

Wrexham Museum - Net Biodiversity Gain

Purpose of note

To explain the existing elements of the Site that contribute to Net Biodiversity Gain (NBG) and to summarise additional features and changes that are proposed to increase NBG

Background to note

The current Wrexham Museum Site has hard landscape for its external realm except for 4 No ornamental pear trees set within tree grilles in the Museum's forecourt area. These pear trees are proposed for retention.

NBG opportunities are limited given the hard landscape nature of the site and proposals compounded by the Museum's location away from any meaningful areas of Green Infrastructure. The neighbouring Wrexham Cathedral grounds with mature trees and ornamental planting is the nearest link to wider habitat of any interest and given its isolation this is low.

Effectively the baseline we are starting from is very low to non-existent.

Existing elements of the proposals that contribute to NBG

The primary element of NBG are the planting beds that are proposed to both the front forecourt and side garden of the Museum.

These will require the breaking out of hard standing, the creation of planting beds and the planting of a mix of different species to achieve different design features;

Forecourt

- Pollinator beds planted with a mix of flowering species aimed to appeal to insects whilst at the same time cope with surface water runoff from part of the forecourt.
- Two sentinel trees to mark the opening up of a new side entrance (please also see suggested changes)
- Retention of 4 No. ornamental pears.

Side garden

- Planting of a cottage garden style flower bed over the Anderson Shelter feature.
- Vegetable beds to the front of the Anderson Shelter.
- Pollinator beds to fringe the Museum building.
- Raised planting beds formed from railway sleepers to facilitate community gardening and to allow planting of espalier fruit trees against the boundary wall.

Suggested changes and additional NBG items

We do not wish to suggest change to the pollinator beds as we see these as the major contributors to achieving NBG on site. There is an approximate total of 90 Sq.m of pollinator

planting beds proposed where currently there are none. The species have been selected to perform the dual functions of rain garden and pollinator planting.

The two original sentinel trees were a Hornbeam cultivar – *Carpinus betulus* ‘Frans Fontaine’. Hornbeam is a native tree to the UK with its original range in southern England. It has NBG value but not as much as the two alder trees we have now proposed to use to replace them. The Alder grows into a tree of similar stature, it is not as ornamental as the Hornbeam but has a greater biodiversity value.



Hornbeam cultivar Frans Fontaine



Alder as a native tree

Bird boxes

There is not a large, or diverse bird population believed to exist in this part of Wrexham city centre so the boxes are seeking to provide habitat for birds that are likely to occur, or have been seen nearby in the Cathedral grounds.

Three types of bird boxes are proposed;

- **House Sparrow ‘terraces’** for the Museum outbuilding – set to the north west and north east faces they would be positioned under the eaves. They would be high enough and facing cooler directions to be more appealing to their target species of house sparrows. No bird boxes are proposed on the Listed Museum building to keep its integrity as a historic asset. 5 No. are proposed.
- **Open Nest Box** set within retained pear trees at least 3.0m above ground level to appeal to urban passerine birds such as blackbirds and wagtails. 2 No. are proposed.

- **Starling Nest Boxes** again set within retained pear trees at least 3.0m above ground level to specifically appeal to starlings as they have experienced drastic decline in recent years. 2 No. are proposed.



Left to right – House sparrow terrace, open fronted nest box and starling nest box.

All bird boxes proposed are manufactured by Vivara who use a ‘Woodstone’ construction which is a mix of cement and wood fibre which is longer lasting than wooden nest boxes and cleaner to maintain. The sparrow terraces would be grey in colour to better match the annex’s painted render and the pear tree located boxes brown.

All would be fitted according to manufacturer’s recommendations and would face towards the north and east to prevent overheating and be set high enough to prevent casual tampering by humans or predation by cats.

Insect Hotels

Insect hotels are proposed for the Museum’s side garden.

Six location for insect hotels have been indicated on the updated Hard Landscape General Arrangement Rev E. As the ‘hotels’ would be pole mounted they would not need to be set touching either the Listed Museum building or the Listed Cathedral Wall,

The insect hotel fabrication is suggested as a school or summer activity for children with the outer timber frame and compartments bought / manufactured by Museum staff and the children filling the compartments with a multitude of habitat material – sticks, straw, cork, stones and the like.

In summary

The Net Biodiversity Gain for this urban site is modest but as there is no recognisable habitat other than the four pear trees at the moment any additional habitat is welcome.

The primary habitat created is the flowering perennial beds for pollinating insects that in turn can assist urban bird populations.

Nest sites have been included for the few species types that may exist in the area where currently there are none.

Finally the insect hotels will provide both educational interest and an increased habitat for insect colonisation and hibernation.