

**Norwich Northern Distributor Road
Norwich, Norfolk, United Kingdom
Balfour Beatty / Norfolk county Council**

BIG Biodiversity Challenge Award category: Large Scale Permanent Award

Project overview

The £110m Norwich Northern Distributor Road (NNDR) Infrastructure project will see a 22km dual carriageway running around the north of Norwich, from A1067 to the west of Norwich to the A47 Postwick Junction to the east. The project includes:

- 12 new roundabouts
- Over 1.5 million m3 of earthworks
- 8 bridges including 'green' and 'dark' for mitigation/enhancement purposes
- Seven bat gantries and one bat tunnel
- Two bat 'houses'
- -nstallation of over 100 bird, 100 bat and 10 barn owl boxes
- - 7000m of permanent and temporary amphibian fencing
- Provision of new Great Crested Newt habitat
- A workforce of 300 including site and office staff

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

The NNDR traverses through agricultural land

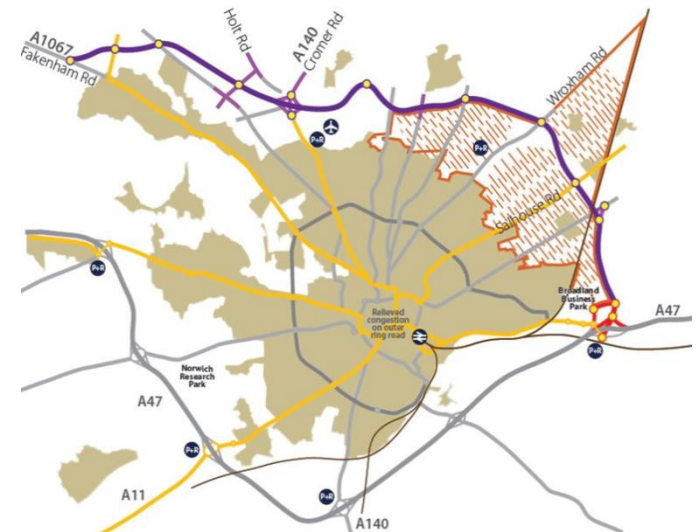
as well as passing through woodland plantation.

Planning for the project, including the local biodiversity has been subject to surveys and mitigation proposals, which are included within the project Environmental Statement It is estimated the NNDR will bring over £1bn of economic benefits to Norfolk, providing jobs and helping businesses in Norwich and Norfolk as well as making a significant contribution to the national economy.

The project commenced in January 2016 the anticipated completion date is March 2018

Were there any specific reasons that led to this project?

Norwich city centre will benefit from reduced congestion, improved public transport services, cycling and walking improvements, the potential to bring over £1bn of economic benefits to Norfolk, providing jobs and helping businesses in Norwich, Broadland and North Norfolk.



Route of the project:

The project will provide a high-quality link to Norwich International Airport – vital to business, and supporting Great Yarmouth and Lowestoft’s designation as a national Centre for Offshore Renewable Engineering. The provision to provide the relief that will allow further bus and cycle route improvements, including Bus Rapid Transit also £5.7m being invested in cycling in Norwich through the Push the Pedalways programme

What were the biodiversity measures taken?

Mott MacDonald (on behalf of Norfolk County Council) undertook extensive work during planning (surveys & mitigation) and delivery, with support from the Balfour Beatty environment team. The project features extensive environmental measures that will help it disappear into the landscape, add thousands of native trees and shrubs to the countryside, protect wildlife, and enhance biodiversity. Embankments and cuttings, planted with trees and shrubs, will shield the road from view. For every mature tree felled during site clearance, more than five will be planted. Tree, shrub and hedgerow planting will add up to more than 61Ha of broadleaved woodland.

Wildlife:

- Site clearance carried out ahead of bird nesting season
- Protection for birds found nesting on site
- Installation of 10 barn owl boxes
- Installation of 100 bird boxes
- Over 800 Great Crested newts relocated, plus 600 smooth newts, 100 toads and frogs.
- Use of 'newt' sniffer dog to confirm site clearance
- 4 new newt ponds, improvements to others including installing additional hibernacula
- 2 bat houses, including a maternity roost cellar have been constructed
- 81 bat roost boxes installed
- Bat-friendly crossings including 2 green bridges on foraging routes, 7 bat gantries, and an underpass
- Badger fencing along road near known populations
- Phased clearance in areas where reptiles have been identified



What were the biodiversity measures taken?

Planting:

- 30,000+ trees of various sizes
- 151,000 shrubs
- Wildflower and grassland seed mix on open ground

The project is supporting STEM, engaging with HMP Norwich in regards to their offender programme, engaging with local schools through the delivery of wildlife workshops (including the donation of bird and bat boxes) supporting two local charities: East Anglian Air Ambulance and East Winch RSPCA wild rescue. The project has worked with sub-contractors to deliver a resurfacing project on behalf of a local scout group

How would you best describe the project?

Mitigation

Further information

As part of the development consent order the project is subject to 'Operational Phase Mitigation' monitoring that will determine the impact of the road on the local biodiversity and whether there has been a decline or increase in respect to specific species including bats and great crested newts.

As the project has progressed the client (Norfolk County Council) has continually monitored species activity especially where mitigation / enhancement measures have been created i.e. known bat routes, activity within the new bat 'houses, numbers of great crested newts translocated to new hibernacula and breeding ponds.

The project has been proactive in ensuring the environmental/sustainability and biodiversity profile has been raised across the workforce through positive engagement including site environment aware training, including such matters in regular stand-down events, rewarding site operatives with vouchers for highlighting and/or identifying on site issues, achieving an above average Considerate Constructors Scheme score of 40 (latest score is 43), supporting local schools and academies through attendances at career fairs, delivery of wildlife workshops.

The project was subject to a 'Development Consent Order' which is very specific and doesn't leave much 'wiggle' room for changing things unless you want to progress it by trying to change planning conditions, however the DCO was instrumental in respect to getting the project through the planning process and although Balfour Beatty are constructing only there has been a real team effort (especially from an environmental/sustainability/biodiversity) to ensure any delays are avoided. The project is due to be completed in early 2018



Engaging with local school children

What was your personal motivation for carrying out the enhancement?

Although the majority of the project is subject to mitigation requirements, there has been opportunities to include additional enhance including installation of extra hibernacula and habitats including little owl boxes as well as providing local schools with similar to help enhance their local communities