your energy assessor

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SUSTAINABILITY STATEMENT

PROJECT NAME
7 Belvedere Road

DATE
29th April 2025

ASSESSOR
Benjamin Leech

Sustainability Statement

Project: 5814KJ – 2025.02 SBEM (7 Belvedere Road – O'Leary Goss Architects)

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Sustainability Statement

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Executive Summary

This Sustainability Statement has been compiled to demonstrate compliance with the following Bristol City Council Policies from the Development Framework Core Strategy:

- BCS13 – Climate Change
- BCS14 – Sustainable Energy
- BCS15 – Sustainable Design and Construction
- BCS16 – Flood Risk and Water Management

The proposal is for the conversion of 7 Belvedere Road, Redland, Bristol, BS6 7JG to form an extension to the care home present at 8 Belvedere Road next door.

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Climate Change and Sustainable Energy

Energy Efficiency

The thermal elements and fenestration have been designed to meet and exceed the standards set out in Approved Document L2. Well specified thermal elements with low U-values help to reduce energy demand and improve comfort levels within the property (with existing thermal elements sensitively upgraded where appropriate), while new, highly efficient systems will be installed to provide heating, hot water and ventilation to the building.

For more information, including details on the specification of the thermal elements and services, please refer to the Energy Strategy.

Decentralized, Renewable and Low-carbon Energy Supply Systems

The proposal for this site is to install photovoltaic panels to the main roof of the building. This will ensure that the placement of the panels does not negatively impact the appearance of the property yet maximise exposure to the sun.

Additionally, an air source heat pump will be installed to provide renewable, low carbon heating and hot water to the care home extension.

For more information, please refer to the Energy Strategy.

Site Layout and Design - Resilience to Climate Change

Due to the existing window layout, cross ventilation is possible from the north-west side to the south-east side through openable windows. Although MVHR is being specified in order to ensure resident comfort, this will help reduce the required operating levels both now and in a potentially warmer future climate.

Furthermore, overheating can be avoided by using appropriate internal shading such as blinds and curtains and external shading.

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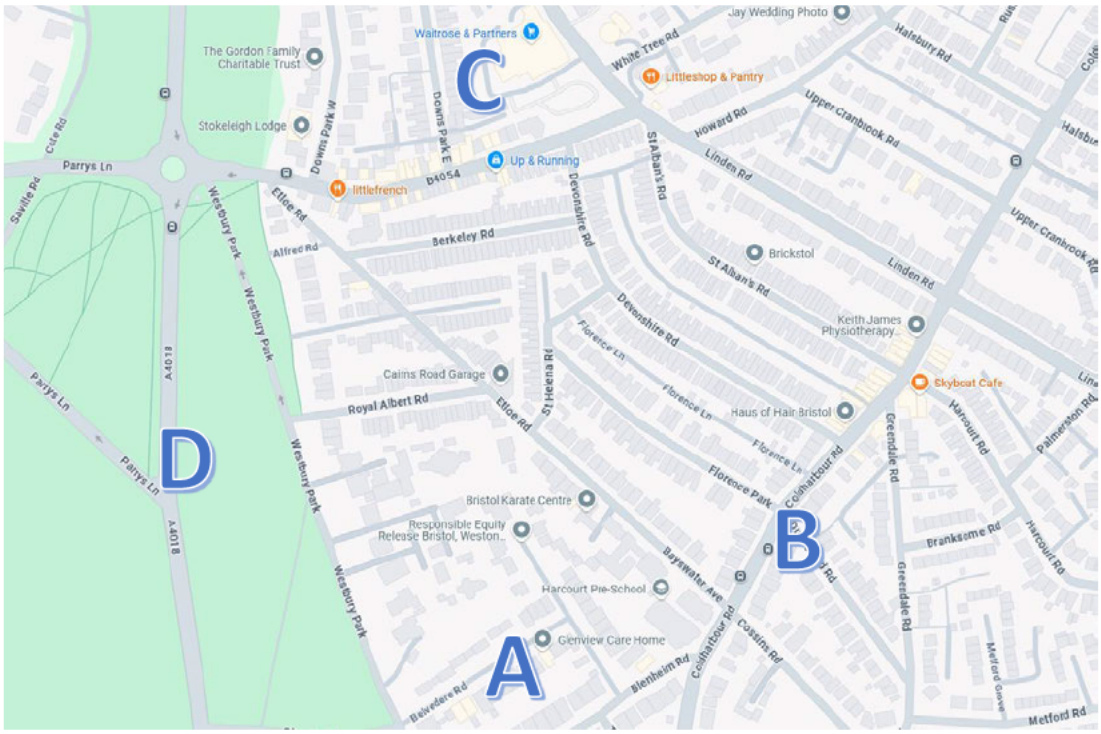
Encouraging Greener Transport Use

7 Belvedere Road ('A' on the map below) is situated an approximate 2-minute walk away from the nearest bus stops on Coldharbour Road (B). These stops are well served with buses travelling towards Bristol City Centre and other nearby centres, including Long Ashton and Southmead Hospital.

Redland train Station is an estimated 20-minute walk away. This station receives regular trains to Bristol Temple Meads which serves national travel.



Other amenities also within a convenient walking distance include shops (C), restaurants, and public parks (D).

The proximity of these amenities should discourage car journeys for potential future residents, visitors and staff. This should help to reduce emissions and congestion associated with motorised transport.

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Sustainable Design and Construction

Green Infrastructure and Biodiversity Enhancement

This development is a conversion of a small-scale residential site to a care home so the concern of contributing to heating the urban environment is not significant.

There is some scope to enhance biodiversity on this project. While some of the existing garden will be lost to the extension, the majority will be retained, allowing opportunities for infill planting.

Avoiding Responses to Climate Impacts that Lead to Increases in Energy Use and CO_2 Emissions

There are no proposals to include artificial cooling as part of these works. Cross ventilation and appropriate internal shading such as blinds and curtains will be used to mitigate against the effects of overheating from the sun.

Although well specified, the thermal envelope is not designed so as to require mechanical cooling.

Waste and Recycling - During Construction

A Site Waste Management Plan (SWMP) will be developed for this project. Waste groups to be monitored will be identified and targets set in order to identify how waste will be reduced, diverted from landfill, reused or recycled wherever possible. If waste is unavoidable, it will be disposed of responsibly.

Waste and Recycling - In Operation

Adequate waste and recycling storage will be developed from the existing provision to cater for this change in use for the building.

Both the internal and external provision will comply with the Bristol City Council recycling and waste collection requirements, ensuring that recyclables and waste can be separated before collection.

Building Materials - Type, Life Cycle and Source

All materials specified for the new construction will be at least 'B' rated or higher under the BRE's Green Guide to Specification, in-line with guidance in the Climate Change and Sustainability Practice Note. This will ensure that construction is more sustainable and environmentally friendly.

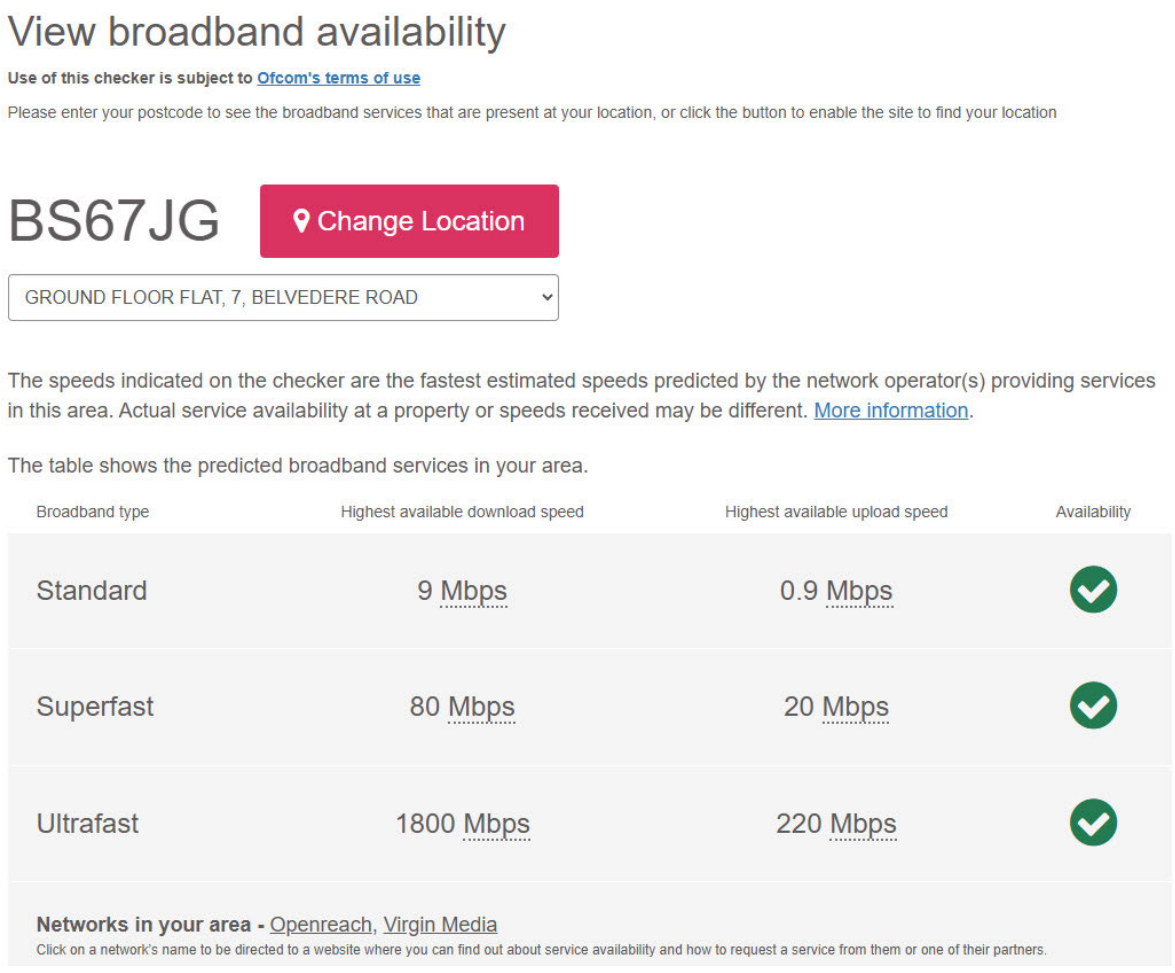
Where feasible, the most local suppliers of materials will be selected to minimise the environmental impact of transportation. Only suppliers with a certified chain of custody showing responsible sourcing will be used to source materials, including ensuring that 100% of timber is legally sourced.

Site Layout and Design - Flexibility and Adaptability

7 Belvedere Road was originally built as a single dwelling but has since been converted into flats. Depending on the future needs of the local area, it could be converted back into residential use if the space is no longer required by the care home.

High Speed Internet Connectivity

High speed Broadband internet will be provided to the conversion, as extended from the existing provision to the surrounding area. This will have to be confirmed by a survey prior to installation but the broadband checker from Ofcom indicates the following:



View broadband availability

Use of this checker is subject to Ofcom's terms of use

Please enter your postcode to see the broadband services that are present at your location, or click the button to enable the site to find your location

BS67JG Change Location

GROUND FLOOR FLAT, 7, BELVEDERE ROAD

The speeds indicated on the checker are the fastest estimated speeds predicted by the network operator(s) providing services in this area. Actual service availability at a property or speeds received may be different. More information.

The table shows the predicted broadband services in your area.

Broadband type	Highest available download speed	Highest available upload speed	Availability
Standard	9 Mbps	0.9 Mbps	✓
Superfast	80 Mbps	20 Mbps	✓
Ultrafast	1800 Mbps	220 Mbps	✓

Networks in your area - Openreach, Virgin Media

Click on a network's name to be directed to a website where you can find out about service availability and how to request a service from them or one of their partners.

Flood Risk and Water Management

Water Conservation Measures

Internal potable water will be conserved by installing flow restrictors to taps and showers and installing dual flush toilets.

The following schedule provides a suggested specification which has been proven to exceed building regulations requirements for water conservation (Regulation 36 Compliance).

Table 1 - Water Consumption

Internal Potable Water Fixing	Flow Rate / Capacity
Toilet	Dual Flush 6 and 4 litres
Basin Taps	6 litres / minute
Bath	180 litres (capacity to overflow)
Shower	10 litres / minute
Kitchen Taps	8 litres / minute

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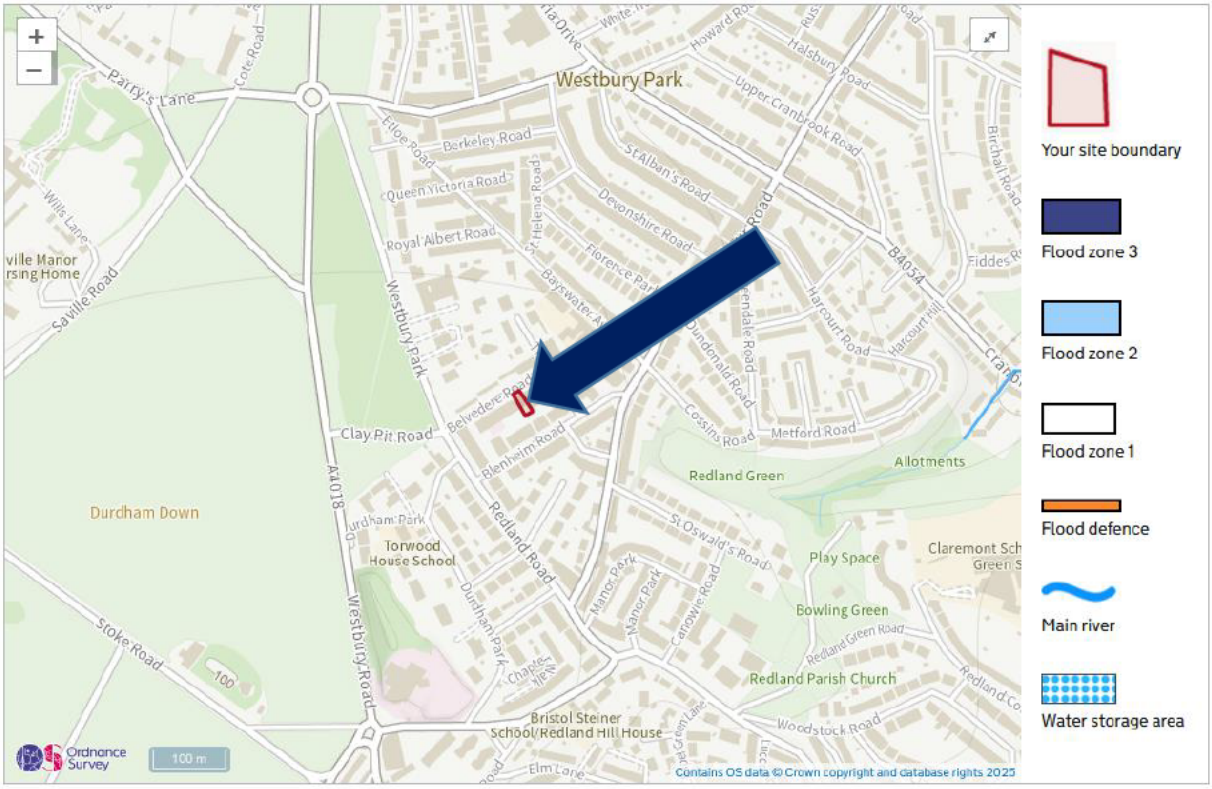
Minimising Flood Risk

The site lies within Flood Zone 1, according to the Government's Flood Map for Planning, as shown below (Flood Zones 2 and 3 would be marked in blue).



As the works will build on existing structures and hardstanding, there is unlikely to be any impact on the flood risk of this site. There will be no increase in hardstanding as a result of these works.

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Summary

This proposed dwelling has been well designed to cope with and mitigate against the effects of climate change. The energy strategy proposes the installation of photovoltaic panels and an air source heat pump to help offset some of the carbon dioxide emissions associated with the property, whilst the proximity of local amenities and public transport links should help to reduce car journeys associated with the development. Additionally, as the works are a conversion of an existing building, flood risk and biodiversity at the site will not be affected.

The likely impact on the local environment as a result of this proposed conversion works will be minimal.

References

Approved Document L2
Approved Document G
Government Flood Risk Map for Planning
Green Guide to Specification
CIRIA Resources Overview for SWMP
Bristol City Council Climate Change and Sustainability Practice Note
Bristol City Council Recycling and Waste Collection Requirements