Avalon Marshes Centre Phase 4
Avalon Marshes Centre, Westhay, Glastonbury, BA6 9TT
Natural England

Habitat Creation: Project of the Year Award (0.5ha to 5ha)

Project overview

- The client scope was to construct a new café, toilet block and dining area canopy along with enhanced car parking areas, all to improve visitor experience to The Avalon Marshes Centre. The Centre is at the heart of the Avalon Marshes National Nature Reserve.
- Completed 14/04/23

What were the biodiversity conditions on site, prior to the enhancement?

The site has been in use as a visitor centre for a number of years. However, it has a number of previous uses, primarily as a waste disposal site for local waste during the 1960's and 1970's. The site was then built on with little or no biodiversity and mainly hard landscaping and industrial buildings. Some planting had then been carried out on previous phases of work, but this planting was mainly non native, poorly maintained and of little biodiversity benefit.

What were the reasons behind this project ?

Other than the main scope criteria there was no criteria for biodiversity. However in the early stages of design it become clear that all parties saw the need to improve biodiversity wherever possible and there was a mutual desire to 'do the right thing'. This become a close collaboration between Client, landscape designer, architectural designer and Kier working at Contractor.

Example of native planting beds

Wildflower meadow with native trees

What were the biodiversity measures taken?

The planting scheme was designed in collaboration with the site users, the client lead and landscape designers.. It was agreed early in the design process that wherever possible plant species needed to be;

1. Native to the local area; Use species that are locally common so cross pollination is benefited and local mammal and insect specifies would thrive.
2. Easily maintained. Maintenance cost is a limitation for the client, so the planting needs to be easy to maintain.
3. Drought and flood resistant. Climate change was a key consideration, along with the local water levels, where the ground can be both free draining and dry and equally water logged within a short space of time.

Native hedgerow added

Due to the poor and contaminated subsoils on site, all topsoil and sub-soil had to be imported. There was careful criteria applied to the type and quality of this imported soil.

The site already has a pond which was showing signs of becoming a habitat for a wide variety of species. Therefore the landscape design enhanced this with wetland and pond species added to the pond margins.

Other biodiversity factors were also considered and added. Between the café and the over canopy was a large ceiling void serving no purpose in the design, therefore we added some bat access hatches and turned this into a bat loft.

We even designed in grasscrete for the parking bays, rather than standard hard surface like tarmac.

Pond enhancement

Further information

The outcome for the design and construction are;

- Increase in biodiversity with 102 plant species
- 90% are native plant species
- 23 nos. new trees, 14 msq of hedge, 60 msq of meadow grass turf, 420 msq of amenity turf, 451msq of grass seed (grasscrete), 5000 native bulbs, 1100 wildflower plugs, 671 wetland plants, 3121 perennials and grasses
- New and extended habitats – wetland, wildflower meadow with semi-improved grassland, native mixed hedge, ornamental non-native/native mix planting (with high pollinator value)

From a biodiversity net gain perspective, as the site was previously hard landscape and modified grass, and no trees or habitats of value were removed. We calculate at least a 90% increase in biodiversity net gain.

The project is now completed on site. However we are now working with our client to deliver volunteer events to promote and enhance biodiversity on site and the wider Natural England Reserve. This will include species habitat, public access to nature and knowledge and information sharing.

Project Team

- Client; Natural England
- Designers; Orme Architecture and Landsmiths Associates
- Contractor; Kier Construction
- Landscaper; Elmtree

- **What was the motivation for carrying out the enhancement?**

The enhancement was driven be a mutual desire from all parties to ensure we grasped the opportunity to provide maximum biodiversity enhancement. There was ample knowledge and experience within the team to design and deliver maximum benefit and a cost effective and sustainable way.

Grasscrete parking bays

Café dining area