

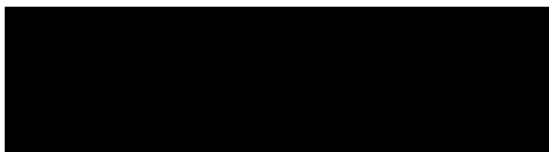
Nelson Hotel, Littlehampton

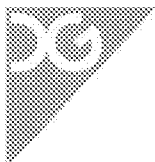
Sustainability Report

Revision 1

7th November 2018

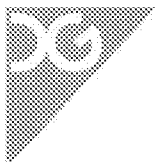
Delta Green Environmental Design
Integrated Sustainable Solutions





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1.0 Introduction

The proposed new development is to involve the construction of a new hotel facility, replacing an existing similar facility in Littlehampton. The hotel shall have 14 bedrooms with a Reception, Kitchen and Dining area.

Whilst there is no need to undertake a formal BREEAM assessment under the local plan we have utilised the BREEAM template / criteria to identify the sustainable considerations we have made to the scheme thus far and how we propose to develop the scheme further in the next stages of design and subsequently construction.

2.0 Proposals

Management

A specialist commissioning manager shall be appointed during the detail design stage to provide design input, commissioning management performance testing and handover. The heating, hot water and electrical services within the building shall be commissioned by an appropriate person(s) to the required CIBSE and BSRIA Codes, which shall ensure the building services are operating efficiently and as the occupants require. This commissioning role will be extended to provide seasonal commissioning at part load and full load conditions over the first 12 months after occupation.

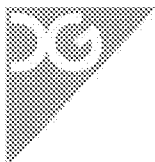
Any training for the FM team/occupants that is identified will be scheduled and this training schedule will be handed over to the client. The successful contractor shall provide an aftercare service by facilitating the identified training, by being on site at least once a week for the first few weeks after occupation and by being contactable if there are any issues within the first 12 months of occupation.

The Contractor shall also be required to hold ISO14001 certification, to register with the Considerate Constructors Scheme and to achieve a Beyond Best Practice score greater than 35, with no less than 7 in each section of this. They shall be committed to monitor site energy, monitor water consumption, monitor transport to/from site and responsibly source all temporary site timber used to facilitate construction.

A non-technical building user guide will be produced that provides an overview of the energy efficient design features of the building, simple instructions for how to use the systems, information on how to save energy and further information about the site and surroundings.

Health & Wellbeing

Lighting to all occupied areas will meet Lux levels recommended by CIBSE guidelines and any fluorescent lamps that are specified will be high frequency. The lighting to circulation areas and stores shall be controlled via PIR sensors so shall only be on when the rooms are occupied. The lighting in the bedrooms shall also be controlled via key card to provide absence detection, therefore when a guest exits the room lighting is immediately switched off, saving energy.



External lighting, where present, shall be energy efficient and controlled via a timeclock with daylight override to ensure no external lighting remains on during daylight hours.

An acoustic consultant will be appointed to confirm that sound insulation between rooms, ambient noise levels and reverberation meet the relevant standards, with a programme of pre-completion testing carried out to confirm that these levels are realised.

Energy

The development has been designed using a 'fabric first' approach, using a combination of low u-values and air permeability to minimise the heating load, as shown in Table 2.1.

Building Element	Target U value (W/m ² .K)	Building Regulations maximum (W/m ² .K)
Ground Floor	0.22	0.25
External walls	0.26	0.35
Roof	0.18	0.25
Glazing (g=0.40)	1.50	2.20
Air Permeability m ³ /hr.m ² @ 50Pa	10.00	10.00

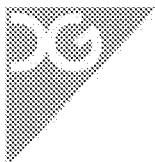
Table 2.1 Building fabric – target U-values & air permeability

The heating and cooling throughout is to be provided by highly efficient air source heat pumps (ASHPs) with the ventilation being predominately mechanical with heat recovery.

Sub-metering with pulsed output meters will be provided for the heating system, cooling, major pumps/fans and the lighting/small power, which will allow energy usage by each to be effectively monitored and managed. In addition to this, the energy supply to any energy intensive areas will be separately metered, which will allow abnormally high energy consumption within this space to be identified.

All external lighting will be designed to be energy efficient and time controlled to ensure the lights do not remain on during daylight hours or when not required.

A lift traffic analysis will be undertaken to determine the optimum size and number of lifts required followed by a lift energy analysis. The analysis will be undertaken to compare a number of different lifts and the lift selected will be the one with the lowest energy consumption. The specified lifts will include a number of energy saving features to minimise load.



Transport

Due to the site's location in close proximity to the town centre there is easy access to the local public transport network.

A travel plan will be developed based upon the findings of a site specific transport assessment. This will influence the design of the site and will include recommendations and measures to reduce impact of travel to and from the site by a range of users travelling by different methods.

Water

Water consumption within the hotel shall be kept to a minimum by specifying low water consuming sanitaryware.

Water usage shall be metered by a pulsed output meter on the incoming supply.

Materials

Where possible, all materials selected for construction, new external surfaces and any boundary protection will be A or A+ rated in the BRE Green Guide to Specification, demonstrating they have low life cycle embodied energy.

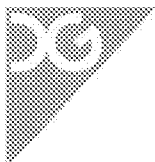
The successful contractor shall be required to responsibly source any construction material making up more than 10% by volume of a building element from suppliers capable of providing the relevant Environmental Management System (EMS) certificate. All of the insulation specified for the building fabric and building services will have a high Green Guide rating and high thermal performance. These will be certified under BES6001 or ISO14001 (or equivalent) at both supply chain stage and key process stage wherever possible to ensure that the insulation products used have a minimal environmental impact.

The specification for the materials will have considered the robustness required for the vulnerable areas of the building. The development as a whole will be considered to ensure more hard wearing materials are specified where required to protect internal and external areas deemed to be at risk. This is to ensure the materials used within vulnerable areas are not frequently replaced due to wear, unnecessarily increasing waste from the building. Material efficiency measures will be identified throughout the design and construction process to ensure that the use of materials will be kept to a minimum.

Waste

The Contractor will be required to produce a site waste management plan that includes resource efficiency measures to ensure they generate less waste per 100sqm gross internal floor area and that demolition waste by weight is diverted from landfill.

To minimise waste from the building during operation, recyclable waste facilities are provided in the bin store. This shall be clearly labelled to differentiate the storage area from the general waste.



Land Use & Ecology

The proposed location of the hotel is on a brownfield site that is currently building and hard standing so there will be little to no ecology displaced as a result of the proposals. Although unlikely, if any areas on site are considered to require protection then appropriate measures will be adopted during the construction phase.

Where possible additional means for the increasing of biodiversity of the will be included.

Pollution

The building replaces an existing building and hard landscaping so additional rain water runoff is not anticipated due to the building form.

The external lighting will be designed to comply with the ILE Guidance for light pollution, to ensure there is no upward light spill from the site. In addition to this, an acoustic consultant will undertake a noise impact assessment to confirm that there will be no likelihood of complaint at the nearest residential properties as a result of increased noise levels.