

A46 Newark Bypass

Scheme Number: TR010065

7.7 Outline Traffic Management Plan

APFP Regulations 5(2)(q)

**Planning Act 2008
Infrastructure Planning (Examination Procedure)**

Rules 2010

Volume 7

April 2025

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Applications: Prescribed Forms
and Procedure) Regulations 2009**

A46 Newark Bypass
Development Consent Order 202[x]

Outline Traffic Management Plan

Regulation Number:	Regulation 5(2)(q)
Planning Inspectorate Scheme Reference	TR010065
Application Document Reference	7.7
Author:	A46 Newark Bypass Project Team, National Highways

Version	Date	Status of Version
Rev 1	March 2024	DCO Application
Rev 2	November 2024	For Deadline 2
Rev 3	November 2024	For Deadline 3
Rev 4	February 2025	For Deadline 5
Rev 5	February 2025	For Deadline 6
Rev 6	March 2026	For Deadline 7
Rev 7	April 2026	For Deadline 8

Contents

Contents	1
1 Introduction	2
1.1 Purpose of this Outline Traffic Management Plan	2
1.2 Scheme Overview	3
1.3 Challenges	4
2.1 Customer requirements and customer requirements log.....	6
2.2 Nature of the works.....	13
2.3 Proposed traffic management measures	15
2.4 Restricted routes for construction vehicles	20
2.5 Speed Limits	22
2.6 Operating Lanes	23
2.7 Length of traffic management	24
2.8 Carriageway and slip road closures.....	24
2.9 Adjacent roadworks and traffic management.....	26
2.10 Diversion routes	27
2.11 Incursion risk management.....	28
2.12 Incident management	28
2.13 Bank holidays and embargos.....	28
2.14 Significant events and seasonal traffic.....	29
2.15 Safety measures	30
2.16 Driver compliance	30
2.17 Communication of the traffic management plan	30
2.18 Proposals for management of network occupancy	32
2.19 Intelligent transport service	32
2.20 Network operations and liaison.....	33
2.21 Maintenance provider activities.....	33
2.22 Footways, cycleways, equestrian routes and Public Rights of Way.	33
2.23 Other service providers.....	35
2.24 Traffic management plan management	35
A. Appendix	36
A.1 Proposed diversion routes.....	36
A.2 Junction phasing plans	44

1 Introduction

1.1 Purpose of this Outline Traffic Management Plan

1.1.1 This Outline Traffic Management Plan (this “OTMP”) relates to an application made by National Highways (the “Applicant”) to the Secretary of State for Transport via the Planning Inspectorate (the “Inspectorate”) under the Planning Act 2008 (the “2008 Act”) for a Development Consent Order (DCO). If made, the DCO would grant consent for the A46 Newark Bypass (the “Scheme”). A detailed description of the Scheme is provided within Chapter 2 (The Scheme) of the Environmental Statement (ES) (TR010065/APP/6.1).

1.1.2 This OTMP provides the current details for the Temporary Traffic Management (TTM) measures that are expected to be implemented during the construction of the Scheme.

1.1.3 A Traffic Management Plan (TMP) will be produced in consultation with the Local Highway Authorities (LHA), Nottinghamshire County Council and Lincolnshire County Council (in relation to diversion routes). and stakeholders such as the emergency services. Under requirement 11 of the draft DCO (TR010065/APP/3.1) the TMP that will be produced must be substantially in accordance with the OTMP and will be submitted to and approved in writing by the Secretary of State following consultation with the local highway authorities. The TMP will build on and comply with the commitments made in this OTMP.

1.1.4 The TMP shall provide details of how the works will be phased and how the associated TTM measures will be implemented for each phase in order to deliver the Scheme safely and efficiently, while minimising the impact on the road users and other stakeholders affected by the construction works, including the operation of the Strategic Road Network, (SRN) the local highway authorities and their service providers.

1.1.5 The TMP shall be informed by detailed design, detailed construction planning and consultation with local highway authorities.

1.1.6 The TMP will be developed to ensure that the following key objectives are considered and addressed:

- Safety of the travelling public, walkers, cyclists and horse riders (WCH) and roadworkers to ensure that no person is injured either working within or travelling through the site on the SRN.
- Clarity of TTM to ensure that the TMP is built around the customers and stakeholders.
- Minimising delays to road users on both trunk and local roads.
- To minimise the health and safety risks to the local community resulting from construction operations.
- Minimise disruption to road users, local businesses and communities.
- Meeting the needs of the relevant local highway authorities.
- Addressing the needs of local stakeholders.
- Maintaining adequate access for the emergency services and affected properties during the construction works.

1.2 Scheme Overview

1.2.1 The below summarises the principal elements associated with the Scheme:

- The provision of a dual carriageway for a distance of 6.5 kilometres (approximately 4 miles) to provide two traffic lanes in both directions. This consists of the following key highways elements:
- Partial signalisation of Farndon Roundabout at the southern extents of the Scheme.
- Widening of the existing A46 for a length of 4.5 kilometres.
- A new grade separated junction at Cattle Market Roundabout.
- A new off-line section to bypass the existing Brownhills and Friendly Farmer roundabouts for a length of 1.3 kilometres.
- A new grade separated link between Brownhills Roundabout and a new roundabout that is situated to the north of the proposed dual carriageway. These are linked to the new dual carriageway via a new northbound off-slip and southbound on-slip.
- Retention of the existing dual carriageway between Winthorpe Roundabout and the A1 for a length of 0.8 kilometres.
- An upgraded through-about with partial signal controls at Winthorpe roundabout.
- A single carriageway road from Friendly Farmer roundabout to Winthorpe roundabout situated to the south of the existing dual carriageway.
- Tie in with local roads at Farndon, Cattle Market and Winthorpe Junctions
- New bridge structures over the Nottingham to Lincoln and East Coast Main Line railway lines, River Trent and the A1.
- Improvements/amendments to walking, cycling and horse-riding (WCH) routes.
- Floodplain compensation at the following three floodplain compensation areas (FCAs): Kelham and Averham FCA, Farndon West FCA and Farndon East FCA.
- Three borrow pit areas to support the creation of embankments required for the Scheme.

1.3 Challenges

1.3.1 The following local, regional and national challenges and considerations for the OTMP have been identified:

Local

1.3.2 Current congestion, queuing and delays on the A46 single carriageway. The TTM proposals have been developed to maintain existing capacity during the daytime, with closures limited to nighttime only on the A46.

1.3.3 Level crossing to the south of Cattle Market, which can cause queuing traffic along the Great North Road. The TTM proposals will be further developed in the TMP such that they do not interfere with the operation of the level crossing.

1.3.4 Newark Showground traffic during event days. The OTMP identifies the Showground as a stakeholder and that the traffic on event days needs to be considered when selecting suitable dates for road closures.

1.3.5 Limited available diversion routes for the A46. There are limited strategic diversion routes along the A46 within the area of the Scheme. The OTMP identifies the proposed diversion routes that would be used during road closures.

1.3.6 Potential construction interface with the Newark Southern Link Road. The Southern Link Road being is being delivered by the Newark Town Board with funding from Newark and Sherwood District Council. It will link the A46 and A1 at Balderton Interchange to the south of Newark-on-Trent. The southern link road has been granted planning permission and works have commenced, with the SLR due to open to traffic the late Summer of 2026. The construction programme for the SLR will continue to be reviewed through 2024 and 2025 (through regular liaison with the developer) to identify any changes and how they impact the Scheme proposals.

1.3.7 Services at the Friendly Farmer roundabout. The TTM proposals for the Scheme have been developed to maintain access to the services during the construction period.

1.3.8 Lane availability on the A1 and congestion at the Brownhill and Friendly Farmer roundabout. The TTM proposals for the Scheme have been developed to maintain the current lane capacity on the A1 and move the majority of the construction works offline, minimising the impact to the travelling public on the A1.

1.3.9 Construction traffic routes and access to businesses, land and properties. The OTMP has identified restrictions that would be imposed on construction traffic as well as construction phasing that will keep access open to properties and businesses.

Regional

1.3.10 Newark and Sherwood District Council as local planning authority has identified several areas within the vicinity of the Scheme for strategic future growth and development for the region. This includes development of new distribution areas along the A17 and A46. The Applicant has been in liaison with the developer for this proposed development to understand any potential interfaces during construction. The TMP will include this future development and associated contacts in table 2-1.

1.3.11 Lincolnshire Council will be delivering the North Hykeham Relief Road during the same construction period as the Scheme. The OTMP has identified the specific interface at the Hykeham roundabout and the need to liaise with the contractor for the North Hykeham scheme as part of the TMP to coordinate road space bookings and road closures.

National

The A46 is a strategic trade corridor between the ports in the northeast and the A1 and M1 corridors. The Scheme will provide communications and information to the freight industry and at the ports informing road users of forthcoming works on the A46, in particular road closures and diversions.

2 Traffic Management Plan – detailed description.

2.1 Customer requirements and customer requirements log.

2.1.1 This section sets out the key customers and stakeholders relevant to the OTMP.

2.1.2 Scheme specific customer requirements are detailed in Table 2-1.

2.1.3 The customers and stakeholders in table 2-1 have been identified following site visits, responses to the statutory consultation and liaison with the Local Authorities.

2.1.4 The OTMP will be updated during the detailed design phase to update the status of the customer requirements and include further detail on how the Scheme would achieve these principles in order to improve customer satisfaction.

Table 2-1 Customer requirements log

Customer group	Who is affected by this Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations?
Customer	Car drivers Motorcyclists Local traffic Long distance drivers/ tourists	<ul style="list-style-type: none"> • Journey time reliability • Advanced warning of closures and/or diversion • Appropriate diversion routes • Maximised lane widths where possible • Clear easily navigable TTM. • Review use for speed control • Co-ordination with adjacent developments, local authority highways work or adjacent National Highway schemes • Minimise disruption from the Scheme – Open to traffic as efficiently as possible. • Shorten length and duration of TTM where possible. • Improve temporary barrier visibility. • Use of electronic signage (preferred by customer groups) • Use billboards to display reasons and timescales for the works. • Listen and act on concerns. • Communicate updates and changes to the Scheme. 	<ul style="list-style-type: none"> • Sufficient notification of closures: consider pre-signing on strategic Variable Message Signs (VMS) where possible – contact vmsrequests@nationalhighways.co.uk 21 days before planned closure. • Closures requiring extended durations, such as the A1 bridge crossing, to have increased notification periods and specific communication strategies developed. • Advanced warnings via nationwide network technology and communications to allow long distance drivers and tourists to plan appropriately. • Closure Clashes - not having closures on alternative routes that are subject to diversions. • Diversion route signs and information to meet driver requirements and optimise usability. • Utilise off site construction methodologies for the construction of the A1 bridge crossing. • TTM to be removed, where practicable, during embargo periods (section 2.13). • Narrow lanes to be used only where essential and consideration to be given to maximising the available space for traffic. • Where possible road works will be designed so that they are safe at the permanent speed limit. • Reflective strips to be incorporated into temporary barrier to increase visibility. • Variable Message Signs should be used to post an advance notice of the closure. • Suitable temporary replacement signage should be provided so that there is no reduction in the level of service provided to the customer. • Scheme billboards to be provided on the Scheme at the start of works. • The Scheme will aim to seek and act on feedback from customers

Customer group	Who is affected by this Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations?
			<p>regarding traffic management measures. Information to be provided to show how customer input has influenced delivery as well as highlighting benefits when these are realised.</p> <ul style="list-style-type: none"> Public Information Exhibitions shall be held prior to the start of works and during delivery. Use multimedia channels to provide updates to the Scheme. Provision of journey time information on National Highways strategic signs.
	HGV drivers Bus and Coach drivers	<ul style="list-style-type: none"> As for car drivers plus Suitable diversion routes for HGVs 	<ul style="list-style-type: none"> As for car drivers plus Diversion routes avoid narrow roads and low bridges. Road Haulage Association to be notified via communications. Bus companies to be given advanced warning of closures impacting their bus routes.
	Disabled car drivers	<ul style="list-style-type: none"> As for car drivers plus Method of recovery that is suitable for persons with reduced mobility and their vehicles. Suitable roadside facilities for disabled users (toileting and medication stops) 	<ul style="list-style-type: none"> As for car drivers plus Recovery vehicles are wheelchair accessible (if required) Welfare facilities take account of disabled requirements and are accessible.
Stakeholder	Royal Mail	<ul style="list-style-type: none"> Concerns that closures/diversions may impact on journey time reliability for the business. Sufficient notification of closures 	<ul style="list-style-type: none"> Advanced notification of programmed diversions and closures will be issued to major road users in the vicinity of the Scheme including Royal Mail. This will include providing Royal Mail with not less than 7 working days' notice of any road closures, diversions or alternative access arrangements that may affect travel on those routes and (if available) the agreed hours of working. This will form part of a wider communications plan" associated with the Scheme. the method of communication will be agreed as part of the final TMP. The Applicant will consult with Royal Mail on the content of the final TMP".
	Newark Showground (NNAS) and Air Museum	<ul style="list-style-type: none"> Concerns that closures/diversions may impact on journey time reliability to and from venue 	<ul style="list-style-type: none"> Advance warning and particular sensitivity around significant and key events, particularly weekends. Avoid road closures during event days. Maintain access to the facilities through the gated access/egresses from Drove Lane.

Customer group	Who is affected by this Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations?
			<ul style="list-style-type: none"> The Applicant provides a Left in Left out access from the Friendly Farmer Link with the access to be gated to Newark and Nottinghamshire Agricultural Society's (NNAS) satisfaction and the exit limited to emergency use only.
	British Sugar (24hr)	<ul style="list-style-type: none"> Concerns that closures/diversions may impact on journey time reliability to and from the facility. 	<ul style="list-style-type: none"> Advanced warning of closures on the A46.
	Newark Lorry Park (24 hr facility) and their customers	<ul style="list-style-type: none"> Concerns that closures/diversions may impact operation of the facility. 	<ul style="list-style-type: none"> Advanced warning of closures. Advance notification to customer base both on website and at the exit to the facility. Use of tactical signs on the A46 and at ports to inform if A46 is closed so that drivers can seek alternative rest areas.
	Nottinghamshire County Council and Lincolnshire County Council as the Local Highway Authorities (LHA) and Newark and Sherwood District Council	<ul style="list-style-type: none"> Communicate and seek approval of local highway authority (LHA) network use for full closures/diversions. Sufficient notification of above closures Co-ordinated and appropriate diversion routes Minimise impact to Journey Time Reliability 	<ul style="list-style-type: none"> Advance warning of proposed full closures with approval from LHA road space team(s) Liaise with LHA's to agree proposed/approved diversion routes. TM design to consider minimum impact to surrounding road networks. Liaison with the LHA and their winter maintenance teams to provide access through closures at Cattle Market roundabout and Winthorpe Roundabout. Attendance at the traffic management workshops as detailed in section 2.17.6 of the OTMP.
	Immingham Docks	<ul style="list-style-type: none"> Concerns that closures/diversions may impact on journey time reliability to and from port 	<ul style="list-style-type: none"> Advance warning of closures on the A46.
	Network Rail	<ul style="list-style-type: none"> Concerns that closures/diversions may impact on journey time reliability to and from Newark Castle and Newark Northgate train stations. 	<ul style="list-style-type: none"> Advance warning and particular sensitivity around significant events.
	Bus companies	<ul style="list-style-type: none"> Concerns that closures/diversions/roadworks may impact on journey time reliability on bus routes. 	<ul style="list-style-type: none"> Bus companies to be given advanced warning of closures impacting their bus routes. Traffic management schedule updates provided to bus companies to provide notification of traffic management arrangements, closures and diversions.

Customer group	Who is affected by this Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations?
	Currys National Distribution Centre and other 24/7 Businesses (including future planned distribution centres off the A17).	<ul style="list-style-type: none"> Concerns that closures/diversion may impact on journey time reliability to and from the facility. Appropriate diversion routes for distribution centre traffic 	<ul style="list-style-type: none"> Advance warning and particular sensitivity around peak times, including the black Friday/Cyber Monday periods.
Stakeholder (continued)	Businesses on Trent Lane and Maltkilns Lane	Concerns about use of Trent Lane as construction access road to reach the Nether Lock Viaduct works site. Congestion and queuing traffic when large delivery vehicles turn into Trent Lane.	Restricted delivery times (off peak) for large delivery vehicles. Further details will be included in the TMP.
Stakeholder (continued) Stakeholder (Continued)	Businesses and properties along Quibell's Lane including the Sewage Treatment Works (STW) at Crankley Point.	<ul style="list-style-type: none"> Concerns about the threat of congested traffic along the narrow lane on the approach to the industrial yard and Crankley Point. 24/7 access required to the Crankley Point STW 	<ul style="list-style-type: none"> Segregated construction route parallel to Quibells Lane. Alternative access to be provided for accessing the Crankley Point STW during the extension works on the underpass.
	Shell and Esso petrol stations at Friendly Farmer roundabout	<ul style="list-style-type: none"> Advance warning of closures and/or diversions that may impact on journey time reliability to and from the facility for staff and deliveries as the facility runs 24/7 with materials supplied just-in-time for production. Advance warning of closures and/or diversions that may affect agreed routes for vehicle dispatch. 	<ul style="list-style-type: none"> Sufficient notification of closures Advance warning of closures and diversion routes that would impact on access to and from the facility for staff and deliveries.
	Kings Waterside and Marina	<ul style="list-style-type: none"> Security and control of vehicle movements through the marina and along the access track. Interface with customers and residents. 	<ul style="list-style-type: none"> Use of the access track by construction vehicles will be limited/restricted to during the stage of the pre-commencement works. Alternative construction access provided along Trent Lane and over a temporary bridge across the river Trent.
	Canal and River Trust	<ul style="list-style-type: none"> 24/7 access to Nether Lock 	TMP will include details with regard to traffic marshals/escorts being provided during bridge installation works over the access track to maintain access to Nether Lock.

Customer group	Who is affected by this Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations?
	Suppliers	<ul style="list-style-type: none"> Clear route for ease of delivery Journey time reliability to site Suitable access and egress 	<ul style="list-style-type: none"> Manage haul roads to facilitate site deliveries. Access and egress points clearly marked and close to delivery site
Stakeholder (Continued)	Staythorpe Power Station	<ul style="list-style-type: none"> The Power Station has several development proposals that are scheduled to be undertaken towards the end of the construction phase of the Scheme. There will be a potential interface with construction vehicles accessing the Staythorpe Power Station site. 	<ul style="list-style-type: none"> Advanced warning of closures and traffic management changes on the A46 and A617.
Stakeholder (Continued)	Emergency services	<ul style="list-style-type: none"> Access through haul road during emergencies Appropriate diversion routes Clear route for blue light journeys Early engagement to understand impact and their needs. Advance warning of closures and/or diversions 	<ul style="list-style-type: none"> Process and procedure for allowing blue-light travel through the works/haul road. Diversion routes avoid narrow roads and low bridges. Sufficient notification of closures
Partner	Local residents and businesses to project	<ul style="list-style-type: none"> Advance warning of closures and/or diversions Sensitivity to local requirements e.g., market days or events Minimal disruption due to works, including environmental factors (e.g., noise, dust, lighting) and diversion routes 	<ul style="list-style-type: none"> Notification and liaison with individuals and/or local group representatives Night-time closures and activity curfews where possible to minimise disruption. Diversion route signs and information to meet driver requirements and optimise usability to reduce opportunities for error and therefore reduce congestion. Compile authorised delivery routes and install prohibition signage on village roads
Partner (Continued)	Walkers, Cyclists and Horse Riders (WCH)	<ul style="list-style-type: none"> Advance warning of closures and/or diversions Appropriate diversion routes provided 	<ul style="list-style-type: none"> Diversion routes to consider the needs of WCH Users to ensure that routes are maintained at all times. Temporary alignments along Winthorpe Road to include for WCH use. <p>Prohibited routes for construction vehicles to be detailed in the TMP.</p>
Community	Residences and businesses along Winthorpe Road.	<ul style="list-style-type: none"> Maintain 24/7 access Notification of changes to construction activities 	<ul style="list-style-type: none"> Construction phasing of new roundabout and slip road to include access provisions for Bridge House Farm and the GRT community.

Customer group	Who is affected by this Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations?
	Bridge House Farm/boarding kennels and the Gypsy, Roma and Traveller (GRT) community.		<ul style="list-style-type: none"> Communication of updates through the Newark and Sherwood community liaison officer. This will also assist with construction updates across the wider GRT community within the region.
Community Community (Continued).	Residences along Crees Lane	<ul style="list-style-type: none"> Maintain 24/7 access. Reduce congestion along Crees Lane. 	<ul style="list-style-type: none"> TMP will detail the temporary construction access to the south abutment at Windmill Viaduct. <p>TMP will include the details of the vehicle holding area for construction deliveries to Work Nos. 4, 5 and 7. This vehicle holding area is to prevent queueing traffic along Crees Lane.</p>
	Winthorpe Village	<ul style="list-style-type: none"> Maintain 24/7 access. Notification of closures on A1133 and A46 	<ul style="list-style-type: none"> Notification of closures and diversion routes during works on A1133 and Winthorpe roundabout. Gainsborough route would be a restricted access route for the Scheme.
	Farms and field accesses along the Scheme.	<ul style="list-style-type: none"> Access to fields and property. Notification of closures and changes in traffic management. 	<ul style="list-style-type: none"> Temporary access arrangements to be provided. <p>Notification of closures and Traffic Management phasing, particularly relevant during harvest periods.</p>
Community (Continued).	Residences along Kelham Road including Sandhills Park and Cullen Close.	<ul style="list-style-type: none"> Narrow residential street with parking both sides of the road. 	<ul style="list-style-type: none"> Restricted access along Kelham Road during construction.
	Parish Councils	<ul style="list-style-type: none"> Advanced notification of closures and changes in traffic management. Means of communication with the Applicant and the contractor to ask questions or raise concerns. 	<ul style="list-style-type: none"> Notification of closures, diversions and Traffic Management phasing. Construction Communications Management Plan with means of raising questions or concerns.

2.2 Nature of the works

2.2.1 This section provides a description of the works on the Scheme based on the preliminary design. This will include, but is not limited to, key structures, details of embankments and earthworks associated with junctions and link roads. This section will be updated in the TMP to reflect the detailed design.

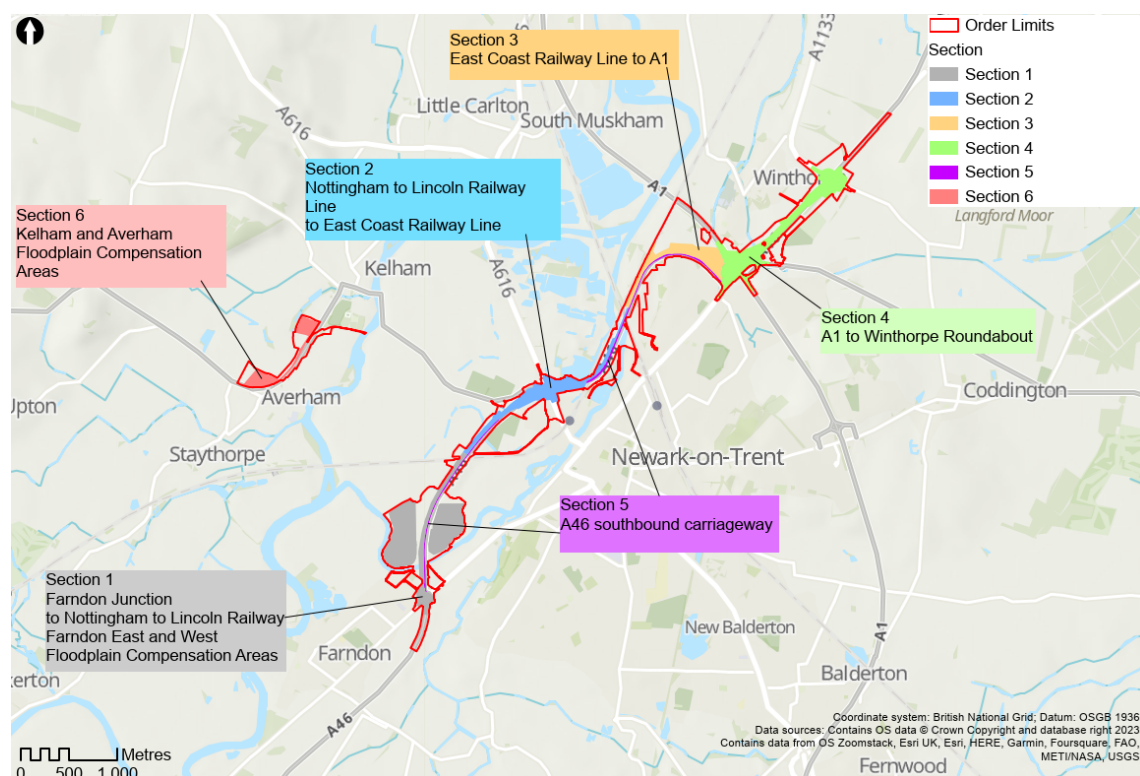
2.2.2 TTM will be designed and operated in accordance with Part 1, 2 and 3 of Chapter 8 of the Traffic Signs Manual¹ allowing working room to construct as well as the minimum safety zones.

2.2.3 The Scheme comprises many construction/engineering elements. These include, but are not limited to:

- Advanced and pre-commencement works such as utility diversions, site compound establishment and demolition as described in table 2-4 in Chapter 2 of the Environmental Statement (**TR010065/APP/6.1**).
- Widening the existing A46 embankment and constructing two new lanes to form the new northbound carriageway.
- Construction of new retaining walls.
- Converting the existing single carriageway into the new southbound carriageway.
- Construction 650m of new offline dual carriageway at Brownhills junction.
- Construction of a new grade separated junction at Cattle Market roundabout.
- Construction of a new signalised, through-about roundabout at Winthorpe roundabout.
- Construction of eight new bridge structures.
- Widening to an existing rail bridge.
- Accommodation works including access roads and tracks.
- Realignment and constructing new walking, cycling and horse riding routes.
- Extending two underpasses and one flood relief culvert.
- Utility protection works and diversions.
- Construction of new message gantry north of Winthorpe Roundabout.
- Flood compensation works.

2.2.4 The main construction works would follow the advanced and pre-commencement works (refer to sections 2.3.3 to 2.3.8 of the OTMP), with construction works split across the following sections of the Scheme, as presented in Figure 2-1.

¹ Traffic Signs Manual Chapter 8 Traffic Safety Measures and Signs for Road Works and Temporary Situations Part 1: Design [online] available at: [Traffic signs manual chapter 8 part 1 road works and temporary situations: designs \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/100000/traffic-signs-manual-chapter-8-part-1-road-works-and-temporary-situations-designs.pdf). ¹ Traffic Signs Manual Chapter 8 Traffic Safety Measures and Signs for Road Works and Temporary Situations Part 2: Operations [online] available at: [Traffic signs manual chapter 8 part 2 road works and temporary situations: operations](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/100000/traffic-signs-manual-chapter-8-part-2-road-works-and-temporary-situations-operations.pdf). Traffic Signs Manual Chapter 8 Traffic Safety Measures and Signs for Road Works and Temporary Situations Part 3: Update [online] available at: [DfT Traffic Signs Manual - chapter 8 part 3 - Road works and temporary situations](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/100000/dft-traffic-signs-manual-chapter-8-part-3-road-works-and-temporary-situations.pdf) (all last accessed November 2024).

Figure 2-1: Main construction works sections

- Section 1: Farndon Roundabout to Nottingham to Lincoln railway line.
- Section 2: Nottingham to Lincoln railway line to East Coast Main Line (ECML).
- Section 3: ECML to A1.
- Section 4: A1 to Winthorpe Roundabout
- Section 5: Modifications to existing carriageway.
- Section 6: Kelham and Averham FCA.

2.2.5 The Scheme programme is detailed in Table 2-2:

Table 2-2 Construction programme

Key construction programme element	Start date	Completion date
Anticipated DCO decision date	June 2025	
Advanced works	October 2023	June 2025
Pre-commencement works	June 2025	August 2026
Main construction works	August 2025	November 2028
Section 1 Farndon roundabout to the Nottingham to Lincoln railway line.	August 2025	May 2028
Section 2 Nottingham to Lincoln railway line to ECML.	August 2025	June 2028
Section 3 ECML to A1	August 2025	May 2028
Section 4 A1 to Winthorpe roundabout	August 2025	June 2028
Section 5 Modifications to existing carriageway	June 2028	November 2028
Section 6 Kelham and Averham flood compensation area	August 2025	June 2026
Scheme open for traffic	November 2028	

2.2.6 Sections 1 to 4 would be delivered in parallel and would involve the widening of the existing A46 to form the two lanes for the new northbound carriageway and the central reserve. The new bridge structures and junctions would be constructed in this period. Section 5 involves the modifications required to convert the existing A46 carriageway into the two lanes for the new southbound carriageway. This would involve installation of new signage, road restraint systems and surfacing. This will take place following the completion of the new northbound carriageway, so that traffic can be diverted onto the new alignment, providing a traffic free working area.

2.2.7 Section 6 incorporates the works to form the flood compensation requirements in the land between the villages of Kelham and Averham. These works will be undertaken at the start of the programme to provide the required compensation ahead of the main embankment widening works commencing.

2.2.8 A phased approach to construction of some sections of the Scheme, particularly at the new and modified junctions at Farndon, Cattle Market, Brownhills and Winthorpe, would be adopted to reduce disruption to the road users, residences and businesses.

2.3 Proposed traffic management measures

2.3.1 This section will detail the proposed traffic management measures and will make use of Traffic Management phasing plans (outline examples of which are included in Chapter 2 of the Environmental Statement (**TR010065/APP/6.1**) and appendix A2) to illustrate proposed measures at each stage of the Scheme.

2.3.2 Traffic management measures are detailed in the subsections below. The Applicant will be responsible for detailing each traffic management measure in full as the detailed design is progressed. The updated detail would be developed in consultation with the LHA and stakeholders and reflected in the TMP that will be produced and approved by the Secretary of State in accordance with Requirement 11 of the draft DCO (**TR010065/APP/3.1**) prior to construction commencing.

2.3.3 Junction modelling will be undertaken for the traffic management phases as the detailed design and construction programme develops.

Advanced Works

2.3.4 There are several programme sensitive works which would commence in advance of the DCO decision. Details of these are included in table 2-4 in Chapter 2 of the Environmental Statement (**TR010065/APP/6.1**) and include:

- Archaeological works
- Utility diversions
- Baseline monitoring
- Demolition of the Mint Leaf restaurant.
- Advanced vegetation planting

2.3.5 TTM in this stage would be limited to lane closures on the local road network to facilitate utility diversion works and asset surveys. Applications for temporary traffic management on the local road network during the advanced works phase will be made through the LHA.

Pre-commencement works

2.3.6 Pre-commencement works would commence post DCO decision and include;

- Site clearance activities.
- Construction of temporary access roads.
- Setting up Scheme offices and compounds.
- Utility diversion and protection works.
- Site clearance activities.
- Temporary bridge over the river Trent.
- Site clearance works and utility diversions associated with the flood compensation works.
- Public Right of Way works.
- Erection of boundary fencing.
- Setting up vehicle recovery areas.
- Installation of temporary CCTV and enforcement cameras.

2.3.7 A series of partial overnight lane closures and temporary signals will be required along Kelham Road and the Great North Road for the utility diversions and construction of a works access and egress into the Scheme office site at the old Nottinghamshire County Council highway depot.

2.3.8 Temporary traffic lights would be required on the A617 for the diversion of the medium pressure gas main, ahead of the installation of the new culvert crossing.

2.3.9 Night-time lane closures of the A46 and local roads would be required to undertake vegetation clearance works where trees are adjacent to the highway. This would consist of either temporary traffic signals or full lane closures.

Main Works

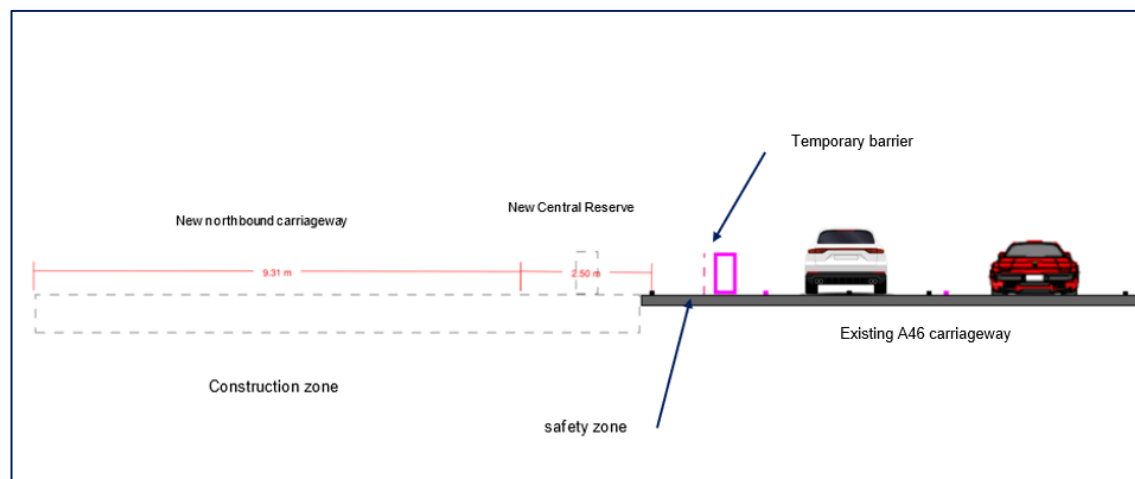
2.3.10 Construction works would commence in Summer 2025 on the new A46 northbound carriageway, with the construction of the new bridge structures, embankment widening works, grade separation junction at Cattle Market, the offline section of the Brownhills junction and construction of the Friendly Farmer Link Road at Winthorpe junction.

2.3.11 The existing embankment would be widened by approximately 15 metres to the east of the existing carriageway to form the new northbound carriageway and central reservation.

2.3.12 TTM would be in place on the existing A46 during the construction of the embankment widening and highway construction works to maintain a safe separation between the construction operations and the live traffic. This would include the use of narrow lanes, temporary barrier and reduced speed limits. A typical cross section is provided in Figure 2-2.

2.3.13 Lane closures and full closures of the A46 and the local road network would be required to deliver the works such as for pavement tie-ins and bridge beam installation (refer to section 2.8).

Figure 2-2 Cross section through traffic management on A46



2.3.14 On completion of the widening works, northbound and southbound traffic will be switched onto the new northbound carriageway. Construction works will then be undertaken to the existing carriageway to convert it to the new southbound carriageway.

2.3.15 There are four key junctions within the Scheme that require multiple phased traffic management solutions to be undertaken:

- i) Cattle Market grade separated junction,
- ii) Brownhills junction,
- iii) The dual carriageway tie-in at Friendly Farmer roundabout and
- iv) Winthorpe roundabout

2.3.16 These junctions will be constructed as part of the main works and the details are included below. Outline phasing plans for these junctions will be developed based on the proposals included in Chapter 2 of the Environmental Statement (**TR010065/APP/6.1**) and in appendix A2.

Cattle Market Junction

2.3.17 The existing Cattle Market roundabout would be upgraded to a grade separated junction. This includes the widening of the existing roundabout, extending the existing flood relief culvert, widening Smeaton's arches, construction of four new slip roads, construction of two single span bridges and construction of the new raised embankment for the A46.

2.3.18 The Cattle Market roundabout is a strategic junction for the town of Newark and the surrounding villages, with an interface with the Newark lorry park and British Sugar. Traffic is already impacted at this junction with the operation of the level crossing on the Great North Road.

2.3.19 A phased construction solution for the Cattle Market Junction will be developed by the Applicant in the development of the TMP.

2.3.20 The construction phasing would be implemented to maintain traffic movements around the junction during construction. Detailed phasing plans will be further developed during the detailed design stage and incorporated in the TMP.

Brownhills junction

2.3.21 The new Brownhills junction would be constructed in several phases to maintain access to Bridge House Farm, the dog kennels, the Gypsie, Roma and Traveler community and to maintain use of the footpath and cycle track along Winthorpe Road.

2.3.22 A phased construction solution for Brownhills junction will be developed by the Applicant in the development of the TMP.

2.3.23 The strategy would be to construct the offline section of the new junction, including the roundabout and link road, first, while maintaining traffic movements on Winthorpe Road. Traffic would then be transferred on to the new roundabout and link road, allowing Winthorpe Road to be closed and the new dual carriageway to be completed.

Friendly Farmer roundabout tie-in

2.3.24 The construction of the new link road and tie-in of the new dual carriageway to the existing A46 would be undertaken in multiple traffic management phases to enable access to be maintained to the existing service station facilities located adjacent to the Friendly Farmer Roundabout.

2.3.25 A phased construction solution for Friendly Farmer roundabout tie-in will be developed by the Applicant in the development of the TMP.

2.3.26 The strategy for the Friendly Farmer roundabout tie in will be to construct the new Friendly Farmer Link first, allowing southbound A46 traffic to be moved onto this new road. The new southbound tie-in would then be constructed, allowing the northbound traffic to transfer onto the southbound carriageway. Finally the tie-in for the northbound carriageway would be completed.

2.3.27 Temporary carriageway cross-overs would be constructed to maintain access to the service stations.

Winthorpe roundabout

2.3.28 The construction of the new Winthorpe roundabout would be undertaken in multiple traffic management phases to enable access to be maintained to the A1133 and Drove Lane.

2.3.29 A phased construction solution for the Winthorpe roundabout will be developed by the Applicant in the development of the TMP.

2.3.30 The strategy for the Winthorpe roundabout would be for the offline sections of the new roundabout and A1133 to be constructed first. Traffic would then be moved onto the new road alignment, allowing the throughabout section of the roundabout to be constructed.

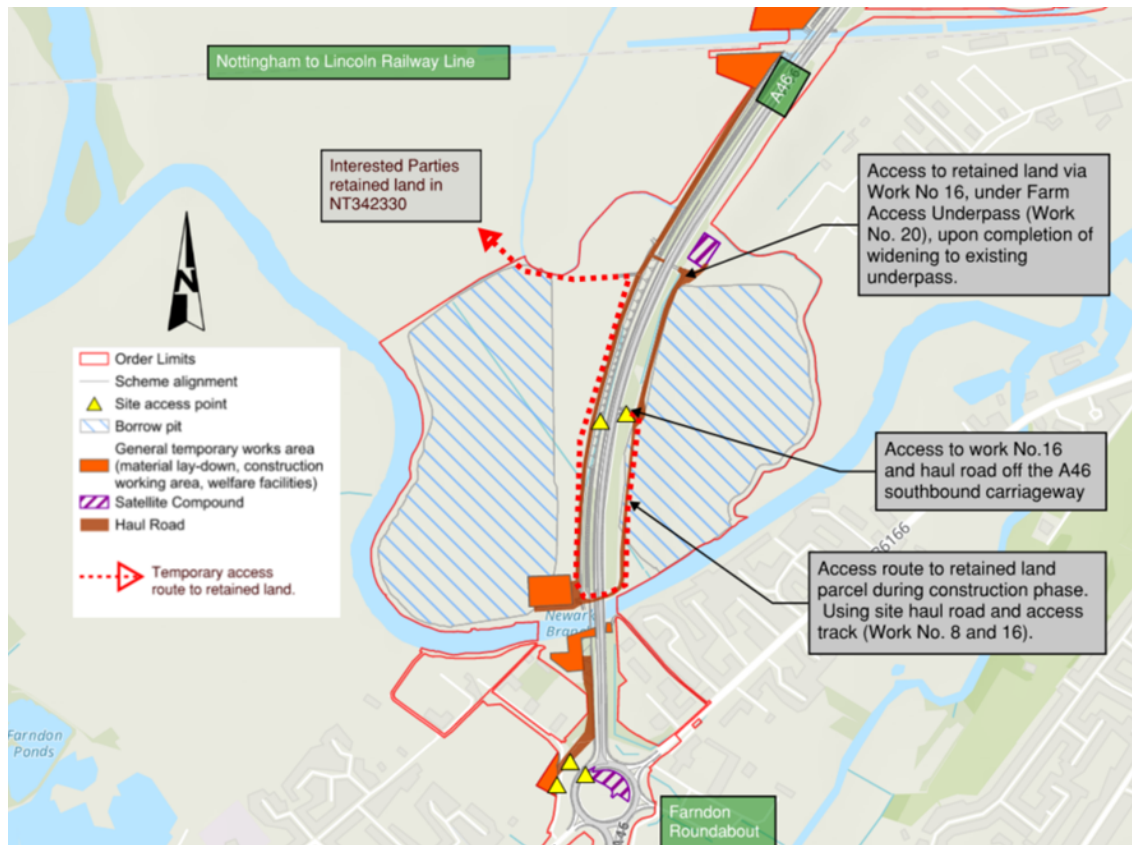
2.3.31 Further details on the construction of the Scheme are included in Chapter 2 of the Environmental Statement (**TR010065/APP/6.1**).

A46 field access

2.3.32 Access to the retained land in NT342330 located to the north of plot 1/19a as shown on sheet 2 of the Land Plans [AS-004], is provided by the maintenance access track from the southbound A46. This is identified as Work No. 16 on sheet 2 of the Works Plans [AS-005]. The maintenance access track ties into the existing field access track at location P-2B as shown on sheet 2 of the Streets, Rights of Way and Access Plans [AS-006]. The access to the maintenance access track from the A46 southbound carriageway (point P-2A on sheet 2 of the Streets, Rights of way and Access Plans) will be secured with a suitable gate accessible by the Applicant and the Landowner in the operation of the Scheme. The bellmouth for Work No. 16 will be designed to the required highways standards and requirements and will consider the new dual carriageway,

speed limit, vegetation and visibility splay for the turning into and out of the works access track. Access during the construction phase will be via Works No.16 from the A46 southbound carriageway. An access procedure with the landowner will be agreed such that they can be escorted through the construction area via, the internal construction roads and maintenance access tracks, onto their land (refer to figure 2-3).

Figure 2-3 Works Access from A46

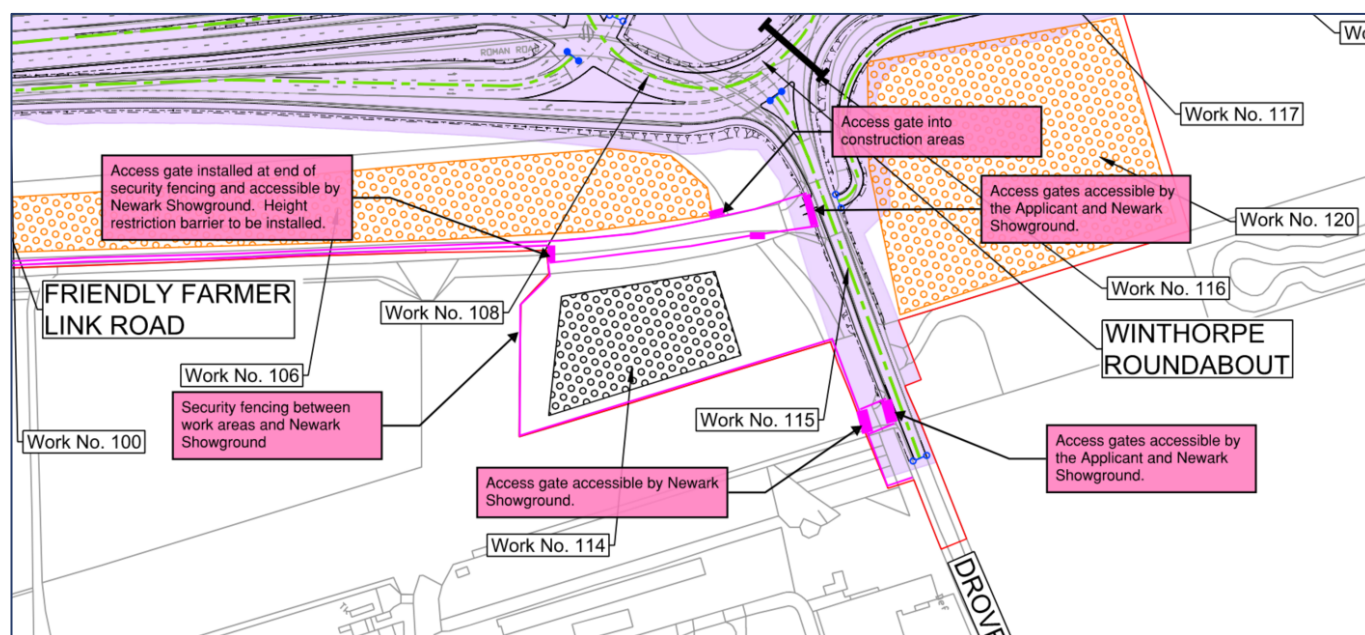


Access to Newark showground

2.3.33 The Applicant provide a Left in Left out access from the Friendly Farmer Link with the access to be gated to NNAS satisfaction and the exit limited to emergency use only. This is identified as Point P-5W on the Streets, Right of Way and Access Plans [REP4-002]. The exit is for emergency use only with emergency in this context meaning a sudden and unexpected event that poses an immediate threat to the safety, health or welfare of people, property or the environment.

2.3.34 The Applicant will maintain the 24/7 access to the Newark Showground via the access gates from Drove Lane (refer to figure 2-4). The Applicant will provide secure fencing between the temporary works areas on the north and south of the two access roads, securing the Newark Showground area from the works area. For each of the two access roads, two access gates will be installed at the northern and southern extents of the working areas which will be accessible to the Newark Showground. The southern gate at each access shall include a height restriction barrier.

Figure 2-4 Access arrangement from Drove Lane



2.4 Restricted routes for construction vehicles

2.4.1 The Applicant will provide in the TMP detailed restrictions of routes and carriageway closures as well as details of restricted routes for construction vehicles. These restrictions will be implemented and managed during the duration of the construction period to minimise disruption to local communities and businesses.

2.4.2 “No Construction Traffic” signs will be installed at appropriate locations to ensure construction traffic does not use local side roads which are not suitable for large vehicles. All deliveries will be informed of the approved delivery route to the site, which would be mandatory. Details of the restrictions will be provided at site inductions and included with the supplier order agreements.

2.4.3 The proposed access restrictions for construction traffic and delivery vehicles for the duration of the construction period are identified in Table 2-3 below. These have been developed following consultation with residents and the LHA.

2.4.4 Construction traffic, other than cars and vans, will not be permitted to access the Trent Lane works access via Bar Gate and New Gate.

Table 2-3 Proposed access restrictions

Side Road	Status	Details
Crees Lane	Access permitted with restrictions	Construction vehicles not permitted along the private road section.
Fosse Road	Access permitted with restrictions	Construction traffic would use Fosse Road to access Crees Lane and the satellite construction compound.
Farndon Road	No construction access	Construction vehicles not permitted along Farndon Road.
Tolney Lane	Access not permitted	Construction vehicles not permitted to travel along Tolney Lane to access the work areas.
Kelham Road	Access permitted with	On street parking along this section of the road make it

(South of the A46)	restrictions	unsuitable for HGVs. Restricted to LGVs, vans and cars for accessing the main compound.
Mather Road	Access permitted with restrictions	Used as access to Nether Lock Viaduct during advanced and pre-commencement works.
Lincoln Road, Lincoln Road Bridge and Northgate. Trent Lane and Maltkiln Lane	Access permitted with restrictions	Construction vehicles to access Trent Lane via the Lincoln Road from the Brownhills Junction only. Large delivery vehicles (such as low loaders) to be restricted to off peak delivery times.
Winthorpe Road and Quibell's Lane	Access permitted with restrictions	Access along Winthorpe Road to the Quibell's Lane junction only.
Winthorpe Road between A46 and A1	Access permitted with restrictions	Used during advanced and enabling work. Separate construction access and egress routes to be provided from the A46.
Drove Lane	Access permitted with restrictions	Used to access the works access at the western end of Drove Lane only. No construction vehicles permitted past the Order Limits on Drove Lane.
A1133	Access permitted with restrictions	Used to access the works access only.
Gainsborough Road	Access permitted with restrictions	No HGVs or LGVs. Limited to cars/vans to undertaken inspection of the technology and electrical equipment on the east side of the A1.

2.5 Speed Limits

2.5.1 The Applicant will provide details on speed limits, including maintenance of existing limits and any temporary restrictions which need to be applied for, within the TMP.

2.5.2 All speed limits are to be assessed under the latest National Highways guidance “Safe highest speed” and in accordance with Traffic Signs Manual, Chapter 8, Part 3².

2.5.3 The locations where, due to site constraints, it is not possible to design the entire section of road works to be safe at the permanent speed limit are provided in table 2-4.

2.5.4 Narrow running lanes and running of the hard strip will be required for the temporary traffic management along the A46. It is anticipated that a 50mph temporary maximum speed limit will be implemented.

2.5.5 The anticipated temporary speed limits and the locations of these are provided in Table 2-4.

Table 2-4 Anticipated temporary speed limits

Current Speed Limit	Proposed temporary speed limit	Location	Justification for Speed Limit
National Speed Limit (60mph)	50mph	A46 90 metres south of Farndon roundabout to 50 metres north of the Friendly Farmer roundabout.	Temporary 50mph speed limit will be introduced for the construction of the new embankment widening works, construction works access and egress and construction of the grade separated junction at Cattle Market and the through about at Winthorpe junction. Reduced speed limit is to ensure the safety of the road users and road workers while the works are being carried out.
National Speed Limit (70mph)	50mph	A46 50 metres north of the Friendly Farmer roundabout to 400m north of Winthorpe Roundabout.	Temporary 50mph speed limit will be introduced for the construction of the Friendly Farmer link, dual carriageway tie in and the new Winthorpe roundabout. Reduced speed limit is to ensure the safety of the road users and road workers while the works are being carried out.
40mph	40mph	A46 400 metres south of Farndon roundabout to 90 metres north of Farndon roundabout.	No reduction proposed.
National Speed Limit (70mph)	70mph	A1 between the North Muskham junction and the junction with the Brownhills and Friendly Farmer roundabouts.	No speed restrictions proposed.
National Speed Limit (60mph)	40mph	A17 between Godfrey Drive Roundabout and Friendly Farmer Roundabout.	Reduction to 40mph during re-alignment works to the Shell petrol station access. Reduced speed limit is to ensure the safety of the road users and road workers while the works are being carried out.
National	40mph	A1133 from Gainsborough	Reduction to 40mph during construction of

² Traffic Signs Manual Chapter 8 Traffic Safety Measures and Signs for Road Works and Temporary Situations Part 3 Update [online] available at: [DfT Traffic Signs Manual - chapter 8 part 3 - Road works and temporary situations \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/100000/traffic-signs-manual-chapter-8-part-3-road-works-and-temporary-situations.pdf) (last accessed November 2024).

Current Speed Limit	Proposed temporary speed limit	Location	Justification for Speed Limit
Speed Limit (60mph)		Road junction to Winthorpe Roundabout.	Winthorpe roundabout. Reduced speed limit is to ensure the safety of the road users and road workers while the works are being carried out.
National Speed Limit (60mph)	40mph	Drove Lane from Newark Showground main access to Winthorpe Roundabout.	Reduction to 40 mph during construction of Winthorpe roundabout. Reduced speed limit is to ensure the safety of the road users and road workers while the works are being carried out.
50mph	40mph	A617, Kelham Road between Cattle Market roundabout and a point 200 meters west of Cattle Market roundabout.	Reduction to 40mph for the construction of the Cattle Market roundabout. Reduced speed limit is to ensure the safety of the road users and road workers while the works are being carried out.
50mph	40mph	A616, Great North Road between Cattle Market roundabout and a point 150 meters north of Cattle Market roundabout and a point.	Reduction to 40mph for the construction of the Cattle Market roundabout and widening to the Smeaton's arches. Reduced speed limit is to ensure the safety of the road users and road workers while the works are being carried out.
National Speed Limit (60mph)	30mph	B6326, Great North Road between Cattle Market roundabout and the junction with Kelham Road.	Widening to the Great North Road in an existing narrow works corridor. Permanent design proposal for the Great North Road is to reduce the current National Speed Limit to 30mph along this section. Reduced speed limit is to ensure the safety of the road users and road workers while the works are being carried out.

2.6 Operating Lanes

2.6.1 The existing single carriageway on the A46 between the Farndon and Friendly Farmer roundabouts will be maintained in both directions except for when full carriageway closures or lane closures are planned.

2.6.2 Where appropriate, to ensure both road user and road worker safety, the working area in the temporary traffic management will be protected by a temporary vehicle restraint system. An indicative cross section of the proposed traffic management along the A46 is shown in figure 2-2. On completion of the widening works, northbound and southbound traffic will be switched onto the new northbound carriageway. Construction works will then be undertaken to the existing carriageway to convert it to the new southbound carriageway.

2.6.3 Narrow running lanes will be required for the temporary traffic management in order to provide a suitable buffer to the work zone along the A46 between Farndon and Winthorpe roundabouts. Lane widths will be suitable for HGV's and in accordance with Chapter 8 of the Traffic Signs Manual and any additional requirements detailed in the Design Manual for Roads and Bridges guidance. Lane widths for narrow lanes will be designed as part of the detailed design phase.

2.7 Length of traffic management

2.7.1 Table 2-5 provides an indication of the length of traffic management required on the strategic and local road network.

Table 2-5 Length of traffic management

Location	Traffic Management Length	Duration
A46 Farndon Roundabout to Brownhills Roundabout	5320m	3 years
A46 Friendly Farmer Roundabout to 400m north of Winthorpe Roundabout	2249m	3 years
Crees Lane from the junction of Fosse Road to a point 200 metres to the north of the junction.	200m	2.5 years
Fosse Road from the junction of Crees Lane to Farndon roundabout	80m	2.5 years
Farndon Road, on the approach to Farndon roundabout.	40m	2.5 years
A617, Main Road, from a point 450 metres south of junction with the Kelham Hall and the junction with Staythorpe Road.	530m	6 months
A617, Kelham Road, from a point 220 metres west of the Cattle Market roundabout to the Cattle Market roundabout.	220m	3 years
A616, Great North Road, from a point 200 metres north of the Cattle Market roundabout to the Cattle Market roundabout.	200m	3 years
B6326, Great North Road, from the junction with the Kelham Road to the Cattle Market roundabout.	300m	2.5 years
Winthorpe Road along its entire length between the junction with the A46.	250m	2.5 years
A17 from a point 150 metres east of the Friendly Farmer roundabout to the Friendly Farmer roundabout.	150m	2.5 years
A1133 from a point 500 metres north of the Winthorpe roundabout to the Winthorpe roundabout.	500m	2.5 years
Drove Lane from a point 170 metres south of the Winthorpe roundabout to the Winthorpe roundabout.	170m	2.5 years

2.8 Carriageway and slip road closures

2.8.1 The Scheme will attempt to limit the number of full carriageway closures to minimise impact and disruption to the travelling public.

2.8.2 The Applicant will provide details of all full carriageway closures in the TMP, including details of where and when these are likely to occur and any temporary traffic regulation orders required to affect these. The Applicant will update Table 2-6, which details currently anticipated carriageway and slip road closures that will be required, during detailed design.

2.8.3 Extended full carriageway closures for the A1 bridge installation operations will be required. Details will be confirmed following consultation with the LHA and included within the TMP to be approved by the Secretary of State. Advanced communication for road users will be provided such that alternative routes can be chosen. Strategic diversions will be signed on the main approaches to the A1, for example the M25, M11, A1(M) and ports such that strategic traffic can be directed onto alternative, suitable routes such as the M1.

Table 2-6 Carriageway and slip road closures

Will there be a requirement for any carriageway closures?	Carriageway closures of the A46 would be required for several activities including: Installation of traffic management and traffic switches for the phasing of the junction works. Pavement tie-in works. Bridge beam lifting operations. A full weekend closure of the A1 carriageway would be required for the installation of the A1/A46 bridge deck. Dates, times and duration would be included in the TMP.	
2.8.4 Carriageway Closures		
2.8.5 Location	2.8.6 Date & Time (indicative - to be confirmed in the TMP)	2.8.7 Closure Details
2.8.8 A46 between Farndon roundabout and Cattle Market Roundabout	2.8.9 Dates TBC 2.8.10 21:00 to 05:00	2.8.11 Full closure of the A46
2.8.12 A46 between Cattle Market roundabout and Brownhills roundabout	2.8.13 Dates TBC 2.8.14 21:00 to 05:00	2.8.15 Full closure of the A46
2.8.16 A46 between Friendly Farmer roundabout and Winthorpe roundabout	2.8.17 Dates TBC 2.8.18 21:00 to 05:00	2.8.19 Full closure of the A46
2.8.20 A46 between Winthorpe roundabout and Brough junction	2.8.21 Dates TBC 2.8.22 21:00 to 05:00	2.8.23 Full closure of the A46
2.8.24 A1 between the Brownhills/Friendly Farmer roundabouts and North Muskham junction.	2.8.25 Date TBC 2.8.26 Friday 22:00 to Monday 05:00	2.8.27 Full closure of the A1
2.8.28 Will there be a requirement for any slip road closures?	2.8.29 Slip road closures will be required for the A1 northbound on slip at Brownhills roundabout and the A1 southbound off slip at Friendly Farmer roundabout during the full closure of the A1 for the installation of the A1/A46 bridge deck.	
2.8.30 Slip Road Closures		
2.8.31 Location	2.8.32 Date & Time (indicative - to be confirmed in the TMP)	2.8.33 Closure Details

2.8.34 A1 northbound on slip at Brownhills roundabout	2.8.35 From Friday 22:00 to Mon 05:00	2.8.36 Full closure of the A1 between the junction with the Brownhills roundabout and North Muskham junction.
2.8.37 A1 southbound off slip at Friendly Farmer roundabout	2.8.38 From Friday 22:00 to Mon 05:00	2.8.39 Full closure of the A1 between the North Muskham junction and the junction with the Friendly Farmer roundabout.

2.9 Adjacent roadworks and traffic management

2.9.1 Liaison would be in place between the Applicant and the LHA to identify future schemes or maintenance within the area so that interfaces can be successfully managed.

2.9.2 A traffic management forum will be formed prior to the start of construction with relevant members of the LHA, emergency services and representatives from adjacent schemes. The traffic management forums will include discussions on the identification and management of the interface between local and regional schemes.

2.9.3 Table 2-7 provides details of the roadworks currently understood to be taking place during the construction of the Scheme.

2.9.4 There will be other National Highways schemes under construction at the same time as the Scheme. Coordination will be undertaken with these schemes to ensure that there are no clashes with the proposed diversion routes. The schemes currently identified include:

- A52 Nottingham junctions.
- A428 Black Cat.

2.9.5 Construction of the final section of the North Hykeham Relief Road is expected to commence in March 2028 and be completed in late 2028, therefore in parallel with the Scheme's delivery programme. The North Hykeham Relief Road is predominately offline (ie not on the route of existing roads, meaning it will have a more limited impact on motorists), however there will need to be coordination with regards to closures on the A46 when the contractor (Balfour Beatty) is undertaking works to the Hykeham roundabout. This will be coordinated through traffic management meetings— see paragraph 2.17.5 for further detail.

2.9.6 The Southern Link Road (SLR) is a local link road connecting the A46 (south of the Farndon roundabout) to the housing developments at the south and west of Newark. Construction for the SLR commenced in the summer of 2023 and is programmed to be completed in Spring 2025, prior to the commencement of the Scheme.

Table 2-7 Adjacent Roadworks

Nearby Traffic Management Location	Distance from the Scheme	Interaction with Diversion Route(s)	Duration	Road Spacing Compliant?
North Hykeham Bypass	13km	Coordination of closures and diversion routes during closures of the A46 north of Friendly Farmer roundabout and on the A1.	2025 to 2028	Yes
North and East Melton Mowbray Distributor Road scheme	42km	None.	Spring 2023 to summer 2025	Yes
A428 Black Cat	119km	To be considered when selecting date for A1 bridge launch.	2023 to 2027	Yes
A52 Nottingham Junctions	25km	None.	TBC	Yes
Newark Southern Link Road	1km	Not applicable during construction.	2023 to summer 2026	No
A614/A6097 Major road upgrade	19km	None	Autum 2025 start. Duration TBC.	Yes

2.10 Diversion routes

2.10.1 All diversion routes will be assessed for suitability for the traffic being diverted. All diversion routes would be in agreement with the overseeing local authority and key stakeholders.

2.10.2 For details of the proposed A46 and A1 diversion routes please refer to Appendix A1. Further consultation will be undertaken with the local highway authorities into the suitability of the diversion routes.

2.10.3 All routes will be discussed with the LHA that will be affected.

2.10.4 Diversion routes will be signed using Scheme specific signing.

2.10.5 All routes will be surveyed by the Applicant to ensure suitability to users when in use.

2.10.6 The Applicant will deliver good communications in relation to diversions, engage with communities along planned diversion routes, gain feedback from communities to establish community access requirements, and where possible act on feedback in advance.

2.10.7 The Applicant will assess, and where practicable use VMS, to display travel time on diversion routes both in advance and within the route(s).

2.10.8 The Applicant will monitor the routes when in use to ensure incident management/response mitigates congestion and delays to the road users.

2.11 Incursion risk management

2.11.1 An incursion risk matrix and risk assessment will be prepared and detailed in this section of the TMP, as it is not possible to carry out these assessments until the detailed design stage has commenced. This shall assess the risk of public vehicle incursions into the roadworks (i.e. drivers accidentally or deliberately entering roadworks areas) and identify mitigation required to prevent this from occurring (such as additional signage, barriers and monitoring).

2.12 Incident management

2.12.1 This section will detail the approach to incident management for key risks to the A46 route relevant to traffic management. This will include details of responsibility for road maintenance and incident management.

2.12.2 An incident management plan will be developed by the Applicant, local highways authorities and emergency services.

2.12.3 The incident management plan is likely to include, but is not limited to:

- Free recovery within the roadworks, including details of recovery vehicles, welfare facilities and procedures.
- The procedures for recording incidents and identifying any unexpected levels or categories of traffic related incidents.
- A formal reporting procedure.
- An operational structure.
- Outline contingency plan.
- Undertaking desktop incident management scenarios.

2.12.4 It is anticipated that both temporary CCTV systems and free recovery will be utilised for the Scheme.

2.12.5 The Order Limits within the draft DCO (**TR010065/APP/3.1**) make provision for temporary land that will be used by the 24/7 recovery teams. This will consist of recovery vehicles that would recover vehicles that have broken down within the roadworks. These would be located at:

- Farndon Roundabout.
- Cattle Market Roundabout.
- Winthorpe Roundabout.

2.12.6 Final details of the free recovery provisions and locations would be detailed in the TMP.

2.13 Bank holidays and embargos

2.13.1 Any partial or full lane closures required for the works associated with the Scheme are to be scheduled to avoid conflict with bank holidays and other embargo periods (Table 2-8).

2.13.2 It is anticipated that the embargo on bank holiday roadworks will not be feasible for TTM within the Scheme therefore a rationale may be required for not adopting the policy of no bank holiday roadworks. The reasons include the need to safely segregate the travelling public from the work areas and the inefficiency in removing and reinstalling TTM.

Table 2-8 Bank holiday embargoes

Bank Holidays	Dates	Traffic Management Embargo from	Traffic Management Embargo to
Easter	Good Friday Easter Monday	06:00 Thursday before Good Friday	00:01 Tuesday after Easter Monday
Early May Bank Holiday	Monday	Low key – no specific request for TM to be removed	
Spring Bank Holiday	Monday	06:00 Friday	00:01 Tuesday
Summer Bank Holiday	Monday	06:00 Friday	00:01 Tuesday
Black Friday & Cyber Monday Weekend**	Friday after the fourth Thursday in November to the following Friday	National Highways will confirm embargo arrangements for this period in advance	
Christmas / New Year	25 th December 26 th December 1 st January	06:00 24 th December*	00:01 2 nd January*
*The Christmas embargo dates will be published annually by National Highways			
**This is not a bank holiday, but specific embargo arrangements are applied			

2.14 Significant events and seasonal traffic

2.14.1 The Applicant, in consultation with stakeholders, will confirm in the TMP any significant events occurring in proximity to the Scheme for which it shall try and avoid road closures which affect those locations and coincide with the dates of those events.

2.14.2 The Newark Showground is located on the old RAF Winthorpe airfield adjacent to Winthorpe roundabout and holds over 500 local and national events every year. Key events, ie major events that attract significant traffic to the area, are detailed in Table 2-9.

2.14.3 An assessment of seasonal traffic flows along the A46, A17 and A1 will be undertaken during the production of the TMP to assess suitable periods to undertake the weekend closure of the A1 to install the A1/A46 bridge deck.

Table 2-9 Significant Events

Event	Implications for TM	Proposed Mitigation Measures
Newark Showground Key Events <ul style="list-style-type: none"> Newark International Antiques and Collectors Fair (held monthly) Nottinghamshire County Show (Annually, in May) 	Interface between construction works and Dove Lane access. Closures affecting traffic flows into and out of events.	Key events to be defined and incorporated within the Scheme programme. Regular meetings held with the Showground to obtain notice of event dates and identification (12 months' notice) of future key events. No closures of the strategic network during Key Events. Maintain access to the facilities through the gated access/egresses from Drove Lane during construction.

2.15 Safety measures

2.15.1 The safety of the travelling public and the workforce will be the first priority of the Scheme.

2.15.2 As a minimum the following measures (Table 2-10) will be in place to ensure the safety of all customer groups, including road users and the workforce.

Table 2-10 Safety Measures

User Group	Safety Measure
Workforce	Reduced speed limits, Temporary Vehicle Restraint Systems, safe access/egress points.
Road User	Clear traffic management, clear road marking system, advanced signage of restrictions, strategic and advanced warning of full closure. Adequate lane widths for HGVs.
WCH	Pedestrian routes to be segregated from works, clear and signed pedestrian routes.
Local Stakeholders	Communication of phasing, maintain clear access and egress to businesses.

2.16 Driver compliance

2.16.1 it is anticipated a number of different tools would be available to assist with driver compliance through the roadworks. This section of the TMP will set these out, and will likely include:

- Use of Vehicle Management Systems to provide accurate up to date information.
- Vehicle activated signs on approach to risk areas such as works accesses and exits.
- Implementation of local stakeholder driving groups to share updates on the traffic management and advise on correct behaviours through roadworks.
- Enforcement of speed restrictions through the use of average speed cameras.
- Use of 'Ignore Satellite Navigation Systems' signs during road closures and phasing works.

2.17 Communication of the traffic management plan

2.17.1 Communications between the Applicant, its delivery partners and the key stakeholders will form an integral part of the approach to traffic management on this Scheme. Communications will involve use of a wide range of channels to maximise its impact, all will be channelled through the dedicated Scheme communications team. These will include:

- Announcements on local and regional radio
- Notices in local papers
- National Highways digital channels via the 'Roadworks' tab of the Scheme's project webpage and via the Traffic England webpage.
- Advance warning signs and Scheme information boards at the roadside on affected routes in accordance with Traffic Signs Manual Chapter 8.
- Variable Message Signs would be used to post an advance notice of the closure, these signs have a greater impact over more traditional methods of signing and but would only be used in conjunction with and not instead of traditional signs. The use of VMS signs is particularly recommended where a closure might affect traffic wishing to access a mainline railway station or airport outside normal working hours. If such signs are not available, mobile signs should be used.

2.17.2 Key information and links to where further up to date information can be found on ongoing improvement works is to be provided to customers by significant trip attractors such as Newark Showground, railway stations and the lorry park.

2.17.3 The Applicant will aim to seek and act on feedback from customers regarding traffic management measures. This information will be used by the Principal Contractor alongside other sources of evidence and insight to continuously improve traffic management on the Scheme.

2.17.4 The TMP will include measures in order to keep customers informed of progress on the Scheme and improve the customer experience through roadworks or overall customer satisfaction, these include:

- In order to provide a high level of customer experience through the roadworks it is anticipated that suitable temporary replacement electronic signage would be provided by the contractor to mitigate against any signage that is temporarily unavailable throughout the duration of the construction work, so that there is no reduction in the level of service provided to the customer.
- Portable travel time variable message signs would be used repeatedly throughout the length of the traffic management, to communicate both the time and distance to the end of roadworks.
- Billboard signage would be provided to communicate Scheme information. Billboards should be located at the start of works and repeated after every junction to improve their effectiveness.
- Dedicated Scheme email address, contact number and full time stakeholder liaison manager to receive feedback and questions.
- During the development of the construction communication plan for the Scheme consideration should be given to improve engagement with customers by:
 - Widening the catchment area, going beyond those immediately impacted and reaching those living along diversion routes and at local commuter hubs.
 - Providing up-to-date information frequently via multiple methods including social media and roadside communications.
 - Explaining periods where no visible activity is undertaken with clear signage to reduce customer frustrations.

2.17.5 Monthly Traffic management meetings will be held with specific stakeholders including the LHA (Nottinghamshire and Lincolnshire County Councils), Newark and Sherwood District Council, emergency services and representatives from adjacent schemes to discuss the detailed design, TTM details, diversions routes and interface with adjacent developers and their schemes.

2.17.6 The Applicant will produce a Construction Communications Plan to detail how the Applicant will communicate with the stakeholders and members of the public on the construction of the Scheme, including the impacts of the TTM. The Construction Communications Plan will be provided as part of the Second Iteration Environmental Management Plan. Adherence with the Second Iteration Environmental Management Plan is secured by Requirement 3 in Schedule 2 of the draft Development Consent Order (**TR010065/APP/3.1**).

2.18 Proposals for management of network occupancy

2.18.1 This section will outline proposals for managing the capacity of the network. Below are a series of indicative measures that would be taken.

2.18.2 The Scheme's appointed traffic manager will ensure the road space booking procedure follows the guidance set out by National Highways and the LHA.

2.18.3 During the Scheme delivery, the current network occupancy procedures will be followed for accessing the network. Road space bookings will be issued each week, in line with National Highways' booking requirements.

2.18.4 Works on the local network will be coordinated with the relevant local authority through the relevant local procedures they utilise. The Applicant will use Street Manager, The Department for Transport's digital service for planning, managing and communicating street and road works.

2.18.5 The Scheme's appointed traffic manager will produce a weekly temporary traffic management lookahead programme for stakeholders and the highway authorities.

2.18.6 In order for the Scheme to positively contribute to the accuracy of information relating to traffic management, the following steps will be taken:

- Ensuring that planned start times are met, and that any deviation from the planned start time is reported to the appropriate Network Control Centre within National Highways so that they can ensure management of the overall network is maintained.
- If there is a delay for any reason, reporting this to the Network Control Centre as early as possible, and not later than the planned start time.
- If work is to be cancelled, reporting this to the Network Control Centre at the earliest known time of cancellation.
- If the works are to overrun, informing the Network Control Centre at the earliest known time and giving an estimated time of completion.
- When the works are complete, notifying the Network Control Centre no later than 15 minutes after the last cone has been lifted.
- If there are any TM layout changes planned, informing the Network Control Centre of the end time of each layout and the start time of the new layout.

2.19 Intelligent transport service

2.19.1 The Applicant will review all existing infrastructure and detail the impact that the proposed TTM would have on it and the duration of the impact. This would include, but not be limited to:

- Traffic counter loops.
- Permanent speed cameras.
- Traffic information variable message signs.
- Existing gantries.
- Permanent traffic signal installations.
- Automatic Number Plate Recognition (ANPR) cameras.
- National Roadside Telecommunications Service (NRTS) network.

2.19.2 The Applicant will continue to liaise with the appropriate stakeholders to confirm proposals for temporary arrangements and reinstatement in the permanent works as required.

2.20 Network operations and liaison

2.20.1 The Applicant will have continued liaison and communications with the LHA.

2.20.2 The Applicant will arrange regular traffic management meetings with stakeholders to provide updates on progress, future programmed works and interfaces.

2.21 Maintenance provider activities

2.21.1 The Applicant will be responsible for routine maintenance on the A46 between the extents of the traffic management. Pre-existing defects or known maintenance issues should be identified to the Applicant prior to the commencement of works so that any works could be incorporated into the TMP.

2.21.2 Winter maintenance on the A46 will continue to be the responsibility of National Highways during construction and operation of the Scheme.

2.22 Footways, cycleways, equestrian routes and Public Rights of Way.

2.22.1 During the construction phase several diversions or temporary stopping up of Public Rights of Way including footways, cycleways and bridleways will be required to move the public away from the construction activities.

2.22.2 Signage will be erected in advance of the diversions to notify users of the intended closure and diversion routes. Temporary diversion routes will be signed.

2.22.3 Details of the proposed closures and diversion routes are provided in table 2-11. Reference to work numbers are from the Works Plans [REP3-002].

Table 2-11 Diversions and control measures on walking, cycling and horse-riding routes during construction.

Route reference	Impact	Diversion	Duration
Newark BW2	Temporary closure and diversion during construction of Windmill Viaduct (Work No. 7)	Walkers and cyclists divert west along Newark FP1 and Farndon FP5 then south through field adjacent to Crees Lane, across temporary crossing at Crees Lane, under A46 underpass, along footway/cycleway and north on Newark FP3 to rejoin BW2. Equestrians divert west along access track, from Marsh Lane, head north along Farndon FP5, head south through field adjacent to Crees Lane, across temporary crossing at Crees Lane, under A46 underpass, along footway/cycleway and north on Newark FP3 to rejoin BW2. The segregation between BW2 and the working area for the Windmill Viaduct (Work No 7) will be designed and installed such as to permit access to the driveway to Windmill cottage. Dismounting blocks will be provided at either end of the existing underpass to the north of Farndon Roundabout.	24 months
Newark FP14	Permanent closure	Limited use of current crossing over the A46 due to safety hazards. Foot traffic will be diverted along Kelham Road and Great North Road and will utilise the route of the existing Trent Valley Way.	Closed in pre-commencement works
Footpath/Cycle	Temporary	The construction of the new Cattle Market grade separated	30 months

Route reference	Impact	Diversion	Duration
way along Great North Road	closure and diversions during construction. Permanent re-alignment	junction (Work Nos 33, 39A to 39F 40, 41 and 48) requires multiple construction phases to manage the traffic movements around the existing junction. Temporary signalised crossings would be installed during construction to segregate active travel users from the construction operations.	
Footpath at the end of Newark BW5	Closure during construction phase.	No diversion proposed. The path at the end of Newark BW5 leads to a dead end at the Nottingham to Lincoln Railway Line and is not an official public right of way.	30 months
Newark BW6	Temporary closures with marshal control	The bridleway would need to be temporarily closed during the construction and demobilisation of the temporary bridge crossing at Nether Lock. A diversion of BW6, would be installed around the works area during this period. Access along the Bridleway would be controlled by marshals during the installation of the new bridge deck elements to the Nether Lock Viaduct (Work No 64). The temporary bridge abutment working area on the south side of the riverbank (Work No 62) would be segregated from the WCH route during the works	1 week of closure. 4 weeks of marshal control in pre-commencement works and 6 weeks of marshal control in main works.
Unofficial route north of Newark BW5	Closed during construction phase.	The unofficial walking route between Fiddlers Elbow Bridge and the Nottingham to Lincoln railway bridge over the River Trent is closed during the construction phase. The area will be an operating construction site for the construction of the new Neither Lock Viaduct, Work No. 64.	30 months.
Newark FP48	Temporary closure and diversion	The footpath would be impacted during the construction of the Sewage Treatment Works underpass (Work No 70) and the earthworks operations associated with the embankment widening. The footpath would be diverted south on Quibell's Lane to Newark BW10, cross the Lincoln Road railway bridge and join the Trent Valley Way to join Newark BW5.	24 months
National Cycle Network 64 and Trent Valley Way along Winthorpe Road	Temporary closure and diversion during construction and diversion onto new permanent alignment.	National Cycle Network 64 and the Trent Valley Way along the Winthorpe Road would be impacted by the construction of the new A46 dual carriageway (Work No 76) and slip road (Work No 79) at the Brownhills junction. The existing footway on the southbound side of the road would be cleared and segregated to provide a segregated route along Winthorpe Road. The construction of the new junction would be phased, such that the new footway/cycleway would be constructed and put into operation before the earthwork operations commence over the Winthorpe Road.	Phased diversions over 24 months
Winthorpe FP2	Permanent re-alignment.	There is currently no link between Winthorpe FP2 and FP3 across the A46. During construction FP2 would be permanently stopped up for approximately 100 metres before the A46. A new combined footway/cycleway alignment would be constructed along the maintenance access track, creating a circular walking and cycling route between Winthorpe roundabout and the Friendly Farmer roundabout.	Section stopped up in pre-commencement works
Footway along the A46 between Drove	Temporary closure and diversion during	The footpath along the southbound carriageway of the A46 would be temporarily diverted to the south of its existing alignment prior to the start of the construction of the new	18 months

Route reference	Impact	Diversion	Duration
Lane and Friendly Farmer Roundabout and Winthorpe FP3	construction and diversion onto new permanent alignment.	Friendly Farmer Link. The route passes through the Newark Showground and appropriate fencing will be installed to prevent unauthorised access from the footway diversion on to the Newark Showground land.	

2.23 Other service providers

2.23.1 The Applicant has undertaken an abnormal load assessment for the two bridges to be constructed at the Cattle Market and Brownihills junctions. The abnormal load route does not pass under the structures.

2.23.2 An abnormal load is a vehicle that has any one of the following:

- A weight of more than 44,000kg.
- An axel load of more than 10,000kg for a single non-driving axle and 11,500kg for a single driving axle.
- A width of more than 2.9 meters.
- A rigid length of more than 18.65 meters.

2.23.3 Suppliers will notify the Police and the highway and bridge authorities using either the Electric Service Delivery for Abnormal Loads (ESDAL) system or using the online notification forms available through National Highways. Nottinghamshire County Council require notification of the intended route to made to the following contact: abnormalloads@viaem.co.uk

2.24 Traffic management plan management

2.24.1 Gathering data will be an important part of managing the TMP. The data will be used to understand and monitor how the TTM is impacting on the road performance and help to identify opportunities to mitigate any issues.

2.24.2 Updates to the TMP will provide detail on the provisions that may be put in place for reactively and proactively managing the TMP throughout the Scheme, including:

- Who will be responsible for managing the TMP on site.
- What data will be collected as part of the TTM activities.
- The criteria for updating the TMP.

A. Appendix

A.1 Proposed diversion routes

A.1.1 A46 between Farndon roundabout and Cattle Market roundabout

A.1.1.1 Overnight closures between 21:00 and 06:00 would be required on the A46 between Farndon roundabout and Cattle Market roundabout for the installation of TTM measures, tie-ins of the new pavement into the existing and installation of new bridge beams to the Windmill viaduct and the Nottingham to Lincoln Line west railway crossing.

A.1.1.2 The diversion route for this closure would be via the A52 (between the A46 Saxondale junction and the A1 at Grantham) and along the A1, to re-join the A46 at the Brownhills and Friendly Farmer roundabouts.

A.1.1.3 This diversion is detailed in Appendix Figure A-1.

Appendix Figure A-1



A.1.2 A46 between Cattle Market roundabout and Brownhills roundabout

A.1.2.1 Overnight closures between 21:00 and 06:00 would be required on the A46 between Farndon roundabout and Cattle Market roundabout for the installation of TTM measures, tie-ins of the new pavement into the existing and installation of new bridge beams to the Windmill viaduct and the Nottingham to Lincoln Line west railway crossing.

A.1.2.2 The diversion route for this closure would be via the A616, Great North Road and B6325 to the North Muskham junction with the A1. Traffic will head south on the A1 to rejoin the A46 at the Friendly Farmer roundabout.

A.1.2.3 This diversion is detailed in Appendix Figure A-2.

Appendix Figure A-2



A.1.3 A46 between Friendly Farmer roundabout and Brough junction.

A.1.3.1 Overnight closures between 21:00 and 06:00 would be required on the A46 between the Friendly Farmer roundabout and Brough junction for the installation of temporary traffic management measures, tie-ins of the new pavement into the existing and the removal and installation of new sign and signal gantries.

A.1.3.2 The diversion route for this closure would be via the A1 and A57 (between the Markham Moor junction and Carholme roundabout).

A.1.3.3 This diversion is detailed in Appendix Figure A-3.

Appendix Figure A-3



A.1.4 A1 between North Muskham and Brownhills and Friendly Farmer roundabouts.

A.1.4.1 A weekend closure between Friday 21:00 and Monday 05:00 would be required on the A1 between North Muskham and Brownhills and Friendly Farmer roundabouts for the installation of the new A1/A46 bridge deck.

A.1.4.2 The diversion route for this closure would be via the A46, A616, Great North Road and B6325 to the North Muskham junction with the A1.

A.1.4.3 This diversion is detailed in Appendix Figure A-4.

Appendix Figure A-4



A.1.4 Fosse Road and Farndon Road

A.1.4.1 Overnight closures between 21:00 and 06:00 would be required on the Fosse Road and Farndon Road at Farndon roundabout for the tie-ins of the new pavement into the existing and installation of temporary traffic management.

A.1.4.2 The diversion route for the Farndon to Newark traffic would be via Hawton Lane, Newark Road and Hawton Road.

A.1.4.3 The Applicant will review the need for part time traffic signals at Hawton Lane Bridge with the Local Highway Authority as a mitigation measure to control traffic movements over the bridge whilst the diversion is in place.

A.1.4.4 This diversion is detailed in Appendix Figure A-5.

A.1.4.5 This diversion route is to only permitted for overnight closures and limited to two successive nights. This diversion route is to be reviewed with NCC following the opening of the Southern Link Road to assess if an improved route is available.

A.1.4.6

Appendix Figure A-5



A.1.5 Kelham Road

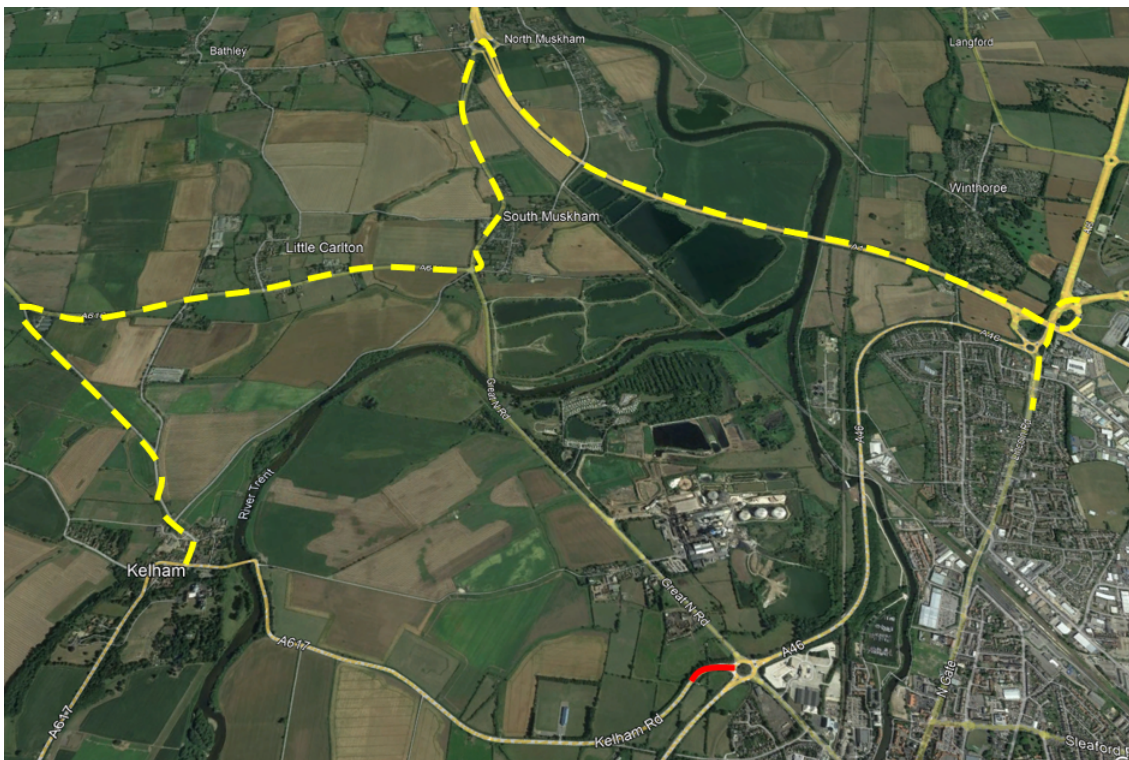
A.1.5.1 Overnight closures between 21:00 and 06:00 would be required on the A617 Kelham Road at Cattle Market roundabout for the installation of temporary traffic management, tie-ins of the new pavement into the existing and installation of new bridge beams for the Cattle Market bridges.

A.1.5.2 The diversion route for the Kelham to Newark traffic would be via Ollerton Road, A616, B6325, A1 and A46.

A.1.5.3 This diversion is only to be used for overnight diversions and limited to three successive nights. Temporary traffic signal control to be installed at the Ollerton Road and A616 junction to provide safe turning movements for cars and HGVs turning out of Ollerton Road. Temporary closures to be installed on both Trent Lane and Kelham Lane to prevent rat running during the diversion.

A.1.5.4 This diversion is detailed in Appendix Figure A-6.

Appendix Figure A-6



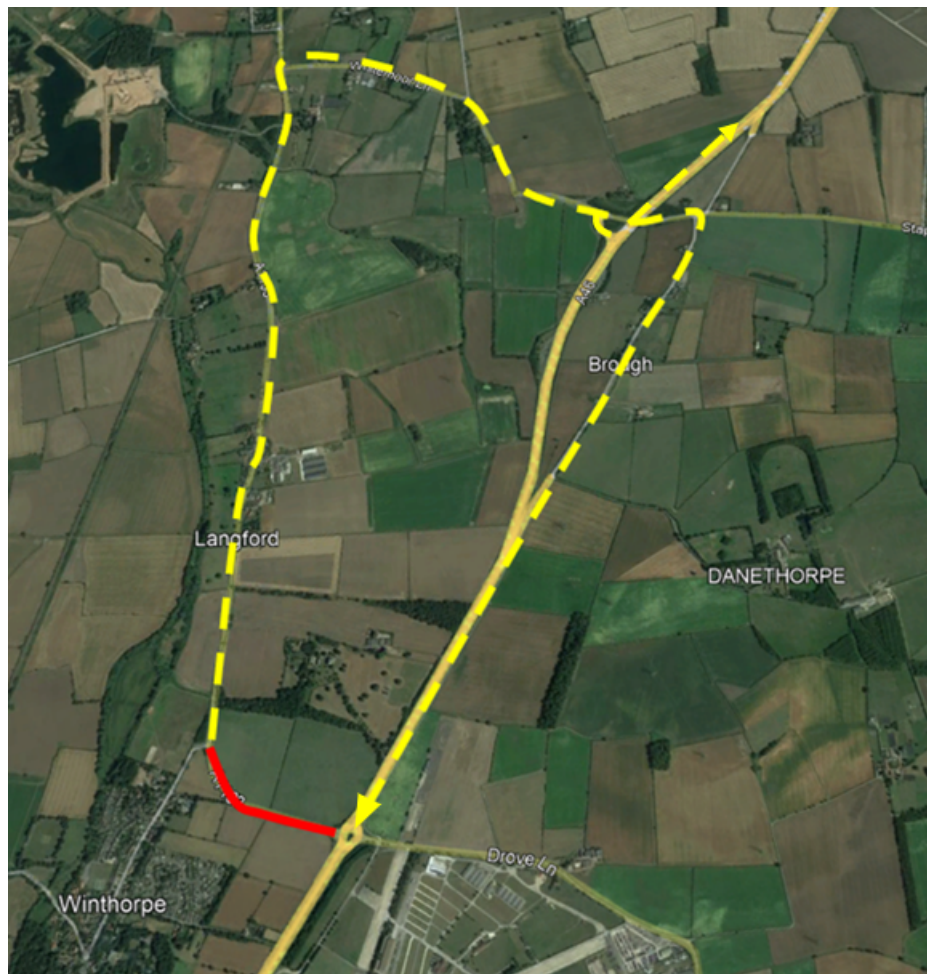
A.1.6 A1133

A.1.6.1 Overnight closures between 21:00 and 06:00 would be required on the A1133 between the Gainsborough Road junction and the Winthorpe Roundabout for the installation of temporary traffic management and tie-ins of the new pavement into the existing.

A.1.6.2 The diversion route would be via the A1133, Whitemoor Lane, Brough Lane and the A46.

A.1.6.3 This diversion is detailed in Appendix Figure A-7.

Appendix Figure A-7



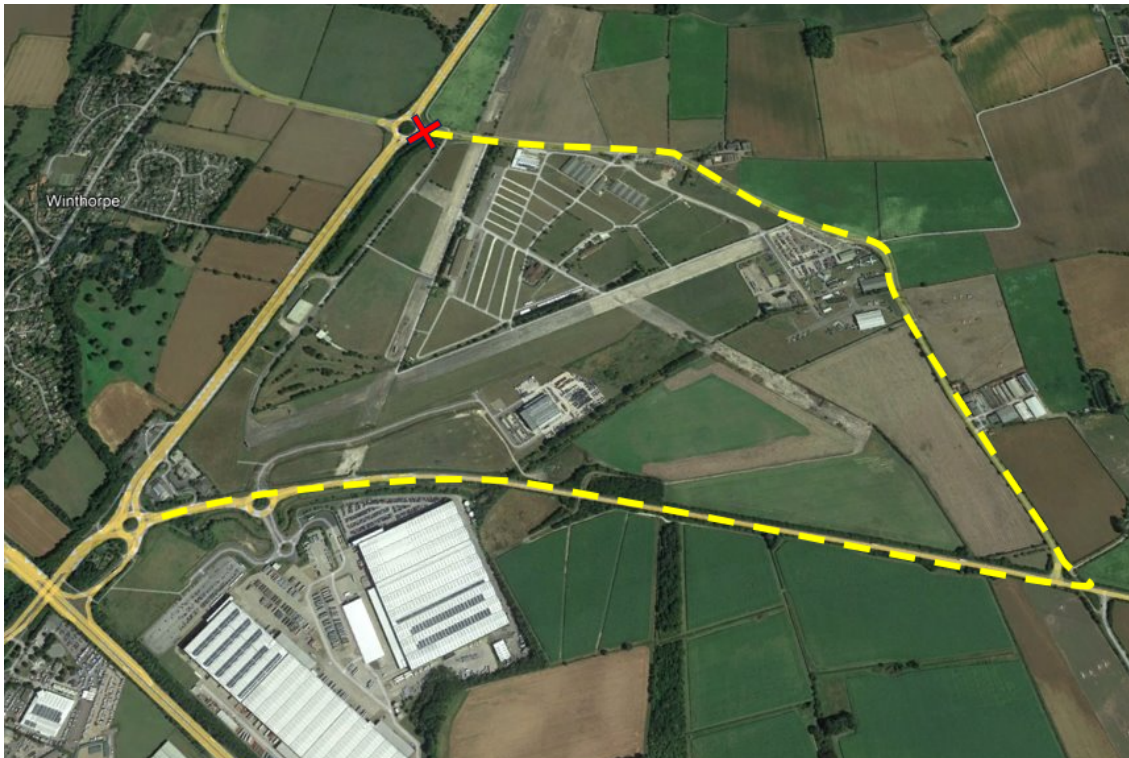
A.1.7 Drove Lane

A.1.7.1 Overnight closures between 21:00 and 06:00 would be required on Drove Lane between the Gainsborough Road junction and the Winthorpe Roundabout for the installation of temporary traffic management, installation of sign gantry and tie-ins of the new pavement into the existing.

A.1.7.2 The diversion route would be via Drove Lane, the A17 and the A46.

A.1.7.3 This diversion is detailed in Appendix Figure A-8.

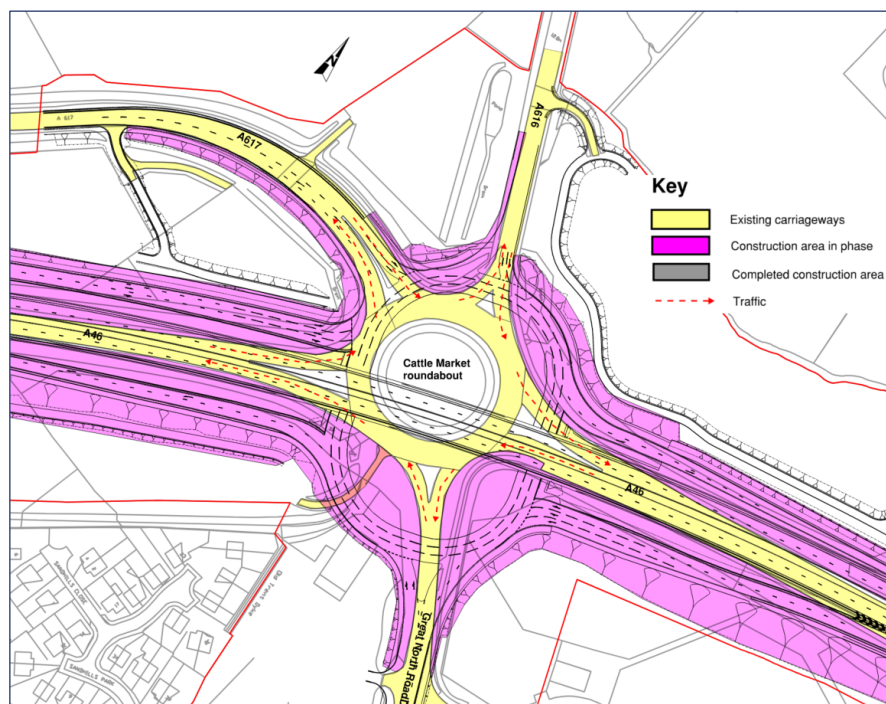
Appendix Figure A-8



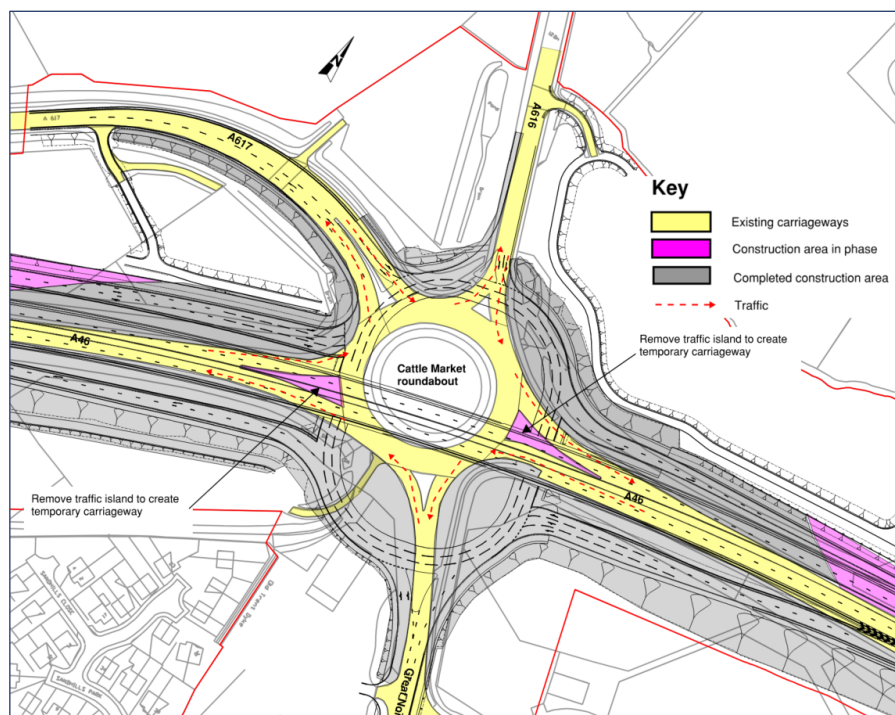
A.2 Junction phasing plans

A.2.1 Cattle Market Junction

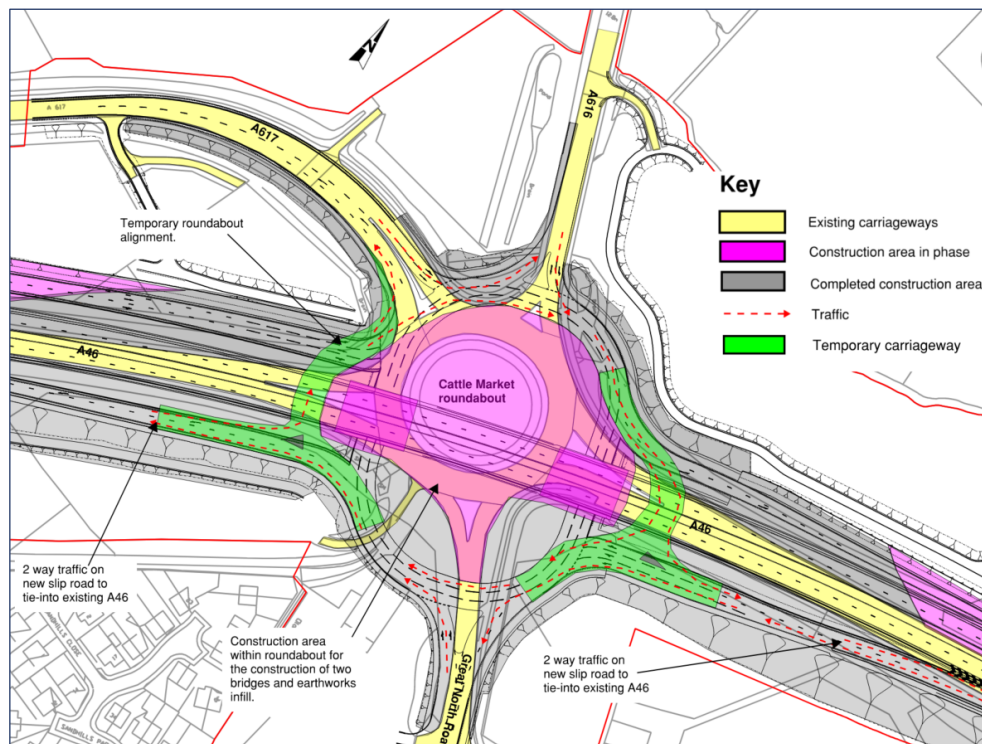
Appendix Figure A-8: Cattle Market Junction Construction Phase 1



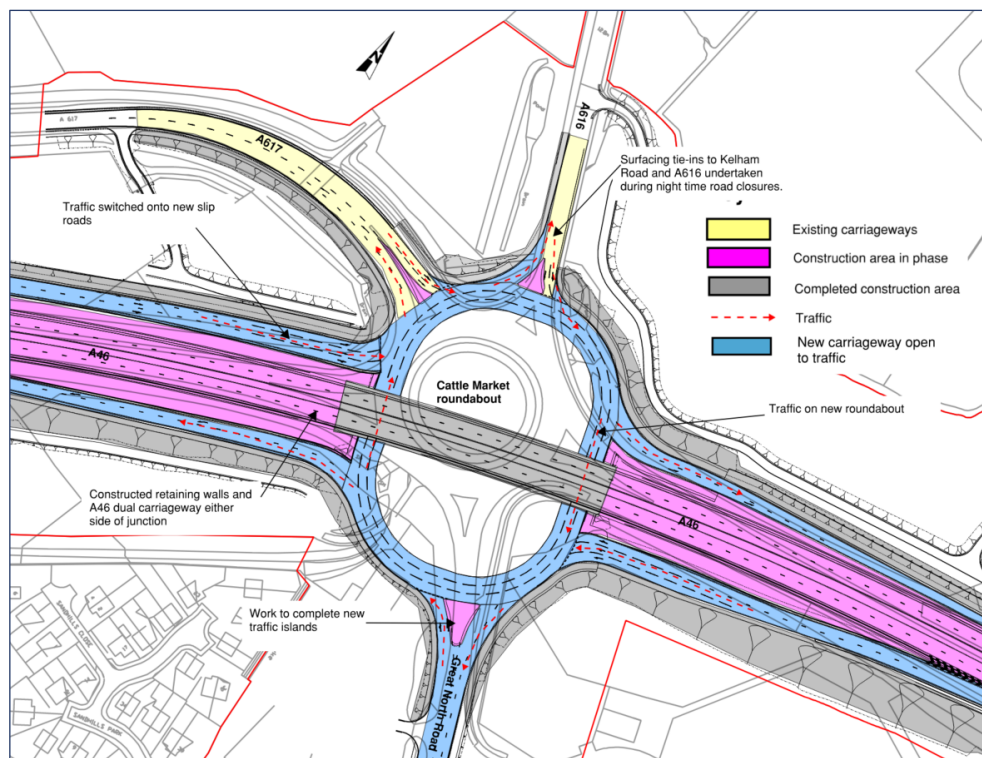
Appendix Figure A-9: Cattle Market Junction Construction Phase 2



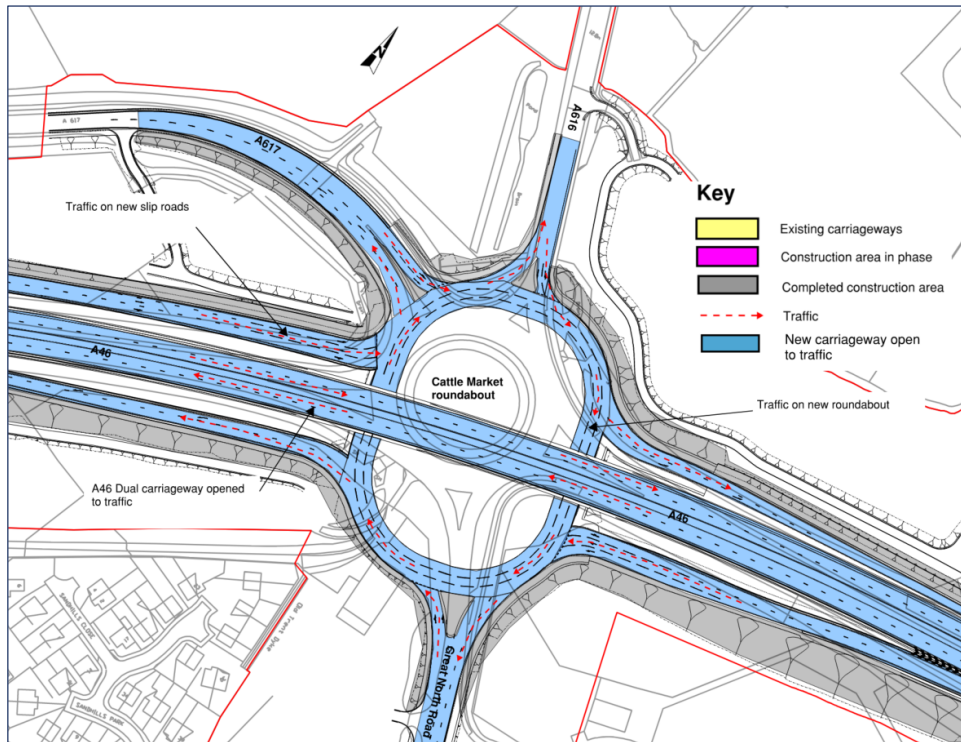
Appendix Figure A-10: Cattle Market Junction Construction Phase 3



Appendix Figure A-11: Cattle Market Junction Construction Phase 4

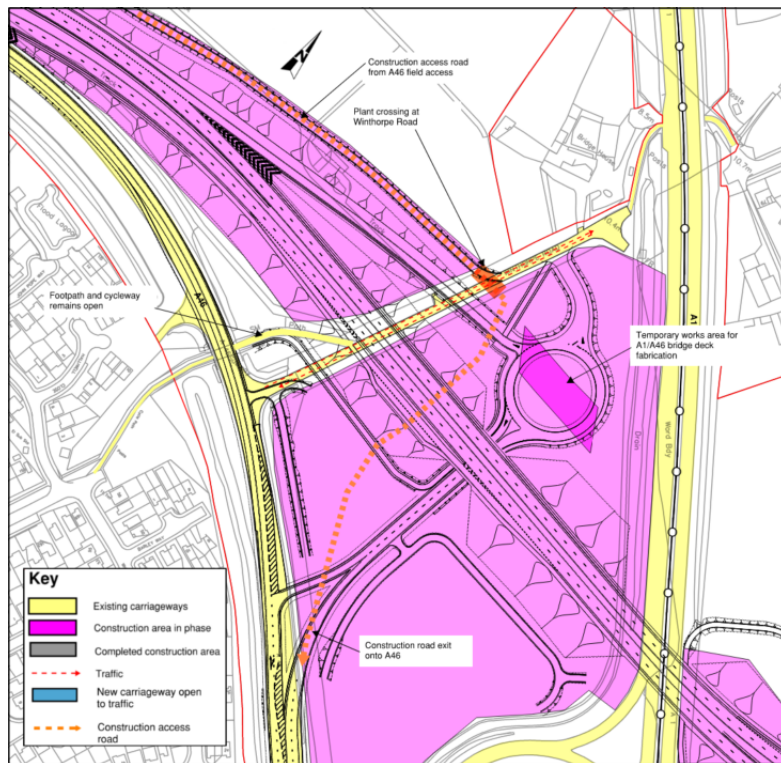


Appendix Figure A-12: Cattle Market Junction Construction Phase 5

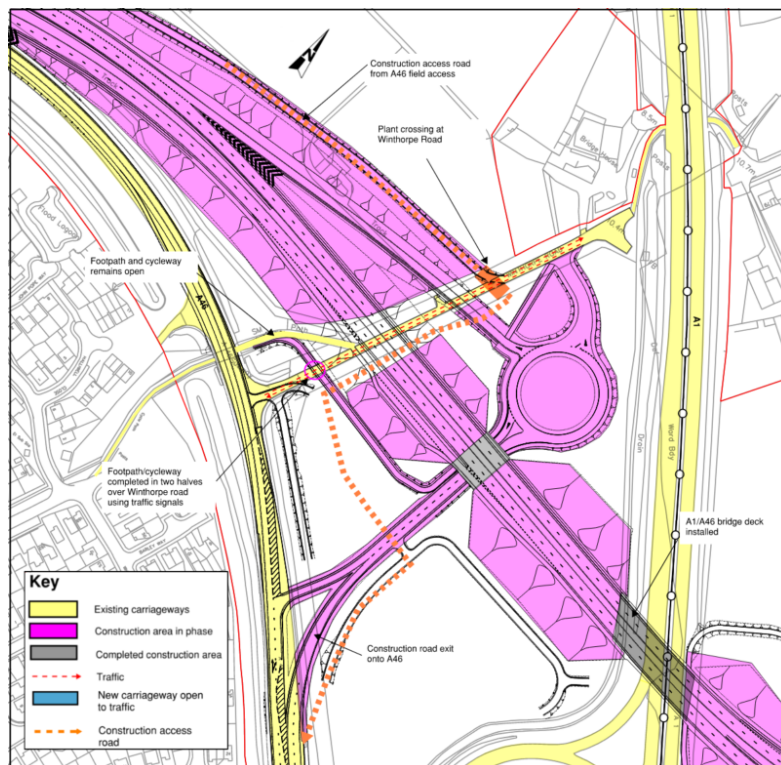


A.2.2 Brownhills Junction

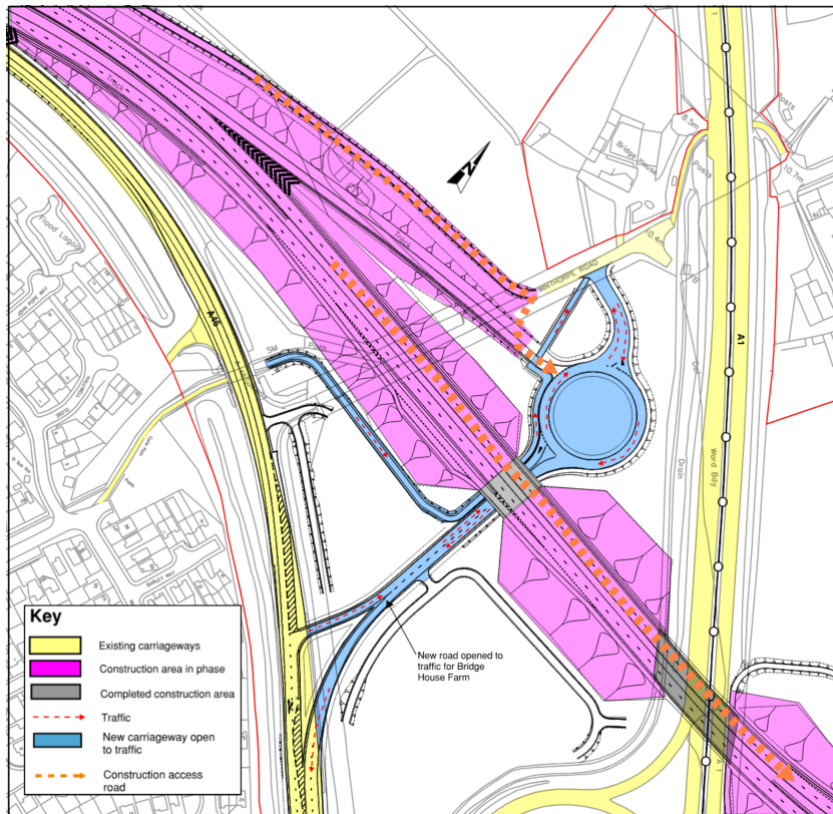
Appendix Figure A-13: Brownhills Junction Construction Phase 1



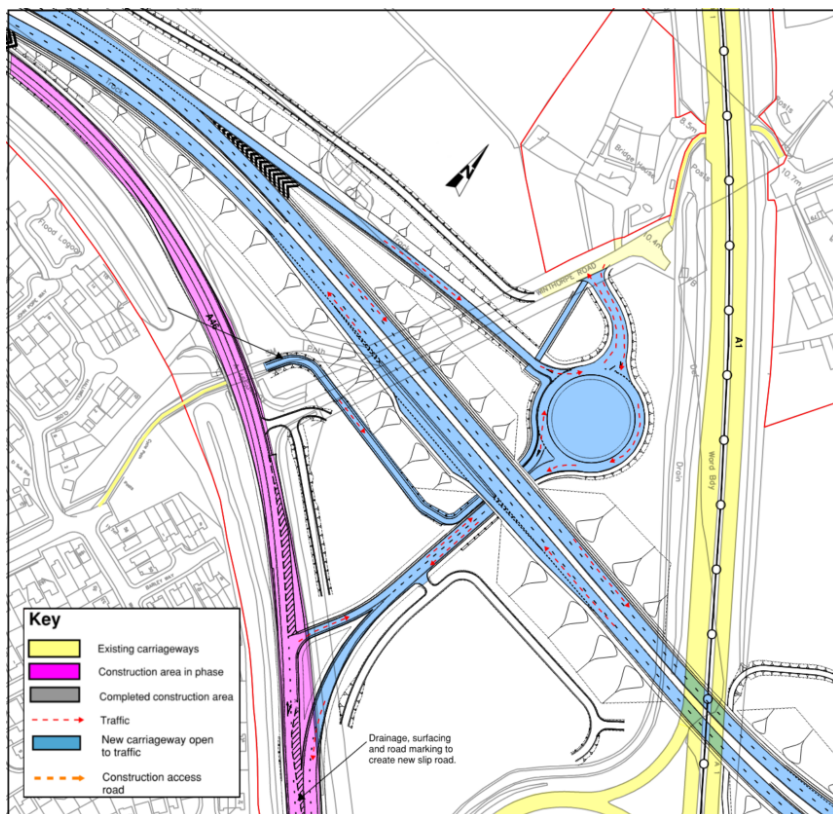
Appendix Figure A-14: Brownhills Junction Construction Phase 2



Appendix Figure A-15: Brownhills Junction Construction Phase 3

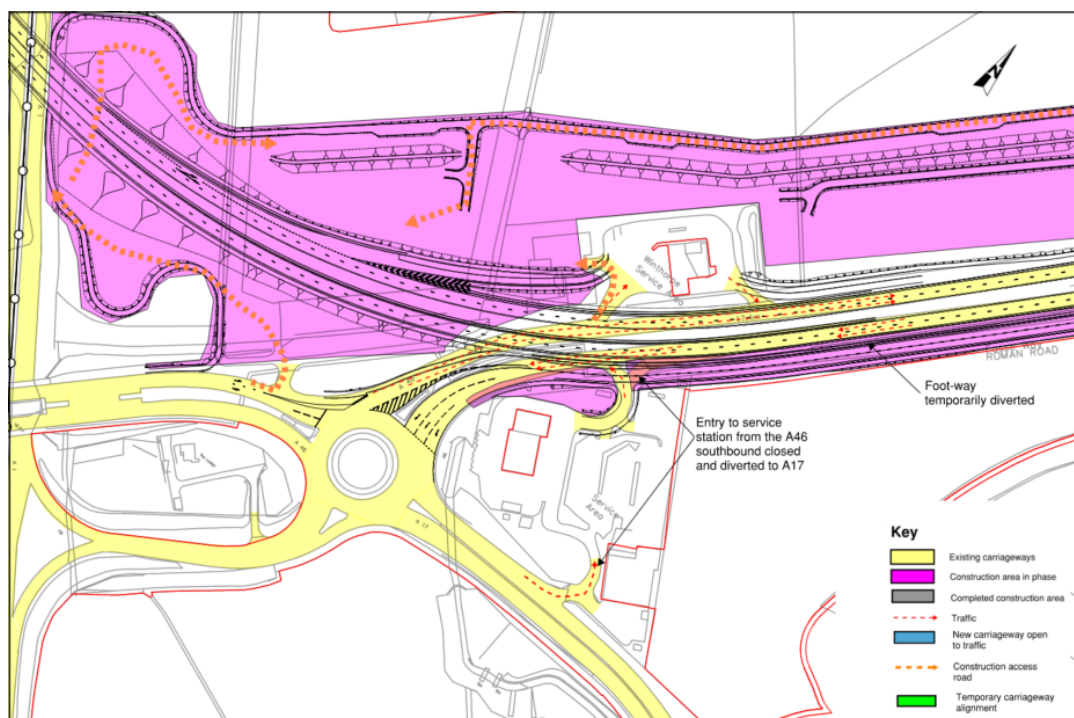


Appendix Figure A-16: Brownhills Junction Construction Phase 4

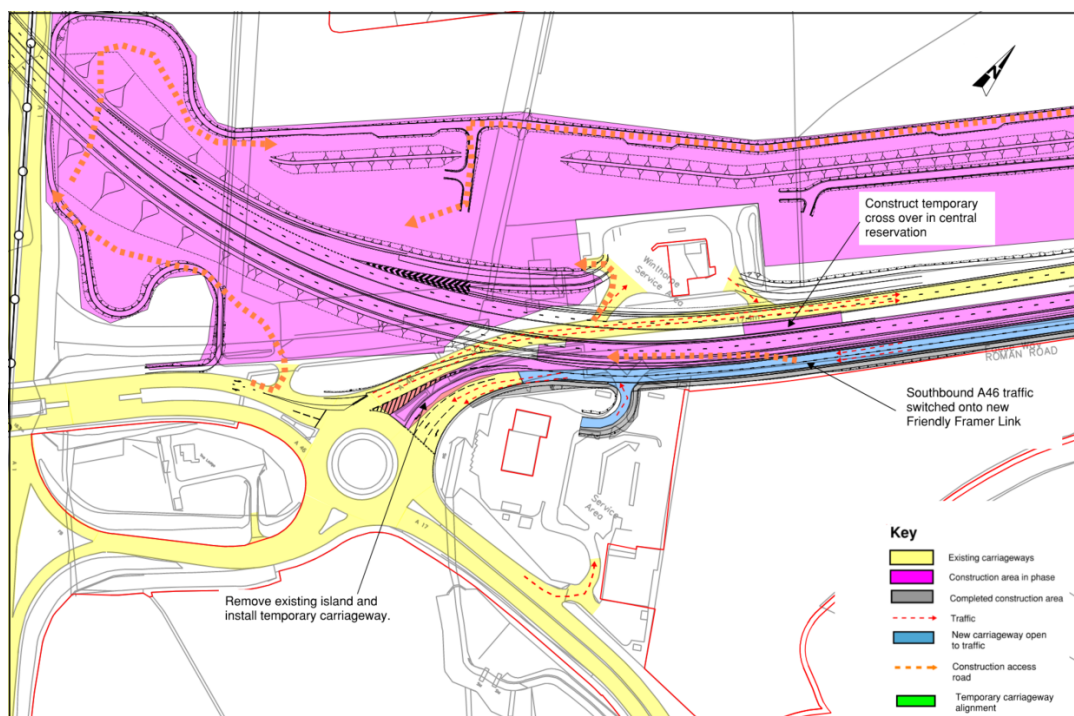


A.2.3 Friendly Farmer roundabout tie-in

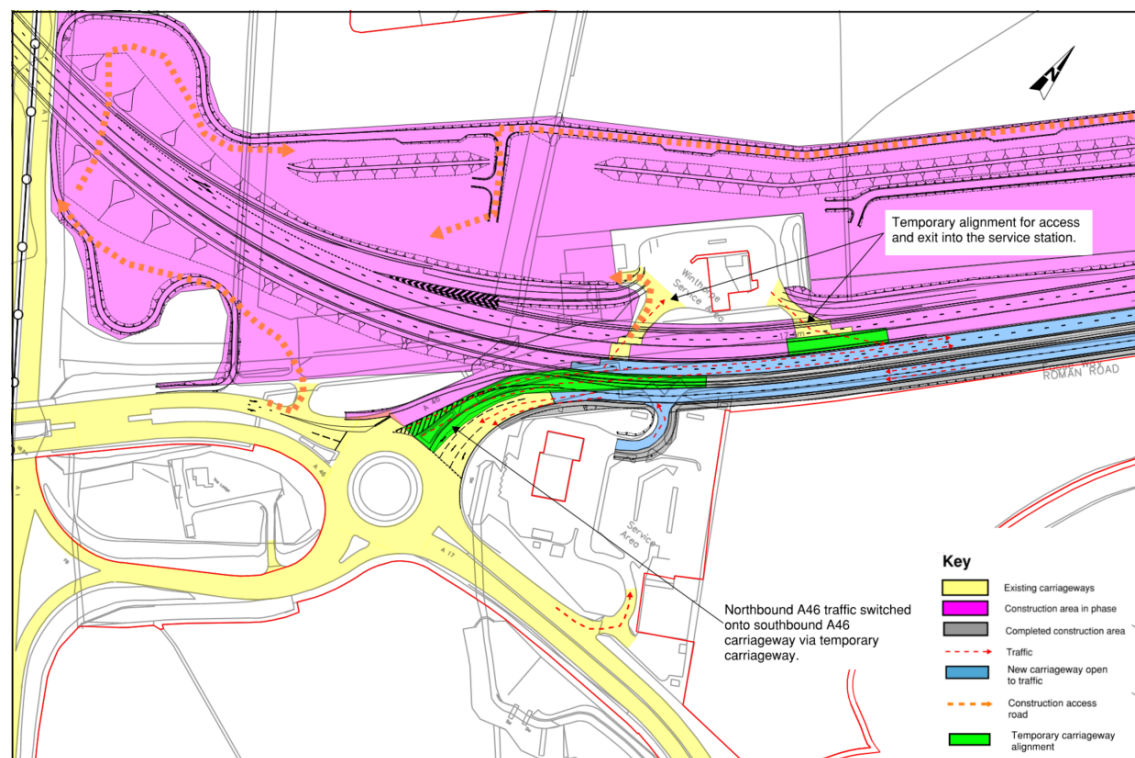
Appendix Figure A-17: Friendly Farmer roundabout tie-in. Construction Phase 1



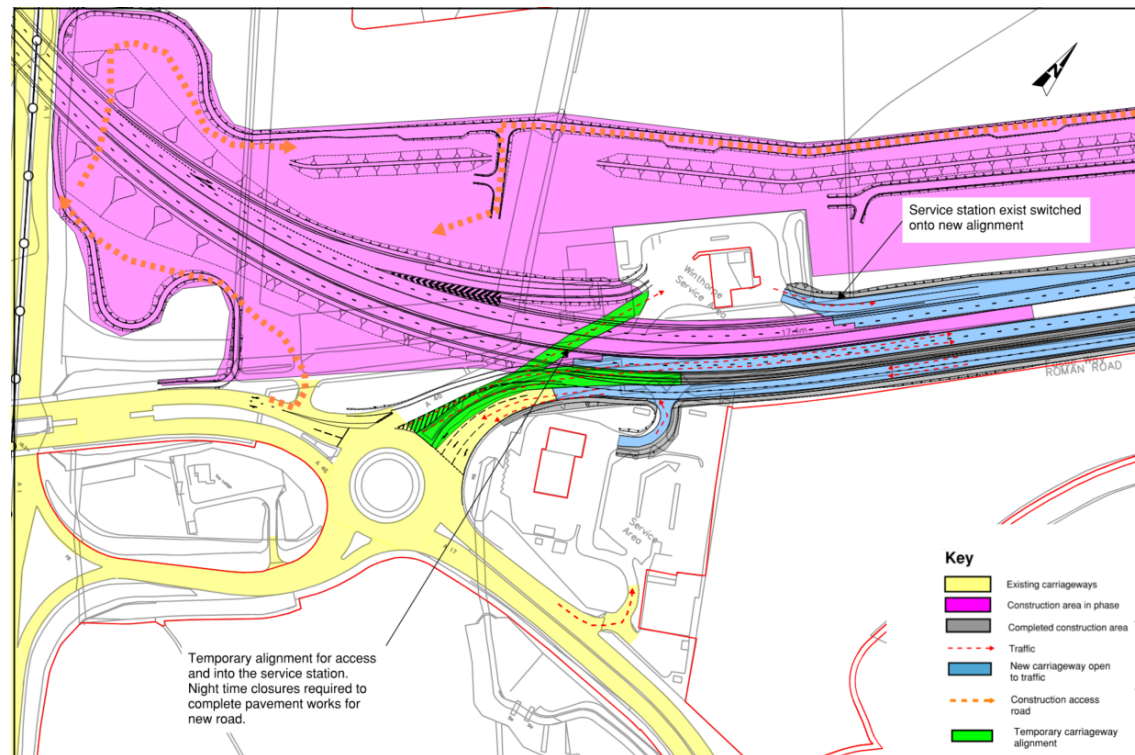
Appendix Figure A-18: Friendly Farmer roundabout tie-in. Construction Phase 2



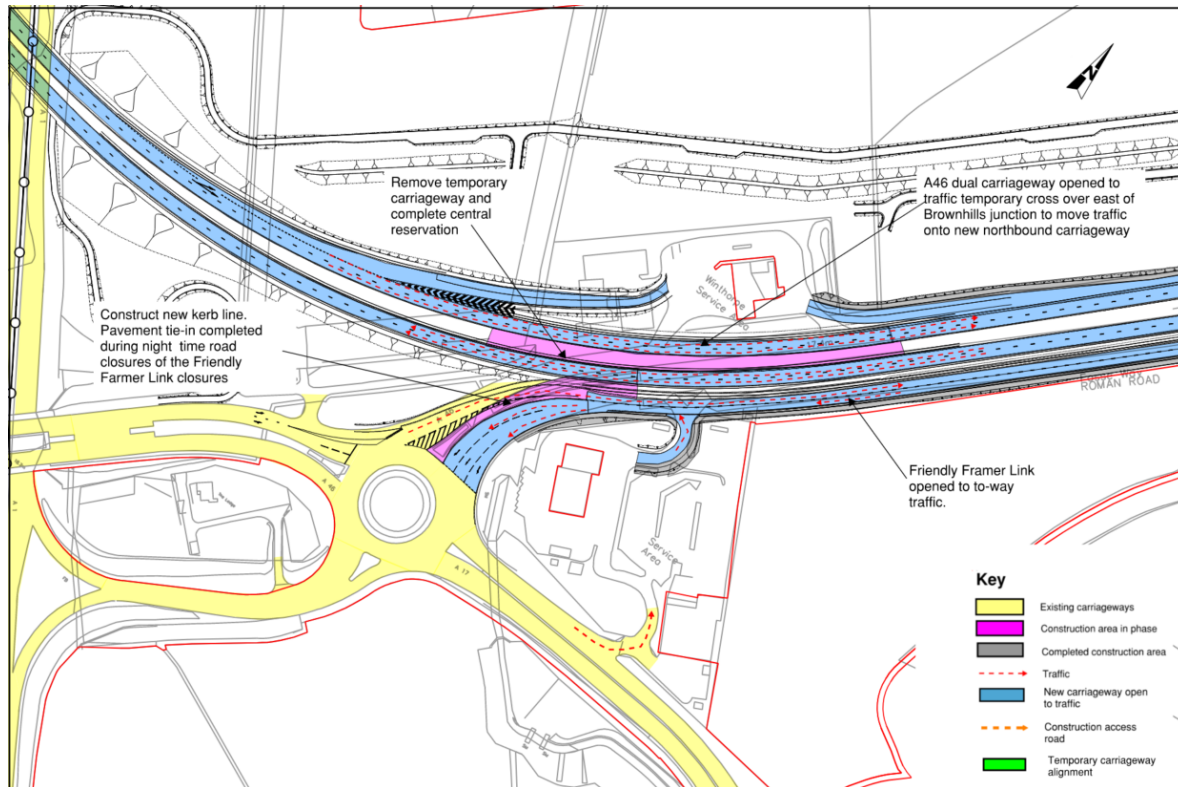
Appendix Figure A-19: Friendly Farmer roundabout tie-in. Construction Phase 3



Appendix Figure A-20: Friendly Farmer roundabout tie-in. Construction Phase 4

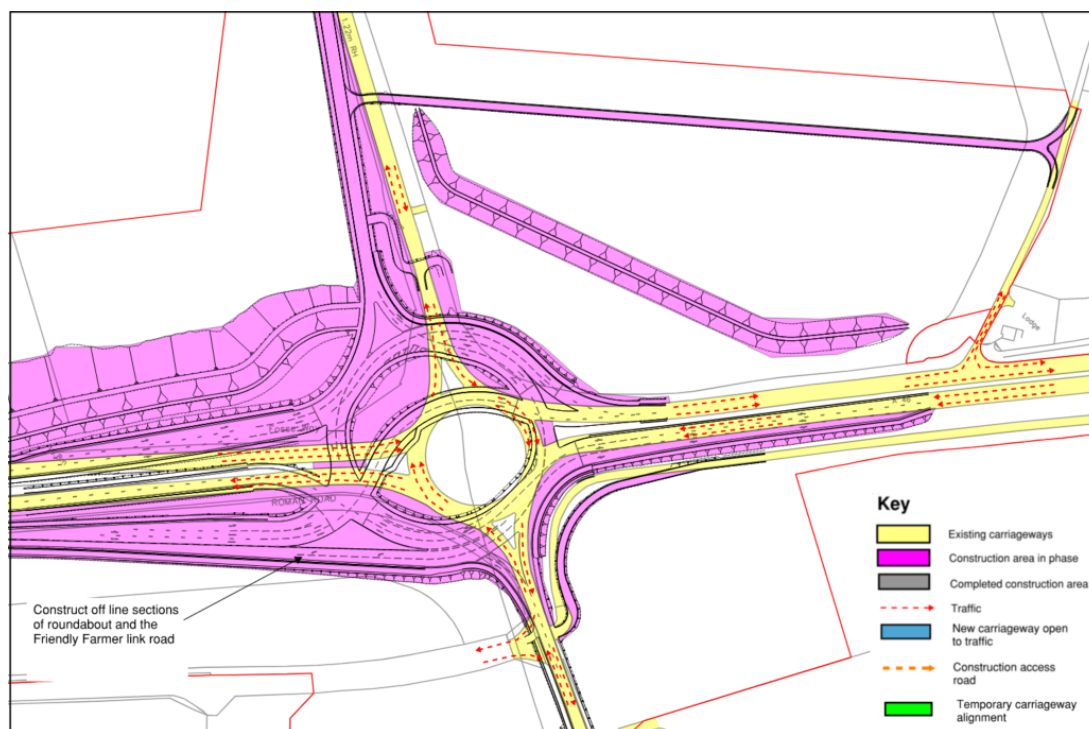


Appendix Figure A-21: Friendly Farmer roundabout tie-in. Construction Phase 5

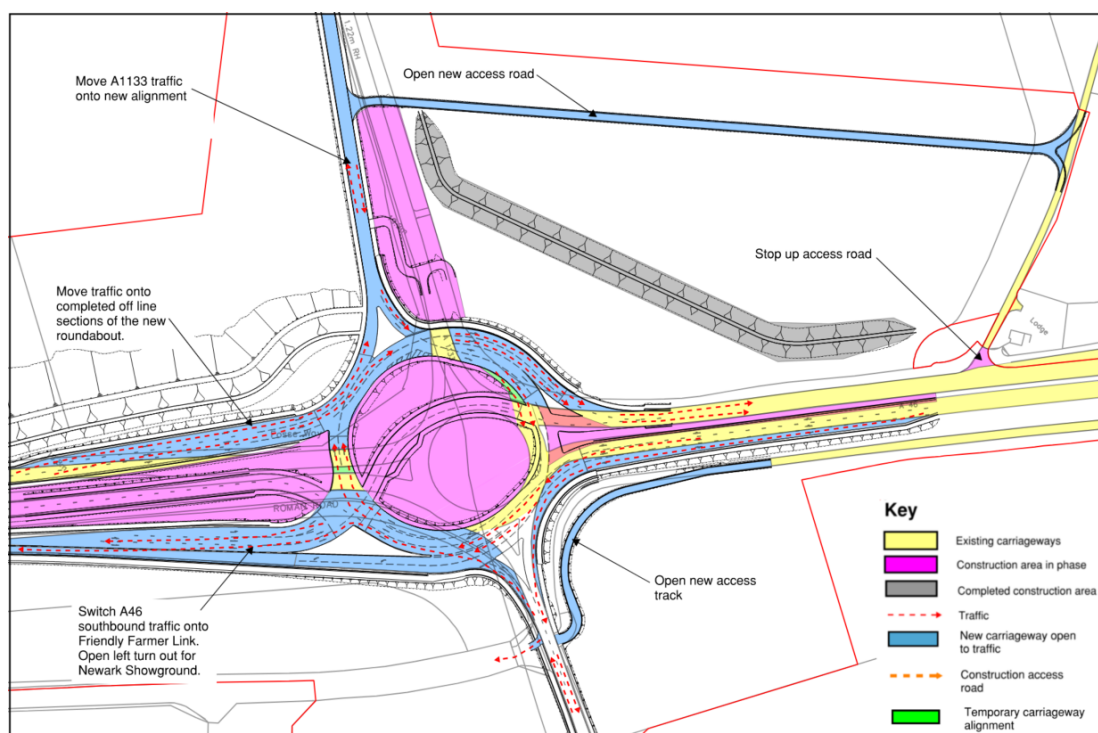


A.2.4 Winthorpe roundabout

Appendix Figure A-22: Winthorpe roundabout Construction Phase 1.



Appendix Figure A-23: Winthorpe roundabout Construction Phase 2.



Appendix Figure A-24: Winthorpe roundabout Construction Phase 3.

