

ENERGY & SUSTAINABILITY STATEMENT

**PROPOSAL : CONVERSION OF FORMER TEXTILE MILL TO
PROVIDE 34 RESIDENTIAL APARTMENTS INCLUDING
INTERNAL AND EXTERNAL ALTERATIONS AND
ASSOCIATED WORKS**

**ADDRESS : LONDON MILL, ASHBOURNE ROAD, LEEK,
STAFFORDSHIRE**

APPLICANT : ALFA MOHUHA LTD

DATE : MAY 2023 JOB No. : 2023-2760

1.0 INTRODUCTION

This statement is submitted in support of a full planning application which seeks consent for the conversion of the former textile mill to provide 34 residential apartments including internal and external alterations and associated works at London Mill, Ashbourne Road, Leek.

This sustainability statement has been prepared by Sammons Architectural Ltd on behalf of Alfa Mohuha Ltd and sets out the sustainability credentials of the development proposal. It provides a summary of the sustainable design measures incorporated into the proposals to ensure suitable levels of sustainability performance in accordance with local and national planning policy. It also provides details on the proposed approach to meet specific targets relating to those policies, Building Regulations and energy use on site.

2.0 SITE DESCRIPTION

London Mill is a former textile mill built in the mid 19th Century. It is a 4 storey Grade II listed building which is dated 1853. The principal Ashbourne Road frontage is symmetrical with a projecting central section capped by a pediment with two wings of equal length. The wings are divided into 8 bays and the vertically proportioned windows within each bay are of equal size on all floors with the exception of the third floor, where the windows are shorter. Constructed from brick with stone detailing forming cills, quoins and lintels under a hipped slate roof the building is located on the north side of Ashbourne Road approximately 0.5 km to the east of Leek town centre. A low stone capped brick boundary wall separates the building from Ashbourne Road where the original railings have been replaced. Two fire escapes are located on the exterior of the building with the one at the eastern end of the Ashbourne Road frontage being the earlier (circa late C19th and includes ornate cast iron balusters and the one on the western elevation being circa early to mid C20th. Internally the first and second floor of the building consist of open floor places punctuated only by a row of slender cast iron columns whilst the third floor comprises of a single open space with an exposed roof structure.

The Mill is surrounded by residential terraced streets to the south and east which contain some other uses, with a development site to the west and employment sites located to the north. The Mill, together with its context, makes a positive contribution towards defining the gateway into Leek town centre. Cross Street Mills (also Grade II) listed is located immediately to the north of London Mill within the same exclave. For

the purposes of the development plan London Mill lies within the town's development and within the Leek Conservation Area.

3.0 PROPOSAL

This application seeks full planning permission and listed building consent for the conversion of the former textile mill into 34 apartments with associated internal and external works. The proposed one bedroom single person units would be set across the four storeys of the building and there would be no increase in the size and footprint of the existing. The table below provides details of individual floor areas for each of the proposed units.

Ground Floor	Gross Internal Floor Area Sq Mtr	First Floor	Gross Internal Floor Area Sq Mtr
Unit 1	40.6	Unit 8	37.0
Unit 2	38.6	Unit 9	40.6
Unit 3	41.3	Unit 10	38.6
Unit 4	40.6	Unit 11	41.3
Unit 5	37.5	Unit 12	40.6
Unit 6	42.1	Unit 13	37.5
Unit 7	38.8	Unit 14	40.3
Communal Space inc management, post room and metres	156	Unit 15	42.1
		Unit 16	38.8
		Communal Space	72
Second Floor	Gross Internal Floor Area Sq Mtr	Third Floor	Gross Internal Floor Area Sq Mtr
Unit 17	37.0	Unit 26	38.2
Unit 18	40.6	Unit 27	41.5
Unit 19	38.6	Unit 28	39.8
Unit 20	41.3	Unit 29	42.8
Unit 21	40.6	Unit 30	41.5
Unit 22	37.5	Unit 31	38.6
Unit 23	40.3	Unit 32	41.6
Unit 24	42.1	Unit 33	43.4
Unit 25	38.8	Unit 34	39.6
Communal Space	72	Communal Space	72

The application proposes to strip the existing building back to its original fabric, with all later internal partitions, cupboards, sanitaryware, services including sprinkler system etc removed to reveal the basic building, brick walls, timber floors including cast iron columns, timber and slate roof.

The existing walls are to be thermally upgraded and an independent metal wall lining set 10mm away from the existing wall face, fixed at bottom and top to floor structures, which is infilled and lined on the room side with insulation and finished with a plasterboard lining will be formed. The existing concrete ground floor is to remain insitu and a new asphalt damp proof membrane is to be laid over the surface of the floor with a new suspended timber floor installed above. Upper floors are to remain insitu with the exception of some localised repair works which are required due to water damage.

Floors are to be upgraded both in terms of fire and noise. The roof is to be stripped of all slate, battens, felt and lath and plaster ceiling below, with the remaining timber structure repaired as stated in structural engineers report. The existing rooflights to the front elevation are to be removed. Rooflights to the two ends and rear roof slope are to be replaced with a new double glazed patent glazing system. Once the roof is repaired and new rooflights installed the roof is to be re-roofed using breathable felt, battens and slates removed from the original roof. Solar panels are proposed to the Ashbourne Road roof slope.

The existing cast iron windows to front and both side elevations are to be retained but will need to be refurbished. This will require the casements to be removed to allow the windows to be cleaned, all rust treated, new application of a paint finish before being reglazed using putty. Windows to be finished in black. These windows are all to be fitted with secondary glazing (a minimum of 6mm thick) to provide improved noise and thermal insulation properties. Windows to the rear elevation where insitu are to be replaced, but casements set aside to be used as spares should any of the windows to the other elevations need replacing. New windows are to be powder coated aluminium finished in black with design and details replicating the existing.

The existing goods lift is to be removed and the existing shaft modified to accept a passenger lift. Walls are to be removed and modified as indicated. The new apartments are to be formed within, using metal partition systems lined with insulation to provide both the party walls between flats and the individual rooms within each unit. Services are to be provided to each individual unit by means of riser ducts accessed from the corridor, which will house drains, water supplies, electric supplies, telecoms and ventilation system. The riser ducts are to be ventilated at roof level via lead formed cloaked mini dormers.

Externally the changes comprise of the removal of the external staircase on the western gable of the building with the existing door openings on the ground and first floor reinstated back as windows. A new ramped approach is to be provided via the Ashbourne Road elevation and an existing window is to be

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enlarged to provide access into the building. Doors to the existing sub station on the eastern gable are to be removed and the opening built up with brickwork to match.

4.0 POLICY

National Planning Policy Framework (NPPF)

In 2021 the National Planning Policy Framework (NPPF) was revised. The NPPF provides a framework for the development of locally prepared plans and the government's planning policies for England and how these are expected to be applied.

The overall emphasis of the NPPF is to reiterate the Government's key objectives of facilitating economic growth and securing sustainable development. These overarching policies seek to integrate the needs of planning and transport whilst focussing development in the most appropriate locations, thereby protecting and enhancing the environment. It states clearly that in order to deliver sustainable development the planning system must perform three distinct objectives, aligned to the three pillars of sustainability, which must not be taken in isolation and should be pursued jointly:

- ***“an economic role** – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and*
- ***a social role** – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and*
- ***an environmental role** – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimize waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.”*

These objectives are key to the development of plans and the NPPF sets out a number of key themes for consideration which guide the preparation of local plans and policies, ensuring the delivery of sustainable development.

National Planning Practice Guidance

The National Planning Practice Guidance (NPPG) provides further advice on various planning issues associated with development, including those linked to sustainability and renewable energy and underpins the policies within the NPPF.

The NPPG is a material consideration in planning decisions and should generally be followed unless there are clear reasons not to. It sets out how local authorities should include policies that protect the local environment and strategies to mitigate and adapt to climate change and supports developments that are functional and adaptable for the future. The most recent update confirms that Local Authorities have the option to set technical requirements exceeding the minimum requirements of the Building Regulations in respect of access, water and space where sufficient evidence is produced to justify the target.

National Design Guide

The National Design Guide published in October 2019 is based on the NPPG and objective for good design as set out in the NPPF. The Guide introduces ten characteristics of well designed places which work together to create developments while positively addressing environmental issues affecting climate.

The UK Government Sustainable Development Strategy (March 2005)

Sustainable Development is the overarching principle governing Spatial Planning Policy in the UK. In 2005 the Government published 'Securing the Future: delivering the UK sustainable development strategy' (ODPM 2005) which defined sustainable development as "enabling all people throughout the world to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life of future generations."

The strategy sets out five guiding principles:

- *Living within environmental limits* - improving the environment and ensuring that natural resources are unimpaired;
- *Ensuring a strong healthy and just society* - meeting the diverse needs of all people, promoting personal wellbeing, social cohesion and inclusions and creating equal opportunity for all;
- *Achieving a sustainable economy* - providing prosperity and opportunities for all, ensuring the polluter pays and efficient resource use is incentivised;
- *Promoting good governance* - promoting effective participation in all levels of society; and

- Securing the Future: delivering the UK sustainable development strategy', ODPM, Page 6 (March 2005)

Building Regulations

Whilst not planning policy the Building Regulation Part L volume 1 Dwellings incorporating 2016 Amendments, Conservation of Fuel and Power, came into force on the 15th June 2022 in England with the next step forward to Zero Carbon in new buildings.

Approved Document L1B addresses the conservation of fuel and power in existing and converted dwellings. This Approved Document deals with the energy efficiency requirements in the Building Regulations, ensuring reasonable provision shall be made for the conservation of fuel and power in building. In doing so the document establishes limits for:

- Heat gains and losses; and
- Fixed building service efficiencies.

Climate Emergency

Staffordshire Moorlands District Council declared a climate emergency on July 10th 2019 with the aim of being carbon neutral by 2030.

Local Planning Policy

The Staffordshire Moorlands Local Development Framework (LDF) is a District wide development plan which provides a framework for delivering development up to 2026. The Local Plan (2020) is the key LDF document. It is a strategic District wide plan which influences how and where the Staffordshire Moorlands will develop in the future. It sets out what the Council would like to achieve in each of the main towns and the rural areas outside of the Peak District National Park.

Policy SD1 - Sustainable Use of Resources states that the Council will require all development to make sustainable use of resources and adapt to climate change. This will be achieved by:-

1. Having regard to the BMV agricultural classification of the land, with a preference for the use of lower quality over higher quality agricultural land. Development should also aim to minimise soil disturbance and to retain ecological connectivity as far as possible

2. Supporting or promoting proposals that remediate brownfield sites affected by contamination.

3. Re-use of sites affected by mining activity will be supported, provided that any mining legacy is appropriately addressed and it can be demonstrated that the site is safe and stable for the development proposed.

4. Supporting development that is located and designed to minimise energy needs and to take advantage of maximised orientation (subject to design and landscape policies) to achieve energy savings in line with Policy SD 3.

5. The Council will require applicants for all major-scale planning applications (10 or more residential units or 1,000+ square metres floor area) to demonstrate that they have considered the energy efficiency, water conservation, sourcing of construction materials, and site orientation aspects of the scheme, and where possible the feasibility of integrating micro-renewables. The degree of detail expected will depend on the scale/complexity of the proposal.

6. The Council will encourage developers to investigate the potential for re-using construction or construction waste materials, especially those sourced locally (which can include those minerals available on site, as appropriate) and integrates where possible on-site waste management facilities.

Policy SD2 - Renewable / Low Carbon Energy states that the District will strive to meet part of its future energy demand through renewable or low carbon energy sources (which could be through a variety of technologies, for example wind power, solar energy, biomass etc) in line with current evidence which identifies the feasibility of these forms of energy across the District. This will be achieved by supporting small and large scale stand-alone renewable or low carbon energy schemes, subject to the following considerations:-

- the degree to which the scale and nature of a proposal impacts on the landscape particularly having regard to the Landscape Character Assessment and impact on the Peak District National Park (taking into account both individual and cumulative effects of similar proposals);
- the degree to which the developer has demonstrated any environmental/economic/social benefits of a scheme as well as how any environmental or social impacts have been minimised (e.g. visual, noise or smell);

- the impact on designated sites of European, national and local biodiversity and geological importance in accordance with Policy NE1;
- the impact on the amenity of residents and other interests of acknowledged importance including the historic environment;
- the degree to which individual proposals reflect current local evidence regarding the feasibility of different types of renewable or low carbon energy at different locations across the District;
- In the case of solar energy proposals that are not affixed to buildings or structures, applicants will be expected to demonstrate that they have examined whether previously developed land is available before greenfield land. Where agricultural land is proposed, poorer quality land should be utilised before higher quality agricultural land.

Policy SD3 - Carbon-saving Measures in Development - The Council will promote further carbon-saving measures in both new and existing developments (where this is consistent with other Core Strategy Policies), in the following ways:

- Supporting developers who propose exceeding the thermal efficiency standards required by law for new buildings or extensions, at the time of the application. In the case of larger developments such as housing estates the Council will support measures such as ‘communal’ micro-renewables, or District Heating installations.
- The Council will support measures by landowners/developers designed to contribute to existing or emerging District Heating networks (for example by connecting ‘exporters’, with receptors, of heat)
- The Council will support measures designed to improve the sustainability of existing buildings (such as improved thermal insulation, water conservation, or the installation of micro renewables.

Both local and national policy aims to ensure the delivery of sustainable and well-designed homes and other buildings which mitigate and adapt to the impacts of climate change. Latest national planning policy and guidance confirms the Government’s approach to sustainable development is being driven through the updates to the Building Regulations to ensure that new buildings are well designed and reduce emissions in line with the UK’s national carbon targets.

ASSESSMENT

This section of the report outlines the sustainability strategy for the proposed development demonstrating how the development responds to both national and local planning policy, including the NPPF. In this context the sustainable design measures incorporated into the development masterplan at the full application stage and considered as part of the detailed design are set out below. The submitted proposal entails the re-development of a previously developed land through the conversion of an existing and substantial former textile mill.

Reducing the dwelling (CO₂) emissions associated with the converted mill building presents a number of challenges both as a result of the technical feasibility of improving the existing fabric and also the desire to retain the character and aesthetic appeal of this Grade II listed heritage building. Consequently it is proposed that the emissions reduction strategy centres on two areas. Reduce carbon emissions by reducing energy consumption through layout and orientation, design measures and improving thermal efficiency standards and using building fabric to conserve energy through the provision of a bank of solar photovoltaic panels along the southern (Ashbourne Road) roof slope as shown on the submitted plans and a number of fabric improvements in line with the regulatory standards. Build Fabric and Thermal Performance - Conversion Dwellings A fabric specification aligned with the regulatory compliance standard (as per the 'reasonable provision' standards quoted in Approved Document ADL1B) will ensure energy efficiency is integrated within the thermal envelope of the mill building dwellings. Details of the material specification are reviewed below:

- The existing walls are to be thermally upgraded to a minimum 'U' value of 0.3 W/m²k. It is proposed to form an independent metal wall lining set 10mm away from the existing wall face, fixed at bottom and top to floor structures, which is infilled and lined on the room side with insulation and finished with a plasterboard lining.
- The existing concrete ground floor is to remain insitu. A new asphalt damp proof membrane is to be laid over the surface of the floor. A new suspended timber floor is to be installed over the asphalt to provide a floor void capable of accepting insulation to bring the 'U' value of the floor to a minimum of 0.3 W/m²k.
- Upper floors are to remain insitu with the exception of the repairs required due to water damage. Floors are to be upgraded both in terms of fire and noise. A suspended plasterboard ceiling is to be

formed hung from the existing floor structures above to provide 60 minutes fire separation to the flat above. Above the ceiling is to be laid insulation quilt to reduce sound transfer from flat to flat. Over the existing floor boards a composite sound floor is to be laid.

- The roof is to be stripped of all slate, battens, felt and lath and plaster ceiling below, with the remaining timber structure repaired as stated in structural engineers report. The existing rooflights to the front elevation are to be removed. Rooflights to the two ends and rear roof slope are to be replaced with a new double glazed patent glazing system achieving a minimum 'U' value of 2.2 W/m²k. A similar pattern to those removed is to be used but with sections omitted where party walls to the flats are present below, for sound and fire insulation. Once the roof is repaired and new rooflights installed the roof is to be re-roofed using breathable felt, battens and slates removed from the original roof. To the underside the roof is to be insulated to a minimum @U' value of 1.8 W/m²k, by insulating both between and below the rafters and lining the room side with plasterboard.
- The existing cast iron windows to front and both side elevations are to be retained but be refurbished. This will require the casements to be removed to allow the windows to be cleaned, all rust treated, new application of a paint finish before being reglazed using putty. Windows to be finished in black. These windows are all to be fitted with secondary glazing to provide improved noise and thermal insulation properties. For details of the secondary glazing a minimum of 6mm thick glass is required in the noise assessment accompanying this application prepared by Peak Acoustics. Windows to the rear elevation where insitu are to be replaced, but casements set aside to be used as spares should any of the windows to the other elevations need replacing. New windows are to be powder coated aluminium finished in black, achieving a minimum 'U' value of 1.4 W/m²k, and having the same pattern as the windows replaced.
- Reduce the amount of water that the development consumes during its operational life all units will have 100% of their water supplied through a water meter and water efficient fittings and equipment shall be incorporated into the development including low-flush WCs, spray taps and low water use showers, dishwashers and washing machines where possible. This will enable the scheme to comply with Part 2 of the Building Regulations to reduce mains water consumption to meet a target of 105 litres or less per head per day, excluding an allowance of 5 litres per head per day for external water use.

- Extract Lighting 100% 'Low E' Thermal Bridge n/a Space & Water Heating Electric Heating Control Appliance thermostat and timer

This material specification and design will provide the following benefits:

- Improved thermal insulation (ensuring good U-values for all heat loss elements in accordance with ADL1B) and thermally efficient windows and doors will minimise heat loss through the main building elements;
- No mechanical cooling is required for the buildings. The dwellings are not considered to be at risk from overheating due to the orientation of the building and MVHR systems; and
- Efficient Form - apartments are an inherently efficient form of construction, both in terms of the materials required to build the dwellings and the ongoing heat energy demand. This is a result of relatively low areas of external heat loss elements associated with such layouts which enhance the energy efficiency of the dwellings and guarantees low energy demand throughout their occupation.

Building Regulation Approved Document ADL1B (2013) provides a set of standards for retained and new thermal elements within converted buildings that undergo a 'material change of use', such as at London Mill. The document does not establish a Target Emission Rate for converted dwellings. The dwelling emission rate associated with this element of the scheme will therefore be aligned with the requirements of Building Regulations. The above measures that will be installed as part of the development will significantly improve the energy performance of the buildings in accordance with the 2022 Building Regulations where an overall improvement in energy efficiency and heat retention will be achieved.

CONCLUSION

A review of the proposed re-development of the London Mill site has been carried out against the requirements of the local planning policies, compliance standards and the regulatory framework. Reducing the dwelling (CO₂) emissions associated with the converted mill building presents a number of challenges both as a result of the technical feasibility of improving the existing fabric and also the desire to retain the character and aesthetic appeal of this Grade II listed heritage building. The emissions reduction strategy is therefore based on the provision of a bank of photovoltaic panels on the south facing roof slope and the use of an enhanced fabric specification for all apartments within the proposed conversion. As a

consequence of this the energy performance of the building will be improved significantly, thus contributing to an overall reduction in CO2 emissions. The development will fully comply with current Building Regulations and will incorporate all measures necessary to gain an Energy Performance Certificate.

This development will be of a high quality design which promotes emissions reductions through a 'fabric led' approach to energy demand reductions along with effective layout, and detailing. In committing to deliver a scheme constructed to the material specifications reviewed within this Statement, this re-development of the London Mill site will deliver a sustainable residential development, built to a high standard which meets the requirements of Staffordshire Moorlands Local Development Management Policies as well as guidance contained within the NPPF.