

Eco Impact Checklist

Title of report: Project Rainbow Eco Impact Assessment
Report author: Phil Lawrence MRICS, Senior Project Manager, for and on behalf of the Education Capital Team
Anticipated date of key decision: Cabinet meeting Tuesday 5 th March 2019
Summary of proposals: <p>The Brislington Centre, managed by the City of Bristol College (CoBC), is a seven-bed residential training facility which supports young adults with learning difficulties to learn the skills to live an independent/semi-independent life. The current capacity within the Brislington Centre is for 7 students, between 18-24 years old.</p> <p>The CoBC are planning to develop the site by adding 3 two-bed self-contained Units / Pods within the grounds, and to the north of, the Brislington Centre house. The proposal would both increase the current provision for independent living on site and also to increase the offer to improve the students' independent living skills, whilst still providing support from the Centre. Students would then be able to naturally progress into the Units after developing their skills in the house.</p> <p>Making full use of the land around the main Brislington Centre house creates a natural 'moving on' for the students. Having the Units on site will also reduce staffing costs for the CoBC by increasing capacity for students, whilst also giving the students a greater sense of independence.</p> <p>'Project Rainbow' will provide the opportunity and experience, of much needed residential training accommodation, for more young people with learning difficulties in Bristol.</p> <p>It is important for the CoBC that the Units are environmentally sustainable by design and fit well within the environment. The students currently grow produce on site, and a sustainable design will enable more of the students to learn about environmentally friendly construction.</p> <p>It is proposed that the Units will be circa 12.2 x 5.6m in plan, with a minimum internal height of 2.2m, with a flat roof. The Units are to have two single bedrooms, a kitchen / dining / living area plus a shower / w/c room. Externally, each of the Units are to be clad with an FSC sourced timber (larch or similar).</p> <p>A "Fabric First" approach is to be adopted to help reduce energy consumption, with the Units to be designed to satisfy the requirement of 20% renewables as set out in the Bristol City Council 'Climate Change and Sustainability Practice Note (December 2012)'.</p>

Will the proposal impact on...	Yes/ No	+ive or -ive	If Yes...	
			Briefly describe impact	Briefly describe Mitigation measures
Emission of Climate Changing Gases?	Yes	-ve	<p>Construction activity: (including removal of spoil from site (vehicular movements for spoil removal); concrete construction works; (foundations, retaining walls).</p> <p>Building materials: Embedded carbon within construction materials.</p> <p>Energy in use: Domestic energy usage, heating, lighting, domestic hot water.</p>	<p>Construction activity: Due to the high level of contamination (incl. deleterious material) in the ground, soil removal to a licensed tip will be required to comply with all required SHE Legislation. Potential mitigation measures to minimise the required soil removal and waste transfer distance where possible.</p> <p>Inclusion of a Q.A (incl. sustainability) method statement in the ITT and obtaining the Contractors Commitment and Environmental Policy.</p> <p>Building materials: AR's have stipulated minimum Green Guide Ratings for various materials, including a+BRE and use of FSC timber.</p> <p>Energy in use: A 'Fabric First' approach to be adopted to help reduce energy consumption, including 20% renewables as set out in the BCC '<i>Climate Change and Sustainability Practice Note</i>'.</p>
Bristol's resilience to the effects of climate change?	Yes	-ve	<p>Flood risk The site is not within a flood risk area, however the proposals will</p>	<p>Flood risk Sustainable drainage techniques to be incorporated where possible.</p>

			<p>increase the water run-off area.</p> <p>Tree removal Trees will need to be removed on site to accommodate the proposals.</p>	<p>Tree removal An Arboricultural survey has been commissioned. All trees are category B, C or U (no Cat. A trees). Trees to be replaced in accordance with the Bristol Tree Replacement Standard.</p>
Consumption of non-renewable resources?	Yes	-ve	<p>Non-renewable resources Use of non-renewable construction materials (notably concrete for foundations).</p> <p>Energy usage Consumption of energy through the running of PODS as homes and associated waste generation</p>	<p>Non-renewable resources AR's have stipulated minimum Green Guide Ratings for various materials where possible, including A+BRE and use of FSC timber.</p> <p>Energy usage COBC will run the PODS after construction, paying for energy and dealing with waste disposal. PODS are of an efficient design and will use energy efficiently.</p>
Production, recycling or disposal of waste	Yes	-ve	<p>Waste on site Removal of contaminated spoil from site and general construction waste.</p>	<p>Waste on site Due to the high level of contamination (incl. deleterious material), plus landfill material in the ground, spoil must be removed to a licensed tip to comply with all SHE Legislation. The volume of spoil removed may be minimised as far as reasonable practicable.</p> <p>General construction waste may be segregated on site (either multiple skips) or utilising off-site sorting</p>

			<p>Waste off-site Off-cuts of material.</p>	<p>and recycling.(Waste Transfer Notes to be obtained for all waste in accordance with Waste Management Regulations).</p> <p>Waste off-site The units are manufactured and largely completed off-site. This has the benefit of enhanced quality control including the management of waste. The units could be designed and constructed to minimise off-cuts as far as possible (I.e. considering modular size of materials etc.).</p>
The appearance of the city?	Yes	+ve	<p>Sustainable accommodation The units will provide independent living opportunities for students, 18-24 years old, with learning difficulties.</p>	<p>Sustainable accommodation The site will be designed with the units facing towards the Brislington Centre where social events will be a focus.</p> <p>The units will be designed to comply with the 20% renewables and be clad in FSC timber.</p> <p>The units will be single storey and appropriate to the surroundings. The proposed site is largely visually screened from adjoining neighbours.</p> <p>Accessibility will be incorporated throughout the site design and within the units, with the unit closest to the house meeting the principles of</p>

				AD-M Cat. 3.
Pollution to land, water, or air?	Yes	+ve	<p>Pollution to land An SI, including gas monitoring, has been commissioned. The SI report highlighted the land to be a formal quarry site. The land contains various waste products, including car parts and deleterious material. There is currently a nominal layer of topsoil and grass.</p> <p>Pollution to water / air / noise From construction activities, cutting etc.</p>	<p>Pollution to land The proposals include the removal of circa 600 tonnes of contaminated ground, to ensure the site is safe for development and human habitation.</p> <p>The BCC Public Protection (Pollution) team have been initially consulted regarding the proposals.</p> <p>A Pre-App was submitted on 14th January 2019.</p> <p>Pollution to air The Contractor is to ensure that all activities have appropriate RAMS and are carried out in full compliance with all SHE legislation. BCC may commission an independent H&S Consultant to provide H&S support to the project, including ad-hoc site visits to monitor SHE compliance.</p>
Wildlife and habitats?	Yes	-ve	<p>Ecological impact Disturbance of wildlife or habitats</p>	<p>Ecological impact An Ecological Appraisal has been commissioned.</p> <p>The ecological impact is relatively low, with the report concluding that '<i>no further survey work is required</i>'.</p> <p>The recommendations within the Ecological Appraisal will need to be incorporated within the site design and</p>

			<p>Tree removal Trees will need to be removed on site to accommodate the proposals.</p>	<p>construction.</p> <p>Tree removal An Arboricultural survey has been commissioned. All trees are category B, C or U (no Cat. A trees). Trees to be replaced in accordance with the Bristol Tree Replacement Standard.</p>
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Consulted with:

- CoBC & BCC SEND Team - throughout development of the Brief and ITT.
- Procurement & Legal (Construction Contracts) – for soft-market testing and producing the ITT.
- Public Protection (Pollution) Team – regarding the ground conditions and scope of work for the SI.
- Development Management – submission of a Pre-App (14th January 2019)
- Building Practice Team – to obtain asset information for the site wide Brislington Centre.

Summary of impacts and Mitigation - to go into the main Cabinet/ Council Report

The significant impacts of this proposal are the removal of contaminated spoil. An Interpretative Ground Investigation (GI) survey, including gas monitoring, has been commissioned. The GI report highlighted that the ground contains various waste products and contaminates, including deleterious material.

The proposals include the following measures to mitigate the impacts (as undertaken to date):

- Soft market testing to ascertain if a D&B Contractor will be able to manage the ground conditions as part of a full turnkey D&B package.
- Due diligence of the Contractors proposals, including commissioning independent cost consultancy advice, to validate the robustness and value for money of the contractors proposals.
- Procurement and Legal (construction contract) advice from respective BCC teams.

The proposals include the following measures to mitigate the impacts (forward actions):

- To support the progression of the project with additional funding to manage the heavily contaminated ground.
- Commission of a H&S advisor to review the contractors risk assessments & method statements (RAMS), plus to undertake site visits to ensure full compliance with all relevant Safety, Health and Environmental legislation is being strictly adhered to.

The net effects of the proposals are a cost increase to progress the project, due to the site being highly contaminated, by comparison with a non-contaminated site.

Checklist completed by:

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Verified by Environmental Performance Team	Nicola Hares