A Greener, Healthier, Maltings Area

Response to ESBC Consultation – The Maltings, Uttoxeter

Uttoxeter Nature Recovery Network (UNRN) March 2023

1. Introduction

1.1 East Staffordshire Borough Council have acknowledged the need to help create and promote a sustainable environment, with energy-efficient buildings and green communal areas, coupled with efficient transport networks, and the use of renewable energy resources. Such developments will help promote healthy lifestyles and social cohesion, creating a win-win for the Council and the community.

1.2 Uttoxeter's strategic position on the A50 and its tourist attractions, such as Uttoxeter Racecourse, mean that the town receives a large number of visitors. Making the Maltings regeneration a leading site for biodiversity and sustainability would enhance ESBC's reputation as a forward looking council both locally and across the region.

1.3 The Leader of the Council asked UNRN to provide some guidance as to how the redevelopment could address sustainability and biodiversity at a meeting held on 23 February 2023. This report is a response to that request and sets out options for developing eco-sustainability which are being actioned in other areas of the UK, in order to foster an evidence-based approach to the redevelopment.

1.4 The report addresses the following areas:

i. Building with Nature Standards Framework (Section 2)
ii. Designing low energy/carbon neutral buildings (Section 3)
iii. Travel and Traffic (Section 4)
iv. Waste and water (Section 5)
v. Ecology and biodiversity (Section 6)

In each section we identify options and provide weblinks to support further investigation by the council. **Appendix 1** contains information about relevant projects across the UK.

1.5 The authors are independent and committed advocates for nature and sustainability but are not experts in building design and technology. The council would therefore need to ensure that any ideas contained in this report are appropriate and deliverable through its own evaluation. It may also wish to consider developing mutually beneficial partnerships with other organisations such as Keele University and The Globe Foundation who can offer ecological and other expertise and would be excited to work with such an innovative project.

2. Building with Nature Standards Framework

2.1 The Building with Nature scheme involves those commissioning a development to apply for accreditation from *Building with Nature Ltd*. The scheme is then subject to assessment and audit in relation to the twelve standards set by *Building with Nature* and receives formal accreditation if those standards are met.

2.2 Comprehensive information can be found by following this link: Weblink to Building with Nature Standards Framework We strongly recommend that the Council consider these standards and seek to incorporate them into its commissioning plans. Ideally it would also seek formal accreditation as this would provide independent evidence of its achievements.

2.3 Further information can be found at Building with Nature .

2.4 Other websites which may be of interest include The Environment Partnership .

3. Designing Low Energy/Carbon Neutral Buildings

3.1: The redevelopment of the Maltings will involve significant building refurbishment and new build. This is a once-in-a-lifetime opportunity to build in high levels of insulation and installing sustainable energy capacity, while addressing issues such as management of waste water and creating green and ecologically vibrant areas. Given the changing nature of Town Centres, buildings should be designed to be multi-functional so that retail space can be repurposed to office space (for example) and vice versa. *We recommend that ESBC undertakes detailed investigation of the following sources of information and options.*

3.2 Decarbonisation: This should be a key objective of any new development**.** The Local Government Association has published a guide to councils on decarbonisation, which is available at: Neighbourhood approach to decarbonisation | Local Government Association Keele University is leading an innovative project seeking to install low-carbon energy systems in Rugeley which may be of interest: https://www.energyrev.org.uk/news-events/blogs/rugeley-champions-community-led-low-carbon-solutions-for-the-uks-zero-carbon-transition/

3.3 Renewable Energy: There are probably two realistic options for renewable energy generation/usage at the Maltings:

a. *Installation of solar panels to generate electricity*. This will have implications for the orientation, layout, and design of buildings.

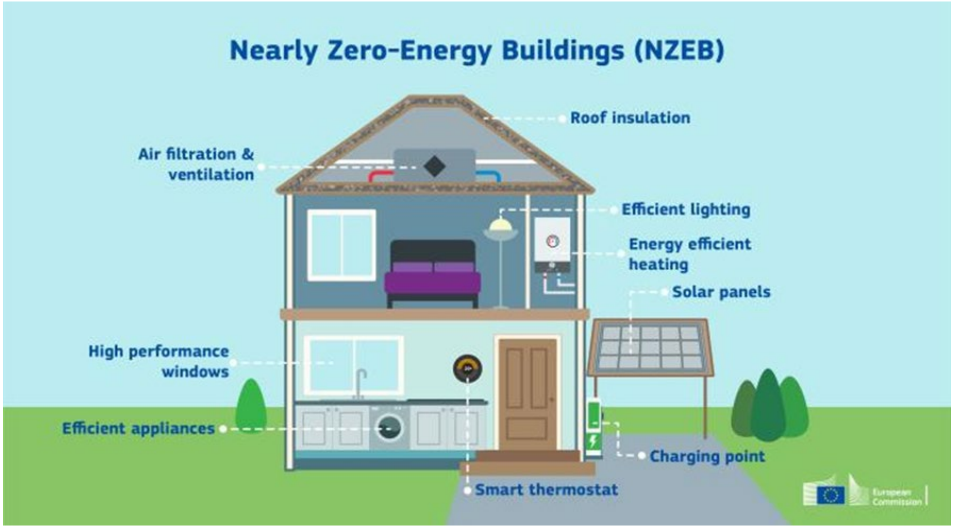
b. *Installation of Ground or Air source heat pumps*: This uses ambient heat to heat water and buildings, saving a significant element of carbon footprint and is pollution free. It can also operate as air-conditioning during the hot summers anticipated because of climate change. Facilities could be shared between several buildings.

3.4 Information is available from the following sites:
https://www.renewableenergyhub.co.uk – Solar Panels
Green Square
In-depth guide to heat pumps - Energy Saving Trust - Heat Pumps and other options.

3.5 A further option which might be considered is biomass boilers – see Which is the Best Biomass Boiler? | Home Heating Guide and A quick guide to low carbon heating - Energy Saving Trust

3.6 Hydrogen is not currently a feasible energy source for such a development, but this is a fast moving area and the Council should be aware of current work: see The Future of Hydrogen – Analysis - IEA

3.7 Insulation: High quality insulation is a cost -effective way of reducing the carbon footprint of buildings and energy costs. As our previous paper indicated near-Zero energy buildings can now be built relatively easily.



3.8 Buildings use 40% pf energy and generate 37% of greenhouse gases (Renovation and decarbonisation of buildings (europa.eu). Commissioning the required retail/office/housing development could specify using:

- Eco-friendly materials and Incorporating excellent insulation.
- Energy efficient devices
- High performance windows
- Solar power generation (implications for roof orientation)/heat pumps
- Shared services between different buildings to minimise costs.

This would provide a lead to other developers and place ESBC at the forefront of the green revolution.

3.9 Examples of Local Authorities commissioning Near Zero Energy Homes are:

Citu, Leeds - West Yorkshire Combined Authority (westyorks-ca.gov.uk) (Leeds)

Transforming social housing in Nottingham (energiesprong.uk) and

Energiesprong – the Dutch system that could rescue Britain's social housing – CIBSE Journal (Sneinton in Nottingham).

BedZED - the UK's first major zero-carbon community – Bioregional

3.10 The plans for the Maltings should not just be for buildings and car parks. They should help build the local community. Design should reflect the priorities identified by the High Street Task Force 25 'Vital and Viable' Priorities | High Streets Task Force. Design should ensure that the area is safe for all, and that there are places to stop and rest, which include shade, seating, and shelter. Good signposting to link the Maltings area with the rest of the town should also be a priority.

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4. Travel and Traffic:

4.1 Electric Vehicles: Anxiety about access to charging points is a major barrier to the adoption of electric vehicles, despite the Government's commitment to expanding their availability. Local Authorities can get support to help them expand provision: see Electric vehicle charging infrastructure: help for local authorities - GOV.UK (www.gov.uk) Provision and management of charging points should be given high priority in the restructuring of the Maltings carpark.

4.2 Car Parking: The commitment to maintaining the total number of car parking spaces for public use is welcomed. More efficient use of space should enable the Maltings area to become a greener and healthier environment by creating new areas for planting. Reconfiguration of parking should enable a permeable surface to be introduced, as well as providing an opportunity for installing infrastructure such as Ground Source Heat Pumps. Options can be seen at Car Parks – Groundtrax . However, ESBC will need to undertake further research to determine the best options.

4.3 Design of Car Parking should include provision of green spaces and pathways defined with edge-plantings to provide clear, safe, pedestrian routes, and tree planting so that the car park is no longer an asphalt desert.

4.4 The Bus Station: we believe the Bus Station should be retained in Bradley Street but should be redesigned to include the use of solar panels on shelters to generate electricity. We would wish to see the bus station being as green with planting as possible. The Uttoxeter in Bloom Committee should be consulted about appropriate planting. See Section 6 below for further information on promoting biodiversity.

5. Waste and Water:

5.1 Flooding Risk and Grey Water: Heavy rainfall will be an increasingly frequent problem as climate change continues, and non-permeable surfaces contribute to flooding which in turn can cause pollutants to drain straight into streams and rivers increasing pollution. Using permeable surfaces in the car park will help to alleviate this problem, as will constructing drainage systems which direct runoff into planted areas, which will help to manage pollutants and reduce maintenance needs. See the websites below for more information: Rain Gardens – Natural Control of Water Runoff | Eartheasy Guides & Articles

Greywater Recycling - TheGreenAge

Innovation — Grey to Green – Sheffield

6. Ecology and Biodiversity

6.1 Green Roofs and Walls **are** an option for construction in building refurbishment and new build. Green features are not only beautiful and enhance the area, but they also improve overall air quality, provide additional insulation, and help regulate internal temperatures over the year, reducing energy consumption. They create habitats for plants and insects and reduce water runoff. For further information see:

https://www.greenroofers.co.uk

https://www.rhs.org.uk/garden-features/green-roofs

https://www.buildingwithnature.org.uk/standards-form

https://www.greytogreen.org.uk/biodiversity

6.2 Planting within the Maltings Area: Planting green areas within the car park and the Maltings area as a whole and connecting these with footpaths bounded with additional planting will provide habitats for wildlife, as well as providing a calm and relaxing environment. This will promote mental health and enhance the urban environment as well as enhancing the ecology. It will bring to life an ecologically dead area of the town and help create connections which will enhance green routes for wildlife through the town.

6.3 Supporting Wildlife: Buildings should be designed to incorporate nesting sites for a variety of birds, using swift bricks for example, and bat boxes could also be incorporated. Planted areas should also be designed to be wildlife friendly with insect and bee-friendly plants.

6.4 Impact on Street Scene: The redevelopment should incorporate new plantings and also provide pleasant open and well-lit resting and meeting places which will enhance community interaction, promoting wellbeing. See https://www.healthystreets.com/

7. Conclusion:

7.1 This paper is a contribution to the consultation on the Maltings initiated by ESBC. It should be read in conjunction with the two previous papers submitted by UNRN. It has set out some options for consideration by ESBC in developing plans for the Maltings . These options need to be explored and evaluated by the Authority and implemented where appropriate.

7.2 Taken together, the options outline a vision of the Maltings as a sustainable and green development which will enhance Uttoxeter and contribute to promoting nature within the town. We hope that they will have an impact on the final plans.

Dave Trenery and Carolyn Green on behalf of the UNRN

Background Papers:

1. *Building with Nature Standards Framework*
2. “Greening The Maltings Discussion Paper” UNRN 15/1/2022
3. “Options for Promoting Biodiversity and Sustainability in the Maltings Refurbishment” UNRN 23/2/2023.

All can be accessed via the link below:

Documents for ESBC

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APPENDIX 1: SOME EXAMPLES

1. BedZED

BedZED near Croydon is a creatively designed mixed-use sustainable community for working /living/office space and recreation. It was built in 2002.

BedZED – Croydon [BedZED - the UK's first major zero-carbon community – Bioregional]

2. The Olympic Park

This site has its own district heating system, one of many across the UK where waste is turned into heating and redistributed into homes reducing carbon emissions and heating bills (Pictured: Olympic Park and Victory Park).

The Olympic Park also uses green roofs and green walls to enhance insulation and provide a greener environment:

[Home | Queen Elizabeth Olympic Park]

3. The Civic Square Birmingham

This project is located at the Impact Hub in Birmingham and is attempting to create the environment which promotes community cohesion while addressing environmental issues.

[Introducing CIVIC SQUARE – CIVIC SQUARE]

4. Reducing Flood Risk In Mansfield

This is a major project led by Severn Trent to address a range of factors which increase flood risk. Initiatives include installation of SuDS (Sustainable Drainage systems); green features to manage water (swales, basins, and plantings); and permeable paving – hard standing which allows water to drain into the subsoil. See [Mansfield sustainable flood resilience | Green recovery |]

5. Elmsbrook Oxfordshire

Homes are ecologically designed with rainwater harvesting and solar panels, among other eco-features that offer a new standard in sustainable living. Heating is via a gas-fired district heating system. The scheme has delivered major savings in terms of energy use and carbon footprint. For further information see:

CASE STUDY: Elmsbrook - UKGBC - UK Green Building Council

Elmsbrook New Homes Development in N.W. Bicester | FABRICA

6. Examples of Green Planting

Green beds in Sheffield using grey water, Green beds in York offering communal planting.

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