



A47 Blofield to North Burlingham Dualling

Preliminary Environmental Information Report:
Non-Technical Summary

August 2018



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Introduction

Highways England propose to upgrade the existing section of single carriageway between Blofield and North Burlingham to dual carriageway. The existing A47 from Blofield to North Burlingham experiences delays and high levels of congestion during peak hours.

Highways England aim to improve the traffic flow, reducing journey times on the route, increasing the route safety and resilience, and improve the environment. The Proposed Scheme is also intended to support economic growth by making journeys safer and more reliable.

The proposal is a 'Nationally Significant infrastructure Project' under the Planning Act 2008, which requires Highways England to obtain permission before construction and operation can commence. This permission is called a Development Consent Order (DCO).

Environmental information continues to be collected; identifying the potential impacts of the Proposed Scheme and developing measures to avoid or reduce adverse impacts - a process known as environmental impact assessment (EIA).

While the EIA is ongoing, we have prepared a Preliminary Environmental Information Report (PEIR) to describe the

environmental setting and currently anticipated impacts of the Proposed Scheme on the environment. The PEIR has been developed for the purposes of consultation and presents currently available information from the ongoing EIA. This document provides a summary of the PEIR in non-technical language.

The information contained within the PEIR is preliminary and the findings will be developed further in the Environmental Statement (ES) to reflect the evolution of the design informed by the feedback from consultation, and the ongoing EIA process. The ES, presenting the full results of the EIA, will be submitted with the application for the DCO.

The Applicant

Highways England is the Applicant, and the Strategic Highways Company as defined in the Infrastructure Act 2015, and is charged with modernising and maintaining England's strategic road network, as well as running the network and keeping traffic moving.

The Proposed Scheme

The project is referred to as the 'Proposed Scheme'.

The A47 from Blofield to North Burlingham, comprising of a single carriageway, is located approximately 9km to the east of Norwich and forms part of the main arterial highway route connecting Norwich and Great Yarmouth. The route currently experiences delays and high levels of congestion during peak hours. The situation is predicted to get worse with proposed growth in residential development.

It is proposed to upgrade the existing 2.6km section of single carriageway between Blofield and North Burlingham to dual carriageway (see overview plan). The new section of dual carriageway with junction improvements is proposed to be constructed offline to the south of the existing carriageway.

Subject to successfully passing through the DCO process, the key timescales for the Proposed Scheme are as follows:

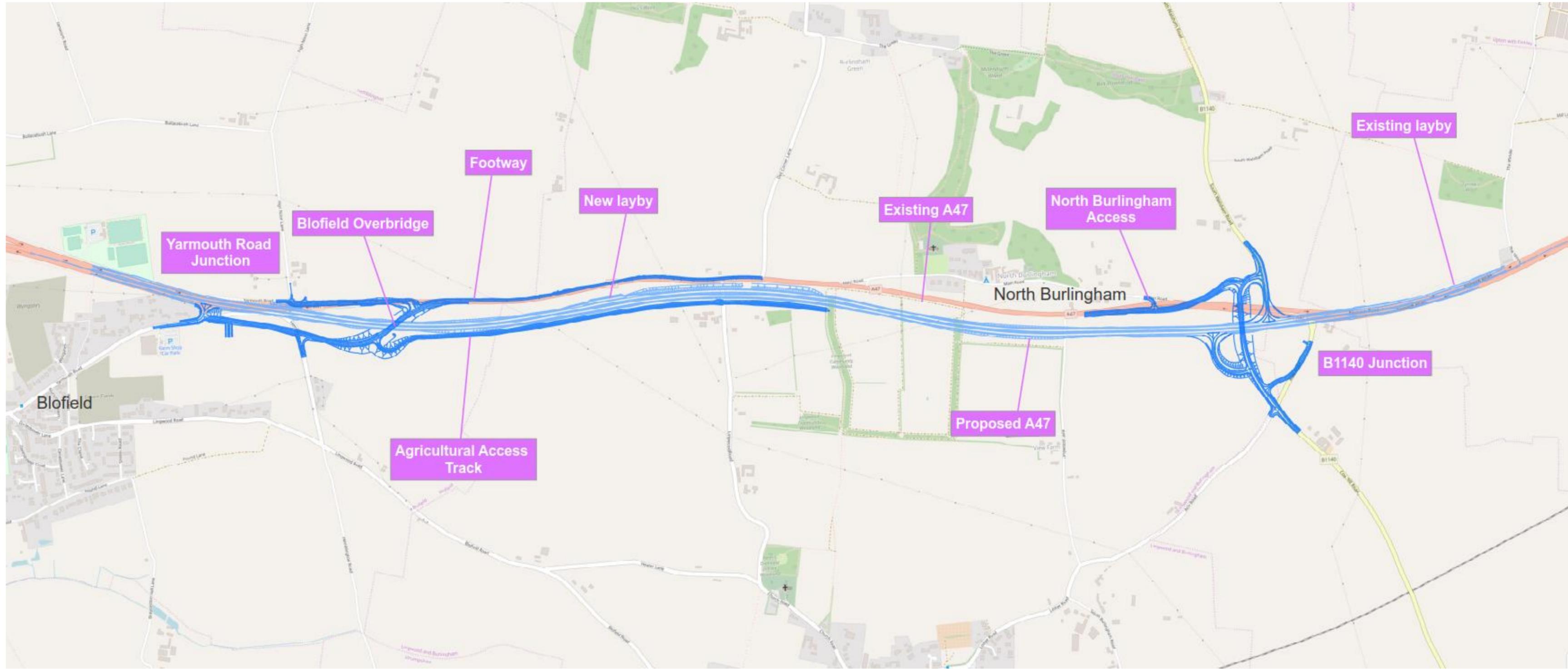
- start of construction work – 2021
- open for traffic – 2022



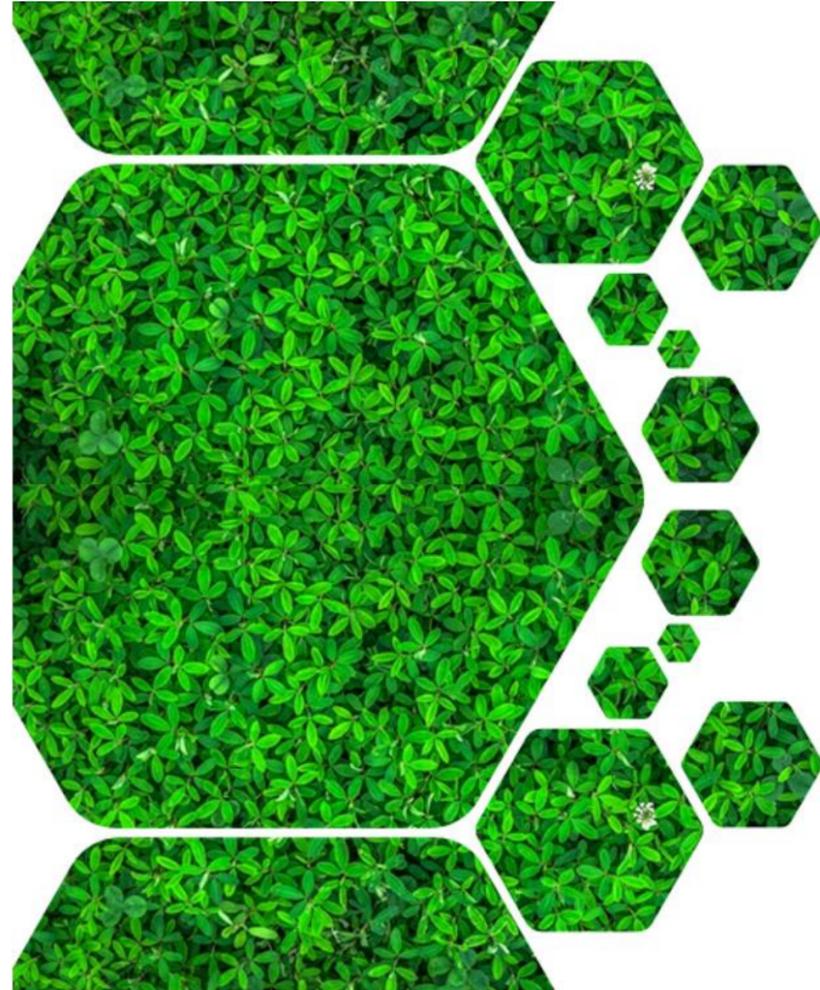
The Proposed Scheme consists of the following elements:

- 2.6km of new dual carriageway on the A47
- de-trunking of the existing A47 section between Blofield and North Burlingham
- introduction of a compact grade separated junction at B1140 Junction, including the B1140 Overbridge
- improvements at Yarmouth Road junction, including closure of the central reserve, closure of direct access from High Noon Lane, creation of merge lane, realignment of Hemblington Road and local access improvements at the Sparrow Hall properties
- a new overbridge at Blofield traversing the proposed A47 dual carriageway, connecting Yarmouth Road with the existing A47
- provision of new drainage systems including an attenuation pond and retention of existing drainage systems where possible
- a retaining wall at Yarmouth Road junction
- introduction of lighting at the Yarmouth Road junction and a new lighting layout at the B1140 junction
- closure of an existing layby and provision of a new layby
- a footway connecting Blofield and North Burlingham via the new Blofield Overbridge
- provision of a new access to North Burlingham
- agricultural access track to south of new dual carriageway
- new boundary fencing, safety barriers and signage

Overview Plan



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Alternatives

In seeking to resolve the transport problem between Blofield and North Burlingham, 8 potential options were developed. These were assessed to identify their performance against safety, environmental, engineering, transportation and economic criteria so that they could be compared and contrasted. These options can be viewed here: <https://highwaysengland.citizenspace.com/he/a47-blofield-to-north-burlingham-dualling/results/a47blofieldtonorthburlinghama47sarimps2-ame-bb-zz-do-j00061.pdf>

Four of the 8 options were taken forward for more detailed assessment and non-statutory public consultation:

- Option 1: online dualling of the existing A47
- Option 2: offline dualling north and south of the existing A47
- Option 3: offline dualling to the south of the existing A47
- Option 4: offline dualling to the south running near and predominantly parallel to the existing A47

Option 4 was the favoured option by the public by a significant margin and solves the traffic and safety problems. It can be built with the least disruption to drivers during construction, has the least impact on the environment and the existing road can remain open for local traffic. This was the option that was taken forward and the design developed further. The preliminary environmental assessment of this design is presented in the PEIR.



Environment Impact Assessment

EIA is a process that identifies the likely environmental effects (both adverse and beneficial) of a proposed development. Environmental effects are assessed through understanding of the potential impacts and the sensitivity of the receptors for a given scheme. It ensures that the importance of effects are properly considered and that the opportunity for reducing any adverse effects are taken into account as part of the design development process.

EIA also ensures effects considered during the design competent authorities, statutory authorities and other interested parties. The EIA is undertaken in accordance with up to date legislation and guidance and includes a spatial and temporal scope for its assessment.

Further work continues to be undertaken as part of the EIA process to confirm the preliminary findings in the PEIR. The final assessment of environmental effects will be presented in the ES that will be submitted with the DCO application.

Environmental topics

Each environmental topic chapter of the PEIR describes the local environment and identifies any sensitive receptors such as Sites of Special Scientific Interest, people living in the vicinity of the Proposed Scheme and local environment management areas such as Air Quality Management Areas or Noise Important Areas.

Further work will be undertaken to develop design interventions to limit or reduce impacts and promote opportunities for the environment wherever possible. Design development and potential mitigation will be reported in the ES as well as further details of baseline conditions and likely changes during both construction and operation for all identified receptors.



Air Quality

A range of potentially affected sensitive receptors have been identified within the A47 Blofield to North Burlingham study area. Following the finalisation of the traffic data and confirmation of the affected road network, these receptors are to be included in the ES as required.

There are currently no declared Air Quality Management Areas (AQMA) within the Broadland District Council administrative area. The closest AQMA is located over 9.5km to the west within Norwich city centre declared by Norwich City Council for exceedances of the annual mean nitrogen dioxide (NO₂) objective.

No additional mitigation measures during the construction phase other than those in accordance with the Best Practicable Means, as described in Section 79 (9) of the Environmental Protection Act 1990 are likely to be required.

Operational air quality specific mitigation measures will be reported in the ES.

The Proposed Scheme would impact air quality around the A47 and surrounding roads as a result of changes in the road layout and redistribution of traffic. A review of existing monitoring data, and the likely changes in traffic flows as a result of the Proposed Scheme suggests that there is the potential for both positive and

negative air quality impacts however, the annual mean air quality objective for NO₂ would not be exceeded.

Cultural Heritage

Cultural heritage includes archaeology, historic buildings / structures and historic landscapes including parks and gardens.

The design is proposed in an area with a low number of recorded archaeological remains. This is understood to be due to limited archaeological investigation, rather than a true reflection of the actual archaeological buried resource. Cropmarks indicate that the land has most likely been farmed from the prehistoric period.

The Domesday Survey records a largely agricultural economy for the settlements of Blofield and North Burlingham, and post-medieval mapping presents an agricultural landscape interspersed with rural settlements and manor house estates.

There are a number of designated assets that are likely to be adversely impacted by the Proposed Scheme as there is potential for them to experience permanent visual and / or noise intrusion which would adversely impact their settings.

Potential construction impacts

- temporary and permanent land-take
- demolition and site clearance
- excavation, ground disturbance and compaction
- use of plant and machinery
- building up site levels with made-ground
- construction of new or modification of existing infrastructure



Potential construction impacts (cont.)

- visual intrusion and disruption to access during construction
- alteration of existing services or installation of new services
- landscaping and planting

Potential operational impacts

- increased visual intrusion both to and from sites / buildings of national or regional importance
- alteration to the historic setting / character of a designated site or undesignated site of national or regional significance
- increase or decrease in noise, vibration or dust such that the amenity or physical fabric of a nationally or regionally important site is either adversely impacted or improved
- opportunities to enhance the character and setting of a designated site or undesignated site of national or regional significance
- opportunities for heritage related education and tourism

Landscape

The area is notable for its highly fertile soils which support productive arable farming. The land used for agriculture is generally made up of small to medium scale fields which are bordered by high hedgerows and trees. The area also has isolated farmsteads and small villages with large medieval churches which are linked by a network of lanes.

The study area lies within the Broadlands District Council Landscape Character Assessment 'Blofield Tributary Farmland' and 'Freethorpe Plateau Farmland' Landscape Character Areas.

The removal of existing vegetation, earthworks and presence of construction plant, materials, machinery, compounds and lighting would potentially result in local landscape and visual impacts during construction.

As part of the mitigation, a detailed planting design (see sample draft section to the right of page) will be produced to integrate the design into the surrounding landscape. This includes numerous considerations for amenity like visual screening and biodiversity.

The landscape and visual impact assessment considers the Proposed Scheme at both the first of opening (year 1) and at the 15th year of operation (year 15). This allows for proposed planting

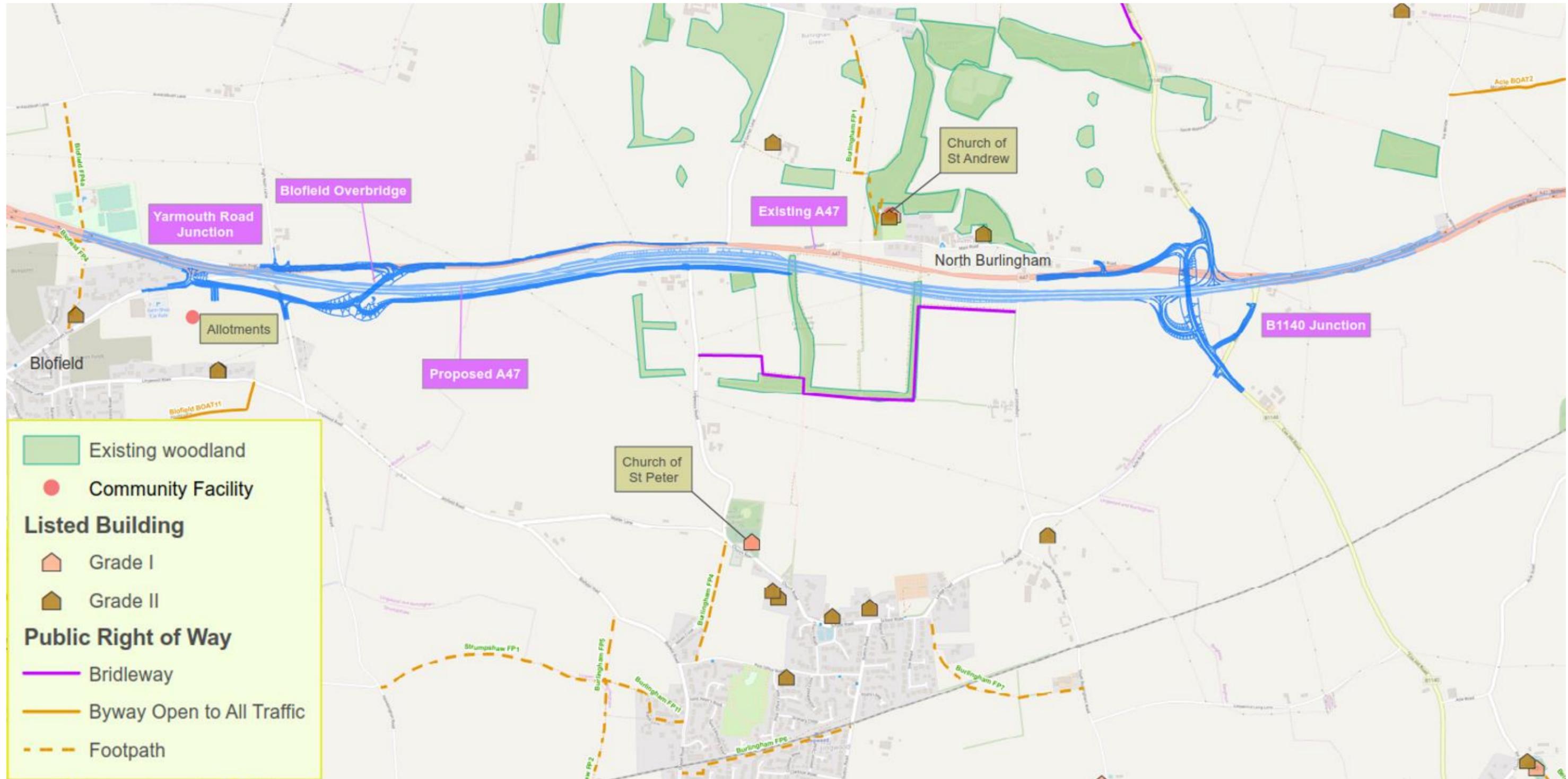
(e.g. trees) to grow and screen particular elements of the Proposed Scheme as part of the mitigation.

There would potentially be impacts on landscape character due to the relative prominence of Proposed Scheme infrastructure (including overbridges) prior to the establishment of proposed planting. Impacts on local landscape character are likely during both the construction and operational phases as a result of the enlarged junctions and overbridges within a relatively flat and open landscape.

Visual impacts on occupiers of residential properties and recreational users of Public Rights of Way are likely during both the construction and operational phases. Visual impacts during construction would be associated with the removal of existing vegetation, earthworks and construction activity. Visual impacts during operation would be associated with views of the road infrastructure and vehicles.



Environmental Constraints Plan



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Biodiversity

There are valuable habitats and species of nature conservation importance which could be impacted by the Proposed Scheme (see environmental constraints plan). The results of the ecological surveys will help to identify mitigation measures, with a view to safeguard the conservation status of populations through both the construction and operational phases. Impacts include:

- loss or damage to natural habitats, including hedgerows and Lingwood woodland
- temporary impact of natural habitats through construction of site compounds and access tracks
- break up and isolation of habitat and travel routes used by wildlife
- risk of killing, injury and disturbance of protected and notable species during construction works from plant and machinery
- disturbance could affect the breeding success of protected and notable species
- loss of bat foraging habitat with loss of arable land/ light disturbance
- potential loss of connectivity due to road being wider and some species finding it more dangerous to cross (e.g. birds, hedgehogs)



The Proposed Scheme would result in small, localised losses of habitats and potentially some severance of connecting habitats (hedgerows, tree lines) on the verges where the greater losses would be experienced. This may impact more mobile species such as bats and birds. However, as no areas are expected to have a overall reduction (net loss) of the habitat at any point on the Proposed Scheme, long-term impacts on most species are not expected.

Geology and Soils

The land to the north and south of the proposed A47 dual carriageway is predominantly agricultural and much of this is used for arable production. The quality of the agricultural land will be determined and reported in the ES.

There are no designated sites, for example Sites of Special Scientific Interest or Geological Conservation Review Sites, within the study area that are designated for their geological or geomorphological importance.

The potential impacts during construction, due to the nature of the works, include soil compaction adjacent to the new road corridor and contamination of site soils. Land take required, as part of the Proposed Scheme would result in permanent impacts on agricultural land. The extent and significance of the impacts will be reported in the ES.

The Construction Environmental Management Plan would include a Soil Management Plan, incorporating guidance provided by the Code of Practice for the Sustainable Use of Soils on Construction Sites, to ensure the use of best practice measures for soil handling.

Materials

The assessment for materials considers potential impacts of the Proposed Scheme from the use of material resources and generation of waste.

There are no current estimates on material resource use and waste generation for the construction of the Proposed Scheme. These shall be developed as the design is progressed and reported in the ES accordingly.

For a road infrastructure project of this size there is the potential for adverse impacts during construction due to the anticipated use of materials and generation of waste. Operational impacts are considered to be unlikely.



Noise and Vibration

Sensitive receptors, such as residential homes, in proximity to the Proposed Scheme have been identified. Receptors that are close to the A47 are already exposed to relatively high noise levels due to road traffic.

Noise impacts due to the construction of the Proposed Scheme are likely to occur at nearby sensitive receptors; particularly at frontline properties along the A47 and would be controlled by a Construction Environmental Management Plan.

Any changes in road traffic noise changes as part of the Proposed Scheme are calculated, assessed and modelled, which will be detailed for the ES. Any design interventions or proposed mitigation, such as noise barriers, will be reported as well.

People and Communities – Travellers

The section of A47 in the study area is a single carriageway road located between 2 sections of dual carriageway. Traffic volumes on the A47 are heavy during the peak commuter periods and delays are experienced when joining the A47 at the west end of Blofield.

Driver stress on the A47 is considered to be high, particularly at junctions and during peak periods where high traffic volumes leads to queues and delays.

Views from the road are considered as part of the assessment. During construction, road users would be negatively impacted as they would have views of construction activities including earthworks and construction vehicles. During operation, views would initially be relatively open, but would revert to conditions comparable to the existing situation following the establishment of Proposed Scheme roadside vegetation.

During operation of the Proposed Scheme, driver stress would be reduced due to reduction in the number of side roads with access to the carriageway and the provision of a new, compact grade separated junction. The upgrading of the road to a dual carriageway would provide greater overtaking opportunities and remove the need for vehicles travelling along this route to join one lane and reduce speed.

Although severance of many of the side roads would lead to a concentration of traffic on those side roads which would maintain access to the A47, the proposed B1140 Junction would reduce driver stress both for vehicles wishing to join the A47 and those wishing to cross the A47.

The Proposed Scheme would result in an overall beneficial effect for non-motorised users, such as pedestrians and cyclists travelling

between Blofield and North Burlingham since crossing of the A47 would be made easier and safer by the introduction of the Blofield Overbridge. There would be an adverse impact upon users of Burlingham footpath between Lingwood and North Burlingham due to an increase in the travel time for users. The Proposed Scheme would also have a beneficial effect on cyclists crossing the A47 to and from the 2 side roads at the B1140 junction.



People and Communities – Social

This topic presents assessment of the social elements of people, communities, the local economy and outlines proposed design measures to help mitigate potential impacts and relevant consultation.

Residential properties, local businesses, community facilities and development are identified in the study area. Broadland is an area of relative affluence and high employment.

No demolition of private property is planned as part of the Proposed Scheme. Permanent land-take would be required along the length of the new alignment, the majority of which is agricultural land.

Impacts are likely during the construction phase as result of land-take and community severance, human health impacts associated with severance of non-motorised user routes and temporary employment generation. During the operational phase, there are likely to be impacts on community severance, development land and the economy.

Road Drainage and the Water Environment

The main water features within the study area are the catchments of 2 protected surface water bodies (Witton Run and The Bure). However, the Proposed Scheme does not cross these particular water bodies.

The Broads Special Area of Conservation (SAC) and Broadland Special Protection Area are located wholly outside the study area over 2km north and south of the existing A47 carriageway.

There is potential for groundwater pathways to link between the Proposed Scheme and the Broads SAC and the Witton Run and The Bure WFD water bodies.

Possible impacts from the Proposed Scheme on the water environment would be due to:

- contamination of groundwater and surface water during construction and operation
- changes to runoff, drainage and flood risk during construction and operation
- reduction in groundwater resource to abstractions and groundwater dependent surface water features

- Pollution of groundwater and surface water during operation due to routine road runoff or accidental spillages

Mitigation in the form of a suitably designed drainage system incorporating drainage ponds where appropriate alongside best practice construction methods is recommended to reduce such impacts to levels not considered to be significant. Specific mitigation measures for protected species would be finalised within the road drainage and water environment chapter of the ES.

Climate

The UK government has legally binding targets for reducing the carbon emissions by 80% by 2050, relative to a 1990 baseline. As part of the EIA, there is a requirement to assess the impacts of projects on climate and their vulnerability to climate change.

The carbon baseline has been taken as the current situation in which no proposed infrastructure is built, and considers existing travel and traffic patterns.

The Proposed Scheme is anticipated to generate an increase in carbon emissions during both construction and operation. Changes in climate have the potential to impact Proposed Scheme assets and environmental receptors during operation and pose a potential risk.



Combined and Cumulative Impacts

The term 'cumulative' in respect of impacts can be defined as:

- the environmental topic-specific impacts resulting from a single project upon a single receptor / resource
- the impact from different projects (with the project being assessed).

This chapter of the ES will bring together the principal findings of each topic chapters in order to identify and assess the combined and cumulative impacts of the Proposed Scheme in association with other existing or future developments within the study area.

Consultation

This Non-Technical Summary has been prepared to help those potentially affected or interested in the Proposed Scheme to understand the environmental setting and currently anticipated impacts of the Proposed Scheme on the environment so that these considerations can be taken into account in your responses to the consultation.

Your feedback from the consultation will inform our continuing development of the scheme. Once we have taken your feedback into consideration, we plan to submit our application for a Development Consent Order in Spring 2019. We will also prepare a report on the consultation, recording the feedback and our response, which will be published with our application.

How to find out more

To find out where and when the events are being held, visit our website or contact us by phone or email.

Visit our website at <http://highwaysengland.co.uk/projects/a47-blofield-to-north-burlingham/> here you can find background information on the Proposed Scheme plus information on the current consultation, including:

- details on when and where our public events are being held
- details of information and deposit point locations at local libraries
- our statement of Community Consultation
- the consultation brochure and feedback form
- the Proposed Scheme, including the red line boundary that will form part of our DCO application
- a Preliminary Environmental Information Report, as well as this accompanying Non-Technical Summary

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