

A47/A11 Thickthorn Junction

Scheme Number: TR010037

Volume 6 **6.4 Environmental Statement** **Non-Technical Summary**

APFP Regulation 5(2)(a)

Planning Act 2008

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

March 2021

Infrastructure Planning

Planning Act 2008

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

The A47/A11 Thickthorn Junction
Development Consent Order 202[x]

ENVIRONMENTAL STATEMENT
6.4 Non-Technical Summary

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A47/A11 Thickthorn Junction

Environmental Statement: Non-Technical Summary



Visualisation at Year 15 (post construction) of the view of the Cantley Lane Link Road crossing the A11

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Introduction

Highways England propose to upgrade the existing Thickthorn Junction by providing a new free-flowing connector road between the A11 eastbound and the A47 eastbound. The new connector road will re-route traffic away from the junction and flow it under via a new underpass. The existing footbridge over the A47 will also be removed and a new footbridge for walkers, cyclists and horse riders will be provided as part of the Proposed Scheme.

The Proposed Scheme will help relieve congestion at Thickthorn junction.

Approximately 3,000 new residential dwellings are potentially planned near the junction, along with commercial business units. This local growth is likely to increase congestion on the junction and the roads that feed into it. 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). The DCO application will be examined by the Planning Inspectorate which will report its findings to the Secretary of State for Transport to aid decision making.

Environmental information has been collected to identify the potential impacts of the Proposed Scheme and develop measures to avoid or reduce adverse impacts - a process known as an environmental impact assessment (EIA).

An Environmental Statement (ES) has been prepared to accompany the DCO application setting out a description of the Proposed Scheme and the reasonable alternatives considered in the development of the design, the environmental setting, potential

impacts, the likely significant effects of the Proposed Scheme on local communities and the environment, and the measures proposed to mitigate these effects.

This document provides a summary of the ES in non-technical language.



Looking north toward the existing A11 approach to Thickthorn Junction

The key timescales:

- Application submission – 2021
- Start of construction work – 2023
- Open for traffic – 2024-25

The Applicant

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

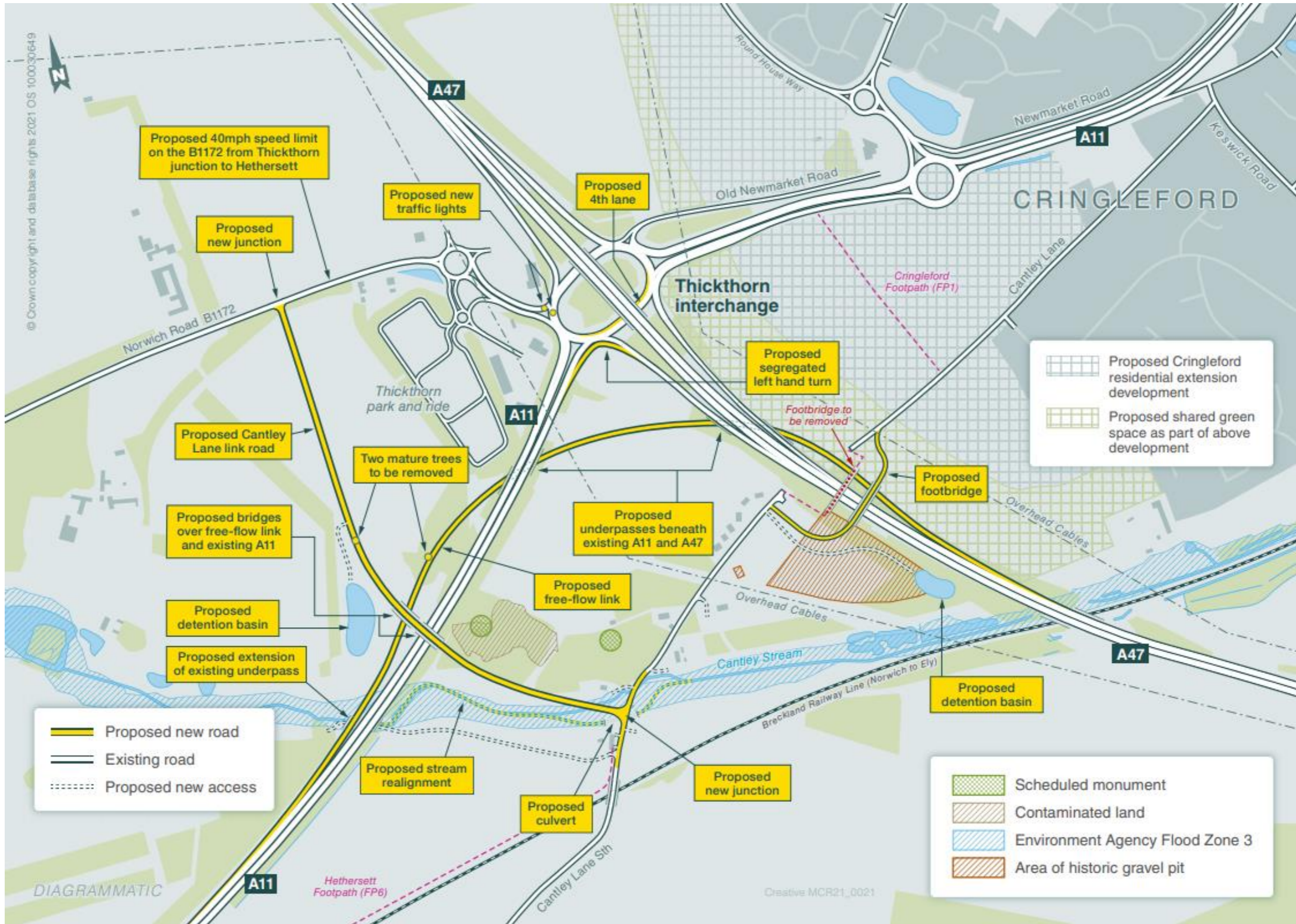
The Proposed Scheme

The A47/A11 Thickthorn Junction improvement project is referred to as the 'Proposed Scheme'.

The current A47 Thickthorn junction experiences delays and high levels of congestion during peak hours. The situation is predicted to get worse with proposed growth in residential development in the Cringleford and Hethersett areas of approximately 3000 new dwellings.

The **Proposed Scheme** includes:

- a single-lane free-flowing road connecting the A11 eastbound to A47 eastbound via two underpasses (under the A11 and A47 respectively)
- improvements to the Thickthorn Junction including:
 - widening the southern section of the Thickthorn roundabout from three lanes to four
 - new traffic lights on the approach to and from the junction with the B1172 Norwich Road
 - new road signs and road markings throughout the junction
 - removal of the Cantley Lane South direct connections between the A11 and A47 exit slip roads
- a new link road connecting Cantley Lane South with the B1172 Norwich Road to the north and construction of two new bridges. The new link road it will have a 40mph speed limit
- from the Thickthorn junction to Hethersett, a 40mph speed limit on the B1172 Norwich Road and a new junction connecting to Cantley Lane Link road
- improvements to the junction of Station Land and the A11 eastbound
- a 30mph speed limit on Cantley Lane South
- a new junction connecting Cantley Lane South to Cantley Lane link road
- the existing Cantley Stream and access track will be realigned and one new stream culvert constructed
- a new bridge over the A47 for walkers, cyclists and horse riders approximately 45m east of the existing footbridge (which will be demolished). The bridge will have higher railings to help improve safety for horse riders
- paths for walking and cycling proposed along the new Cantley Lane link road giving access to local amenities and links to other recreational routes
- access to the Park and Ride from the Cantley Lane link road for walkers and cyclists



Alternatives considered

In seeking to resolve the transport problem at Thickthorn Junction, 26 potential options were considered in 2016. In 2018, one potential option (the single option) was developed further. This was assessed to identify its performance against safety, environmental, engineering, transportation and economic criteria so that they could be compared and contrasted.

The option can be viewed here:

<https://highwaysengland.citizenspace.com/h/e/a47-a11-thickthorn-junction-improvement/results/schemeassessmentreport2018.pdf>

The single option was taken for more detailed assessment and non-statutory public consultation in 2017. This was to gather feedback and identify issues prior to a final decision on the PRA.

After the 2017 non-statutory public consultation, the single option was

announced in August 2017 as the preferred route, however modifications have been proposed to improve the link road between Cantley Lane South to the B1172 Norwich Road.

Environmental Impact Assessment (EIA)

EIA is a process that identifies the likely significant 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. The process 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.

The approach to the EIA involves: information gathering to establish the baseline and environmental setting, considering the potential impacts of the

Proposed Scheme, consultation, developing measures to prevent or reduce adverse impacts, and identifying the residual significant effects.

The findings inform the design process and are communicated to 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. The findings of the EIA are reported in the Environmental Statement (ES). This document is a summary of the ES in non-technical language. The ES and non-technical summary are submitted with the DCO application.



Visualisation at Year 15 (post construction) of the Cantley Lane Link road from Cantley Lane South

Environmental Statement

Each environmental topic chapter of the ES reports the local environment and 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.

The EIA process considers impacts during the construction and operation of the Proposed Scheme. The construction phase assessment addresses both the temporary activities involved in building the Proposed Scheme and the subsequent permanent presence of the Proposed Scheme once constructed. Where relevant, these temporary and permanent effects are described separately below. The operational assessment considers the situation when the Proposed Scheme is being used by traffic.

Air Quality

The air quality chapter details the assessment of the potential air quality effects on the A47/A11 Thickthorn Junction (the Proposed Scheme).

There are no air quality management areas (AQMA) within close proximity to the scheme. The nearest AQMA is located over 3km to the north-east within Norwich City Centre, declared by Norwich City Council. A review of the local monitoring data in the area surrounding the Proposed Scheme shows there are no exceedances of the air quality objectives (AQO).

Road traffic emissions at selected sensitive human and ecological receptors have been assessed by modelling the change in air quality pollutant concentrations. The model has been compared against local air quality monitoring data and has been used to predict the air quality impacts caused by changes in traffic flows and road alignments as a result of the Proposed Scheme. The assessment has been used to inform the

best practice mitigation measures in the Environmental Management Plan (EMP)

During construction, it was concluded the impact of construction dust would be highly unlikely to trigger a significant air quality effect. As construction activities are programmed to last less than two years it is unlikely there will be a significant effect on air quality or affect the UK's ability to comply with the Air Quality Directive, which sets exceedance limits for a range of pollutants.

During operation, the air quality assessment has concluded there will be no significant effects on air quality at human health and ecological receptors as a result of the Proposed Scheme. With no significant effects predicted, no mitigation is required during operation.

Cultural Heritage

The Proposed Scheme has the potential for beneficial and adverse effects on cultural heritage assets. Adverse effects have been reduced or eliminated through a combination of sensitive design and targeted mitigation.

There is one designated heritage asset located within the site boundary, Milestone No.4 grade II listed structure, for which protection with fencing throughout construction is recommended and therefore no impact is predicted.

The impact assessment has identified one significant residual adverse effect upon a scheduled monument located outside the site boundary 'Two Tumuli in Big Wood' as a result of the operation phase of the Proposed Scheme. Construction of the embanked proposed Cantley Lane link road immediately adjacent to the western barrow would cause severance from the monument's associated landscape to the south, from where the barrows are currently viewed prominently. The effect would be to remove the last remaining preserved part of the setting permanently. The effects will be of reduced magnitude for the eastern barrow due to the thicker vegetation.

Site-specific mitigation measures are designed to reduce other identified

significant effects of construction and operation to acceptable levels.

Opportunities to enhance appreciation of cultural heritage in the area have been proposed in the form of a new viewpoint and information board. These measures will enhance everyday public awareness and appreciation of a scheduled monument which was previously less visible to the public.

Landscape

The Landscape and Visual Impact Assessment provides a description of the existing environment and identifies the potential impacts of the Proposed Scheme on the surrounding landscape character and views.

During construction, some existing trees and areas of woodland would be removed and there would be a change to the existing land use in some locations to accommodate the new slip road between the A11 and A47, to accommodate the new Cantley

Lane Link road and to accommodate temporary construction compounds and materials storage areas. People's views would also be affected. Views would occur of earthworks, construction vehicles, works associated with the formation of the underpasses, work associated with the installation of the overbridges at the Cantley Lane Link and the replacement bridge for walkers, cyclists and horse riders across the A47. Significant visual effects would occur on residential properties and footpaths in the vicinity of Cantley Lane South. Effects on landscape character would not be significant due to the temporary nature of the construction activities.

During the initial stages of operation, the Proposed Scheme carriageway, overbridge structures, signage, junction lighting and general movement of vehicles along the highway would be visible from some locations. Some significant visual effects would occur on residential properties in the vicinity of Cantley Lane South. Effects on landscape character at year of opening would be moderate adverse and significant.

This would principally be due to the loss of some areas of woodland and individual trees and to changes in character at Cantley Lane South due to the new link road.

Mitigation proposed as part of the Proposed Scheme will include tree planting, retaining, replacing or reinforcing existing vegetation where this contributes to the qualities of the surrounding landscape, selecting plant species appropriate to the local area, sourcing plant and grass species of local provenance and creation of reptile habitat around the Cantley Stream.

Once the Proposed Scheme tree planting becomes established, the visibility of the main trunk road elements of the Proposed Scheme and extent of associated landscape features would revert to a state comparable to that of the existing situation. Localised significant visual effects would persist at three residential properties at Cantley Lane South. A slight adverse effect on landscape character would also persist away from the trunk road elements. This

would be most notable, but not significant, in the vicinity of the new junction between the existing Cantley Lane South and the new Cantley Lane link road adjacent Cantley Stream.

Overall, combining all landscape and visual considerations and receptors, this assessment concludes that the Proposed Scheme would not result in a significant long term residual effect on landscape and visual amenity as a whole.

Biodiversity

There are valuable habitats and species of nature conservation importance that could be adversely affected by the Proposed Scheme. Avoidance of impacting trees and hedgerows was a key consideration throughout the design stage, however, there still remains some areas of these habitats that will need to be lost.

The assessment considers all relevant designated ecological receptors within the

agreed study area and the results of the ecological surveys have identified mitigation measures to safeguard the conservation status of wildlife populations through both the construction and operational phases.



The assessment considers the following ecological receptors:

- The Broads SAC
- Broadland SPA
- Broadland Ramsar

- Eaton Chalk Pit SSSI
- County Wildlife Sites (CWS)
- Local Nature Reserves (LNR)
- Priority habitats
- Protected species and species of principal importance (notable), including; badger, bats, breeding birds, wintering birds, barn owl, hobby, terrestrial and aquatic invertebrates, great crested newt, otter, water vole, polecat, reptiles and their habitats.

The potential impacts (unmitigated) of the proposed works include the loss of nesting, roosting, resting, commuting and foraging habitat for a range of protected and notable species.

Mitigation measures will be implemented during the construction and operational stages to reduce the effects of the proposed scheme on individuals and populations of protected and notable species. Control, management and planting measures are detailed in the Chapter (Section 8.9 Design mitigation and enhancement measures).

Following implementation of best practice and site-specific mitigation measures during construction and operation, as detailed in this chapter for the ES, there would be residual significant effects on deciduous woodland and hedgerows (Moderate adverse) due to the long time lag to achieve their former maturity. The loss of two veteran trees would also have a significant large adverse residual effect as they are irreplaceable

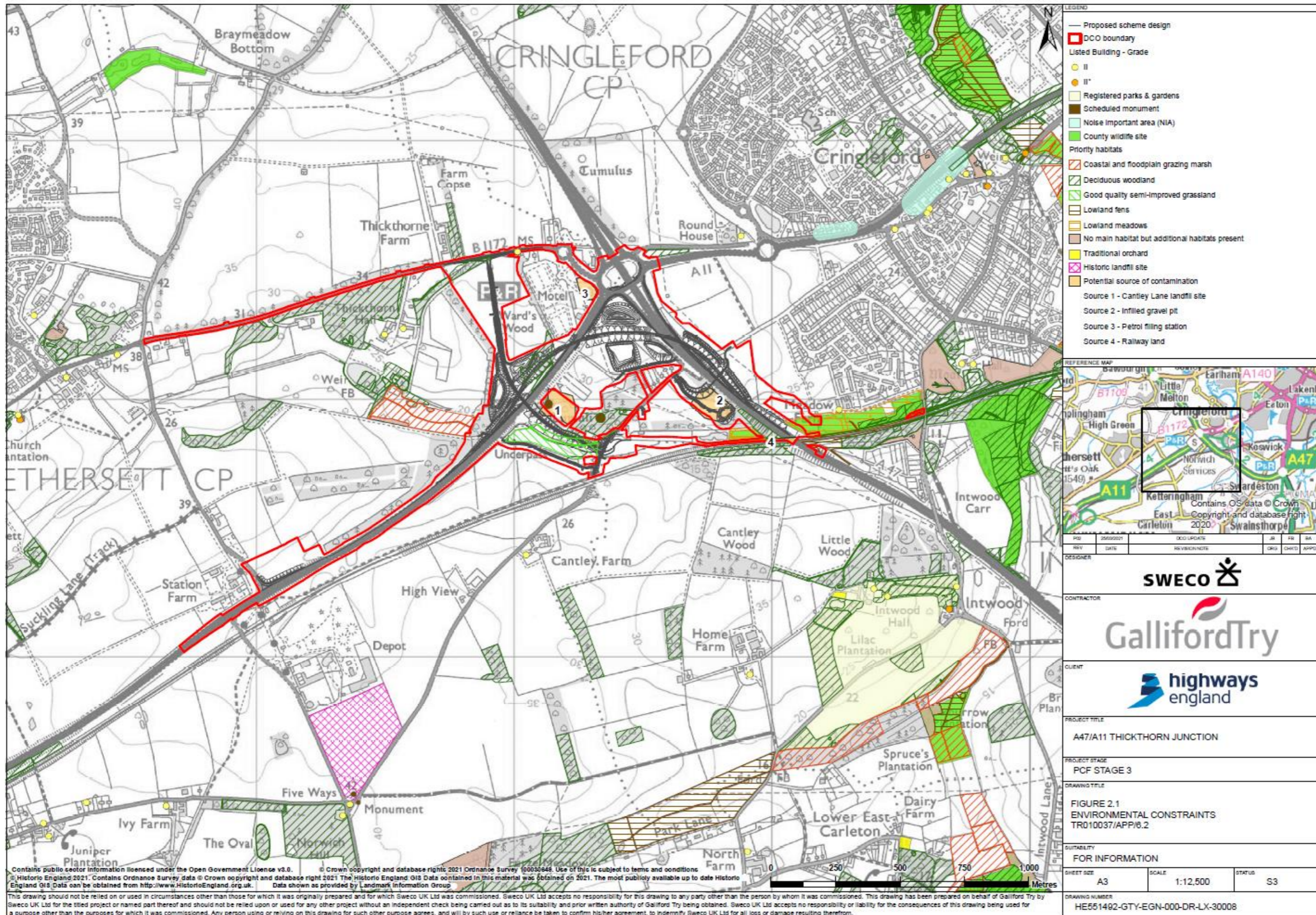
Species-rich grasslands within the within the DCO boundary will have a slight beneficial impact after mitigation as there will be a net gain of more biodiverse grasslands, with the introduction of species-rich and marshy, wet grassland. The riparian planting along Cantley Stream will increase beneficial habitat for aquatic invertebrates which will provide a slight beneficial impact, both of these receptors have been assessed as a neutral residual effect

There is a slight adverse residual effect overall for bats, due to the time lag between

loss of habitat and the remediated habitats reaching maturity which could lead to traffic mortality

All other residual effects for construction and operation after mitigation would be neutral or slight adverse which are considered to be not significant.

Environmental constraints plan



Geology and Soils

This chapter considers the impacts of the Proposed Scheme on the underlying geology and soils present. It considers the impacts on any statutory geological features, agricultural soils and also the potential for impact of contamination in soils to users and neighbouring land users, and impact to groundwater and surface waters, during or post construction of the Proposed Scheme.

Several significant receptors have been identified within this assessment, the most sensitive of the receptors are future site users, groundwater, surface water, and agricultural land.

The construction of the Proposed Scheme will result in permanent and temporary loss of subgrade 3a agricultural land, which is classed as best and most versatile agricultural land, as well as subgrade 3b agricultural land. The design of the

Proposed Scheme has minimised the area of permanent loss, however no further potential mitigation measures have been identified which would further reduce this impact.

A Soil Management Plan will be developed to help preserve land quality on the temporary land take areas and to make effective reuse of the soils taken from the areas of permanent land take. Provided that the mitigation measures are effective and areas of temporary land take are restored back to their former condition, the long-term residual effects on agricultural soils would be limited to the area of agricultural land permanently lost. The permanent loss of 12.64 hectares of Grade 3a agricultural land is considered to be of moderate magnitude resulting in a large adverse significance of effect. The permanent loss of 2.24 hectares of Grade 3b agricultural land is considered to be of moderate magnitude and moderate adverse significance of effect.

No other potential impacts have been identified however two potential sources of

contaminated land have been identified which will be investigated prior to construction of the Proposed Scheme. These potential sources of contamination are the Cantley Lane landfill and an infilled gravel pit, both of which present a potential risk to human health from ground gas production.

Based on the available information for these two potential sources of contaminated land, it is considered that appropriate mitigation measures are available which would enable the potential sources to be managed.

Material Assets & Waste

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

Baseline information on material assets (materials availability) and waste (landfill capacity) are generated by the relevant authorities based on predicted regional demand projections (including consideration for other significant projects within the east of England region). Cumulative effects were considered as the Proposed Scheme is being undertaken concurrent to several other A47 Highways England highway developments.

Taking into account the design, mitigation and enhancement measures to be implemented during construction, it is considered that these developments would generate low quantities of waste in relation to the baseline landfill capacities for the east of England region.



Existing view south west from Cringleford toward the A47 beyond the tree line.

Noise and Vibration

This chapter considers the potential noise and vibration impacts of the Proposed Scheme on noise sensitive receptors.

Noise modelling was undertaken for all noise sensitive receptors within the corresponding study areas.

A baseline noise survey was undertaken in May 2018 to gain an understanding of the existing noise climate within the vicinity of

the Proposed Scheme. The findings of the survey have been reviewed against the noise modelling results.

A construction noise assessment has been undertaken. It is concluded that, with the use of temporary noise barriers, and noise monitoring, and Section 61 prior consent applications where necessary, significant construction noise effects are not predicted.

An assessment of construction vibration impacts has been undertaken. It is concluded that, with early warning, pre-condition surveys, short work durations, and vibration monitoring, the Proposed Scheme is not predicted to give rise to any potential significant effects.

As part of the construction noise assessment, an assessment of the noise increase on nearby roads due to construction traffic has been undertaken. It is concluded that, providing the anticipated vehicle movements and routes are restricted as described in this chapter, significant effects are not predicted.

Mitigation measures in the form of temporary noise barriers and real-time noise monitoring shall be provided to protect noise sensitive receptors predicted to experience significant adverse noise effects from construction works.

The assessment concludes that significant adverse traffic noise effects due to the Proposed Scheme's operation are not predicted and therefore mitigation is not necessary.



Population and Human Health

As part of the EIA process, this ES chapter reports the potential significant effects for population and human health as a result of the Proposed Scheme. This assessment includes a review of the existing baseline conditions, consideration of the potential impacts and identification of proportionate mitigation and enhancement.

During construction, access along the local road network for local residents and businesses in the area surrounding the Proposed Scheme may be disrupted whilst traffic management measures are in place, resulting in longer journey times and a degree of severance between communities and their facilities. In terms of health, construction activities would result in some adverse amenity effects, specifically in terms of noise, dust and visual intrusion. The principal contractor will be required to put in place measures to minimise these

effects, although some adverse temporary effects may still occur on the health of local residents.

Access to some properties and businesses may change as a result of the Proposed Scheme, however, these changes are not considered significant. Journey time savings are expected as a result of the Proposed Scheme for residential areas in Round House Park and residential properties and businesses on Station Lane, however residential properties and businesses on Cantley Lane South may experience longer journey times due to changes in access. Journey time savings may also be experienced when accessing essential community assets such as Norfolk and Norwich University Hospital.

The loss of a proposed area of formal public open space at Cringleford Residential Development could result in a Large adverse effect unless an acceptable alternative can be agreed with the developer and the local planning authority and we are working with the developer to mitigate this.

Safety would also be improved by elements of the Proposed Scheme. The proposed 40mph speed limit on the B1172 Norwich Road and introduction of traffic lights would improve safety for pedestrians when accessing community assets at Thickthorn services.

Users of Cringleford footpath 4A would experience a significant adverse effect due to journey time increases associated with the diversion of the footpath via the new bridge for walking, cycling and horse riding. Beneficial effects would be experienced by horse-riders and cyclists travelling between Cantley Lane and Cantley Lane South via the new bridge and by pedestrians and cyclists travelling along the shared footway and cycleway to be provided on the eastern frontage of the Cantley Lane link road.

During construction, agricultural holdings within the DCO boundary would experience disruption to farming operations. Permanent land take of agricultural land is required. This would result in a reduction in turnover,

profitability, and in some cases, viability of affected agricultural holdings.

Road Drainage and the Water Environment

A review of the baseline information identified key surface water receptors to be Cantley Stream, Intwood Stream and ponds local to the Proposed Scheme. The River Yare has been identified as a potential receptor as it is located immediately downstream of Intwood Stream. The key groundwater receptors include the Sheringham Cliffs Formation superficial deposits (a Secondary A aquifer), the chalk bedrock Principal aquifer, down-gradient unlicensed abstractions, and down-gradient groundwater dependent terrestrial ecosystems (Cantley Stream, and lowland fen priority habitats).

Potential impacts to the surface water environment include:

- flooding of nearby and downstream receptors due to increases in areas of hard standing, overloading of the drainage system, diversion of flood flow pathways and the realignment of Cantley Stream
- impacts on surface water quality and aquatic environments from increased pollutants in routine runoff and from accidental spillages
- loss or degradation of natural channel due to stream realignment and additional culverting on Cantley Stream resulting in impacts on the watercourse morphology and habitat
- impacts on surface water quality and aquatic ecology due to construction in, or near to, Cantley Stream including proposed outfalls, embankments, A11 Cantley Lane Underpass, Cantley Lane South and the stream realignment
- impacts on water vole habitat due to the realignment of Cantley Stream
- Potential impacts to the groundwater environment include:

- creation of contamination pathways to and between aquifers from the surface
- temporary reduction in groundwater availability to nearby abstractions and groundwater dependent terrestrial ecosystems (including Cantley Stream) during construction dewatering
- subsurface structures acting as a barrier to groundwater flow

The Proposed Scheme shall discharge to Cantley Stream. Runoff shall be attenuated to a 1 in 100 year event (including an allowance for climate change) using oversized pipes and attenuation ponds. The drainage has been designed for an extreme pluvial event (1 in 100 year plus 20% climate change with a sensitivity check at 40% climate change) to ensure there would be no increase flood risk to others. Flood flow pathways that are intercepted by the Proposed Scheme will be maintained to allow natural overland drainage through the construction of 'dry culverts' or cross-drains designed to 1 in 100-year plus 65% climate change allowance.

The Proposed Scheme design incorporates treatment of road drainage prior to discharging to ground and surface water. This includes filter drains, swales and two vegetated attenuation ponds. Pollution control devices in the form of penstocks are included in the Proposed Scheme drainage design to reduce the risk to sensitive ecological receptors from accidental spillage and pollution incidents. Where water treatment is not required to mitigate the impacts of pollution risk, the additional measures are considered as an enhancement to further improve the water quality of the proposed highway runoff.

The extension of the A11 Cantley Stream Underpass, alteration of ground levels, Cantley Stream realignment and the removal of the existing Cantley Lane South culvert to avoid the throttling of existing flood flows resulting in a changing pattern of flood risk within the Cantley Stream floodplain affecting agricultural and amenity land use. This results in a significance of effect ranging from moderate adverse to moderate beneficial.

Mitigation, in the form of property level protection, is proposed at a residential property upstream of Intwood Road to negate the flood risk impact. There are no other residential properties impacted by the Proposed Scheme.

The realignment and restoration of Cantley Stream must ensure there is no loss of water vole habitat. The impact of losing or degrading channel morphology and riparian habitat as a result of additional culverting is minimised through the provision of mammal ledges and soft sediment at the base of the proposed Cantley Lane South culvert, improvements to the channel morphology in the realigned reach and additional riparian planting throughout within the DCO boundary. Part of the existing stream shall be restored to backwater habitat.

Below ground structures, including underpasses and foundations, shall be designed so as not to impede groundwater flow.

Construction risks to groundwater shall be minimised through the temporary works

design, such as choice of construction methods and materials, and will be subject to approval from regulatory bodies. Spillage risks within excavations shall also be minimised to reduce the potential for contamination pathways between surface and groundwater.

Apart from the moderate significant effect associated with fluvial flood risk within the Cantley Stream floodplain noted above, the Proposed Scheme, with mitigation, is not expected to give rise to other significant residual effects (identified as moderate or major adverse) during either the construction or operational phases.

Climate

The UK government has legally binding targets for reducing carbon emissions by 100% 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.

This assessment considers the Proposed Scheme's effect on climate (increases in carbon emissions) as well as the potential vulnerability of the Proposed Scheme to climate change (the resilience of Proposed Scheme assets to projected changes in climate).

An assessment using the Highways England Carbon Tool (v2.3) has been carried out as part of the development of the Proposed Scheme. This has allowed for the consideration of carbon in the design process, resulting in the development of a carbon baseline from which further reductions may be made.

The construction, operation and use of the Proposed Scheme is predicted to increase carbon emissions by approximately 163,751 tCO₂e over the appraisal period of 60 years (up to 2085).

Guidance on gauging the significance of carbon emissions in EIA is evolving. Design Manual for Roads and Bridges (DMRB) LA 114 (2019) states that assessments on climate should report significant effects where increases in emissions will have a material impact on the ability of Government to meet its carbon reduction targets

Following DMRB LA 114, Proposed Scheme carbon emissions have been compared with the Government's published UK carbon budgets. These budgets currently account for UK emissions to 2032, representing 23% of emissions associated with the Proposed Scheme. The remaining increase in emissions anticipated during the appraisal period from 2032 to 2085 have no carbon budget for comparison.

Efforts to minimise carbon emissions throughout the design and construction of

the Proposed Scheme at this stage are outlined in the EIA accordance with requirements set out in DMRB LA 114. Recommendations to further reduce carbon emissions through design considerations and recalculation of carbon emissions at later stages of the design process have also been made.

The vulnerability of the Proposed Scheme assets to projected changes in climate during operation has been assessed, and the Proposed Scheme and its surrounding environment have been deemed resilient to the current projections provided by the Met Office (UKCP18). Therefore, no significant effects as a result of climate change are anticipated; however, this should be reviewed when updated projections become available.

Cumulative Effects Assessment

The cumulative effects assessment considers effects from:

- a single project (the Proposed Scheme), which considers numerous different effects impacting a single receptor
- different projects, in combination with the Proposed Scheme.

Single project effects

Receptors on Cantley Lane and Cantley Lane South, and Two Tumuli Scheduled Monument has been identified as experiencing cumulative effects during construction of the Proposed Scheme. These effects range from visual effects on residential receptors, tree removal, short term and long term severance, noise and lighting effects. Cumulative effects identified have not been deemed as significant.

During operation, cumulative effects have been identified on ecological receptors in Thickthorn Park, due to the loss of trees at Cantley Lane South (including two veteran trees) and visual changes at Cantley Lane South due to the realignment of Cantley Stream and loss of aquatic environment at Cantley Stream.

The assessment also predicted beneficial effects for receptors such as traffic moving further away from receptors and the provision of a new combined footway/cycleways, providing better connections.

A combination of proposed mitigation in the preceding chapters, best standard practice construction approaches and community liaison would likely help to mitigate the cumulative impact of the effects from the Proposed Scheme.

Different project effects

Cumulative effects during construction have been identified with windfarm developments within the vicinity of the Proposed Scheme, due to increased construction traffic for both the wind farm developments and the Proposed Scheme at similar times. However, the cumulative effects have not been deemed significant. There are no additional identified projects within the study area anticipated to result in significant

effects that would require additional mitigation in response to cumulative effects.

Consultation

Highways England ran a non statutory public consultation period from 13 March to 21 April 2017. A variety of methods of engagement were used to gain feedback from stakeholders. A brochure and questionnaire were used to inform people of the scheme proposals, provide a map of constraints around the local area and provide contact details for Highways England. The consultation was also advertised on the Highways England website and a press notice was also issued on the 15 March 2017. Invites were also given to local MPs, local councillors and other key stakeholders to attend a preview of the exhibition.

A six week statutory consultation period was held from 3 June 2019 to 11 July 2019. The 40-calendar day consultation period was more than the 28 days prescribed by Section 45(2) of the Planning Act 2008. The purpose

of the consultation was to provide an opportunity to comment on the updated plans for the project ahead of Highways England submitting an application to the Planning Inspectorate for a Development Consent Order (DCO).

Consultation report 2017:
<https://highwaysengland.citizenspace.com/h/e/a47-a11-thickethorn-junction-improvement/results/public-v2-a47-thickethorn-cons-report.pdf>

A consultation report on the 2019 statutory consultation has been submitted as part of the DCO application (**TR010037/APP/5.1**).

How to find out more

Here you can find background information on the Proposed Scheme. Visit our website at:

<https://highwaysengland.co.uk/our-work/east/a47-thickethorn-junction/>

Email us: info@highwaysengland.co.uk

Phone us: [REDACTED]

Next steps

Following submission of the Application for Development Consent, the Planning Inspectorate will consider, on behalf of the Secretary of State for Transport, whether the Application should be accepted for examination. If accepted, the documents accompanying the Application will be publicly available on the Planning Inspectorate's website.

Interested parties will be able to make relevant representations about the Proposed Scheme and its potential impacts. Representations received by the Planning Inspectorate will be considered as part of the examination into the Application.



Visualisation at Year 15 (post construction) of the proposed Cantley Lane Link Road junction with the B1172 Norwich Road