

A46

**Newark Bypass**  
Statutory consultation



**Share your views**  
26 October to 12 December 2022



The consultation period will run from

**Wednesday 26 October to  
Monday 12 December 2022**

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## About this brochure

In this brochure we explain the improvements being proposed as part of the A46 Newark Bypass scheme and how you can provide us with your feedback during our statutory public consultation.

We explain how our plans would improve journeys, how the local environment may be affected and how we propose to mitigate the effects of the proposed improvements.

Please use the consultation response form alongside this brochure to provide your feedback.

Further information about our proposals can also be found in the following materials that have been produced as part of this consultation:

- General Arrangement Drawings
- Plan and Profile Drawings
- Preliminary Environmental Information (PEI) Report
- Non-Technical Summary (NTS) of the PEI Report
- Fly-through video

## How to get involved

There are lots of ways you can find out information about the scheme and get involved in this consultation:

- Visit our webpage: [www.nationalhighways.co.uk/a46-newark-bypass](http://www.nationalhighways.co.uk/a46-newark-bypass)
- Email us at: [A46newarkbypass@nationalhighways.co.uk](mailto:A46newarkbypass@nationalhighways.co.uk)
- Phone our Customer Contact Centre on 0300 123 5000
- Visit our consultation events

Please see pages 12 to 15 for more information about this consultation, including our events and how to view our consultation materials.



# Scheme information

## Investing in your roads

At National Highways we believe in a connected country and our network makes these connections happen. We strive to improve our major roads and motorways. We want to make sure all our major roads are more dependable, durable and most importantly, safe.

That's why we're delivering £27.4 billion of investment on our strategic road network over the road period 2020-2025, the largest investment in a generation, which is great news for the local and regional economy.

## Need for the scheme

In March 2020, the government's second Road Investment Strategy included a commitment for National Highways to improve the A46 'Trans-Midlands Trade Corridor' between the M5 and the Humber Ports, to create a continuous dual carriageway from Lincoln to Warwick.

The A46 around Newark-on-Trent is the only remaining single carriageway section of this key strategic trunk road. We propose to fill in this gap, eliminating the regular traffic jams and creating improved journey time reliability in this area of the A46 corridor.

Congestion on the single carriageway section of the A46 means that journeys are unreliable and take longer than they should. This will only get worse as more people are expected to use the road in the future.

At National Highways safety is our top priority, we're committed to reducing the number of incidents on our road network. From January 2015 to December 2019, incidents on this section of the A46 resulted in 208 casualties. Our improvements would make the A46 safer for road users as well as reduce closures, congestion and delays.

## The story so far

December 2020 to February 2021

We held an options consultation to seek views on two options for the scheme design. Over 1,500 people responded, this feedback helped us to develop a preferred route for the scheme.

May 2021

We published a report summarising the feedback from the options consultation.

February 2022

As a result of the consultation Option 2 Modified was announced as the preferred route.

March 2022 to October 2022

Following the announcement of the preferred route we've continued to engage with local communities, businesses, local authorities, elected representatives, landowners and technical stakeholders to develop our proposals, resulting in the preliminary design for this consultation.

October 2022 to December 2022

We're now consulting on the latest preliminary design for the scheme.





# Scheme objectives

## Safety

Improve safety through scheme design to reduce collisions for all users of the A46 scheme.

## Congestion

Improve journey time and journey time reliability along the A46 and its junctions between Farndon and Winthorpe, including all approaches and A1 slip roads.

## Connectivity

Accommodate economic growth in Newark-on-Trent and the wider area by improving its strategic and local connectivity.

## Environment

Deliver better environmental outcomes by achieving a net gain in biodiversity, and improve noise levels at Noise Important Areas along the A46 between Farndon and Winthorpe roundabouts.

## Customer

Build an inclusive scheme which improves facilities for cyclists, walkers and other vulnerable road users where existing routes are affected.

# Scheme overview

National Highways is proposing to improve the A46 Newark bypass by widening 6.5km of the existing single carriageway to a dual carriageway, to provide two lanes in each direction between Farndon and Winthorpe roundabouts near Newark-on-Trent. The scheme includes:

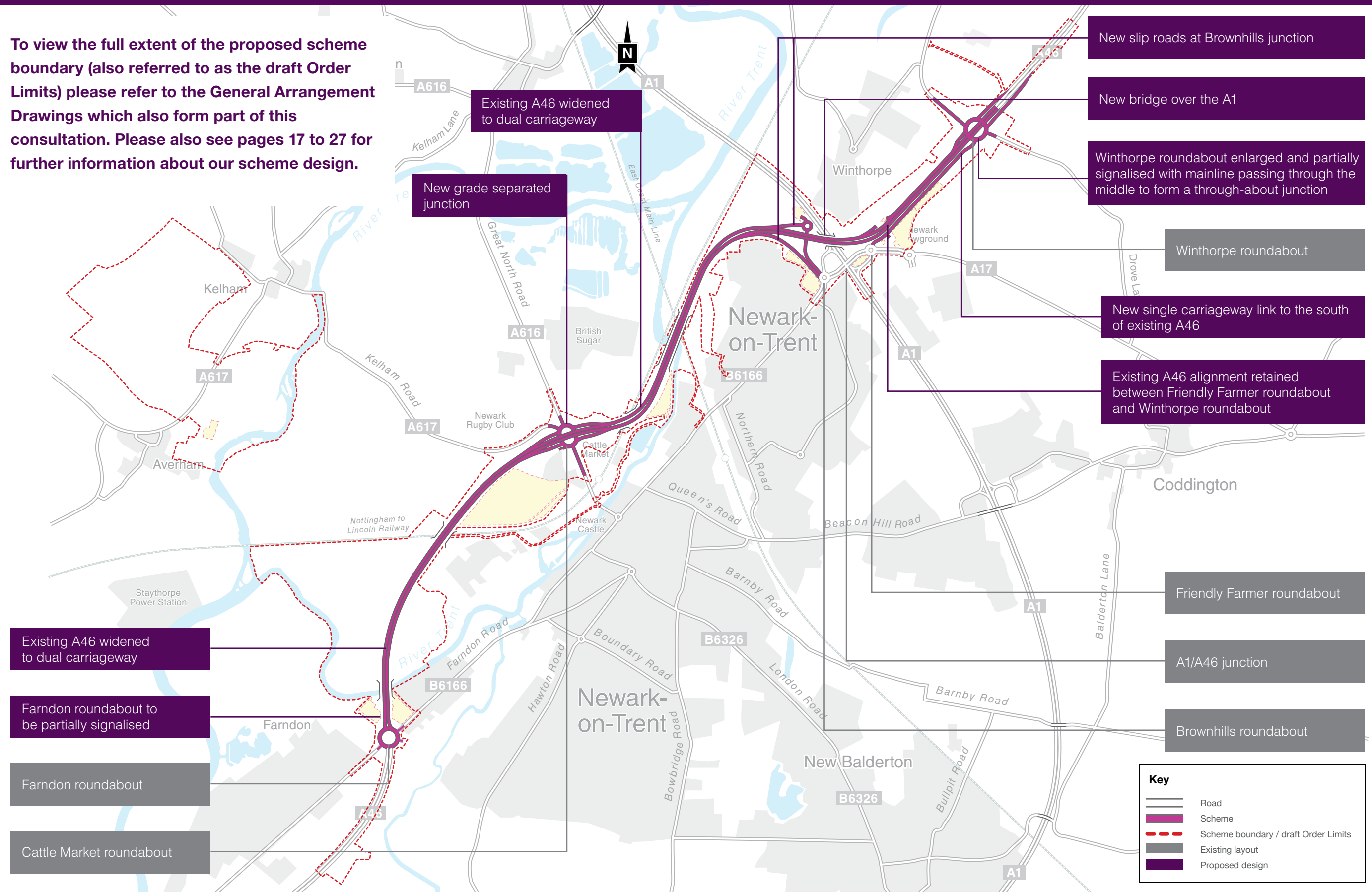
- adding traffic signals to Farndon roundabout to improve traffic flows during peak hours
- a grade separated junction at Cattle Market with the A46 elevated to pass over the roundabout
- a short section of new dual carriageway over the A1, including slip roads to Brownhills roundabout and a new bridge to the north of the existing A46 bridge over the A1
- a new single lane carriageway between Friendly Farmer and Winthorpe roundabouts providing links to the A17, A1 and Newark-on-Trent
- enlarging and adding traffic signals to Winthorpe roundabout with the mainline passing through the middle to form a through-about junction
- diversion of utilities, environmental mitigation and floodplain compensation

Further information can be seen on the scheme overview map on pages 10 and 11.



# Scheme route overview

To view the full extent of the proposed scheme boundary (also referred to as the draft Order Limits) please refer to the General Arrangement Drawings which also form part of this consultation. Please also see pages 17 to 27 for further information about our scheme design.



Existing A46 widened to dual carriageway

Farndon roundabout to be partially signalised

Farndon roundabout

Cattle Market roundabout

Existing A46 widened to dual carriageway

New grade separated junction

New slip roads at Brownhills junction

New bridge over the A1

Winthorpe roundabout enlarged and partially signalised with mainline passing through the middle to form a through-about junction

Winthorpe roundabout

New single carriageway link to the south of existing A46

Existing A46 alignment retained between Friendly Farmer roundabout and Winthorpe roundabout

Friendly Farmer roundabout

A1/A46 junction

Brownhills roundabout

**Key**

- Road
- Scheme
- Scheme boundary / draft Order Limits
- Existing layout
- Proposed design



# This consultation

## Why we are consulting

The purpose of this consultation is to understand your views on our proposals for the scheme.

The scheme is a Nationally Significant Infrastructure Project (NSIP) as defined by the Planning Act 2008. This means that an application will need to be made to the Secretary of State for Transport for a Development Consent Order (DCO), to obtain permission to build and operate the scheme. Applications are submitted to the Planning Inspectorate on behalf of the Secretary of State for Transport.

Before we submit an application for a DCO, we must formally consult the local community and other stakeholders about our scheme proposals including identified environmental effects based on the information available at the time.

The scheme is an Environmental Impact Assessment development, as defined by The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

As part of this consultation, we've prepared a PEI Report to describe the environmental setting of the scheme and our preliminary assessments of the scheme's environmental effects.

We've also produced a NTS of the PEI Report using non-technical language. We'll report our final environmental assessments within an Environmental Statement submitted as part of the DCO application.

Your feedback on this consultation is important and will continue to help shape the design of the scheme.

For more information on the next steps in the DCO process, please refer to the 'Next steps' on page 50.

## How to respond to our consultation

The consultation period will run from **Wednesday 26 October to Monday 12 December 2022.**

We'd like to hear what you think, so please share any ideas, local knowledge, or concerns that you may have about our proposals by responding to our consultation. All your feedback will be considered as we continue to develop our proposals and the scheme design. You can respond to our consultation using one of the following methods:

### Online

Complete our response form online at:  
**[www.nationalhighways.co.uk/a46-newark-bypass](http://www.nationalhighways.co.uk/a46-newark-bypass)**

### Post

Complete a copy of our printed response form and post it back to our team using the scheme freepost address:

#### **Freepost A46 NEWARK BYPASS**

There's no need for a stamp when using this freepost address. The response form can be placed in an envelope with the freepost address written on the front.

### In person

Complete a copy of our printed response form and give it to a member of staff at one of our consultation events.

**All responses should be submitted by 11.59pm on Monday 12 December 2022.**

## Where you can get more information

### The scheme webpage

The scheme webpage provides current scheme information as well as historic information and can be accessed using the following web address: [www.nationalhighways.co.uk/a46-newark-bypass](http://www.nationalhighways.co.uk/a46-newark-bypass). You can also use the scheme webpage to sign up to receive latest news and updates via email.

### Copies of consultation materials

Printed copies of our consultation brochure and consultation response form will be available free of charge at deposit locations and consultation events throughout the consultation period. Copies of other consultation documents and plans will be available online and for inspection only at our consultation events. Copies of additional or accessible versions of our consultation materials are available upon request from our project team.

### Consultation events

We're using community venues and our Engagement Van to give you the opportunity to speak to members of the project team about the proposed scheme. Any changes to these events will be communicated on the scheme webpage and on social media. You can also call us to confirm that an event is going ahead. Details of the events are as follows:

Location	Day	Time
<b>Newark Showground (Engagement Van)</b> Gift and Food Show, Lincoln Road, Winthorpe, Newark-on-Trent, NG24 2NY	29 October 2022	9am to 5pm
<b>Newark Showground (Engagement Van)</b> Gift and Food Show, Lincoln Road, Winthorpe, Newark-on-Trent, NG24 2NY	30 October 2022	9am to 4pm
<b>Farndon Memorial Hall</b> Marsh Lane, Farndon, Newark-on-Trent, NG24 3SZ	8 November 2022	3pm to 8pm
<b>Newark Town Hall</b> Market Place, Newark-on-Trent, NG24 1DU	9 November 2022	11am to 4pm
<b>Bridge Community Centre</b> Lincoln Road, Newark-on-Trent, NG24 2DQ	10 November 2022	3pm to 8pm
<b>Winthorpe Community Centre</b> Woodlands, Winthorpe, Newark-on-Trent, NG24 2NL	12 November 2022	12 noon to 5pm
<b>The Fox Inn</b> Main Street, Newark-on-Trent, NG23 5QP	15 November 2022	3pm to 8pm
<b>Newark Market Place (Engagement Van)</b> Market Place, Newark-on-Trent, NG24 1DU	19 November 2022	10am to 2pm
<b>Northgate Retail Park (Engagement Van)</b> Northgate, Newark-on-Trent, NG24 1GA	20 November 2022	10am to 2pm
<b>Newark Town Hall</b> Market Place, Newark-on-Trent, NG24 1DU	30 November 2022	11am to 4pm

### Deposit locations

The opening times of these deposit locations may be subject to change due to circumstances out of our control. If in doubt, please contact a location before visiting.

Location	Opening hours	
<b>Newark Indoor Bowls Centre</b> Newark Showground, Lincoln Road, Winthorpe, Newark-on-Trent, NG24 2NY	Monday to Friday: Saturday and Sunday:	9.45am to 9.30pm 9.30am to 2.30pm
<b>The Lord Nelson</b> Gainsborough Rd, Winthorpe, Newark-on-Trent, NG24 2NN	Monday to Saturday: Sunday:	10am to 10pm 10am to 7pm
<b>Bridge Community Centre</b> Lincoln Road, Newark-on-Trent, NG24 2DQ	Monday to Sunday:	8.30am to 9pm
<b>Newark &amp; Sherwood District Council</b> Castle House, Great North Road, Newark-on-Trent, NG24 1BY	Monday to Friday:	9am to 5pm
<b>The Fox Inn</b> Main Street, Newark-on-Trent, NG23 5QP	Monday to Thursday: Friday and Saturday: Sunday:	12 noon to 10pm 12 noon to 11pm 12 noon to 8pm
<b>Newark Library</b> Balderton Gate, Town Centre, Newark-on-Trent, NG24 1UW	Monday: Tuesday: Wednesday: Thursday: Friday: Saturday: Sunday:	9am to 6.30pm 9am to 6pm 9am to 6.30pm 9am to 6pm 9am to 6pm 9am to 4pm Closed
<b>The Lord Ted</b> Farndon Road, Newark-on-Trent, NG24 4SW	Monday to Sunday:	11am to 11pm

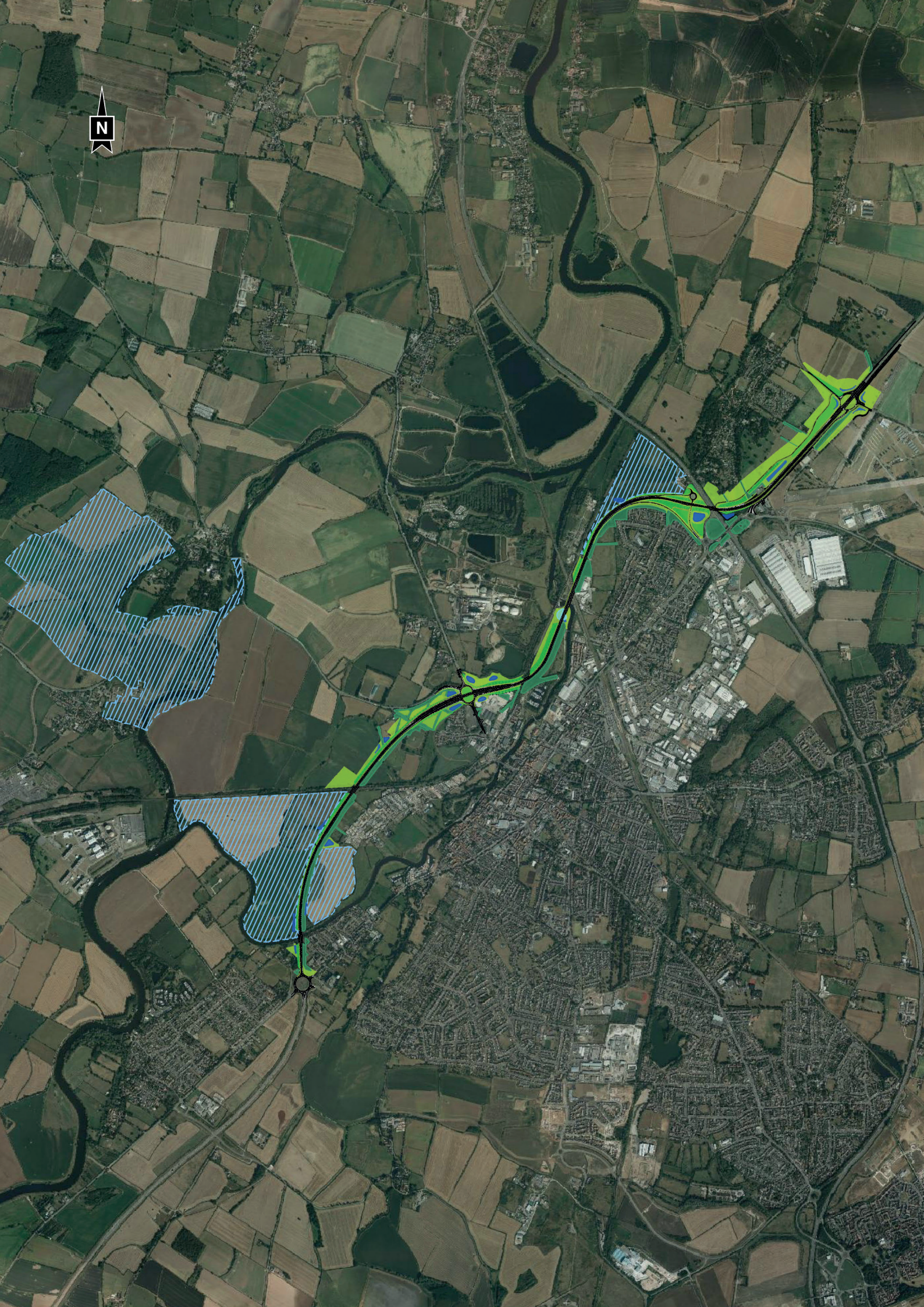
### Contact us

@ A46newarkbypass@nationalhighways.co.uk

☎ 0300 123 5000

✉ Freepost A46 NEWARK BYPASS





## Our scheme design

Since announcing the preferred route in February 2022 we've refined the design of the scheme, this includes starting to develop our environmental design, which will be further refined as our environmental assessments progress.

To help explain our proposals in this brochure we've divided the design information into four sections as follows:

- Farndon roundabout towards Cattle Market junction (pages 18 to 19)
- Cattle Market junction (pages 20 to 21)
- Cattle Market junction to A1 crossing (pages 22 to 23)
- A1 crossing to Winthorpe roundabout (pages 24 to 25)

We've also included further information about three areas that have been identified for floodplain compensation which are being referred to as:

- the Kelham and Averham floodplain compensation area
- the Brownhills borrow pit / floodplain compensation area
- the Farndon borrow pits / floodplain compensation area

Please see pages 26 and 27 for more information on the floodplain compensation areas.

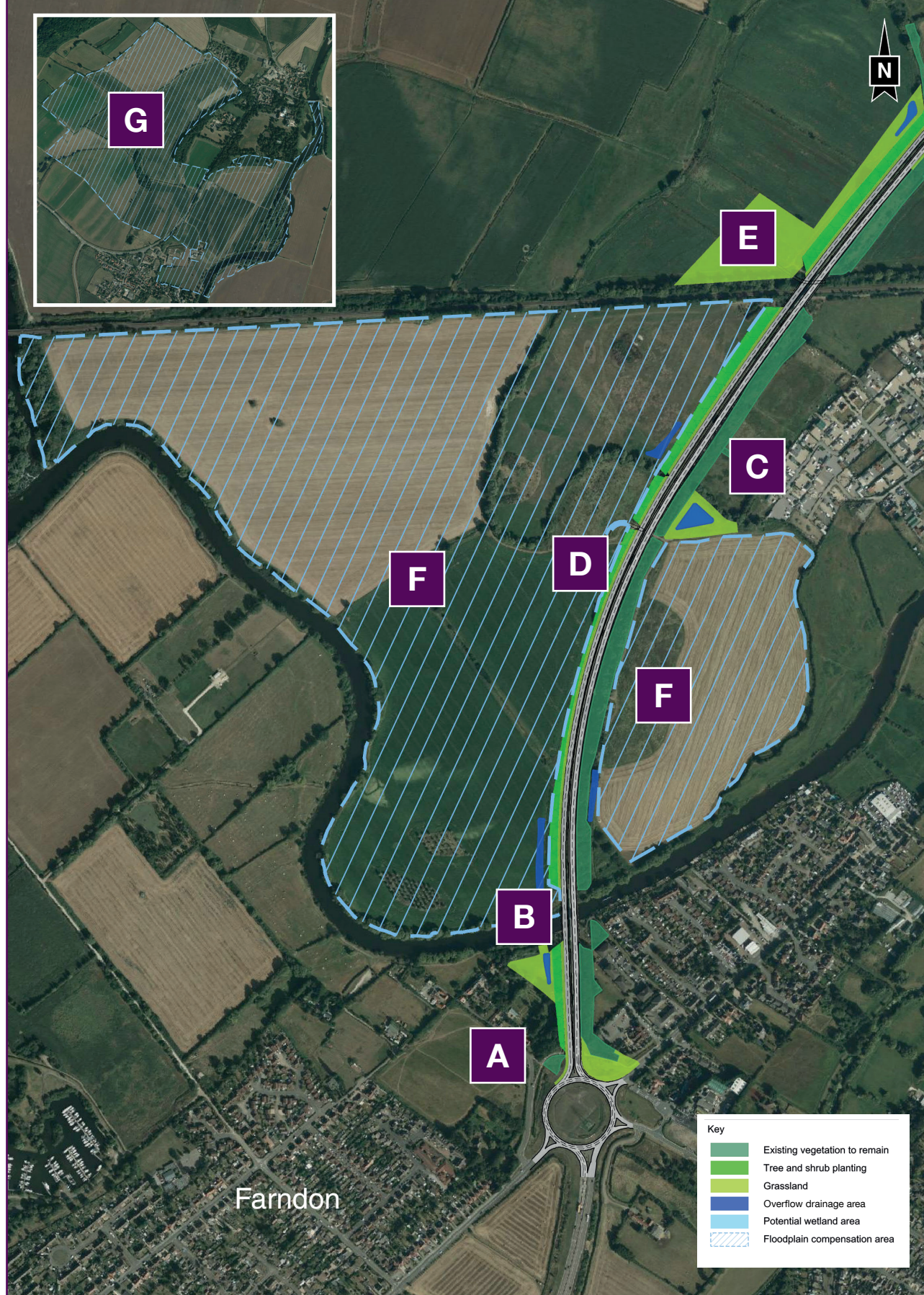
The descriptions in the following sections of the brochure are based on information contained in the General Arrangement Drawings as well as in the Indicative Environmental Masterplan which is located within Volume 2 of the PEI Report.

Visualisations shown on page 21, 23 and 25 have been taken from the scheme fly-through video which is available to view on our scheme webpage:

**[www.nationalhighways.co.uk/a46-newark-bypass](http://www.nationalhighways.co.uk/a46-newark-bypass)**



Farndon roundabout towards Cattle Market junction including Kelham floodplain compensation area (inset)

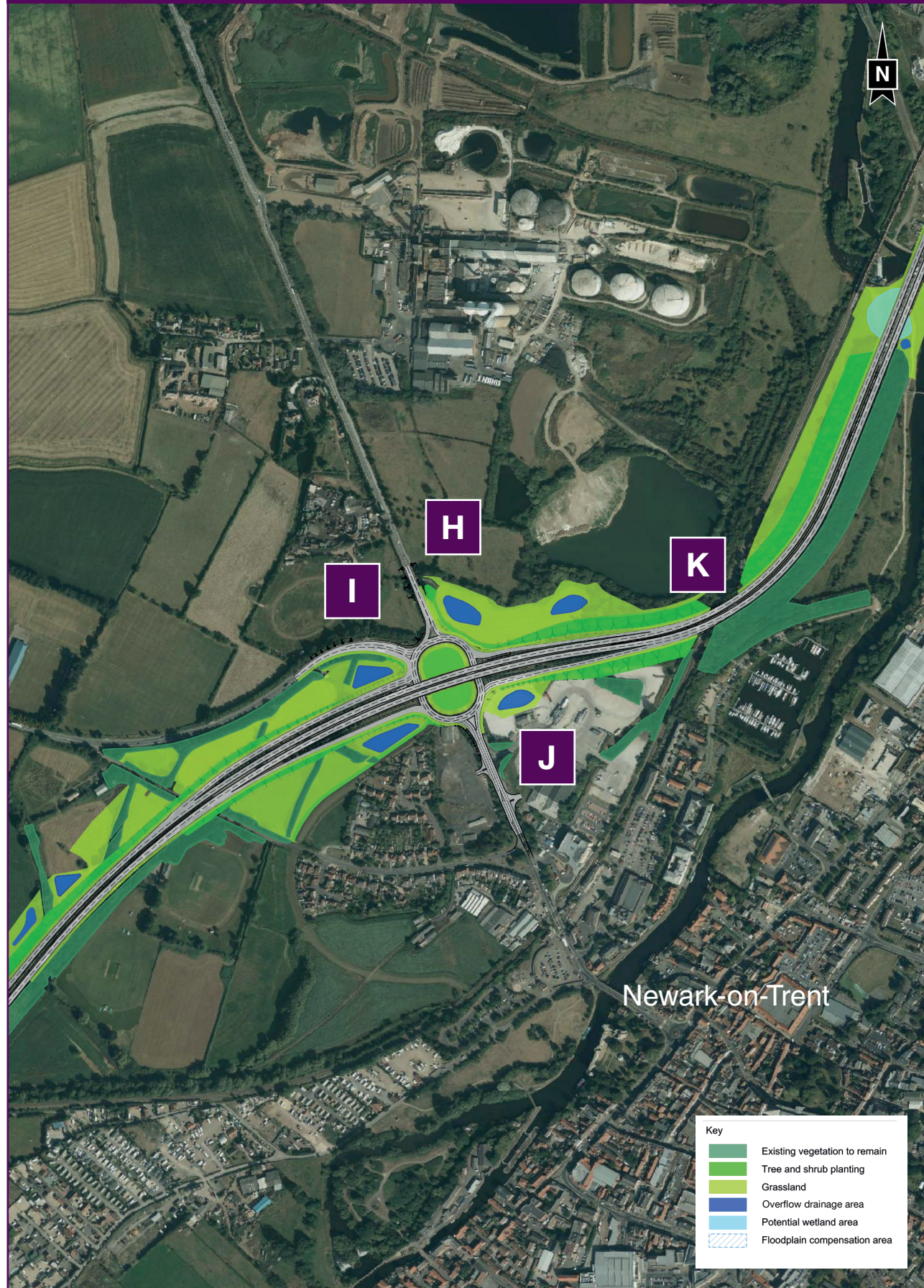


## What we propose

- A** The existing footprint of Farndon roundabout would be maintained. An additional lane and traffic signals would be installed within this existing footprint to help improve the flow of traffic at the junction.
- B** In order to accommodate the additional northbound carriageway, a new three span bridge would be constructed in parallel and to the north of the existing Windmill Viaduct over the River Trent.
- C** The current carriageway would be converted to form the new southbound lanes of the dual carriageway. There would be a central reserve barrier separating the southbound and northbound carriageway.
- D** The existing embankment would be widened to accommodate two new lanes to form the northbound carriageway. This widening to the north of the existing road reduces the impacts on the town of Newark-on-Trent and its communities, both during construction and for the permanent design. The existing farm access underpass would be extended to accommodate the widening.
- E** In order to accommodate the additional northbound carriageway, a new three span bridge would be built parallel to the existing bridge over the Nottingham to Lincoln railway line. This would accommodate farm access on both sides of the railway line.
- F** Potential Farndon borrow pits / floodplain compensation area. Please see pages 26 to 27 for further information.
- G** Potential Kelham and Averham floodplain compensation area. Please see pages 26 to 27 for further information.



## Cattle Market junction



## What we propose

- H** A new grade separated junction at Cattle Market junction with the A46 elevated to pass over the roundabout. The existing roundabout would be enlarged beneath to provide increased capacity. We're considering a 50mph speed limit on the A46 between Cattle Market junction and Winthorpe roundabout.
- I** The existing Smeaton's Arches may need to be widened to accommodate the enlarged Cattle Market roundabout.
- J** The existing level crossing to the south of Cattle Market roundabout can cause traffic to queue along the Great North Road, creating congestion on the A46. Alterations are proposed for the Great North Road to provide increased capacity and reduce queuing in this area. The proposals would be developed with Newark & Sherwood District Council to understand and align with their plans for future developments in this area.
- K** To accommodate the new dual carriageway, the existing bridge over the Nottingham to Lincoln railway line would be widened.



Visualisation of Cattle Market junction



## Cattle Market junction to A1 crossing



## What we propose

- L** A new viaduct over the River Trent and a new bridge over the East Coast Main Line would be constructed in parallel and to the north of the existing bridges.
- M** An entry slip road would be provided as a connection from Brownhills roundabout to the new westbound A46 carriageway. This entry slip road would utilise the existing A46 carriageway allowing the existing earth bunds and planting/vegetation screening to the south to be retained.
- N** A new A46 exit slip road would be constructed to link the eastbound A46 to the existing Brownhills roundabout. This slip road would incorporate a new roundabout to provide access to the adjacent properties and to provide a link to Brownhills roundabout that passes beneath the new dual carriageway. The existing underpass for the National Cycle Route 64 and Trent Valley Way would be retained and the existing footpath realigned to pass under the new dual carriageway.
- O** A new bridge crossing the A1 to accommodate the new A46 alignment bypassing Brownhills and Friendly Farmer roundabouts. This short new section of dual carriageway would be aligned to merge into the existing A46 adjacent to the Interchange Service Station (Esso). This has allowed for the service station to be retained and be accessible from the dual carriageway.
- P** Potential Brownhills borrow pit / floodplain compensation area. Please see pages 26 to 27 for further information.



Visualisation of A1 crossing

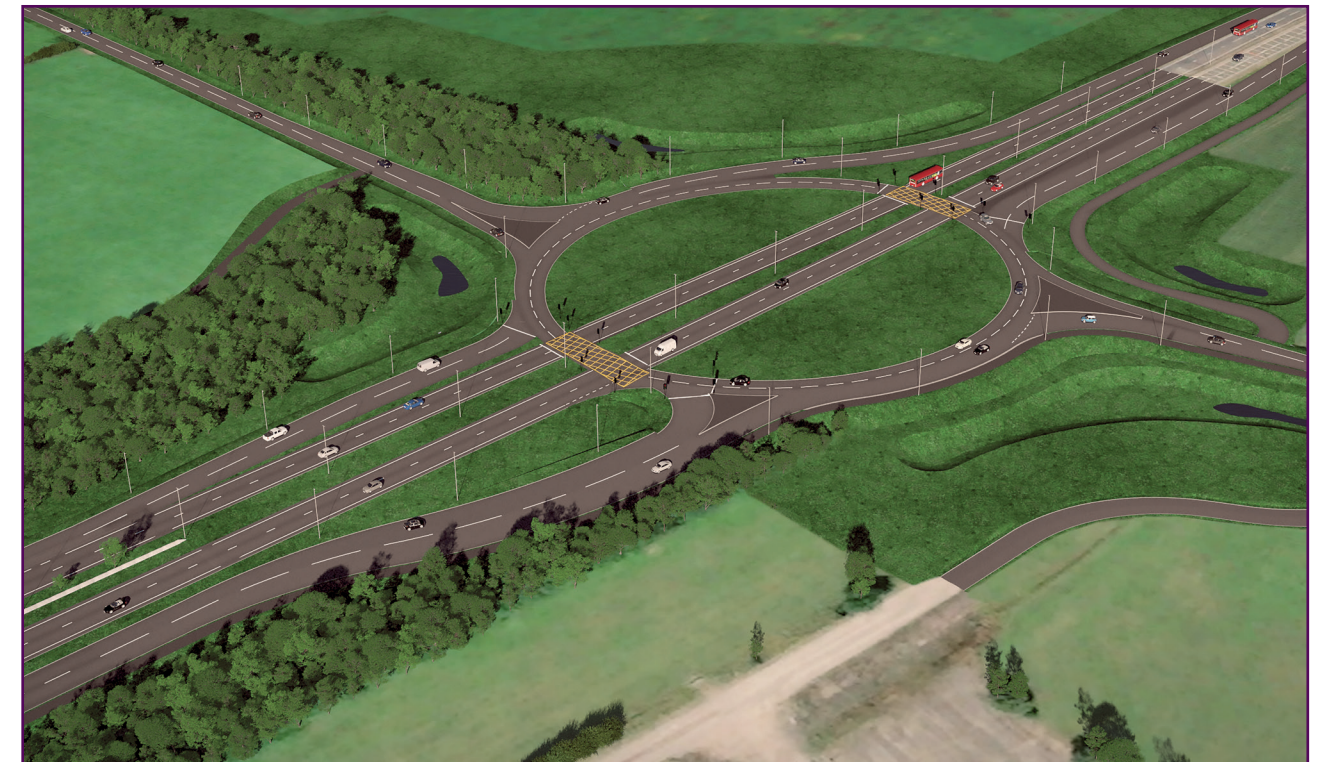


## A1 crossing to Winthorpe roundabout



## What we propose

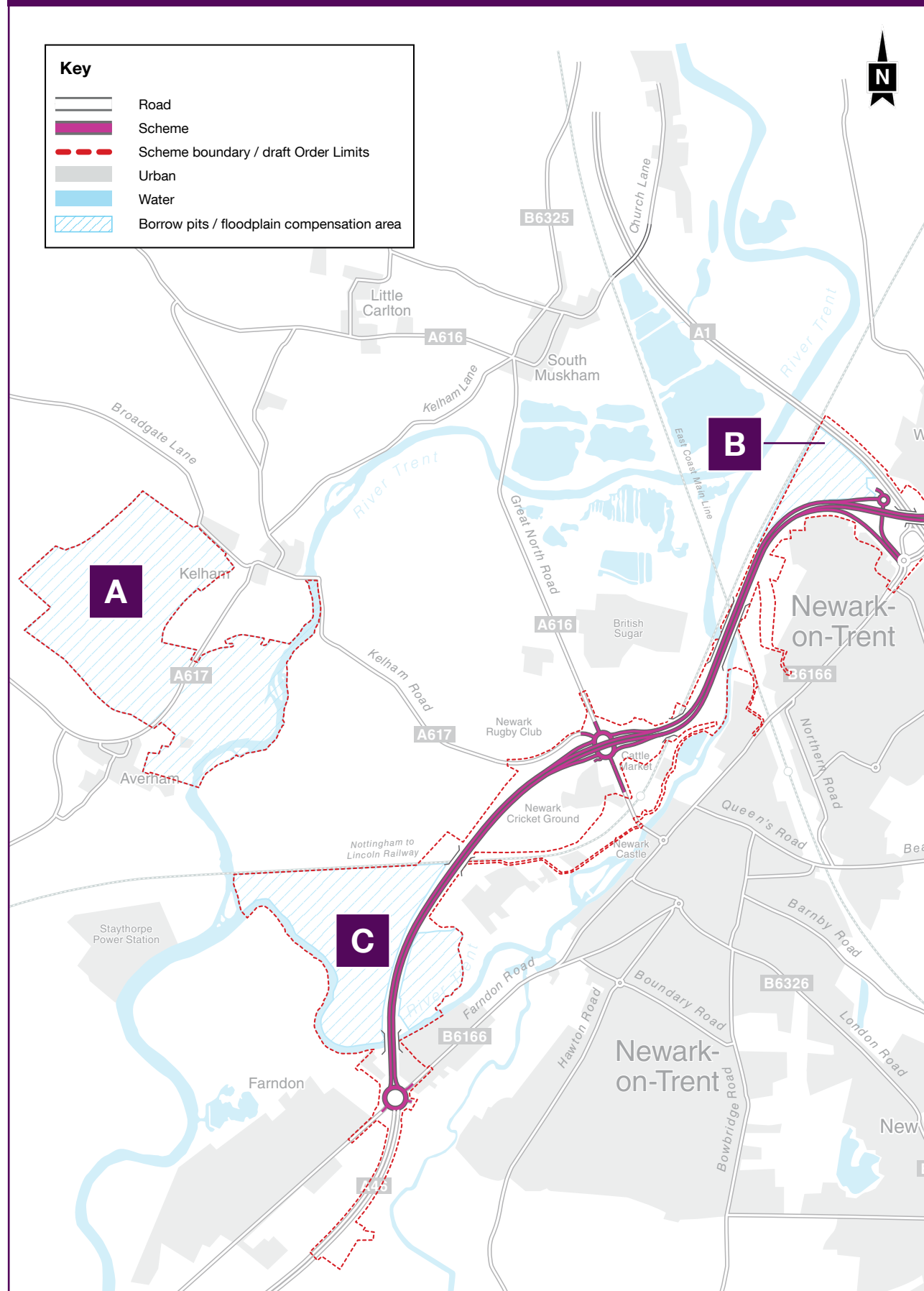
- Q** A new single carriageway would be provided between Friendly Farmer and Winthorpe roundabouts. This road would provide a link between the A46 and traffic for the A1, A17 and Newark-on-Trent. This new link road would also include provisions for pedestrians and cyclists. An amended access would be provided for the Shell Service Station.
- R** The new A46 dual carriageway would merge into the existing A46 carriageway adjacent to the Interchange Service Station, retaining a section of the existing dual carriageway up to Winthorpe junction.
- S** Winthorpe roundabout would be developed into a through-about layout to accommodate predicted traffic flows on the A46 and the link road to the Friendly Farmer roundabout. The A46 dual carriageway would pass through the junction and access would be provided to and from Drove Lane and the A1133. The junction would have traffic signals to help control traffic around the junction and reduce congestion. A 50mph speed limit between Winthorpe roundabout and Cattle Market junction is under consideration.



Visualisation of Winthorpe roundabout (through-about layout)



## Potential floodplain compensation areas



## What we propose

The proposed embankment for the A46 dual carriageway passes through land that is floodplain for the River Trent.

As a result of this, the scheme is required to develop flood mitigation measures to offset the volume of embankment being added into the floodplain.

These mitigation measures would include floodplain compensation which would provide an equivalent volume of flood water storage in the local area by excavating land at similar elevations to that which would be displaced by the scheme.

Three areas have been identified for floodplain compensation which are being referred to as:

- A** the Kelham and Averham floodplain compensation area
- B** the Brownhills borrow pit / floodplain compensation area
- C** the Farndon borrow pits / floodplain compensation area

The Kelham and Averham floodplain compensation area would seek to provide floodplain compensation at higher elevations, the Farndon borrow pits / floodplain compensation area at middle elevations, and the Brownhills borrow pit / floodplain compensation area at lower elevations. As a result of the requirement for like-for-like mitigation, floodplain compensation may be required at all three of these areas, however the final floodplain compensation areas may not require all of this land.

The Farndon and Brownhills locations were originally identified as areas from which material could be extracted (known as borrow pits) to be used in the construction of the new embankments. Consideration of the requirement for flood compensation has identified that these areas are at levels which provide flood compensation at lower and middle levels, as indicated above, and provide an opportunity to utilise these sites for flood compensation reducing the need for use of land elsewhere.

The proposal for the future use of these areas would be developed in collaboration with key stakeholders including landowners and communities and may include reinstatement of the areas to farmland and development of wetlands or amenity areas. The flood compensation options and ways of connecting the River Trent to the floodplain compensation areas would be refined prior to submission of the DCO application.

Please refer to the General Arrangement Drawings and Volume 2 of the PEI Report for further information about the existing flood zone.

# What the scheme means for you

## Traffic

Understanding how people use our roads helps us design schemes which suit the demands of the community and road users.

During peak times, the A46 between Farndon and Winthorpe roundabouts can become heavily congested. This congestion leads to problems elsewhere on the wider network such as Great North Road, Kelham Road, the A17 and the A46 junction with the A1.

The proposed scheme would reduce congestion on the A46 around Newark-on-Trent helping to improve journey times and journey time reliability on the wider road network.

We've developed a scheme design using the current traffic modelling data and projections available. This model uses traffic surveys and traffic data taken from a large area covering the roads along the A46 and beyond, to understand how drivers may respond to changes in road layouts.

This has helped inform:

- the design of the proposed scheme, such as the number of lanes and changes to junctions required on the A46
- the environmental assessment, including noise and air quality impacts
- our economic assessment of the proposed scheme's value for money by weighing up the costs against the benefits

We're developing our traffic modelling which will result in an updated set of traffic forecasts. We'll use this information, alongside feedback from the statutory consultation, to update our scheme design where required before our DCO application is submitted.

## Traffic flows and journey times

To determine the benefits that would result from the proposed scheme, we forecast what traffic flows and journey times would be in the planned year of opening (2028) without the scheme and then forecast what traffic flows and journey times would be with the new scheme in place.

The comparison of the traffic flows is shown on the map on pages 30 and 31.

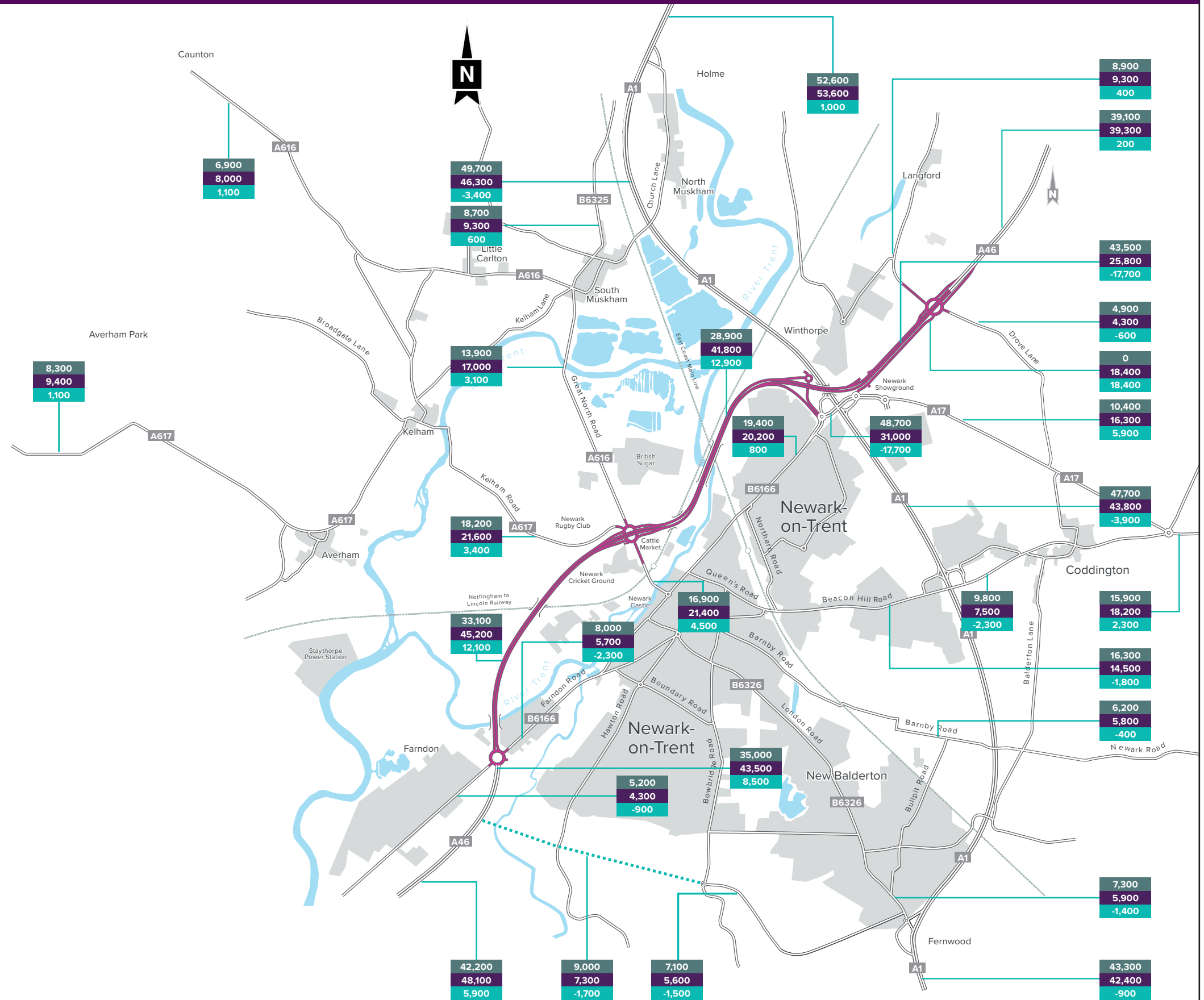
The key impacts of the scheme in relation to traffic flows and network performance are:

- Long distance traffic on the A46 and principal routes is forecast to increase with the scheme.
- A reduction of traffic is forecast on the majority of the local road network in Newark-on-Trent, as traffic re-routes to the strategic road network.
- There's a forecast significant reduction in congestion at scheme junctions, particularly Cattle Market.
- Local traffic access into Newark is forecast to increasingly be via Great North Road (Cattle Market junction) and Lincoln Road (Brownhills junction).
- Improvements at Cattle Market junction are forecast to increase traffic on all approaches, including the A616 and A617.
- The increased capacity and reduction in congestion is forecast to result in on average a 30% reduction in journey times for traffic using the improved section of the A46.



# Forecast traffic flow differences after scheme opening

To determine the benefits that would result from the proposed scheme, we forecast what traffic flows and journey times would be in the planned year of opening (2028) without the scheme and then forecast what traffic flows and journey times would be with the new scheme in place.







## Public rights of way

We recognise the importance of public rights of way in and around the area of the proposed scheme, including how they're used by local communities and the role they play in people's enjoyment of the local area.

As part of our proposed scheme design, we're working with local authorities and active travel group representatives to provide appropriate solutions for impacted routes.

### What we propose:

- Maintaining the existing pedestrian and cycle facilities that pass beneath the A46 to the north of Farndon roundabout.
- Realigning the Trent Valley Way where it crosses the A46 at the Cattle Market roundabout. Install signalised crossings over the new slip roads at the new grade separated junction.
- Permanently closing Footpath 14 at the existing crossing of the A46 to the east of Newark Ransome & Marles Cricket Club. This would be permanently diverted through the new Cattle Market junction.
- Creating a temporary diversion of the public right of way alongside the River Trent at the Windmill Viaduct during the construction of the new bridge. The public right of way would be reinstated to its original route following completion of the bridge.

We recognise the importance of public rights of way in and around the area of the proposed scheme, including how they're used by local communities and the role they play in people's enjoyment of the local area.

- Providing a temporary diversion on the east bank of the River Trent at Nether Lock, while there's a short term closure during the erection of the temporary bridge crossing over the river.
- Providing a temporary diversion of Footpath 48 under the Crankley Point Sewage Treatment Works underpass would be required during the proposed underpass extension works.
- Reconnecting Footpaths 2 and 3 which are currently severed by the A46 between Friendly Farmer and Winthorpe roundabouts. A new public right of way would be created under the new A1 bridge and across the old A46 to the south of Friendly Farmer roundabout. This would provide a safer crossing point between Winthorpe and the A17.
- Providing a temporary diversion for the footpath between Winthorpe and Friendly Farmer roundabouts to allow construction of the new link road. The footpath would be realigned onto a new alignment.
- Maintaining the continuity of the Trent Valley Way and National Cycle Route 64 in the vicinity of the A1 and A46 by realigning it under the new bridge structure at the Brownhills junction. The existing underpass would be retained.

For more information about the improvements we're proposing for active travel routes, including public rights of way, please refer to our PEI Report, NTS of the PEI Report and the General Arrangement Drawings.





## Environment

We continue to gather information that enables us to identify and assess the likely environmental effects as a result of the scheme and develop measures to avoid or reduce them. The assessment considers effects during both construction of the scheme, and once the scheme is operational.

As part of this consultation, our PEI Report sets out our preliminary findings from our environmental assessment of the scheme. This will help you understand the environmental effects of our proposals and the measures we would take to mitigate them.

We've also produced a NTS of the PEI Report which provides a summary of the potential likely significant effects reported by each topic area.

The preliminary findings detailed in the PEI Report will be developed further in the Environmental Statement (ES) to reflect the evolution of the scheme's design, informed by feedback from the statutory consultation, and the ongoing Environmental Impact Assessment (EIA) process. The ES will be submitted with our DCO application.

The following tables provide a summary of the preliminary assessment findings presented in the PEI Report.



We continue to gather information that enables us to identify the environmental effects as a result of the scheme and develop measures to avoid or reduce them.



Topic area	Summary of preliminary assessment of potential environmental effects	
	Potential effects during the construction stage	Potential effects during the operational stage
<b>Air quality</b>	<p>Local air quality could be adversely affected by dust arising from construction activities and vehicle movements. Adverse effects will be reduced with the implementation of appropriate construction management measures which will be detailed within the Environmental Management Plan (EMP) for the scheme, such as avoiding double handling of materials, minimising stockpile heights and wetting down of surfaces to reduce dust emissions.</p>	<p>Traffic flows on the A46 are predicted to increase because of the increased lanes and junction improvements, which may result in small deteriorations in air quality along the existing A46 alignment. However, no exceedances of air quality objectives are predicted at human receptors. Increased traffic flows may result in increased nitrogen deposition at ecological receptors including Local Wildlife Sites.</p>

Topic area	Summary of preliminary assessment of potential environmental effects	
	Potential effects during the construction stage	Potential effects during the operational stage
<b>Cultural heritage</b>	<p>During construction, there's potential for adverse effects to heritage assets to occur from direct physical impacts to Grade II listed Smeaton's Arches, and also as a result of the removal of buried archaeological remains. The expansion of the existing road toward scheduled monuments such as the Civil War redoubts at Cattle Market roundabout will also potentially degrade the setting of these monuments. To mitigate adverse effects as far as possible, an archaeological management plan will be updated at each phase of archaeological survey works to reduce risks to archaeological remains, and management of noise and vibration in the vicinity of heritage assets during construction. These would minimise any temporary impacts during construction activities.</p> <p>Construction of the road may also result in beneficial effects for cultural heritage as a result of the advancement of knowledge and understanding of known and unknown heritage assets through discovery and recording. It's anticipated that there would be temporary degradation of the setting of some designated heritage assets including conservation areas and listed buildings. Where possible mitigation will be put in place to lessen any impact on the heritage assets.</p>	<p>There will be no operational effects on buried archaeological remains. Further assessment is required to establish the likely operational effects to designated and non-designated built heritage and historic landscape, although it's anticipated that most of the impacts will be seen during the construction stage rather than once the scheme is operational.</p>



Topic area	Summary of preliminary assessment of potential environmental effects	
<b>Landscape and visual</b>	<b>Potential effects during the construction stage</b>	<b>Potential effects during the operational stage</b>
	<p><b>Landscape character</b> Temporary adverse effects upon landscape character are likely during construction, including a number of areas directly affected within the construction footprint. There's potential indirect effects to areas within the local surrounding landscape outside of the works footprint.</p> <p><b>Visual amenity</b> Temporary adverse effects upon visual amenity resulting from construction activity such as from the presence of construction machinery and lighting. This also includes effects on views from close distance residential receptors; and for the recreational users of local public rights of way, and the River Trent.</p>	<p><b>Landscape character</b> Short term adverse effects to landscape character are expected, which will reduce over time as the scheme planting establishes and integrates with the surrounding landscape.</p> <p><b>Visual amenity</b> For the majority of receptors, short term adverse effects are expected, reducing over time as scheme planting establishes. A small number of visual receptors may experience longer term adverse effects where near distant views of elevated sections of the scheme are unable to be fully mitigated.</p>

Topic area	Summary of preliminary assessment of potential environmental effects	
<b>Biodiversity</b>	<b>Potential effects during the construction stage</b>	<b>Potential effects during the operational stage</b>
	<p>The scheme will result in permanent habitat loss and fragmentation at multiple Local Wildlife Sites as well as priority habitats consisting of deciduous woodland, wood pasture, coastal and floodplain grazing marsh, lowland meadow and lowland fen. Construction activities could also increase the risk of a pollution incident, such as contaminated land run off, spills/leaks of oils and fuels, and increased airborne pollutants which in turn could have adverse effects on designated sites.</p> <p>Site clearance and construction activities may have an adverse effect on protected species, either through the loss of commuting, foraging, breeding and rearing habitat, or indirectly by adversely affecting water quality of local water courses inhabited by species. Best practice mitigation measures will be included within the EMP and implemented on site to reduce the risk of impacts on designated sites, protected species and habitats. Measures during construction include the sensitive timing of work to avoid breeding seasons, directional and low-level lighting, and the sensitive location of construction machinery with all vehicles switching off their engines when stationary.</p>	<p>There's the potential for changes to hydrology and water quality at Local Wildlife Sites and other nearby habitats as a result of additional traffic during operation of the scheme. Increased emissions from traffic could also lead to increased levels of nitrogen deposition which could have a detrimental effect on habitats by changing the species composition. With the implementation of appropriate mitigation measures effects are not expected to be significant. Short-term adverse effects may be experienced by protected species in areas of habitat loss along the boundaries of the scheme whilst replacement habitat establishes.</p> <p>The scheme is likely to pose an increased risk of mortality to some species due to collisions with live traffic. Mitigation measures will be implemented to reduce operational effects where possible. These measures include directional and hooded lighting to minimise light spill and additional screening vegetation around areas of road at height to minimise the chance of collisions between protected species and traffic.</p>



Topic area	Summary of preliminary assessment of potential environmental effects	
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Topic area	Potential effects during the construction stage	Potential effects during the operational stage
<p><b>Geology and soils</b></p>	<p><b>Soils</b>            There's potential for removal of Agricultural Land Classification Grade 2, deemed 'best and most versatile' soils, associated with the Kelham and Averham floodplain compensation area. There's also the potential for soil deterioration and compaction due to general construction, shallow excavation and earthworks. However, adverse effects will be managed and reduced through the implementation of best practice measures to be included within the EMP.</p> <p><b>Contaminated land</b>            There's the potential for construction workers to come into contact with potentially contaminated soils/leachates/gases. The risk of this will be managed and reduced through best practice measures to be implemented during construction and included within the EMP.</p>	<p>No likely effects during operation are anticipated for geology and soils as all effects would occur during the construction stage of the scheme.</p>

Topic area	Summary of preliminary assessment of potential environmental effects	
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Topic area	Potential effects during the construction stage	Potential effects during the operational stage
<p><b>Material assets and waste</b></p>	<p>Material resources are required to construct the scheme and the disposal of waste to landfill that cannot be re-used or recycled, could impact on the remaining landfill capacity of the area. To minimise the use of material resources and manage the amount of waste going to landfill, a materials management plan and site waste management plan will be implemented by the contractor.</p>	<p>No likely effects during operation are anticipated for material assets and waste as all effects would occur during the construction stage of the scheme.</p>



Topic area	Summary of preliminary assessment of potential environmental effects	
<b>Noise and vibration</b>	<b>Potential effects during the construction stage</b>	<b>Potential effects during the operational stage</b>
	<p>There's the potential for disturbance to receptors due to noise and vibration from construction activities. Adverse effects will be reduced with the implementation of appropriate construction management measures which will be detailed within the EMP for the project.</p>	<p>There's the potential for changes to traffic flows to result in both increased and decreased noise levels at sensitive receptors. Assessment work is ongoing to understand the likely adverse and beneficial effects of the scheme for noise sensitive receptors. Any identified adverse effects will be reduced through the implementation of mitigation measures such as through the use of low noise road surfacing and noise fencing where appropriate.</p>

Topic area	Summary of preliminary assessment of potential environmental effects	
<b>Population and human health</b>	<b>Potential effects during the construction stage</b>	<b>Potential effects during the operational stage</b>
	<p><b>Land use and accessibility</b> A number of receptors, including residential properties, community assets, agricultural holdings, development land and businesses are within or adjacent to the scheme and will experience direct effects during construction. However, a construction communications plan to engage with local people and businesses, and implementation of a traffic management plan to ensure that access is maintained and disruption is minimised as far as possible, will be in place during construction to help reduce and manage construction impacts.</p> <p><b>Human health</b> Determinants of health such as noise, air quality, and visual landscape have the potential to be impacted by increased traffic and construction activities. However, these will be reduced through the implementation of best practice mitigation measures during construction, which will be detailed within the EMP for the project.</p>	<p><b>Land use and accessibility</b> During operation, both beneficial and adverse effects are anticipated, as a result of road improvements and the creation of footpaths and cycleways. The assessment of effects for this topic is in development with further information required to confirm likely effects.</p> <p><b>Human health</b> Changes in traffic flows once the scheme is operational has the potential to have positive or adverse effects on population and human health receptors.</p>



Topic area	Summary of preliminary assessment of potential environmental effects	
	Potential effects during the construction stage	Potential effects during the operational stage
<b>Road drainage and the water environment</b>	<p><b>Surface water</b> Best practice mitigation measures such as appropriate storage of liquids, soils and powders away from drains and watercourses, and in secondary containment, will be implemented during construction to minimise effects to surface water associated with construction activities. Water quality monitoring will also take place during construction.</p> <p><b>Groundwater</b> Construction activities have the potential to result in pollution from suspended sediment/contaminated runoff and dewatering affecting groundwater levels. This will be managed during construction through the implementation of best practice mitigation measures to reduce the likelihood of adverse effects arising.</p>	<p><b>Surface water</b> Operation activities have the potential to lead to contaminants from traffic entering surface water. However, measures will be incorporated within the design to minimise effects, such as adequate drainage to accommodate potential changes in surface water run-off.</p> <p><b>Groundwater</b> Operation of the scheme has the potential to lead to changes to groundwater level/flow and physical impact/creation of preferential pathways from below ground structures. The design will be developed to ensure that impacts upon groundwater flows are reduced or eliminated where possible.</p>

Topic area	Summary of preliminary assessment of potential environmental effects	
	Potential effects during the construction stage	Potential effects during the operational stage
<b>Climate</b>	<p><b>Effects on climate</b> The construction emissions of the scheme are currently estimated to be approximately 250,000 tCO<sub>2</sub>e split between material, plant and transport. Measures to mitigate the impacts of construction on climate include requirements for subcontractors and suppliers to prioritise low/zero carbon solutions, reporting and collaboration requirements, and completing a carbon management plan.</p> <p><b>Resilience of the scheme to climate change</b> The construction site may be vulnerable to extremes of weather, leading to the risk of delay in activities. Climate change could result in a change in the risk of severe weather through the construction period. Measures to mitigate these impacts include construction processes which are adapted to ensure they are resilient to changes in climate during the construction period.</p>	<p><b>Effects on climate</b> The scheme would produce emissions due to traffic and through maintenance activities. Measures to mitigate the operational impacts of the proposed scheme on climate include ensuring the lifetime operation of the scheme is as efficient as possible and identifying and undertaking opportunities during the design and construction stages of the scheme to reduce operational emissions.</p> <p><b>Resilience of the scheme to climate change</b> The climate of the study area has already changed from its natural state, as a result of climate change, and will change over the lifetime of the project. Measures to mitigate the operational impacts of climate change on the scheme include development of a scheme design which accommodates the predicted changes in regional climate.</p>



## Construction

### What happens during construction

We understand that a scheme of this scale can have an impact on the local community. Making sure that we're as accommodating as possible to those living and working nearby is important to us. We're confident that our experience in managing major construction projects, combined with the feedback from this consultation, would help us plan the construction in a way that keeps both disruption and inconvenience to a minimum.

### Location of construction compounds

To build the scheme efficiently and minimise impacts on the local community, our site compounds would need to be close to the construction site. These sites would include office and welfare facilities as well as space for handling construction materials and storage. Our main compound is likely to be within the old highway depot site to the south of Cattle Market roundabout, adjacent to the Great North Road. Access would be from the existing roundabout. We'll build a junction from the existing Great North Road for construction traffic so our staff can access the site compound safely.

We'll also need another compound at the southern end of the new dual carriageway. We're proposing to use a small area located on the south side of the Fosse Road. A compound would be located on the east side of the River Trent at Nether Lock, accessed via Trent Lane. This would be required to facilitate the construction works associated with the new bridges and embankment widening in this area.

Further compounds would be located off the A46 at the new Brownhills junction and at the northern end of the scheme off Drove Lane, within the Newark Showground.

### When construction would take place

If a DCO is granted, we expect construction to start in early 2025 and the road to be open in late 2028. Before we can start the main construction, we need to prepare the site. This includes:

- archaeological investigations
- ecology work such as the relocation of habitats
- diverting and protecting utilities
- building compound facilities
- floodplain compensation area development

All our preparatory work will be set out in our DCO application.

### Traffic management during construction

We recognise that at times there would be roadworks and diversions which would affect those living and working in the area. We're committed to minimising the impact on people who would need to travel locally and throughout the region. While it won't always be possible to completely avoid some short-term delays and congestion, we'll work closely with local authorities to put in place traffic management measures that would keep traffic moving during construction.

The A46 and A1 would remain open for the duration of the works. This is apart from occasional overnight closures when we'll need to connect the new and existing roads, build bridges and unload large items of equipment or materials.

We'll phase the construction to minimise impacts to road users and the surrounding community. For example, we'll introduce phased construction stages at both Cattle Market roundabout and Brownhills junction to maintain traffic movements through construction. We're also looking into offline construction proposals for the A1 bridge crossing so that we can reduce road closures on the A1.

We'll develop our construction plans with Nottinghamshire County Council and Newark & Sherwood District Council. Before we start any work, we'll inform residents, businesses and road users in advance so they can also plan ahead. We'll share information on our progress, maintaining the safety of vulnerable road user groups, such as walkers and cyclists.

During construction we may need to temporarily close or divert existing public rights of way. We'll coordinate any road closures and associated diversion routes with the rest of the road network to ensure that we minimise disruption to our customers. To achieve this we'll work closely with local authorities and our area maintenance teams to avoid our works conflicting with other schemes.



### Using local roads

The main routes that contractors would use to gain access to the working areas are the A46, A1, A17, A617 and A616. Limited access may be required from local side roads. Although most construction traffic would move within the site boundaries, we would need to bring some materials into the site from around the UK. Wherever possible, we'd work with our contractors to arrange these deliveries to arrive during off-peak traffic periods.

Our construction vehicles would keep to designated roads to minimise the impact of construction traffic on the local area. We'll create a site traffic route within the construction site boundary that would run adjacent to the embankment widening.

Access to Nether Lock would be via Trent Lane, off the Lincoln Road, with a temporary bridge constructed over the River Trent to provide access for construction plant to construct the new bridge and embankment widening.

### Construction working hours and noise

We'll set out our construction working hours in our Environmental Management Plan following discussion with local authorities.

Wherever possible, we'll carry out activities that create the most noise during the day. The majority of works would be undertaken during weekday daytime periods however for safety and operational reasons some works, such as working over the railway and bridge beam lifts would need to be undertaken at night.

### Dust

We'll manage dust by using water to dampen down the site roads and construction areas and by washing the wheels of our construction vehicles where traffic uses the road network.

### Carbon

It's the aim of the scheme to reduce the embedded carbon in the design and construction of the new road. This would be achieved with solutions such as modular construction and reducing the transportation distance of construction materials by using site won material excavated at borrow pits adjacent to the scheme.



## Community engagement

We value our relationships with our customers who use the strategic road network and those that live and work in the local area who would be affected by the scheme. Our dedicated community engagement team would keep building on the good relationships that we've already developed with local people and businesses and would ensure anyone who is interested in the scheme is fully informed throughout construction. We'll also provide regular updates on our scheme webpage and through social media, as well as via mail-drops and meetings.

We continuously engage with those potentially impacted by the scheme to ensure that we address community concerns and identify ways to generate benefits and mitigate impacts.

Our engagement covers local communities and community groups, elected representatives, landowners, businesses, environmental groups, officers from Nottinghamshire County Council and Newark & Sherwood District Council and technical stakeholders including, Natural England, Historic England, and the Environment Agency.

Engagement with those from communities living near the scheme as well as those from the wider region has been vital in developing our proposals, and we'll continue this engagement going forwards as we prepare our DCO application.



# Next steps

Once the consultation has closed on **Monday 12 December 2022**, we'll analyse and consider your feedback when making further refinements to the proposed scheme design.

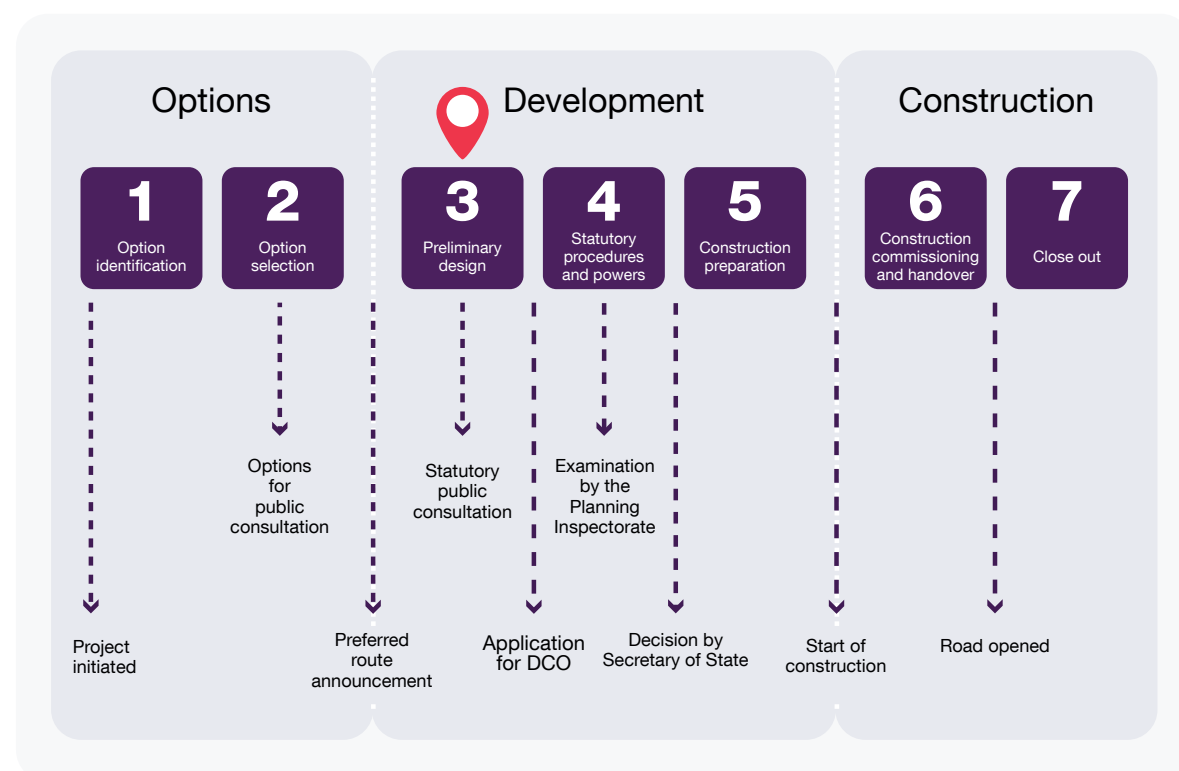
We'll produce a summary of the responses in a consultation report and include details about how consultation feedback has helped to shape our proposals. The consultation report will form part of our DCO application and will be made available to the public after submission of the application, which we expect to be in summer / autumn 2023.

If our DCO application is accepted by the Planning Inspectorate (on behalf of the Secretary of State for Transport) an Examining Authority will consider the application, and any representations, which will take up to six months. During the examination stage, anybody with an interest in the scheme can make representations in writing, or verbally at public hearings.

The Examining Authority will report its recommendation to the Secretary of State for Transport, who has a further three months to make a final decision on whether or not to grant a DCO for the scheme. If our application is approved, work on the scheme is expected to start in 2025.

If you would like any further information about the DCO application process, please visit the Planning Inspectorate's website: [infrastructure.planninginspectorate.gov.uk/application-process](https://infrastructure.planninginspectorate.gov.uk/application-process)

In addition to this consultation process, we'll continue to engage with anyone interested in or impacted by the proposed scheme. The process for the next project steps is shown in the diagram below:



The consultation period will run from

**Wednesday 26 October to  
Monday 12 December 2022**



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