

1.

Sustainability Statement for extension and alterations 17 Conisboro Avenue.
Michael Lumley Associates. Sept 2023 – resubmission June 2025 (no change)

17 Conisboro Avenue, Caversham, RG47JB
Extensions and alterations to ground floor

2. Energy efficiency

Have you maximised opportunities for natural solar gain and natural ventilation and minimised overheating risk through passive design and attention to building location, orientation and form?	Yes	No	N/A
	X		
All new windows and doors will have trickle ventilation available and proportional openable area to allow rapid ventilation, including roof lantern and boarded lantern.			

Have you designed the fabric of the building to be ultra-low in energy demand, achieving KPIs for space heating demand (kWh/m ² /yr) and energy use intensity (kWh/m ² /yr)?	Yes	No	N/A
	☐	X	
Careful consideration has been given to optimise appropriate insulation to the new roof and wall structures. All new work will exceed minimum U values specified by the building regulations			

3. Low carbon heat

Will the building be fossil-fuel free with low-carbon heat source independent of the gas network?	Yes	No	N/A
	☐	X	☐
It is not practical, from any point of view to heat this structure by means of solar power or heat pump. Altered and new lighting will be 100% energy efficient, in excess of Building Regs 75%. All thermal junctions sealed with airtight tape/sealants, breather membranes and roof underlays to minimise air leakage. The recently installed, existing boiler is at the highest energy rating - new radiators will be modern efficient units. New kitchen appliances can be rated A+++ for optimum environmental performance. Attention will be given to general improvements in draught proofing and maintaining the existing glazing to all windows. There are no proposals to replace existing painted s/w windows or doors.			

4. Renewable energy

Has the design and shape of the roof been optimised for maximum output of a photovoltaic array?	Yes	No	N/A
		X	☐
PV is possible, in the future, on the existing pitched roof area facing south west. However due to the volatile nature of PV development and the likelihood that significant efficiency levels will rise it is not economical to invest in this approach at present			

Does the building achieve a net zero-operational carbon balance and deliver 100% of its entire predicted energy consumption using renewables on-site?	Yes	No	N/A
	☐	x	☐

5. Water

For dwellings: have water-efficiency measures been incorporated and will fixtures and fittings be specified to achieve water consumption of <105 l/p/d?	Yes	No	N/A
		x	
There are no proposals for water consumption reduction or storage. All roof area will drain to the existing combined system. New water consumption standards will be achieved in any new fittings.			

6. Transport & Travel

Reduced travel:

Have you made provision for home working in residential buildings?	Yes	No	N/A
	X	☐	
Two of the existing rooms will be a home-office equipped for use by the occupants.			

Is shared mobility encouraged within your transport plans for non-domestic buildings?	Yes	No	N/A
	☐		X

Active travel:

Have you enabled sustainable travel choices with connections for cycling, walking and public transport, providing cycle parking and facilities to levels that sufficiently meets the needs of building occupants irrespective of age or ability?	Yes	No	N/A
	☐	X	
NB: There is adequate room for bicycle storage in the rear garden and to the side access.			

Low-carbon transport infrastructure:

Have you provided active charging infrastructure for electric vehicles, meeting standards and sufficient for the needs of building occupants?	Yes	No	N/A
	x		☐
It is likely that an active charging facility will be discretely installed on the face of the new kitchen			

7. Prevention of Flooding

Have you carried out a flood risk assessment to ensure your development avoids areas at high risk of flooding?	Yes	No	N/A
	☐	☐	x
There is no history of flooding to the site nor is there any history of run-off causing a problem. The existing gardens drain well.			

Have measures to reduce flood risk been included in your proposals and are these designed using nature-based solutions and methods of sustainable urban drainage?	Yes	No	N/A
	☐	☐	x

8. Ecology and biodiversity

Do you know what ecology and biodiversity are on your site and beyond it, and have you taken steps to both preserve what is already there and enhance ecological value in the future?	Yes	No	N/A
	☐	x	☐

There is a large garden to the rear which is laid to lawn with shrubs and nature trees. The front parking area is mainly gravel with trees. There are no plans to change this.

9. Embodied carbon

Have you minimised embodied carbon in the design of the building and in the selection of materials for its construction?	Yes	No	N/A
	X	☐	☐
The alterations to the structure ensure a much improved energy performance to the original. The alterations are designed for a long-term use, without additional work being required. Knauf Ecobatt (formaldehyde-free and GREENGUARD Gold standard) insulation to the cavities and roof structures. The intention is to use re-claimed bricks and tiles, if available (to match existing). Brickwork and clay tiles are a highly sustainable approach and use abundant natural resources generally allowing for re-use.			

Do your assessments of embodied carbon meet LETI targets and take full account of all construction elements including substructure, superstructure, mechanical, electrical and plumbing, products and finishes?	Yes	No	N/A
	☐	X	☐
Not practical in the existing structure but all new work will comply fully with current building regulations.			

10. Waste

Do you provide adequate space, both inside and outside the building, for waste recycling and storage?	Yes	No	N/A
	x	☐	☐
Existing facilities will be maintained in accordance with the service offered by the local council.			

Have you incorporated targets and site management processes to minimise water consumption through construction and minimise and recycle waste, reducing waste going to landfill?	Yes	No	N/A
	☐	X	
Partial timber frame construction will minimise cement products and water use. Some wet trades are unavoidable in this existing structure. Any timber retrieved from demolition will be considered for re use in the floor and wall construction.			

END