive motor. 3 credits can be targeted.
Ene 8	Energy Efficient Equipment	To recognise and encourage procurement of energy efficient equipment to ensure optimum performance and energy savings in operation.	2	2	NHHT have confirmed that BREEAM small electrical appliance will be followed (email 12.05.16, 17:57) as: <ul style="list-style-type: none"> • All office equipment, small powered equipment and supplementary electric heating supplied will have an Energy Star Rating or be procured in accordance with the Government Buying Standards; and • All domestic kitchen appliances supplied will meet the EU ratings specified by BREEAM. 2 credits can be targeted.
Transport					
Tra 1	Public Transport Accessibility	To recognise and encourage development in proximity of good public transport networks, thereby helping to reduce transport-related pollution and congestion.	5	2	The Accessibility Index for the Site was calculated using the Transport for London's (TfL) Planning Information Database and as at 16/03/2016 was 6.58 which allows 2 credits to be targeted.
Tra 2	Proximity to Amenities	To encourage and reward a building location that facilitates easy access to local services and so reduces the environmental, social and economic impacts resulting from multiple or extended building user journeys, including transport-related emissions and traffic congestion.	1	1	As at 16.03.16 the proposed development is located within 500m of a post box, open space and grocery store and therefore 1 credit can be targeted.
Tra 5	Travel Plan	To recognise the consideration given to accommodating a range of travel options for building users, thereby encouraging the reduction of reliance on forms of travel that have the highest environmental impact.	1	1	A Transport Assessment (dated September 2014) was produced by WSP to support the Outline Planning Application for the Site. WSP are in the process of producing a Travel Plan for the Nursery (email 19.10.15, 8:19). 1 credit can be targeted.
Water					
Wat 1	Water Consumption	To reduce the consumption of potable water for sanitary use in new buildings from all sources through the use of water efficient components and water recycling systems.	5	3	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) contains the requirements for the specification of sanitaryware which does not exceed the following consumption figures: <ul style="list-style-type: none"> • WCs: 4 litres effective flush volume (4.5/3 dual flush) • Urinals: 1.5 litres/bowl/hour • Hand Basin Taps: 4.5 litres/min • Kitchen Taps: 5 litres/min • Domestic Dishwashers: 12 litres/cycle This combination, when entered into the potable water calculator, reduces potable water consumption by 40%. 3 credits can be targeted.
Wat 2	Water Monitoring	To ensure water consumption can be monitored and managed, and therefore encourage reductions.	1	1	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) contains the requirements for: <ul style="list-style-type: none"> • A water meter with a pulsed output to be installed on the mains water supply; and • Sub-meters to be installed for all plant and/or building areas which consume over 10% of the buildings demand. 1 credit can be targeted.

Wat 3	Water Leak Detection	To reduce the impact of water leaks that may otherwise go undetected.	2	2	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) contains the requirements for: <ul style="list-style-type: none"> • A water leak detection system to be installed on the mains water supply which can detect leaks within the building and between the building and the utilities water meter; and • Flow control devices to be installed for each WC area. <p>2 credits can be targeted.</p>
Wat 4	Water Efficient Equipment	To reduce unregulated water consumption by encouraging specification of water efficient equipment.	1	1	The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) contains the requirements for any irrigation systems installed to be a BREEAM compliant drip fed subsurface systems. 1 credit can be targeted.

Materials

Mat 1	Life Cycle Impacts	To recognise and encourage the use of construction materials with a low environmental impact (including embodied carbon) over the full life cycle of the building.	6	1	Duggan Morris Architects Ltd have confirmed the following provisional material build ups for the major building elements of the Health Centre (email 21.03.16, 9:20) and BRE Green Guide ratings for each have been added in brackets; <ul style="list-style-type: none"> • External walls - Precast concrete panels (D rated) • Windows - Structural Glazing (D rated) • Roof and Upper Floors - Reinforced Concrete Slabs (D rated) • Internal walls - Plasterboard (A+ rated) <p>This information along with areas obtained from plan series P18-B Revision A has been entered into the BREEAM Mat 1 calculator which shows this combination enables 1 credit to be targeted.</p>
Mat 3	Responsible Sourcing of Materials	To recognise and encourage the specification and procurement of responsibly sourced materials for key building elements.	4	2	Arcadis have confirmed that the Principal Contractor will be required to produce, utilise and abide by a BREEAM compliant Sustainable Procurement Plan (email 23.02.16, 10:05). 1 credit can be targeted. Arcadis have confirmed that the Principal Contractor will be required to source all materials from manufacturers / suppliers certified under a Responsible Sourcing Certification Scheme where possible (email 23.02.16, 10:05). Duggan Morris Architects Ltd have confirmed the provisional material build ups for the major building elements of the Health Centre (contained in Mat 1) (email 21.03.16, 9:20). This information has been entered into the BREEAM Mat 3 calculator which shows that a score of 1 credit can be targeted.
Mat 4	Insulation	To recognise and encourage the use of thermal insulation which has a low embodied environmental impact relative to its thermal properties.	1	1	NHHT have confirmed that the building fabric and services insulation used within the Nursery will achieve an insulation index of 2.5 (email 12.05.16, 17:57). 1 credit can be targeted.
Mat 5	Designing for Durability and Resilience	To recognise and encourage adequate protection of exposed elements of the building and landscape, therefore minimising the frequency of replacement and maximising materials optimisation.	1	1	Duggan Morris Architects have confirmed that building protection measures such as bollards, kick plates, durable panels, robust finishes etc. will be incorporated into the design (email 04.05.16, 12:34). 1 credit can be targeted.

Waste

Wst 1	Construction Waste Management	To promote resource efficiency via the effective management and reduction of construction waste.	4	3	Arcadis have confirmed that the Principal Contractor will be required to (email 23.02.16, 10:05): <ul style="list-style-type: none"> • Conduct a pre-demolition audit and reuse materials if feasible, or if not then maximise the recovery of materials for high-grade/value applications; • Produce a utilise a Resource Management Plan; • Produce no more than 7.5m³ of non-hazardous construction waste (excluding demolition + excavation waste) per 100m² GIA; and • Divert 70% of non-demolition waste, and 80% demolition waste (by volume) from landfill. <p>3 credits can be targeted.</p>
Wst 3	Operational Waste	To recognise and encourage the provision of dedicated storage facilities for a building's operational-related recyclable waste streams, so that this waste is diverted from landfill or incineration.	1	1	The Ground Floor Plan (Drawing No. B01 Rev A, 29.04.16) shows a c.19sqm dedicated refuse storage room with external access doors to allow it to be accessible to waste management contractors. 1 credit can be targeted.

Land Use and Ecology

LE 1	Site Selection	To encourage the use of previously occupied and/or contaminated land and avoid land which has not been previously disturbed.	2	2	<p>The Site Constraints Plan (Drawing No. 9682-CNS-01 Rev A) shows that over 75% of the pre-development site, and the area associated with the unit, comprises buildings and hard landscaping.</p> <p>The ground within the pre-development site has been found to contain contaminants and a Remediation Method Statement has been produced by WSP (April 2016).</p> <p>2 credits can be targeted.</p>
LE 3	Minimising Impact on Existing Site Ecology	To minimise the impact of a building development on existing site ecology.	2	1	<p>WSP have stated that to achieve 1 credit the proposed landscaping would need to incorporate 10 native shrub species and 5 trees species (BREEAM Feasibility Table, November 2015). HTA have confirmed that 10 native shrub species and 5 trees species will be incorporated into the landscaping scheme at the appropriate stage (email 19.11.15, 08:53). 1 credit can be targeted.</p>
LE 5	Long Term Impact on Biodiversity	To minimise the long term impact of the development on the site and the surrounding area's biodiversity.	2	2	<p>NHHT have confirmed that a BREEAM compliant Landscape and Habitat Management Plan will be produced at the appropriate stage of design to enable 1 credit to be targeted (email 14.03.16, 14:00).</p> <p>Arcadis have confirmed that the Principal Contractor will be required to comply with the ecological protection measures recommended by a Suitably Qualified Ecologist (email 23.02.16, 10:05). The second credit can therefore be targeted.</p>

Pollution

Pol 1	Impact of Refrigerants	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.	3	1	<p>The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) requires a refrigerant leak detection system to be installed for all cooling systems with a total refrigerant charge of over 6kg. 1 credit can be targeted.</p>
Pol 2	NOx Emissions	To contribute to a reduction in national NOx emission levels through the use of low emission heat sources in the building.	3	3	<p>The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) contains the requirements for dry NOx emissions from space heating and hot water systems to be less than 40 mg/kWh. 3 credits can be targeted.</p>
Pol 3	Surface Water Run-Off	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on and off-site, watercourse pollution and other environmental damage.	5	4	<p>A Flood Risk Assessment (FRA) was undertaken by WSP (dated October 2014) to support the Outline Application for the Aylesbury Estate Regeneration Project. The FRA found that the site was at low risk of flooding from all sources and is located in defended Flood Zone 3a. As part of the FRA WSP liaised with the Environmental Agency (FRA Appendix G) who confirmed WSP's assessment of flood risk.</p> <p>The Outline Planning approval for the Aylesbury Redevelopment includes Planning Condition 5 which requires all development to demonstrate a reduction in surface water run-off rates of at least 50% above the existing rate of the site. WSP Drainage Engineers have confirmed that the Aylesbury Plot 18 Development will exceed the 50% reduction requirement through the use of an attenuation tank(s) (email 07.09.15 12:42). WSP have also confirmed that the site will be designed so as not to flood in the event of a drainage failure (email 10.11.15, 14:03).</p> <p>4 credits can be targeted.</p>
Pol 4	Reduction of Night Time Light Pollution	To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.	1	1	<p>The AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016) contains the requirement to design external lighting so that:</p> <ul style="list-style-type: none"> • It is compliant with ILP Guidance for the Reduction of Obtrusive Light 2011; • All external lighting (except safety and security lighting but including signage) is automatically turned off between 23:00 and 07:00; • Safety and security lighting complies with lower levels of ILP Table 2 Guidance between 23:00 and 07:00; and • Illuminated advertisements comply with ILE Technical Report 5. <p>1 credit can be targeted.</p>

Pol 5	Reduction of Noise Pollution	To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.	1	1	The Outline Planning Application for the Aylesbury Estate Regeneration Project underwent an Environmental Impact Assessment (EIA) which included a Noise and Vibration Environmental Statement informed by a Noise Impact Assessment produced by WSP. Outline Planning Condition 37 surpasses BREEAM requirements, requiring plant noise to be reduced to 10dB below background noise levels. NHHT have confirmed the BREEAM requirements will be achieved (email 14.03.16, 14:00) and they have been included within the AECOM Aylesbury Plot 18: South Building MEP Stage D Report (Revision 2, May 2016). 1 credit can be targeted.
Exemplary					
Man 3	Responsible Construction Practices	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	1	1	Arcadis have confirmed that the Principal Contractor will be required to achieve a Considerate Constructors Scheme score of at least 40 with at least 7 in each section (email 23.02.16, 10:05).

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