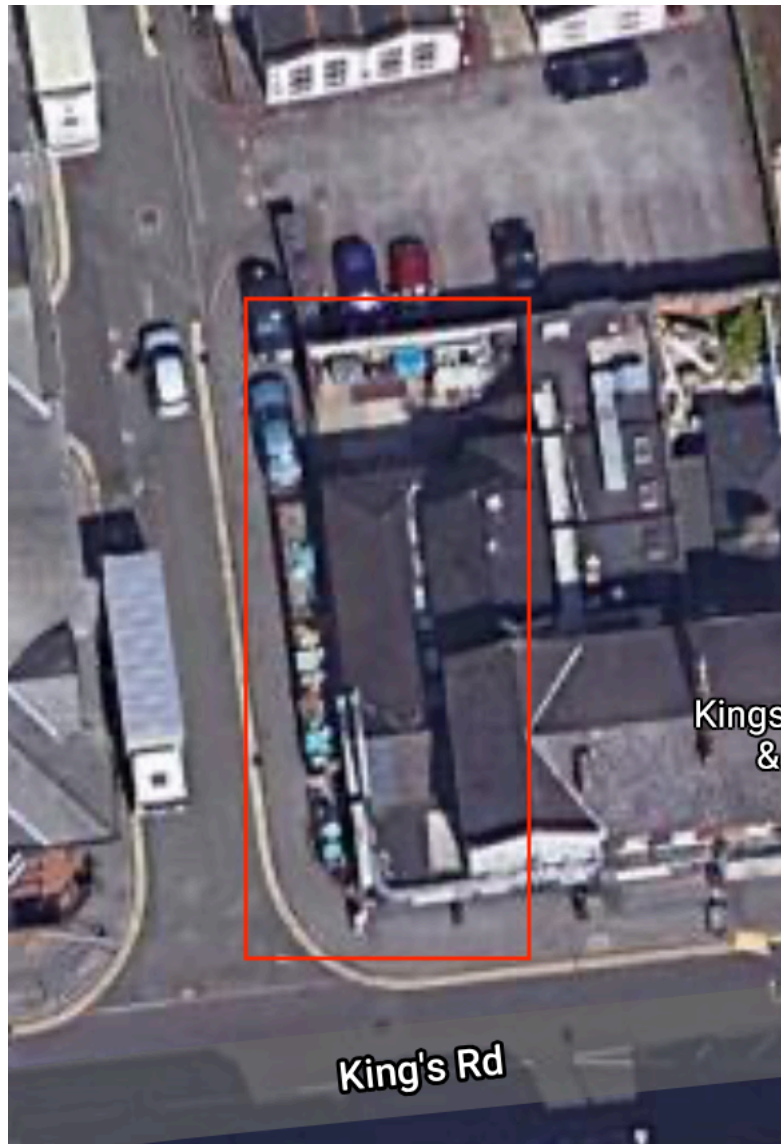


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Sustainability Statement for pre Application 77 - 79 Kings Road, Reading, RG1 3DD



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Introduction.

Site at 77 - 79 Kings Road, Reading, RG1 3DD

The site is a new development on Kings Road near the centre of Reading. The proposed development will demolish an existing building and build a new 5 storey hotel with 22 rooms, a small restaurant and general meeting area. The site is currently a public house with food service. There is good road access from a side road which will provide access to parking and the proposed hotel is only 350m from Reading town centre with a footpath available for the whole route. There are multiple bus routes nearby and the train station is around 10 minutes walk from the proposed site.

The site lies within Reading Borough Council and the purpose of this report is to deliver the sustainability strategy in a format suggested within Sustainable Design and Construction Supplementary Planning Document (Adopted December 2019)

The proposed sustainability development framework

Energy

Our current estimate from the choice of building materials and method of heating is that the hotel will be better than the building regulations requirements. The proposed construction will use standard cavity walls, with a u value of 0.21. The floors and roof will also have u-values of 0.15 or less. With the addition of a glazing system that is at least 1.4 u-value, the hotel will be very efficient from a thermal perspective. The hotel will also have a lighting design completed as this can have a very large impact on the energy usage of a commercial building. This follows the councils policy and NPPF guidance of reducing energy demand as the primary route to energy reduction.

The main heating will be from a high efficiency air source heat pump boiler, with well insulated hot water cylinders located in several locations on each floor. A pumped primary hot water system will minimise heat losses from long runs.

As part of the proposal, the client plans to have solar photo voltaic systems fitted to provide over 10% of the energy required by the dwellings during an average year from local sources.

As required by Reading Borough Council, the development will comply with BREEAM Excellent.

The combination of thermally efficient building and solar PV to generate energy locally will greatly reduce the energy required to heat and run this hotel.

Water Usage

The water fittings within the bedrooms will be chosen for low usage rates e.g. 3 lpm for basin taps and 10 lpm for showers, plus baths with a max capacity of 165 litres to overflow. The commercial dish washers to be fitted will be specified to ensure the water usage is kept as low as possible.



Flood risk

A review of the Environment Agency web site shows the site is located outside the area of flood risk as the site is about 100m from the Kennet river but this part of the river has not flooded and the site is in Zone 1.

The development will include SUDS soak aways for the hotel to reduce rain water run off. Appropriate Surface Water Runoff calculations will be made to ensure these are sized correctly for the nature of the sub soil. But given that the horizontal area is currently all building or concrete, it is likely that current construction will improve the water runoff from the building.

Assuming the site is developed as proposed, the whole building will have very low impact from flooding and surface water run off.

Shading and solar gain

The orientation of the site is almost to South, which means that all rooms facing South will benefit from solar gain, but the rooms facing East and West will have limited gain. There will also be shading from nearby buildings for the lower floors. There are 5 storey buildings adjacent to the West side and across the Kings Road, plus 2.5 storey attached to the building. There is no opportunity to improve this situation given the site constraints.

Recycling

Naturally in any new development, locations for the standard size commercial bins and food waste bins will be provided within the curtilage of the property. In the commercial kitchen, several bins will be located to encourage waste separation and therefore increase recycling. Leaflets on recycling will be placed in each room and the kitchen will recycle guests waste as part of their daily duties.

Biodiversity

The site is currently fully built on, with an older building covering the bulk of the site, plus some concrete hardstanding to the rear. There is a possibility of adding a green roof, but the developer is proposing adding solar PV to deliver a 10% reduction in CO2 for this building.

Light pollution

As the properties are in an urban area, there is light pollution from other buildings (offices and apartments) plus light from bedrooms could be seen if curtains are left open. The corridors will use LED lights, which will have daylight sensors and PIR sensors to reduce light pollution to the bedrooms and reduce energy usage. Motion sensors will be fitted in the public toilets on the ground floor, plus the office area. It is accepted that some public areas like reception and the entrance area will be lit all the time



Noise pollution

During the construction process, building will only be done during commonly held hours. The hotel has bedrooms only and no public rooms for functions, so they will not add to the noise levels within the surrounding area.

Insulation materials

These will be selected from manufacturers who declare a GWP of less than 5. All insulation materials will also be zero Ozone Depletion Potential (ODP). It should be noted that the manufacturers of most insulating materials are outside the locally sourced materials zone. These materials are usually distributed to more local sources (trade warehouses), where they are sourced from.

NOx pollution

As the properties will be heated by an air source heat pump boiler, there are no NOx emissions from the unit, but an allowance is made for some that may occur in the generation of electricity. The use of solar panels will further reduce all emissions by reducing energy demand.

Responsibly sourced and recycled materials

All timber will be sourced with approved certification, which are primarily FSC and PEFC marked. Where possible, all materials will be sourced within a 35 mile radius of the development. Any material that can not be obtained within this radius (like insulation) will be sourced from local distribution centres. Any particular material required from outside this area will have a brief justification note added to the project management files.

A minimum of 25% of materials for the roads, paving, parking spaces and public open spaces will make use of locally recycled materials

Site Waste

All site waste will be separated and sent for recycling. There will be a target of recycling of a minimum 75% of all waste for the site, which the developer has met on previous occasions. A full site waste management plan will be provided to the council before building work starts.

Construction Pollution

The site will implement a Site Construction Environmental Management Plan and include this in the full planning application.