

LAND TO EAST OF 29 HARBOUR ROAD, PAGHAM

Proposed residential development

This document to be read in conjunction with Design Statement dated January 2015 together with Drawings referred to.

SUSTAINABILITY APPRAISAL

1.00 Introduction:

This statement has been produced to demonstrate how sustainability issues have been addressed during the design process in respect of proposed residential development of three detached bungalows, each with deck, garage and parking.

2.00 Building Design:

- 2.01 The proposed development will provide three single dwellings, and a traditional form of construction is proposed to provide a long life expectancy, with reasonable maintenance costs and requirements.

The following materials are therefore proposed:

- Aircrete block materials specified in wall and floor construction to achieve:
 - High strength to weight ratio
 - Good thermal insulation properties
 - Resistance to sound transfer
 - Excellent fire resistance
 - Frost and sulphate resistant in foundation construction
 - Environmentally friendly with:
 - Low embodied energy
 - "A" rated construction in the Green Guide to Specification
 - Helps achieve very good Eco-homes rating
 - Long life expectancy
- Elevations: External elevations are proposed in cavity construction with areas of facing brickwork to the outer cavity skin
- Timber roof framework: It is proposed that the roof of the building will be of trussed rafter construction, fabricated by a local manufacturer and Member of both the Trussed Rafter Association and TRDA, both of whom require materials to be provided from

sustainable sources.

- Roof materials: Interlocking tiles of appearance likely to be required by Planning

Condition in this Area of Special Character are proposed, and again will be from

local manufacturers taking a responsible attitude to both mineral extraction and related processing and transportation.

- 2.02 Where possible local materials and labour will be employed in the construction process, to minimise transport costs and disturbance.

All building materials specified will be non-toxic, and derived from sustainable sources.

The building has been designed to utilise natural light and ventilation in addition to the minimum requirements of Building Regulations, and will provide open, well lit and ventilated accommodation for the building users.

Sound insulation to comply with the minimum requirements of Approved Document E will be incorporated within the construction to ensure the quiet enjoyment of the building by the users.

- 2.03 Where possible the buildings have been orientated and designed to provide a south facing roof slope, important for the location of solar and photovoltaic arrays on the roof.

3.00 Building and site location:

- 3.01 The development is situated within the Pagham Beach Estate and therefore within the existing settlement.

- 3.02 The location provides access to local bus service approximately 150m distant. A railway station is available at Bognor Regis, approximately 4-5 miles distant. A train service is also available at Chichester, 7-8 miles distant.

- 3.03 Garages are of sufficient size to also accommodate dry and secure cycle storage which it is hoped will encourage residents to use bicycles for local journeys and leisure.

4.00 Utility services

- 4.01 Mains utility services are available close by.

4.02 **Water:** Mains water supply is available beneath Harbour Road and a new metered service is to be provided to each new dwelling.

All appliances are designed for low water use.

The use of solar panels for domestic hot water requirement is proposed and the plumbing system will be designed to accommodate this facility.

4.03 **Rainwater harvesting:** The use of rainwater harvesting is proposed, for use in flushing toilets and to enable a reduction in water consumption. See comments under para. 11.02 within the Design Statement.

4.04 **Electricity:** A mains supply will be connected to each new dwelling. It is also proposed to install an array of photovoltaic panels on the south or west facing roof slopes of the new buildings. The roof pitch is designed at nominally 30° which is close to the optimum performance of the pv and solar panels. It is proposed that the photovoltaic panel will extend to 12m² which will generate approx.1.2kw towards the demands of the building.

4.05 **Renewable energy:** In accordance with current guidelines it is proposed that in excess of 10% of the needs of the proposed building will be generated on site from solar panels and an array of photovoltaic cells, which will be installed on south facing roof slopes. Levels of thermal insulation proposed in the construction of the new buildings are to be well in excess of the current minimum requirements of Part L1 of Building Regulations, which will further reduce the energy requirement of the dwellings.

4.06 **Gas:** Mains gas supply will be provided to each dwelling

4.07 **Heating:** It is proposed that each bungalow will be provided with a wet underfloor heating system to be run from the central heating boiler. Individual room thermostats will be provided to optimise economy within the system. As mentioned above, levels of thermal insulation proposed will exceed the minimum requirements of current Building Regulations, and the thermal mass of the building as a result of traditional construction will also minimise wide variations in temperature change.

- 4.08 **Foul drainage:** Each bungalow will have lateral connection to the Pagham Vacuum Sewerage Scheme which is pumped into the main sewer. There is adequate capacity within this system.
- 4.08 **Refuse/recycling disposal:** Screened storage of wheelie bins is to be conveniently located adjacent to each dwelling, with ready access for collection.
- 4.09 **Telecommunications:** Connection to a BT landline is available with adequate capacity and bandwidth. Reasonable mobile signal is also available from the majority of operators. There is at present no cable facility installed on the Estate.

J.Higham Associates
CHARTERED SURVEYORS
Woodlands Cottage, Normandy, Guildford, Surrey GU3 2HT
Tel: 01252 345958
E-mail: higham.assoc@gmail.com

1-10-14
amended 20-1-15