

**(Cannington Park and Ride)
A39, Cannington, England)
(Client - NNB GenCo. Principle Contractor – Somerset Infrastructure Alliance)**

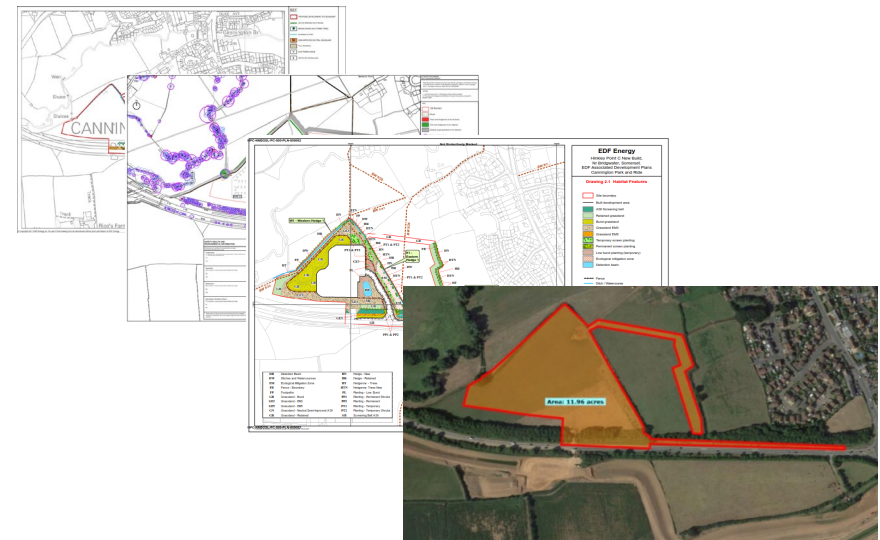
BIG Biodiversity Challenge Award Category: Temporary Project of the Year

Project overview

The project comprises construction of a park and ride facility located adjacent to Cannington village, north of the A39. The parking facility forms part of the transport strategy for Hinkley Point C (HPC), and aims to limit vehicular traffic to the main construction site and use more sustainable forms of transport. The park and ride includes spaces for 252 vehicles, new access off the A39, cycleway, and security/welfare facilities.

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

The biodiversity baseline was measured using the Skanska Biodiversity Tool. This included 4.16 Ha improved grassland, 0.35 Ha semi-improved grassland, 502m species-rich native hedgerow and 620m watercourse. Challenges included the proximity to a badger sett with foraging grounds across the site, local slow worm populations (particularly along the A29 verge), and a bat commuting route at the southern boundary. Along a section of watercourse, Himalayan Balsam was removed before main works were undertaken.



What were the reasons behind this project ?

The Park and Ride facility in itself is temporary, with a lifetime of approximately 10 years, built to serve as a visitor park and ride facility for the HPC project. Temporary features such as a badger route (installed before subsequent permanent tunnel), reptile fencing and hibernacula implementation were all undertaken during construction with an aim to reduce net loss of habitat and species biodiversity and to discharge specific planning conditions.



What were the biodiversity measures taken?

Biodiversity protection, mitigation and enhancement were incorporated into the design of the project from the outset. During the planning and design stage of the project, extensive surveys were undertaken, and carefully translated into both the Habitat Management Plan (HMP) and Ecological Mitigation and Monitoring Plan (ECMMP), which supported the permissions for the project and detailed how it would meet the requirements of the Development Consent Order (DCO). The key mitigation and enhancement measures for the project are summarised below.

Badger (*Meles meles*) mitigation

To reduce disturbance on the active main badger sett to the east of the Park and Ride the project team undertook a redesign of the location of the surface water outfall which omitted the need to close the sett and relocate badgers under licence. The project also included a combination of temporary and permanent badger proof security fencing during different phases of the works. Features were installed to enable badgers to continue to migrate across site while keeping them separate from works areas. This included a temporary corridor with 2 way access gates (closed to badgers during the day and opened at night), new badger tunnel under the newly constructed access road to the Park and Ride, and extension of an existing badger tunnel under the A39.

Tree and scrub planting

Mitigation and enhancement planting primarily for screening purposes but also providing additional habitat value. This comprised gapping-up of existing hedgerow, temporary screening totalling 1,661m², and permanent screening totalling 370m². The timing of planting and the maintenance regime were highlighted as an important factor to the new habitat's success

Reptile receptor area (0.24ha) and reptile exclusion fencing (528m)

A dedicated area of the Park and Ride site was set aside for reptile translocation as a high population of slow worm (*Anguis fragillilis*) were found to be present on site and in the highways verge. 528m of reptile fencing was temporarily installed and strict grassland maintenance and supervision was adopted to further reduce the risk of slow worms making their way into the construction area as works progressed.

Hibernacula creation (x9 habitat piles)

Habitat piles were created to enhance habitat for invertebrates and reptiles within the receptor area. Materials (logs, roots and chippings) used from site clearance was able to be retained onsite for this purpose as opposed to disposal off-site.



Tree planting, receptor area and badger tunnel.



Measures taken (continued)..

Bat monitoring

No evidence of roosting bats was found during pre-construction surveys, however surveys did identify a minimum of 6 no. species of bat using the site for foraging and commuting. Retained and new hedgerow and grassland aims to preserve and enhance the foraging opportunities and commuting routes for bats.

Pond

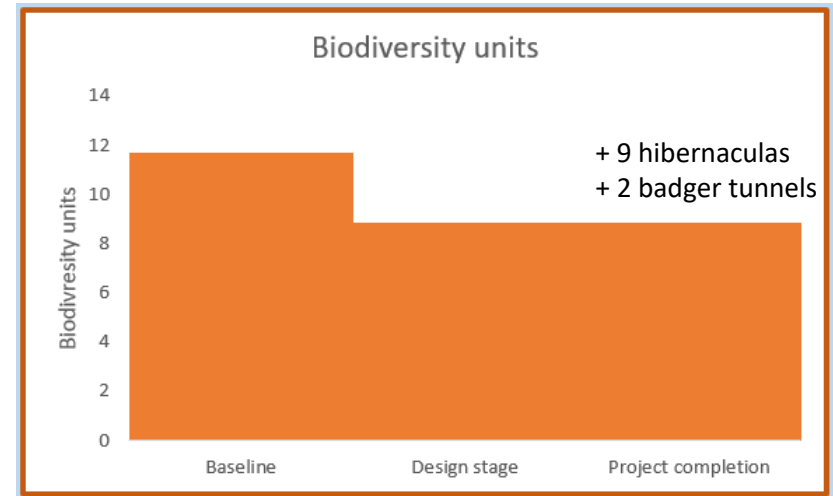
A pond was constructed for surface water drainage attenuation primarily, however this will to the diverse range of habitats available on site, particularly for invertebrates and foraging birds and bats.

Further information

The Project made use of the Skanska Biodiversity Calculator to measure the impact on biodiversity after construction. The calculator considers a range of habitat types, the quality, coverage, time to achieve target condition and risk of failure of the habitat changes before works commence, during design and upon completion of the Project. To calculate this, the Phase 1 habitat assessment, design drawings and a site walkover were undertaken. The calculator shows a net loss in biodiversity, however it is important to note the calculator does not account for biodiversity features such as the two new permanent badger tunnels, 9 hibernacula and the temporary features implemented during the Project. This could perhaps be considered as an addition to the tool going forward as a learning outcome of the Project.

Project Team

- Client – NNB GenCo
- Principle Contractor – Somerset Infrastructure Alliance (Skanska, RK Bell and Forest Traffic Management)
- Designer – Royal Haskoning



Biodiversity units calculated by the Skanska Biodiversity Calculator Tool for the habitat change at Cannington Park and Ride.

What was the motivation for carrying out the enhancement?

A unique challenge during the ECI stage of this project was the opportunity to find an alternative and solution to working near an active main badger sett. The whole project team worked collaboratively to implement design changes to the outfall and fencing as an alternative to closing the sett.

In addition, the temporary nature of this project on a green field site encouraged the team to reduce net loss and therefore enable the site to be restored back to, or if not better, ecological quality than the baseline after 10 years operation.