

MEGGITT

Nu Carb CVD Extension, Holbrook Lane, Coventry

190598

Sustainability Statement

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1.0 Introduction

Couch Perry Wilkes have been appointed by Meggitt to provide the following Energy Statement in order to inform the energy credentials for the proposed new build extension to the existing Nu Carb CVD facility at their plant on Holbrook Lane, Coventry.

It is intended that the report will demonstrate that the requirements of Coventry City Council's Supplementary Planning Document "Delivering a Sustainable City" with particular consideration to the seven key themes of the West Midlands Sustainability Checklist:

- Energy
- Materials
- Contaminated Land
- Travel
- Waste & Recycling
- Water
- Air Quality

The planned new development totalling some 1,890m² Gross Internal Area (GIA) is shown below:

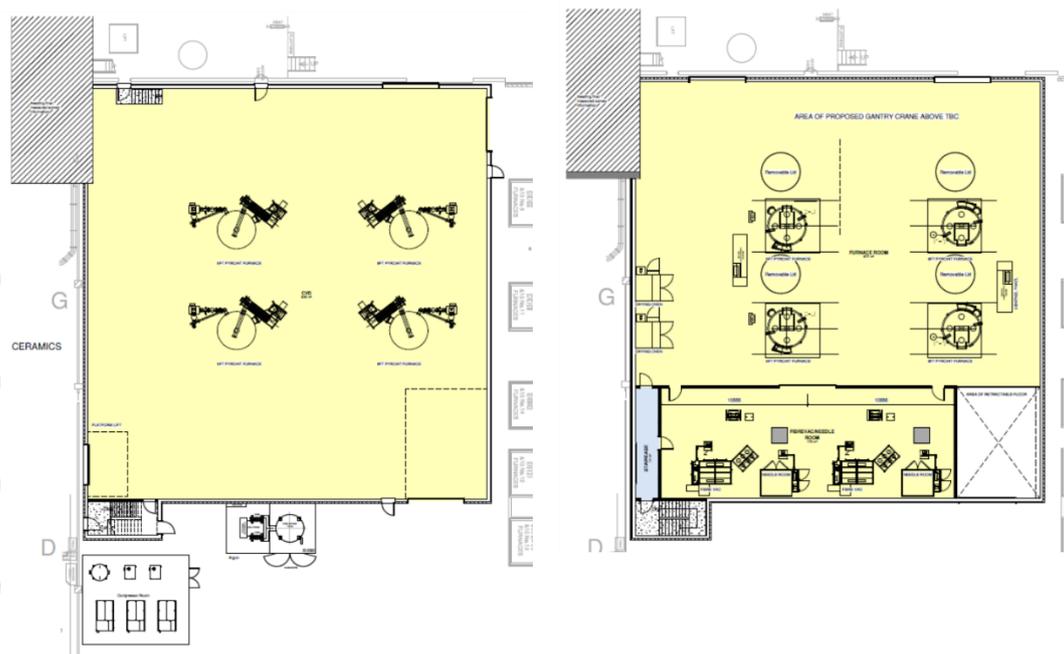


Figure 1 – Proposed GF and FF Floor Plans

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2.0 West Midlands Sustainability Checklist

2.1 Energy

Element	Detail
Key Requirement	in all major developments, a minimum of 10% of the development's energy requirement's should be provided through the on-site generation of renewable energy.
Aim	To reduce overall energy use and maximise potential for renewable energy to reduce the city's carbon footprint

Key Questions (please refer to the associated Energy Statement to further supplement the answers to the key questions on Energy):

- 1) How will natural heating, cooling, daylighting and ventilation be used in the development?

The proposed development will benefit from a number of passive design measures in order to drive down the energy usage in the first instance – the 'Be Lean' element of the Energy Hierarchy. Purge vent to the will be delivered naturally via openings within the structure. The glazing specification of the roof lights shall be carefully considered, aiming to provide an optimum balance between passive solar heating, limiting summertime overheating and maximising the potential for natural daylight transmission – it is considered an area of roof light approx. 15% that of the roof gives the optimum balance of maximising natural daylight without generating

- 2) How will the design incorporate the use of energy from renewable sources?

At this stage, due to the process operations planned to be undertaken in the proposed extension, it is not considered that LZC technologies will be incorporated into the design.

- 3) What measures have been built into the scheme for passive solar gain including the use of photovoltaics?

Solar PV is not currently proposed for the scheme, however, the glazing specification of the roof lights will be carefully considered, aiming to provide an optimum balance between passive solar heating, limiting summertime overheating and maximising the potential for natural daylight transmission.

- 4) Does the building incorporate a Building Energy Management Systems (BEMS) for its heating, lighting and ventilation system in order to save energy and minimise the 'Urban Heat Island' effect?

Due to the site location, the 'Urban Heat Island' effect does not directly impact the proposed development – notwithstanding this, the key considerations associated should still be used to influence any modern day

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development. As such, a BEMS will be incorporated to control and monitor the heating and ventilation plant, whilst lighting will be metered locally via the distribution boards.

- 5) How will the potential for using district heating or CHP, including the potential to share such a plant with others in the area?

Please refer to Energy Statement

- 6) How will solar, wind or photovoltaic energy generation be incorporated into the design?

Please refer to Energy Statement

- 7) How will the assessment of the energy running costs of the development against the cost of upfront investment in energy conservation be carried out?

Not applicable to this scheme

2.2 Materials

Element	Detail
Key Requirement	In all major developments, it should be demonstrated that maximum use is being made of reclaimed materials, or recycled materials (such as aggregates) for construction
Aim	Maximise the use of recycled and reclaimed materials from sustainable sources

Key Questions

- 1) How will the material be specified to help maintain local character and ensure long life?

The materials are proposed to match existing to blend in with the existing character. The exact materials are anticipated to be secured via an appropriately worded planning condition.

- 2) Will material be specified to ensure low environmental impact and to maintain good internal air quality?

Good internal air quality will be achieved and maintained by the use of ventilation units to provide the background ventilation requirements to the areas.

- 3) Will plastic be avoided where an alternative is available?

Wherever viable the use of plastic will be avoided.

- 4) Are the materials specified derived from local sources?

Where possible and economically viable, local sources will be utilised for material procurement.

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- 5) Are there any materials, including those to be used for surfacing, which in their life cycle, produce harmful emissions?

Harmful emissions will not be produced by materials specified for surfacing during their life cycle.

2.3 Contaminated Land

Element	Detail
Key Requirement	All major developments must ensure no adverse impacts on human health and water quality are caused during the construction or use of the development
Aim	Minimise polluting emissions to soil, surface water and ground water, and to protect human health

Key Questions

- 1) How will noise from adjoining or adjacent sources or noise such as transport links be minimised for the residents of the proposed residential developments by development design, or site layout?

Not applicable

- 2) How will noise, light and air pollution, including dust, be minimised during construction?

All good practice guidance in relation to site management and containing pollution will be followed by the Main Contractor during the construction phase of the project.

- 3) How will the development clean up any contamination on site and / or avoid land contamination in the future?

The proposed development will require the removal of 50mm of soil that is contaminated by ACMs. A licensed asbestos removal contractor will be appointed and will remove all asbestos containing materials from the structure as part of this project. All identified asbestos containing materials will be removed in accordance with "The Control of Asbestos Regulations 2012".

- 4) How will the development impact on external air quality?

Negligible impacts on external air quality are predicted from the development.

- 5) Will noise pollution be minimised in and around the development?

Noise pollution within the development will be minimised by the utilisation of suitably attenuated mechanical ventilation plant.

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- 6) How will light pollution be minimised in and around the development?

External lighting to the development will be designed to minimise light pollution and ensures light levels are kept within the limits as required by BS 5489 and avoid nuisance to the adjacent neighbourhood.

- 7) Will it be financially viable to remediate the land to the required standard to protect against both human health concerns, and a risk of contamination to the underlying groundwater or nearby water course?

Not applicable.

2.4 Travel

Element	Detail
Key Requirement	All major developments will meet the BREEAM EcoHomes assessment standard for walking distances to key services and local amenities
Aim	Maximise the use of sustainable modes of travel

Key Questions

- 1) Does the scheme meet the access and movement needs of disabled people in all respects? If not, why not?

Not Applicable

- 2) How will the distinction between the local and the strategic network be made if the transport assessment identifies a significant impact?

The proposed development would not result in a significant impact and therefore no changes are expected to the local and strategic network.

- 3) Is the proposed development served by public transport or is its reliance predominately on private car usage?

The Transport Statement identifies that the site has excellent sustainable credential and therefore it is anticipated that only a modest proportion of staff would arrive by car.

- 4) Is there further scope for reducing hard surfacing areas for vehicular movement?

Not Applicable

- 5) How does the proposed development integrate with the public transport network?

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Bus stops are located on Holbrook Lane, approximately 750m to the east of the site which provide very frequent services to Nuneaton, Longford, Coventry, Walsgrave and Tile Hill.

- 6) What measures have been incorporated in to encourage cycling and pedestrian modes of travel?

There are extensive footways servicing the Coventry area and this is reflected in footway provision within the vicinity of the site. A smooth tarmac footway extends along the western border of Holbrook Lane, segregated from the main carriageway.

At the Holbrook Lane / Holbrook Way 3-arm roundabout footway provision continues, bearing left towards the site, a grass / planted area of land separates the footway from the roundabout. There is a signalised pedestrian crossing point along Holbrook Lane North, located approximately 20m along the carriageway from where the arm exits the roundabout. This crossing point has dropped tactile paving and allows pedestrians to cross safely from the western side of the carriageway over to the eastern side, and vice versa.

There is a Sustans National Cycle Route (NR) which runs from Warwick, northbound, into Coventry City Centre and further north to Nuneaton. This route encompasses three NR; 52, 523 and 53.

Therefore the site is already well connected for cycling and pedestrians and no further measures are recommended.

- 7) Does the proposed development increase traffic generation unacceptably and if so, can the impact be mitigated to an acceptable environmental level?

The traffic movements generated by the proposal are negligible and as a result will have no material impact on the wider road network and this level of change will be well within the existing daily flow variations.

- 8) Does the proposed traffic plan make the most of available green corridor and / or river corridors for transport linkages?

Not Applicable

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2.5 Waste and Recycling

Element	Detail
Key Requirement	All major developments must make provision for the discreet storing of recycling and waste storage bins. Space for bins / boxes awaiting collection should be provided within the development and not on the footway to prevent physical obstruction and pollution of the waterway from windblow, seepage and run off
Aim	Minimise waste and maximise reuse and recycling both during construction and after occupation

Key Questions

- 1) How will the development provide space or facilities for separate collection of all materials that can be recycled during and after construction?

A site waste management plan will be implemented by the Main Contractor during the construction phase of the development to maximise the recycling and re-use of waste.

- 2) How will the development re-use demolition, construction or other reclaimed waste on or close to the site and / or from elsewhere?

Where practically possible, materials will be segregated into waste streams for recycling. All waste movements will have transfer notes, copies of which will be retained on the site for inclusion in the developing health and safety file.

- 3) How will waste of new construction materials be minimised during construction?

The utilisation of modular components within the development construction will assist with minimising site waste.

- 4) Is the scheme designed to minimise the import and export of materials for its construction and subsequent operation?

Locally sourced materials will be specified for the development where practically possible.

- 5) Will the development provide opportunities / facilities for composting activities?

Due to site restrictions there are no opportunities for composting facilities.

- 6) How will facilities be established for the separation of waste materials for recycling or re-use on site?

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The development layout design incorporates dedicated waste storage (recyclable and non-recyclable) areas at ground floor level within existing.

2.6 Water

Element	Detail
Key Requirement	All major developments must apply the Construction Industry Research and Information Association (CIRIA) guidance on Sustainable Drainage Systems (SuDS)
Aim	Conserve water resources, enhance water quality, incorporate water sensitive design and minimise vulnerability to flooding

Key Questions

- 1) How will the potential for biodiversity improvements associated with any development be maximised?

Given the existing and proposed nature of the site, which has been assessed and shown that there are no suitable habitats on site, it is unlikely that specific measures will be incorporated to encourage biodiversity. Notwithstanding this, when considered in the wider context of the former factory, the area will undergo a significant change including enhancing biodiversity when it is redeveloped for residential development.
- 2) How will mains water be conserved and discharges of waste water into the main drainage system be minimised?

There are surface water and foul water connections from the existing building which it is proposed to re-utilise. It is anticipated that there will be limited additional water discharge than existing.
- 3) How does your proposed development incorporate measures to reduce water use, conserve water supply and quality?

Not applicable.
- 4) How will discharges of polluted waters be minimised?

The proposed development does not incorporate any processes that would result in the discharge of polluted water.
- 5) Does the scheme provide for greywater use, utilise the site potential for water conservation and its disposal through landscaping and swales treatment?

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As the proposals are to replace part of an existing building on the same footprint there are not any opportunities for SuDS features apart from possible bio retention planters. However it is considered that the run off will not increase floodrisk downstream and exceedance routes will not alter.

2.7 Air Quality

Element	Detail
Key Requirement	All major developments must aim to minimise the exposure of the public to harmful air pollutants
Aim	To minimise the exposure of the public to air pollutants and to reduce the contribution to atmospheric pollution from activities within the built environment

Whilst there are no key questions associated with this element of the West Midlands Sustainability Checklist, it should be noted that the proposed development will incorporate a dining facility and associated commercial kitchen. An Odour Control Statement for Planning has been produced by Couch Perry Wilkes in order to detail how the design of the dining and kitchen ventilation systems have been considered in order to ensure that nuisance odours associated with cooking facilities are dispersed accordingly to ensure minimal exposure to the public.