

A47 North Tuddenham to Easton

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9.2 Applicant's Response to Relevant Representations

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**The Infrastructure Planning
(Examination Procedure) Rules 2010**

**A47 North Tuddenham to Easton
Development Consent Order 202[x]**

APPLICANT'S RESPONSE TO RELEVANT REPRESENTATIONS

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1 INTRODUCTION

- 1.1.1 The Development Consent Order (DCO) application for the A47 North Tuddenham to Easton scheme was submitted on 15 March 2021 and accepted for examination on 12 April 2021.
- 1.1.2 The purpose of this document is to set out Highways England's (the Applicant) response to the Relevant Representations (RR) from interested parties submitted to the Planning Inspectorate and posted on 01 July 2021.

2 MULTIPLE COMMON RELEVANT REPRESENTATIONS

- 2.1.1 There were 84 separate relevant representations and each has been allocated a reference code (RR-001 to RR-084) with an individual response presented in this report.
- 2.1.2 However, many relevant representations use the same or very similar comments. In order to avoid repeating the same answers, to help the Examining Authority see those relevant representations which have a common theme, a set of Common Responses A to I has been created and cross referred to.

3 ADDITIONAL RELEVANT REPRESENTATIONS AT PROCEDURAL DEADLINE B

- 3.1.1 The Applicant notes several written submissions were made at Procedural Deadline B. Many of these had previously submitted relevant representations, as follows:
- Weston Longville Parish Council – see RR-004
 - David Pett on behalf of Stop the Wensum Link – see RR-081
 - Richard Hawker – see RR-055
 - Peter Milliken – see RR-011
 - Easton Parish Council – see RR-021
 - David Lewis – see RR-015
 - Climate Emergency Planning and Policy (CEPP) – see RR-064
 - Brown & Co on behalf of Mr Meynell – see RR-071
- 3.1.2 However, the following three Interested Parties provided written submissions at Procedural Deadline B, but not a relevant representation in May and June 2021. As their written submission raise relevant and, in some cases, new issues, the Applicant has voluntarily provided response to these three Procedural Deadline B written submissions as additional relevant representations:
- Chris Curson (T J Curson & Partners) – see RR-085
 - Dr Ian Robinson – see RR-086
 - Lisa J Tomlin – see RR-087

4 KEY ABBREVIATIONS

4.1.1 The following abbreviations have been used in the Applicant's responses to the relevant representation for commonly used terms:

- dDCO = draft Development Consent Order.
- ES = Environmental Statement
- ExA = Examining Authority
- NWL = Norwich Western Link
- the Scheme = the A47 North Tuddenham to Easton dualling scheme

COMMON RESPONSE A

Relevant Representation	Highways England Response
<p>The Scheme will lead to more traffic, accelerating the risk of climate induced societal collapse and increasing premature deaths from air pollution.</p> <p>The case for the scheme says that it will increase capacity, ie allow more traffic.</p> <p>This Scheme therefore breaches national policies for climate change and modal shift towards walking, cycling and public transport.</p>	<p>The Case for the Scheme (APP-140) acknowledges traffic is forecast to grow in this area due to over 50,000 new jobs and 100,000 new homes planned for the area over the next 15 years. There are growth hotspots at several locations along the A47 corridor, including Norwich, and several major proposed housing developments close to the A47, including at Easton.</p> <p>The single carriageway section of A47 between North Tuddenham and Easton lies between two dual carriageway sections of the A47. It acts as a bottleneck, resulting in congestion and leading to longer and unreliable journey times. This section of the A47 is also currently operating over capacity and has a poor safety record. The A47 is ranked 2nd nationally for fatalities on A roads and the accident severity ratio is above average. During the period 2014 to 2018 a total of 2 fatal, 15 serious and 76 slight accidents have been recorded along the 11km length of the existing A47 from North Tuddenham to Easton.</p> <p>In developing this Scheme, the Applicant addresses these safety, congestion and journey time issues by upgrading the existing section of 7.9km of single carriageway to a high-quality dual carriageway. The Scheme will provide additional capacity for future regional traffic growth up to 2040. The improved journey times will support employment and housing growth in the local area as well as across the A47 corridor linking Peterborough and Norwich, such as the Easton residential and food enterprise park developments.</p> <p>The Scheme will improve safety and operational issues by upgrading to dual carriageway and providing grade separated junctions at the Wood Lane junction and Norwich Road junction. In total, it is estimated that over a 60-year timeframe the improvements comprised in the Scheme will prevent a total of 291 accidents and 47 KSIs (killed or seriously injured).</p> <p>ES Chapter 5 Air Quality (APP-044) presents the air quality assessment and concludes there would be no significant effects on air quality at human and ecological receptors as a result of the Scheme.</p> <p>ES Chapter 14 Climate (APP-053) considers the effects on climate from the Scheme and also the vulnerability of the Scheme to climate change in accordance with the requirements of the Infrastructure Planning EIA Regulations 2017, the National Networks National Policy Statement (NNNPS) 2014, and Design Manual for Roads and Bridges LA 114 Climate (DMRB LA 114). This includes carbon emissions associated with the Scheme which are presented in relation to the UK's legally binding carbon budgets.</p> <p>A detailed assessment of the embodied carbon through the construction, operation and maintenance has been undertaken using the Highways England Carbon Tool and following the methodology within the associated guidance document. The Department for Transport's Transport Appraisal Guidance Green House Gas methodology was followed to calculate end-user emissions. As well as reporting estimated emissions associated with the Scheme, Section 14.9 of ES Chapter 14 Climate (APP-053) highlights carbon mitigation opportunities taken forward during design and further opportunities to reduce emissions during construction. Section 4.14 'Walking, Cycling and Horse-riding (WCH) Assessment' of the Case for the Scheme (APP-140) demonstrates how the Scheme would provide new WCH facilities, improve accessibility for users in the local area and provide the opportunity to choose active travel modes (e.g. walking, cycling, etc.). Section 5.4 of the Case for the Scheme also reports neutral impacts on public transport.</p>

COMMON RESPONSE B

Relevant Representation	Highways England Response
<p>The scheme employs modelling data, assumptions and projections from before the Covid 19 pandemic, e.g. for traffic and economic projections.</p> <p>Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for "increased capacity".</p> <p>This is particularly true when considered against the overriding policy imperatives to reduce emissions and pollution and thus enhance not undermine these traffic reducing trends.</p>	<p>The traffic modelling and economic appraisal for the Scheme were undertaken in accordance with the Department for Transport (DfT) Transport Appraisal Guidance.</p> <p>The traffic modelling used to support the economic and environmental assessments accounts for predicted proportions of the vehicle types, fuel type, forecast fuel consumption parameters and emission factors according to the DfT. These data tables include forward forecasting of different vehicle types (such as electric) for future years. The uses of these data tables is considered best practice for calculating end-user (traffic) greenhouse gas emissions.</p> <p>At the time of writing, no updates had been published by the DfT with regards to the impact on the traffic growth caused by COVID. As reported in Chapter 4 of the Case for the Scheme (APP-140), in assessing the value for money of the Scheme, the analysis includes high and low growth traffic and economic scenarios. Under the low growth scenarios (which potentially acts as a proxy for uncertainties such as the impact of COVID-19) the Scheme still represents medium value for money.</p> <p>Further sensitivity testing will be undertaken, upon the release of the revised DfT Transport Appraisal Guidance in line with normal process.</p> <p>However, the need for the Scheme is more than just improving capacity and economic growth. This section of the A47 also has a poor safety record. The A47 is ranked 2nd nationally for fatalities on A roads and the accident severity ratio is above average. During the period 2014 to 2018 a total of 2 fatal, 15 serious and 76 slight accidents have been recorded along the 11km length of the existing A47 from North Tuddenham to Easton. The Scheme will improve safety and operational issues by upgrading to dual carriageway and providing grade separated junctions at the Wood Lane junction and Norwich Road junction. In total, it is estimated that over a 60-year timeframe the improvements comprised in the Scheme will prevent a total of 291 accidents and 47 KSIs (killed or seriously injured).</p>

COMMON RESPONSE C

Relevant Representation	Highways England Response
<p>The environmental statement should start from the current situation, not, as this application currently does, from an assumption that the Norwich Western link is already built.</p> <p>The application and traffic modelling thus fail to comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, by failing to take the current environmental and infrastructure context as the starting point.</p> <p>As is clear throughout the planning system we must avoid planning by stealth and anything that smacks of corruption and failure to uphold the highest standards of probity and process.</p>	<p>For the majority of the ES chapters, the assessments use the 2019 baseline which does not include the Scheme or the NWL. It is only those assessments that use the traffic modelling data which have with or without the NWL within their baseline scenarios.</p> <p>As described in Section 4.4 of ES Chapter 4 Environmental Assessment Methodology (APP-043), the traffic modelling dependent assessments were given both the NWL and without NWL modelling outputs and asked to use the most relevant dataset to demonstrate a worst case assessment outcome. Consequently, the air quality and noise assessments used the no NWL scenario to provide a worst case assessment of traffic using the proposed Scheme.</p> <p>The traffic modelling for the Scheme was undertaken in accordance with the Department for Transport (DfT) Transport Appraisal Guidance (TAG), dated May 2019. In July 2019, Norfolk County Council announced the preferred route for their NWL (a new 3.8 mile dual carriageway road) and in May 2020, the DfT approved the Strategic Outline Business Case for NWL.</p> <p>In accordance with DfT TAG guidance, the uncertainty log includes the management of the uncertainties required for formulating the core scenario. The uncertainty log contains the significant local authority and Highways England network schemes. Based on TAG guidance, the schemes included in the Do-Minimum (DM) scenario have a likelihood of at least 'near certain' or 'more than likely'. The NWL is listed in the</p>

Relevant Representation	Highways England Response
	<p>uncertainty log as 'near certain' or 'more than likely' and so it is included in the core scenario.</p> <p>The Scheme is not dependent on the NWL and would still proceed without the NWL coming forward. Therefore, as presented in Chapter 4 of the Case for the Scheme (APP-140), sensitivity scenarios were completed to compare traffic modelling with and without NWL.</p> <p>However, the Applicant is working with Norfolk County Council as it is important to understand how the two schemes would interact. In this way the Applicant is required to be as efficient as possible with public money and to ensure the community and environmental benefits from joined up working. For example, the Applicant has allowed for creating a stub off Wood Lane junction to not only cater for inclusion of the NWL, but to avoid environmental and economic costs that may need to be incurred to reconfigure a roundabout on a strategic highway junction at a later stage. These benefits are discussed in Section 9.2 of the Scheme Design Report, Rev.1 (AS-009).</p>

COMMON RESPONSE D

Relevant Representation	Highways England Response
<p>Need to avoid planning by stealth, also relates to the A47 dualling's links with the Norwich Western link.</p> <p>The application fails to adequately explore the relationship between the two road proposals, and such relationships and, why they have thus far been largely ignored, needs to be fully examined.</p>	<p>As reported in the Scheme Design Report, Rev.1 (AS-009), the Applicant is working collaboratively with Norfolk County Council as it is important to understand the relationship with regards how the design, build, maintenance and operational use of the A47 and NWL schemes would interact if both were consented. For example, while both schemes are modelled on similar software, the traffic models are independent of one another and will vary due to different development timelines (e.g. base year model, assumptions as to opening year) and different effects on the surrounding local network. However, the Applicant has been working collaboratively with the NWL project delivery team to make sure there is a consistent traffic modelling methodology for both schemes.</p> <p>The Applicant has also allowed within the dDCO the ability to create a stub off Wood Lane junction to avoid environmental and economic costs that would need to be incurred to reconfigure a roundabout on a strategic highway junction at a later stage. These benefits are discussed in Section 9.2 of the Scheme Design Report, Rev.1 (AS-009).</p> <p>As the local highway authority has a well advanced scheme that will connect with the A47, it is both sensible and pragmatic for the Scheme to anticipate that the NWL may come forward. Through this approach the Applicant is required to be as efficient as possible with public money and ensure the community and environmental benefits from joined up working with regards planning new major developments and cost control both for the short and long term.</p>

COMMON RESPONSE E

Relevant Representation	Highways England Response
<p>The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area.</p> <p>The discrepancies need to be examined, and the models fully reconciled.</p>	<p>The 2019 NATS model has not yet been approved by the Department for Transport. On that basis, NATS 2015 remains the approved model and so was used in the Applicant's assessment.</p> <p>However, the Applicant has undertaken a comparison between the NATS 2015 and 2019 traffic models based on the total annual average daily traffic (AADTs) summed across the major links within the Scheme area. In summary, the comparison indicates that there is a difference of 3.3% AADTs between the NATS 2015 model and the NATS 2019 model.</p> <p>The 30% variation cited in the representation relates to a comparison of traffic models used by the NWL scheme at different stages of its development. That model uses a different combination of road network links, which explains the difference compared to the change identified by the Applicant.</p> <p>An increase in traffic of 3.3% is broadly in line with the expected traffic growth over a four-year period (2015-2019). It follows that the comparison shows a good degree of consistency between the two models at an aggregate level.</p>

COMMON RESPONSE F

Relevant Representation	Highways England Response
<p>Given that we are in a nature, or ecological emergency as well as a climate emergency, as noted by parliament in 2019 and the loss of nature alone threatens human extinction, the scheme's destruction and fragmentation of rare habitats such as wet grazing meadows and those home to protected species, notably bats, needs careful examination.</p> <p>As has been well established in the literature and practice associated developments risk exacerbating this scheme's tendency to detrimentally urbanise nature, rare and biodiverse countryside.</p>	<p>Effects on biodiversity, including habitats and impacts on protected species, including bats, have been assessed in ES Chapter 8 Biodiversity (APP-047). The assessment was informed by extensive habitat and species surveys, plus consultation with key stakeholders including Natural England, the Environment Agency, Norfolk Wildlife Trust, Norfolk County Council and local wildlife groups.</p> <p>Section 8.9 of ES Chapter 8 outlines the measures proposed to minimise effects on and maximise opportunities for biodiversity, and to mitigate impacts on protected species. For example, at the River Tud crossing bats would be encouraged to fly high above traffic by planting high trees and fencing along the bridge. Underpasses are known to be successful when placed directly on the current flight paths of bats (Berthinussen and Altringham, 2015) and planting will be used to encourage bats to use the Scheme's underpasses.</p> <p>Section 8 of the Scheme Design Report, Rev.1, (AS-009) presents an overview of the environmental considerations that have influenced and form an embedded part of the Scheme design. These include:</p> <ul style="list-style-type: none"> • Ecological measures to reduce habitat fragmentation through provision of: safe mammal crossing points through mammal ledges in culverts and mammal underpasses; and protecting the flight and foraging routes of bats. • Re-meandering and additional riparian planting along the Oak Farm tributary and Hockering tributary. • Sustainable drainage systems design, including wetland habitat creation at two drainage basins. • Landscaping with sensitive planting, native plant species and wildflowers. <p>The provisional design of the proposed ecological mitigation is presented in the Environmental Masterplan, Rev.1, (AS-007) and all mitigation detailed in Section 8.9 of ES Chapter 8 will be detailed and implemented as part of the record of environmental actions and commitments (REAC), which forms Table 3.1 in the Environmental Management Plan (EMP) (APP-143). Additional detail regarding the mitigation design will be presented in Annex B5 'Landscape and Ecology Management Plan (LEMP)' of the EMP, to be produced by an appointed Landscape Architect and Ecologist prior to construction. The LEMP will describe the proposed management and monitoring of the landscape and ecological mitigation and compensation features of the Scheme.</p> <p>Delivery of these commitments, including consulting the relevant local planning authority on the final landscaping design and Environmental Management Plan, are secured through the dDCO Requirements 4 'Environmental Management Plan' and 5 'Landscaping' (APP-017).</p>

COMMON RESPONSE G

Relevant Representation	Highways England Response
<p>It is urged that this inspection exercise take the larger view and avoid piecemeal planning by stealth.</p> <p>In-combination, and cumulative impacts, for biodiversity, ecology, air quality, noise and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk.</p> <p>Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of <i>Pearce v Secretary of State BEIS</i> [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.</p>	<p>Cumulative impacts for all the disciplines considered in the environmental impact assessment, including biodiversity, ecology, air quality, noise and carbon emissions, are considered in ES Chapter 15: Cumulative Effects Assessment (APP-054). Chapter 15 has been completed in accordance with the requirements of the Infrastructure Planning EIA Regulations 2017 and Planning Inspectorate Advice Note Seventeen. Other developments were included as part of the cumulative assessment methodology and this is detailed in section 15.3 of the chapter.</p> <p>As per Table 15.1, in section 15.3, the construction and operational phase traffic data includes traffic associated with other developments, so the greenhouse gas emissions assessment reported within the Chapter 14 Climate is inherently cumulative. In accordance with Department for Transport (DfT) Transport Appraisal Guidance, the uncertainty log includes the management of the uncertainties required for formulating the core scenario. The uncertainty log contains the significant local authority and Highways England network schemes. Based on Transport Appraisal Guidance, the schemes included in the Do-Minimum (DM) scenario have a likelihood of at least 'near certain' or 'more than likely'. Therefore other schemes, such as the other A47 schemes and the NWL, are listed in the uncertainty log as 'near certain' or 'more than likely' and as such it is included in the core scenario.</p> <p>The scheme is also assessed against legislated carbon budgets in Chapter 14 (APP-053), which are also inherently cumulative as they consider emissions across sectors in the economy.</p>

COMMON RESPONSE H

Relevant Representation	Highways England Response
<p>Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".</p>	<p>ES Chapter 14 Climate (APP-053) considers the effects on climate from the Scheme and also the vulnerability of the Scheme to climate change in accordance with the requirements of the Infrastructure Planning EIA Regulations 2017, the National Networks National Policy Statement (NNNPS) 2014, and Design Manual for Roads and Bridges LA 114 Climate (DMRB LA 114). This includes carbon emissions associated with the Scheme which are presented in relation to the UK's legally binding carbon budgets.</p> <p>The Carbon Budget Order 2021, which provides for the Sixth Carbon Budget, took effect on 24 June 2021. The Applicant can only undertake an assessment of the likely significant effect of carbon against published Government policy. The Applicant is not responsible for producing the UK carbon budgets, which are set by the Government in response to recommendations from the UK Climate Change Committee. The Committee's recommendations informed the development of the Sixth Carbon Budget.</p> <p>Since the DCO application was prepared the Government has issued the Policy paper "The Ten Point Plan for a Green Industrial Revolution"; communicated its new Nationally Determined Contribution (NDC) under the Paris Agreement to the United Nations Framework Convention on Climate Change; in its press release of 20 April 2021 that announced the Sixth Carbon Budget, confirmed that it is developing an approach to securing net carbon reduction that is committed to innovation; and in July 2021 issued its transport decarbonisation plan that confirmed the people will still drive on improved roads, but increasingly in zero emission cars.</p> <p>A detailed assessment of the embodied carbon through the construction, operation and maintenance of the Scheme has been undertaken using the Highways England Carbon Tool and following the methodology within the associated guidance document. The Department for Transport's WebTAG (Web-based transport analysis guidance) greenhouse gases (GHG) methodology was followed to calculate end-user emissions. As well as reporting estimated emissions associated with the Scheme, Section 14.9 of ES Chapter 14 Climate (APP-053) highlights carbon mitigation opportunities taken forward during design and further opportunities to reduce emissions during construction.</p> <p>In response to the release of the Sixth Carbon Budget (https://www.theccc.org.uk/publication/sixth-carbon-budget/) and number of relevant representations on this matter, the Applicant will provide an updated ES Chapter 14 (APP-053) for Deadline 3 to allow consideration before the November Hearings.</p>

COMMON RESPONSE I

Relevant Representation	Highways England Response
<p>Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at http://bit.ly/NCC_PlanDeleg_June2021).</p> <p>The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006</p>	<p>Effects on Barbastelle bats <i>Barbastella barbastellus</i> have also been considered in ES Chapter 8 Biodiversity (APP-047) and the Report to Inform Habitats Regulations Assessment (APP-139). Section 8.4 of ES Chapter 8 outlines how the Applicant has consulted the NWL scheme promoters on a monthly basis regarding barbastelle bats and the wider mitigation proposals for bats by the Scheme. In addition, bat mitigation implemented as part of the completed northern distributor road and the associated monitoring data were discussed. Data was exchanged on the locations of barbastelle bats, survey techniques and mitigation¹. These meetings are still ongoing.</p> <p>The Applicant is also part of the NWL Ecology Liaison Group, which includes WSP (NWL ecological consultants); Norwich Bat Group; NCC; The Woodland Trust; Wensum Valley Bird Watching Society, Norfolk and Norwich Naturalist Society, Norfolk Badger Trust, Natural England, Environment Agency, Friends of Tud Valley, Costessey Conservation Volunteers, Norfolk Amphibian and Reptile Group, Norfolk River Trust, Buglife and Butterfly Conservation.</p> <p>Section 8.4 of ES Chapter 8 also confirms the Applicant consulted Anna Fullford (formerly Berthinussen), at Conservation First. Ms Fullford has published papers in 2012² and 2015³ on bats use of gantries and underpasses to cross roads safely.</p> <p>With regards consideration of Wild Wings Ecology's research findings, the Applicant is aware that Norfolk County Council has requested Wild Wings Ecology's research findings but has not yet received that data. This was confirmed at a meeting of Norfolk County Council's planning and highways delegation committee on Friday 28 August 2021, where cabinet member Graham Plant said he was concerned as to why data had not been released by Dr Packman following her study⁴. In order to further assess the position, the Applicant asks that the Examining Authority requests that a copy of the Wild Wing's Ecology research findings is provided to the Examining Authority and relevant Interested Parties (Norfolk County Council, Natural England and the Applicant) in order that that data can be properly understood in advance of any Issue Specific Hearing to address the topic.</p>

¹ Data was also exchanged for GCN, reptiles, birds, fungi and invertebrates.

² Berthinussen, A., & Altringham, J. (2012). Do bat gantries and underpasses help bats cross roads safely? PLoS ONE, 7.

³ Berthinussen, A., & Altringham, J. (2015). WC1060 Development of a Cost-Effective Method for Monitoring the Effectiveness of Mitigation for Bats Crossing Linear Transport Infrastructure. Leeds.

⁴ See local news article: <https://www.edp24.co.uk/news/local-council/concern-over-bat-colony-amid-plans-dualled-a47-8279474>

Relevant Representation	Highways England Response
	<p>As outlined in Section 8.4 of ES Chapter 8, the assessment of impacts on ecology and nature conservation follows the most recent national design standards for highways, the Design Manual for Roads and Bridges (DMRB).</p> <ul style="list-style-type: none"> Ecological survey and design measures – DMRB, LA 118 Biodiversity Design. Assessing and reporting the effects of highway projects on biodiversity – DMRB, LA 108 Biodiversity (Revision 1). Assessment and reporting of the implications on European sites – DMRB, LA 115 Habitats Regulations assessment) (Revision 1). <p>The assessment has also been undertaken in reference to the Chartered CIEEM's Ecological Impact Assessment (EclA) guidance (2018).</p> <p>As reported in the ES Chapter 8 and the Report to Inform Habitats Regulations Assessment, the only site nationally and internationally designated for bats requiring assessment is Paston Great Barn Special Area of Conversation, located 29.3km north east. Although it is claimed there is a potentially nationally significant bat colony to the north of the Scheme, the evidence that such a colony exists is based on a single study which has not been released so cannot be assessed by the Applicant. If Wild Wing's Ecology provides the Applicant with the study, the Applicant will provide further comments in writing in due course.</p> <p>Meanwhile, as there is currently no colony with statutory designated status, any bats from the Morton-on-the-Hill have been considered on the same basis as all other non-designated bat colonies. Therefore, the cumulative effects assessment only considered non-statutory bat roosts within 50m of the DCO boundary and where that search area overlapped with the NWL. Morton-on-the-Hill, where Norfolk County Council state the colony is located, is several kilometres north of the nearest point on the Scheme DCO boundary.</p> <p>It is noted that Norfolk County Council's reference to a nationally significant breeding barbastelle colony of bats is in a document presented for discussion with an agenda for the Planning and Highways Delegations Committee (see http://bit.ly/NCC_PlanDeleg_June2021). However, whilst NCC tabled the matter for discussion, as we understand no evidence was made available to NCC, they did not make a determination on the potential for there to be such a bat colony</p> <p>So far as the Applicant is aware, the assertion that there is a nationally significant breeding barbastelle colony in this area is based on the Wild Wings Ecology research (see news article: https://www.edp24.co.uk/news/local-council/concern-over-bat-colony-amid-plans-dualed-a47-8279474). As set out above, this does not appear to be NCC's position, and the Applicant needs to review the relevant research in order to comment further.</p> <p>Cumulative impacts are considered in ES Chapter 15 Cumulative Effects Assessment (APP-054) in accordance with the requirements of the Infrastructure Planning EIA Regulations 2017 and Planning Inspectorate Advice Note Seventeen. Other developments were included as part of the cumulative assessment methodology and this is detailed in section 15.3 of ES Chapter 15. However, as noted in response to representations by Norfolk County Council, with the release of more details about the NWL scheme in the NWL Scoping Report the Applicant is proposing to update ES Chapter 15 to reflect the NWL scheme as a Tier 2 development under Advice Note Seventeen guidance. This proposed amendment will include an updated review of inter-project cumulative biodiversity effects, including on bats.</p>

RR-001 GRAHAM EVERITT

Reference	Relevant Representation	Highways England Response
RR-001.1	I am very supportive of this scheme as it will bring benefit to the areas to the west of Norwich	The Applicant welcomes the support for the Scheme.

RR-002 ADRIAN RUTTERFORD

Reference	Relevant Representation	Highways England Response
RR-002.1	I have concerns regarding the access of properties in Lower Easton onto the new road. This will involve a long detour through narrow lanes.	<p>With the removal of the Easton roundabout, the existing A47 connection to Dereham Road, in Easton, would be retained to provide a local road connection to the new Norwich Road junction. This would retain access for Easton residents south of the A47 to the new A47, plus local roads towards Mattishall and Honingham; see sheets 14, 15 and 16 of document 2.2 General Arrangement Plans (APP-005).</p> <p>With regards properties in Lower Easton located north of the A47, the initial design concept proposed the Norwich Road junction with a side road connection between Taverham Road and Church Lane, Easton, to the east. This arrangement was presented at the March 2020 statutory consultation; see drawing on page 10 of Consultation Report Annex J - Section 47 Consultation Materials (APP-034).</p> <p>However, statutory consultation feedback raised concerns that the link between Taverham Road and Church Lane, Easton, could result in additional traffic and heavy good vehicle movements connecting to an unclassified road where there are already existing significant safety concerns. Therefore, the proposed northern roundabout at Norwich Road junction and link to Taverham Road was reconfigured to remove the road linking Taverham Road to Church Lane, Easton. This change also offered benefits of reduced landtake and is reported in Table 4.12 (item no. 11) of the Consultation Report (APP-024).</p> <p>The proposed route from Lower Easton to the proposed A47 Norwich Road Junction is 3km. Travelling at 30mph this equates to a journey time of approximately 3.5 minutes.</p>

RR-003 HEATHER BRENNECKE

Reference	Relevant Representation	Highways England Response
RR-003.1	As Berry's Lane, Honingham, is intended to be closed, the traffic from Barnham Broom and beyond wishing to join the A47 would cut through via Colton Road as the next available junction and would not travel to the Honingham roundabout as you propose. Colton Road is a very narrow single width residential country lane with high banks and NO passing places at all. Any increase in the present volume of through traffic would be dangerous for residents exiting their property and also for pedestrians as there is no footpath. I would ask	<p>The Applicant has previously discussed this with representatives of Honingham Parish Council through the South of the A47 Taskforce working group.</p> <p>The proposed design includes new traffic signage for vehicles heading from the south towards the A47 via Mattishall Road directing vehicles to the existing Honingham roundabout. Vehicles would then connect to the A47 by travelling west towards Wood Lane junction or east towards Norwich Road Junction. The proposed route is under a national speed limit, before reducing to a 50mph restriction on the approach to the A47 junction locations.</p> <p>As has been described, Colton Road is a narrow single lane residential access road,</p>

Reference	Relevant Representation	Highways England Response
	that the junction of Colton Road with Mattishall Road be sealed off, thereby preventing all through traffic. Access for local residents to Colton Road would be via the lower junction with Norwich Road.	<p>with no passing places or footway and has a 30mph speed restriction in place.</p> <p>The Applicant has undertaken traffic modelling, a Road Safety Audit and consultation with the local highway authority "network safety team" (Norfolk County Council) with none of these processes raising this as a concern. The Applicant therefore deemed this as not requiring any further intervention and advised Honingham Parish Council that this would fall under the ownership and remit of the local highway authority to take any additional action. Further requests for closure or restriction should be pursued through the relevant local highway authority process.</p> <p>Post submission of the DCO, the Applicant has continued to engage with Norfolk County Council and proposed to implement a 30mph speed limit on Dereham Road from the existing A47 to Honingham village. This has now been agreed and the dDCO will be updated to reflect this change. This speed reduction in addition to the already agreed build out (priority access) / gateway feature on Dereham Road will further discourage vehicles from using this as a through route.</p>

RR-004 WESTON LONGVILLE PARISH COUNCIL

Reference	Relevant Representation	Highways England Response
RR-004.1	The final proposal has not adequately considered a coherent side road strategy, that keeps an equal distribution of traffic moving north – south across all the routes available across the Wensum Valley but has caused a displacement of traffic onto a small number of routes which are inadequate to the task.	<p>The Scheme Design Report, Rev.1, (AS-009) sets out the Applicant's proposals for the sideroad network. The sideroad network design was proposed at statutory consultation and refined as a result of consultation feedback and further stakeholder engagement.</p> <p>The Applicant has taken into consideration that the B1535 Wood Lane sideroad is the locally assigned heavy goods vehicles route, linking the A47 with the Fakenham Road at Morton on the Hill to the north.</p> <p>The Applicant has engaged throughout the design development process with the Local Highway Authority (Norfolk County Council), the South of the A47 Taskforce (led by George Freeman MP), the multi parish "Local Liaison Group" and individual Parish Councils. As a result of these collaborative engagements several changes to the proposed sideroad network have been incorporated into the DCO application. The design changes arising from consultation feedback are reported in Table 4.12 of the Consultation Report (APP-024).</p> <p>The Applicant has engaged with Norfolk County Council throughout the design development process, sharing traffic models, survey data and submitted design and traffic proposals for review.</p> <p>The Applicant notes that there is currently a Local Highway Authority proposal being discussed with Weston Longville Parish Council comprising a series of measures to provide mitigation measures to further discourage vehicles from travelling through Weston Longville. The Applicant continues to support Norfolk County Council with the assessments and Parish Council engagement Norfolk County Council are undertaking regarding localised mitigation measures north and south of the A47 corridor.</p>
RR-004.2	The Wood Lane junction strategy is flawed in that it does not provide a seamless, uninterrupted traffic flow onto and off the proposed Norwich Western Link	<p>The Scheme Design Report, Rev.1, (AS-009) sets out the justification for the junction at Wood Lane, details the options considered and outlines the Applicant's position on the inter relationship with the proposed NWL.</p> <p>The proposed new junctions were presented at statutory consultation along with the A47 North Tuddenham to Easton Junction & Sideroad Strategy Report⁵ (Highways England, 2020). This report describes the existing and modelled operation of the existing junctions at the Norwich Road and Wood Lane intersections with the A47. It also explains the need for fully graded separated options at these locations to support the Applicant's aim to create a more free-flowing, safe and serviceable, integrated network.</p> <p>An all-movements junction was selected in accordance with the forecast future traffic flows do-minimum scenario within the strategic traffic model. The proposed NWL scheme and associated traffic flows have been accounted for as part of the junction selection and design process.</p> <p>A senior member of the Integrated Project Team met with representatives of the Parish Council and listened to the proposal put forward by Weston Longville (see snapshot below, overleaf). As explained at the time, the proposed design has followed the junction hierarchy presented within the Design Manual for Roads & Bridges, CD 122 – Geometric design of grade separated junctions.</p> <p>The Parish Council's desire for a free flow interchange is not required for the traffic flows and would be significantly over designed. The proposal tabled from the Parish Council would require significantly more land take to accommodate the free flow links, require the construction of five new structures compared to one structure as proposed and would lead to an increase in embodied carbon and as such not represent an economical or environmentally sustainable solution.</p> <p>Section 3.12 of the Scheme Design Report, Rev 1, (AS-009) sets out the Applicant's approach to reducing carbon. A hierarchical approach to carbon management has been applied, which applies the principles of build nothing, build less, build clever, build efficiently (as described in PAS 2080: Carbon Management in Infrastructure).</p> <p>The Applicant has undertaken design assurance checks with Highways England's Safety, Engineering & Standards team and Transport Planning Group plus Norfolk County Council to validate the traffic modelling and junction proposals.</p> <p>The Applicant continues to engage with Norfolk County Council, the promoter of the NWL scheme, to ensure collaboration, sharing of information and the most efficient approach where the schemes interface.</p>

⁵ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response

RR-005 CATHERINE HOOKER

Reference	Relevant Representation	Highways England Response
RR-005.1	We have been assured on several occasions over the years that there was no intention to compulsory purchase any of the land surrounding [redacted] and suddenly we find that there is every intention of part of the garden being subject to compulsory purchase for absolutely no reason at all that anyone can understand. The whole family is obviously devastated to lose our garden which four generations have loved over the last fifty years	<p>The Applicant can confirm its revised intention is not to permanently acquire this parcel. Appropriate changes will be made to the DCO plans to show this land parcel as temporary not permanent acquisition. Temporary rights are still required as the Applicant needs temporary access to undertake measures to help protect the mature trees on this property during the construction of the Scheme.</p> <p>As previously indicated to the landowner, the Applicant's intention has always been to avoid permanently acquiring this land parcel. However, pre-submission of the DCO application there was insufficient topographic data available to allow the Applicant to rule out the need for some intrusive works to achieve the required highway design standards and utility service diversion easements to build the new road junction connecting the existing A47 to a realigned Taverham Road between the proposed Norwich Road junction and the River Tud. Therefore, the submitted DCO application retained the option to acquire part of this land parcel to potentially fulfil this design commitment and manage the construction work area impact on the mature trees.</p> <p>Subsequent to the DCO submission, the Applicant has completed more detailed, location-specific topography surveys. These surveys have provided the necessary confidence that the junction realignment can be designed and constructed without needing to permanently acquire any of this land parcel. Excavation works in the neighboring land parcel will be within the canopy / root zone of the mature trees, hence the requirement for temporary rights to protect those trees.</p> <p>This approach has been discussed and agreed with the landowners. The Land Plans (APP-006) and Book of Reference (APP-023) have been amended at Deadline 1 to reflect this commitment. The design footprint change in the other DCO plans will be submitted at either Deadline 2 or 3 to aggregate the inclusion of other proposed amendments arising from the review of the Relevant Representations and the ExA's first round of written questions.</p>

RR-006 DAVID HOOKER

Reference	Relevant Representation	Highways England Response
RR-006.1	Recommendation that the Planning Inspectorate requires Highways England 1. To publish the detailed results of the Statutory Consultation.	<p>The results of the statutory consultation in February 2020 and a further targeted consultation in December 2020 are presented within the Consultation Report (APP-024).</p> <p>The Applicant's responses to the statutory consultation feedback and further stakeholder engagement are presented in Annex N (APP-038) and Annex O (APP-039), respectively, of the Consultation Report. The design changes arising from this consultation feedback are reported in Table 4.12 of the Consultation Report.</p>
RR-006.2	2. To reassess and minimise the area of agricultural land needed to meet their proposals.	<p>The Applicant has sought to reduce land take throughout the scheme development process and has engaged with all affected landowners during that process. The design considerations are reported in the Scheme Design Report, Rev.1 (AS-009), in particular Chapter 11 which explains the reasons for the landtake due to the construction compounds and material storage / processing areas.</p> <p>ES Chapter 9 Geology and Soils (APP-048) assesses impacts and mitigation for permanent and temporary agricultural landtake.</p>
RR-006.3	3. To justify the lack of a continuing direct connection for two way traffic between St Andrew's Church, Honingham and the village.	<p>The existing single carriageway A47 has 41 direct connections from existing side roads, farm, field and property accesses between North Tuddenham and Easton. It is not feasible to maintain every existing access point / junction along the existing route corridor and the Scheme therefore reduces the north / south crossing points of the</p>

Reference	Relevant Representation	Highways England Response
		<p>A47.</p> <p>The Scheme removes all direct accesses to the A47 dual carriageway and provides safe access points to the Strategic Road Network (SRN) via the proposed grade separated junctions at Wood Lane and Norwich Road and the existing junctions at Fox Lane and Longwater.</p> <p>Segregated routes across the A47 are provided (west – east) at Fox Lane Junction, Mattishall Lane Link Road, Wood Lane Junction, Norwich Road Junction and Longwater Junction.</p> <p>Vehicular access to St Andrew's Church is provided from Honingham via the Norwich Road junction. A new sideroad (Class C with a 50mph speed restriction) is provided from the existing A47 Honingham roundabout linking to the southern roundabout of the proposed Norwich Road junction. Honingham village will retain connections to Honingham roundabout either via Norwich Road linking to the east side of Honingham or via the retained existing A47, north of Honingham, to Dereham Road on the west side of Honingham; the existing A47 at this location will be detrunked and the carriageway reduced to form a B road (6.0m wide) with a 50mph speed restriction.</p> <p>This route offers north and south connectivity and also east and west connectivity.</p> <p>The Applicant has also included a segregated walking and cycling link from Honingham to St Andrew's Church and parking facilities including easy access bays for disabled / elderly patrons in its application.</p>
RR-006.4	4. To justify the removal of a direct connection between the Honingham roundabout and the existing A47.	<p>The Scheme design retains the connection between Honingham roundabout and the existing A47, which will link to the new Norwich Road junction and new dualled A47. Following Statutory Consultation, more of the existing A47 was integrated into the local road network. The existing A47 north of Honingham was reintegrated to avoid traffic from passing through Honingham village by connecting the Scheme's proposed Wood Lane junction with the existing Honingham roundabout; see response to RR-006.3 above. This change is reported in Table 4.12 (item no. 8) of the Consultation Report (APP-024).</p>
RR-006.5	5. To justify the necessity, size and location of their proposals for a Taverham/Norwich Road junction.	<p>The justification and design for the route alignment and junction arrangement, based on a technical, economic and environmental analysis, was outlined in the 'A47 North Tuddenham to Easton Scheme Assessment Report'⁶ (Highways England, 2017) which is available on the Highways England project consultation website during the statutory consultation.</p> <p>The preferred route was announced in August 2017 indicating locations for the proposed junctions and can be found on the Highways England website. The preferred route decision making is also explained in Section 2 of the Case for the Scheme (APP-140).</p> <p>The proposed new junctions have been designed in accordance with the UK Design Manual for Roads & Bridges (DMRB), to cater for the traffic in the opening year (2025) and design year (2040). The A47 North Tuddenham to Easton Junction & Sideroad Strategy Report⁷ (Highways England, 2020), presented during statutory consultation, outlined the junction design hierarchy in accordance with the UK DMRB CD 122 (Geometric Design of grade separated junctions) - Appendix A.</p> <p>In line with Scheme objectives, to provide a more free-flowing network, the existing Easton roundabout is to be removed. The location of the new Norwich Road junction at Easton was determined based on the requirement for a fully grade separated junction, whilst taking into account the existing constraints such as the Grade 1 listed St Peter's Church, existing accesses and sideroads, Orsted cable route, Food Enterprise Zone planning permission and local topography.</p>

RR-007 ALEXANDER BARRETT

Reference	Relevant Representation	Highways England Response
RR-007.1	I have concerns about the traffic volumes on Taverham Road that will be generated by this scheme.	<p>The Applicant has engaged with the Local Highway Authority (Norfolk County Council), the NWL project team and Norfolk County Council Public Rights of Way officers throughout the design development process. The Applicant confirms that no safety concerns have been raised by the Local Highway Authority.</p> <p>Norfolk County Council also presented their independent traffic modelling results to the Local Liaison Group (Norfolk County Council and Parish Councils) on 23 February 2021. The results demonstrated that the Average Annual Daily Traffic (AADT) on Taverham Road with the proposed mitigation measures in place (Honingham Lane closure) was 400 AADT in the Scheme opening year of 2025. The Applicant's transport assessment, in Chapter 4 of the Case of the Scheme (APP-140), shows a prediction of 200 AADT for the Scheme opening year of 2025 with NWL also open. Both these situations are still lower than the 2015 baseline of 600 AADT along Taverham Road.</p> <p>Local Transport Note 1/20 (July 2020) Cycle Infrastructure Design references rural lanes as those with flows of less than 1000 AADT and speeds of 40mph or less.</p> <p>The Applicant has continued to engage with the Local Highway Authority since the submission of the DCO application and has proposed to implement a speed restriction of 30mph on Taverham Road from the proposed Norwich Road junction to the River Tud bridge. This has been agreed with Norfolk County Council and the Applicant's dDCO and supporting DCO plans will be revised and submitted to the ExA.</p> <p>No safety concerns have been raised by the Local Highway Authority.</p>
RR-007.2	I still have concerns over how well the main carriageway of the A47 will be shielded by trees from my eyeline at [redacted]	<p>The Applicant has assessed the visual impacts for a study area up to 1km from the DCO boundary. The assessment is reported in ES Chapter 7 (Landscape and Visual Effects) (APP-046), while ES Appendix 7.4 Visual Receptors (APP-092) presents the individual assessments and mitigation for each receptor, including the property of Mr Barrett. The landscape planting proposed to provide visual screening is illustrated in the Environmental Masterplan (AS-007).</p>

⁶ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/our-work/east/a47-north-tuddenham-to-easton-improvement/>

⁷ Available at: https://highwaysengland.citizenspace.com/he/a47-north-tuddenham-to-easton-february/supporting_documents/A47%20North%20Tuddenham%20to%20Easton%20Junction%20Sideroad%20Strategy%20Report.pdf

Reference	Relevant Representation	Highways England Response
		In addition, Mr Barrett's property currently has a belt of mature trees screening the existing A47. The Applicant has been in contact with Mr Barrett to provide reassurance that the Applicant does not intend to remove these trees and will undertake measures to help protect the mature trees in this property during the construction of the Scheme.
RR-007.3	I still have reservations whether a roundabout is really necessary at Taverham Road	<p>The justification and design for the route alignment and junction arrangement, based on a technical, economic and environmental analysis, was outlined in the A47 North Tuddenham to Easton Scheme Assessment Report (December 2017) which was available on the Highways England project consultation website⁸ during the Statutory Consultation; remains available on the website.</p> <p>In line with Scheme objectives, to provide a more free-flowing network, the existing Easton roundabout is to be removed. The proposed new junctions have been designed in accordance with the UK Design Manual for Roads & Bridges (DMRB), to cater for the traffic in the opening year (2025) and design year (2040). The A47 North Tuddenham to Easton Junction & Sideroad Strategy Report⁹ (Highways England, 2020), presented during statutory consultation, outlined the junction design hierarchy in accordance with the UK DMRB CD 122 (Geometric design of grade separated junctions).</p> <p>The location of the junction at Easton was determined based on the requirement for a fully grade separated junction, whilst taking into account the existing constraints such as the Grade 1 listed St Peter's Church, existing accesses and sideroads, Orsted cable route, Food Enterprise Zone planning permission and local topography.</p>
RR-007.4	I would like more information on how the drainage at Taverham road will operate as we currently have severe new flooding issues both on the road and also into our garden	The Scheme's proposed drainage for the re-aligned Taverham Road, south of the River Tud, is illustrated on drawing sheet 14 of the Drainage and Surface Water Plans (APP-011). More detail is provided in ES Appendix 13.2 Drainage Strategy Report (APP-126 and APP-127). Drainage for the realigned Taverham Road forms part of Network NE, which also encompasses the Norwich Road junction. This network shall outfall to the River Tud via a proposed detention basin east of Taverham Road.

RR-008 BEN HOOKER

Reference	Relevant Representation	Highways England Response
RR-008.1	We have been assured on several occasions over the years that there was no intention to compulsory purchase any of the land surrounding [redacted] and suddenly we find that there is every intention of part of the garden being subject to compulsory purchase for absolutely no reason at all that anyone can understand. The whole family is obviously devastated to lose our garden which four generations have loved over the last fifty years	<p>The Applicant can confirm its revised intention is not to permanently acquire this parcel. Appropriate changes will be made to the DCO plans to show this land parcel as temporary not permanent acquisition. Temporary rights are still required as the Applicant needs temporary access to undertake measures to help protect the mature trees on this property during the construction of the Scheme.</p> <p>As previously indicated to the landowner, the Applicant's intention has always been to avoid permanently acquiring this land parcel. However, pre-submission of the DCO application there was insufficient topographic data available to allow the Applicant to rule out the need for some intrusive works to achieve the required highway design standards and utility service diversion easements to build the new road junction connecting the existing A47 to a realigned Taverham Road between the proposed Norwich Road junction and the River Tud. Therefore, the submitted DCO application retained the option to acquire part of this land parcel to potentially fulfil this design commitment and manage the construction work area impact on the mature trees.</p> <p>Subsequent to the DCO submission, the Applicant has completed more detailed, location-specific topography surveys. These surveys have provided the necessary confidence that the junction realignment can be designed and constructed without needing to permanently acquire any of this land parcel. Excavation works in the neighboring land parcel will be within the canopy / root zone of the mature trees, hence the requirement for temporary rights to protect those trees.</p> <p>This approach has been discussed and agreed with the landowners. The Land Plans (APP-006) and Book of Reference (APP-023) have been amended at Deadline 1 to reflect this commitment. The design footprint change in the other DCO plans will be submitted at either Deadline 2 or 3 to aggregate the inclusion of other proposed amendments arising from the review of the Relevant Representations and the ExA's first round of written questions.</p>

RR-009 JOSHUA HOOKER

Reference	Relevant Representation	Highways England Response
RR-009.1	I am somewhat perplexed as to why there suddenly seems to be a compulsory land purchase order for [redacted] gardens and how this has mysteriously been added with no warning whatsoever. I am now questioning the transparency of this process	<p>The Applicant can confirm its revised intention is not to permanently acquire this parcel. Appropriate changes will be made to the DCO plans to show this land parcel as temporary not permanent acquisition. Temporary rights are still required as the Applicant needs temporary access to undertake measures to help protect the mature trees on this property during the construction of the Scheme.</p> <p>As previously indicated to the landowner, the Applicant's intention has always been to avoid permanently acquiring this land parcel. However, pre-submission of the DCO application there was insufficient topographic data available to allow the Applicant to rule out the need for some intrusive works to achieve the required highway design standards and utility service diversion easements to build the new road junction connecting the existing A47 to a realigned Taverham Road between the proposed Norwich Road junction and the River Tud. Therefore, the submitted DCO application retained the option to acquire part of this land parcel to potentially fulfil this design commitment and manage the construction work area impact on the mature trees.</p> <p>Subsequent to the DCO submission, the Applicant has completed more detailed, location-specific topography surveys. These surveys have provided the necessary confidence that the junction realignment can be designed and constructed without needing to permanently acquire any of this land parcel. Excavation works in the neighboring land parcel will be within the canopy / root zone of the mature trees, hence</p>

⁸ <https://highwaysengland.co.uk/our-work/east/a47-north-tuddenham-to-easton-improvement/>

⁹ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
		<p>the requirement for temporary rights to protect those trees.</p> <p>This approach has been discussed and agreed with the landowners. The Land Plans (APP-006) and Book of Reference (APP-023) have been amended at Deadline 1 to reflect this commitment. The design footprint change in the other DCO plans will be submitted at either Deadline 2 or 3 to aggregate the inclusion of other proposed amendments arising from the review of the Relevant Representations and the ExA's first round of written questions.</p>

RR-010 DAVID MARK KENNY (DGM KENNY)

Reference	Relevant Representation	Highways England Response
RR-010.1	<p>HE's proposal to close the Ringland Road connection to the A47 at Easton will result in the present rat-run traffic from the north (Taverham etc) being redirected westwards, down Weston Road (single width) and onto the southern mile of Taverham Road (another single lane country lane with blind bends and brows and few passing places) in order to access the A47 via the proposed new Norwich Road roundabout. HE has completely failed to address this in its strategy, repeatedly passing the issue on to NCC.</p>	<p>The Scheme Design Report, Rev.1, (AS-009) sets out the Applicant's proposals for the sideroad network.</p> <p>With regards the closure of the Ringland Road (unclassified local road) connection to the A47 at Easton, the initial design concept proposed the Norwich Road junction with a side road connection between Taverham Road (C174) and Church Lane, Easton, to the east. This arrangement was presented at the March 2020 statutory consultation along with the supporting A47 North Tuddenham to Easton Junction & Sideroad Strategy Report¹⁰ (Highways England, 2020); the arrangement was shown on drawing on page 10 of Consultation Report Annex J - Section 47 Consultation Materials (APP-034).</p> <p>However, statutory consultation feedback raised concerns that the link between Taverham Road (C174) and Church Lane, Easton, would result in additional traffic using Ringland Road (unclassified local road) where there are existing safety concerns. Therefore, the proposed northern roundabout at Norwich Road junction and link to Taverham Road (C174) was reconfigured to remove the road linking Taverham Road (C174) to Church Lane, Easton. This change also offered benefits of reduced landtake and is reported in Table 4.12 (item no. 11) of the Consultation Report (APP-024).</p> <p>With regards impact of traffic travelling on the local sideroad network until the NWL is built, the Applicant has engaged with the Local Highway Authority (Norfolk County Council) and their internal project team promoting the NWL scheme regularly throughout the design development process. The Applicant has also included mitigation measures for Taverham Road within the proposed design as a result of engagement with the Local Liaison Group (Norfolk County Council and Parish Councils). As stated within Section 9 (paragraph 9.2.10) of the Scheme Design Report (AS-009), if the NWL scheme does not obtain planning consent, the Applicant would continue to engage with the local highway authority, Norfolk County Council, on longer-term mitigation measures.</p> <p>Taverham Road (C174) falls under the ownership and maintenance of the local highway authority, Norfolk County Council. Formal signed passing places are provided (9 No.) along its 1.6 km length from the junction of the existing A47 to the junction with Telegraph Hill / Weston Road / Honingham Lane.</p> <p>Norfolk County Council also presented their independent traffic modelling results to the Local Liaison Group (Norfolk County Council and Parish Councils) on 23 February 2021. The results demonstrated that the Average Annual Daily Traffic (AADT) on Taverham Road with the proposed mitigation measures in place (Honingham Lane closure) was 400 AADT in the Scheme opening year of 2025. The Applicant's transport assessment, in Chapter 4 of the Case of the Scheme (APP-140), shows a prediction of 200 AADT for the Scheme opening year of 2025 with NWL also open. Both these situations are still lower than the 2015 baseline of 600 AADT along Taverham Road.</p> <p>Local Transport Note 1/20 (July 2020) Cycle Infrastructure Design references rural lanes as those with flows of less than 1000 AADT and speeds of 40mph or less.</p> <p>The Applicant has continued to engage with the Local Highway Authority since the submission of the DCO and has proposed to implement a speed restriction of 30mph on Taverham Road from the proposed junction to the River Tud bridge. This has now been agreed with Norfolk County Council and the Applicant's dDCO and supporting DCO plans will be revised and submitted to the ExA.</p>
RR-010.2	<p>The 'receptor' feedback comments have not had an adequate response - just a statement acknowledging that Taverham Road is the next access lane to the A47 from the north side once the Easton roundabout access is removed.</p>	<p>The Applicant has also been in correspondence with Mr Kenny through direct communication sent to the Project Mailbox. These direct communications are recorded and range in date from the consultation event held in Honingham Village Hall (03 March 2020), Statutory Consultation (February – April 2020), Targeted Consultation (December 2020-January 2021) and most recently via the Project Mailbox in May 2021.</p> <p>The Applicant has provided responses to queries raised by Mr Kenny and the statutory consultation and targeted consultation responses are presented within Annex N (APP-38) and Annex O (APP-039).</p>
RR-010.3	<p>NCC Highways has expressed concern about the implications for traffic quantities but no mitigation has been suggested. Residents have repeatedly highlighted concerns about safety (for walkers and cyclists).</p>	<p>As part of the development process, an independent Stage 1 Road Safety Audit of the proposed scheme has been undertaken, which did not identify any safety concerns in this location.</p> <p>The Applicant has engaged with the Local Highway Authority (Norfolk County Council (NCC)), the NWL project team, NCC Network Safety team and NCC Public Rights of Way officers throughout the design development process. The Applicant confirms that no safety concerns have been raised by the Local Highway Authority for walkers and cyclists.</p> <p>Norfolk County Council also presented their independent traffic modelling results to the Local Liaison Group (Norfolk County Council and Parish Councils) on 23 February 2021. The results demonstrated that the Average Annual Daily Traffic (AADT) on Taverham Road with the proposed mitigation measures in place (Honingham Lane closure) was 400 AADT in the Scheme opening year of 2025. The Applicant's transport assessment, in Chapter 4 of the Case of the Scheme (APP-140), shows a prediction of 200 AADT for the Scheme opening year of 2025 with NWL also open. Both these</p>

¹⁰ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
		<p>situations are still lower than the 2015 baseline of 600 AADT along Taverham Road. Local Transport Note 1/20 (July 2020) Cycle Infrastructure Design references rural lanes as those with flows of less than 1000 AADT and speeds of 40mph or less.</p> <p>The Applicant has continued to engage with the Local Highway Authority since the submission of the DCO and has proposed to implement a speed restriction of 30mph on Taverham Road from the proposed junction to the River Tud bridge. This has now been agreed with Norfolk County Council and the Applicant's dDCO and supporting DCO plans will be revised and submitted to the ExA.</p>
RR-010.4	The potential linking of the expanding Food Hub on the southern roundabout at the new junction will draw even more traffic up and down Taverham Road.	<p>The Scheme provides a link for Food Enterprise Zone traffic to the strategic road network at Norwich Road junction for east-west movements and Wood Lane junction for northward movements.</p> <p>The Applicant has undertaken extensive traffic modelling as presented within Chapter 4 of the Case for the Scheme (APP-140). Traffic heading north will use the existing locally appointed heavy good vehicles route (B1535 Wood Lane) in the "No NWL" scenario and if granted planning consent would utilise the NWL scheme in the "With NWL" scenario.</p> <p>The Applicant also notes that the current route is already subject to signage prohibiting heavy good vehicles access to Taverham Road which would remain in place.</p> <p>The Applicant has continued to engage with the Local Highway Authority since the submission of the DCO and has proposed to implement a speed restriction of 30mph on Taverham Road from the proposed junction to the River Tud bridge. This has now been agreed with Norfolk County Council and the Applicant's dDCO and supporting DCO plans will be revised and submitted to the ExA.</p> <p>Further enforcement measures to prohibit misuse of local roads during operation would fall under the remit of the local highway authority, Norfolk County Council.</p>
RR-010.5	The traffic forecast figures circulated have changed constantly and there is no plan for addressing the exacerbated levels of rat-run traffic should NCC's Western Link Road not be built (and that still looks to be a strong possibility). Taverham Road is currently a beautiful, tranquil and narrow country lane, popular with cyclists. It will be destroyed by the predicted rat-running and become even more dangerous to users than it is at present. With the present proposals, Taverham Road should not have a connection onto the A47.	<p>As part of the development process, an independent Stage 1 Road Safety Audit of the Scheme has been undertaken. No safety concerns were identified in this location.</p> <p>The Applicant has engaged with the Local Highway Authority (Norfolk County Council), the NWL project team and Norfolk County Council Public Rights of Way officers throughout the design development process. No safety concerns have been raised by the Local Highway Authority.</p> <p>Norfolk County Council also presented their independent traffic modelling results to the Local Liaison Group (Norfolk County Council and Parish Councils) on 23 February 2021. The results demonstrated that the Average Annual Daily Traffic (AADT) on Taverham Road with the proposed mitigation measures in place (Honingham Lane closure) was 400 AADT in the Scheme opening year of 2025. The Applicant's transport assessment, in Chapter 4 of the Case of the Scheme (APP-140), shows a prediction of 200 AADT for the Scheme opening year of 2025 with NWL also open. Both these situations are still lower than the 2015 baseline of 600 AADT along Taverham Road.</p> <p>The Applicant provided clarification on the traffic forecast figures in a direct response on 10 May 2021, which was part of a communication chain between 03 February 2021 and 10 May 2021 comprising 6 responses from the Applicant to queries raised by Mr Kenny. In this situation figures were being incorrectly communicated and interpreted from a Local Liaison Group Meeting and a separate South of the A47 Task Force Meeting held within a week of each other. The purpose of the meeting with the South of the A47 Taskforce (02 March 2021) was particularly around the North - South movement through the Barnham Broom to Weston Longville corridor. The traffic figure table presented at this session did not include the further updates undertaken by Norfolk County Council around Honingham Lane / Taverham Road (as presented at the Local Liaison Group Meeting the previous week) as it wasn't relevant to the purpose of the meeting. This was explained during the session with the South of the A47 Taskforce but may not have been shared with Mr Kenny by the Parish Council Representative.</p> <p>Through analysis of traffic modelling scenarios and engagement with the local liaison group, the Applicant explored the concerns related to safety and disturbance from increased traffic passing through Ringland, via Honingham Lane and onto Taverham Road during the period between the Scheme opening and NWL opening. As an outcome of this process and engagement with the Local Liaison Group, the Applicant proposes to implement the temporary closure of Honingham Lane to through traffic, in the interim period between the A47 opening and NWL scheme opening. This measure would reduce the volume of traffic utilising this route during the interim period between the A47 opening and NWL becoming operational. If the NWL scheme does not obtain planning consent, the Applicant would continue to engage with the local highway authority, Norfolk County Council, on the implementation of this proposal (e.g. long term closure of Honingham Lane or alternative measures). This commitment is stated within Section 9.2 of the Scheme Design Report, Rev.1 (AS-009); see paragraph 9.2.10.</p>

RR-011 PETER MILLIKEN

Reference	Relevant Representation	Highways England Response
RR-011.1	I would like to make representation in support of this application.	The Applicant welcomes the support which is being given towards the Scheme.
RR-011.2	At present there is no safe way to get to a part of our village on foot or by cycle which limited the travel options of this part of our community to only being able to travel by motor vehicle and even then may Easton residents prefer not to cross the roundabout on the A47 near St Peters Church because of the actual and preceded dangers due to the high speed of traffic on the A47 not slowing down as they approach the roundabout.	The Scheme design includes provision of a new bridge (Easton footbridge), suitable for walkers and cyclists, between Dereham Road and Church Lane, Easton, to replace the existing at-grade crossings of the A47 at the Easton roundabout and at Ringland Lane/Dog Lane. The existing at grade crossing facility would be closed and removed as part of the proposed scheme.

Reference	Relevant Representation	Highways England Response
RR-011.3	At present, Church Lane sees at least 4800 on average daily motor vehicle journeys along Church Lane and Ringland Road. This is an unclassified county track. The scheme devised stops the rat-running traffic and provides a safe and secure means for residents to move around the whole village on foot, by cycle, wheelchair or mobility scooter. With the proposed plan the dispersed traffic will use more suitable C and B class roads in the local area.	The Scheme design removes the direct link between Ringland Road and Church Lane, Easton, from the A47 in response to statutory consultation feedback raising concerns that the link between Taverham Road (C174) and Church Lane (unclassified local road) would result in additional traffic using Ringland Road where there are existing safety concerns.
RR-011.4	This plan even protects the residents of Ringland against rat-running which NCC Highways has to date not been prepared to do. Highways England engaged, you listened, you developed a locally agreed proposal and now it is time to implement without any further delay.	The Applicant is grateful for the positive feedback and the Applicant's commitment to control traffic through Ringland is reflected in Section 9.2 of the Scheme Design Report, Rev.1 (AS-009).

RR-012 WENSUM VALLEY ALLIANCE

Reference	Relevant Representation	Highways England Response
RR-012.1	The WVA (Wensum Valley Alliance) is concerned about the Road Building proposals for the County generally, but particularly for the impact upon the Chalk streams and river environments on the grounds of (a) cumulative effect upon eco systems and the environment generally e.g. this proposal takes down existing woodland and damages areas adjacent to the River Tud, but this also applies to the Thickthorn roundabout proposals and the Cant stream, and to the North Burlingham proposals. How many mature trees will be lost in combination? How much farmland is taken?. How many Country Wildlife and special interest Sites?	<p>The effects on these issues have been assessed in the following application documents:</p> <ul style="list-style-type: none"> • ES Chapter 8 – Biodiversity (APP-047): assesses effects on habitats, including the River Tud and loss of woodlands, plus county wildlife sites and Sites of Special Scientific Interest. Mitigation, in the form of species rich grassland, hedgerows, trees, woodland and biodiversity wetlands, are shown on the Environmental Masterplan, Rev.1 (AS-007). • ES Chapter 9 – Geology and Soils (APP-048): assesses impacts and mitigation for permanent and temporary agricultural landtake. • ES Chapter 13 – Road Drainage and the Water Environment (APP-052): assesses impacts and mitigation for effects on the water environment, including rivers. • ES Chapter 15 - Cumulative Effects Assessment (APP-054): considers the cumulative impacts for all the disciplines considered in the environmental impact assessment, including biodiversity, agriculture and water quality, in accordance with the requirements of the Infrastructure Planning EIA Regulations 2017 and Planning Inspectorate Advice Note Seventeen. Other developments were included as part of the cumulative assessment methodology and this is detailed in section 15.3 of the chapter. • Report to Inform Habitats Regulations Assessment (APP-139): assesses the effects on the ecology of the River Wensum Special Area of Conservation (SAC). No works are to take place within the River Wensum and, without mitigation, there will be no likely significant indirect effects on any of the qualifying features of the River Wensum SAC. This was primarily down to the distance the site is away from the works (1.6km overland, 7.3km downstream), thereby any pollution would be highly dissolved or dispersed before reaching the site the impacts would be negligible. <p>All mitigation will be detailed and implemented as part of the Record of Environmental Actions and Commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143). Delivery of these actions and commitments, including consulting the relevant local planning authority on the final landscaping design and Environmental Management Plan, will be secured through dDCO Requirements 4 'Environmental Management Plan' and 5 'Landscaping'.</p>
RR-012.2	(b) the failure to acknowledge that "mitigation" in current forms is not a solution to the disruption to eco-systems during the years of survey, construction and after for years	<p>As part of the Development Consent Order (DCO) application, an Environmental Impact Assessment (EIA) was undertaken for the Scheme. EIA is a process that identifies the likely environmental effects (both adverse and beneficial) of a proposed development.</p> <p>As part of the EIA, the water environment (including the chalk and river environments specifically noted) was considered as a sensitive receptor and the effects of construction and operation impacts on such was fully assessed in ES Chapter 13 Road Drainage and the Water Environment (APP-052) and ES Chapter 8 Biodiversity (APP-047).</p> <p>Mitigation measures together with good construction practice in relation to pollution prevention and water management during construction have been identified in this respect and the commitments of such are reflected in the Record of Environmental Actions and Commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143). Table 3.1 also details the measures that have been incorporated into the Scheme design to minimise any operational impacts, such as highway run-off to the water environment. The design and mitigation also includes a period of aftercare monitoring following construction to ensure that the design and mitigation is effective.</p> <p>Appendix B.5 of the Environmental Management Plan will contain a Landscape and Ecology Management Plan (LEMP) to be produced by the appointed Landscape Architect and Ecologist prior to construction. The LEMP will detail how the proposed landscape and ecological mitigation and compensation measures, pre, during and post construction, would be implemented to minimise disruption to the eco-system (e.g. creation or enhancement of habitats as receptor areas for species; and implementing measures to continue habitat connectivity during construction). The LEMP will also define how these measures would be managed and monitored to achieve the required new habitat creation as soon as possible, and optimise benefits for protected and notable species.</p> <p>Finally, construction works near, in or over a watercourse or affecting a protected species will be managed by detailed construction methodologies and mitigation measures to be agreed as part of licence, consent and permit applications to key stakeholders (e.g. the relevant Council, Environment Agency and Natural England); compliance with such will be required. Extensive consultation with these key stakeholders has been undertaken throughout the process to ensure that site survey methodologies are appropriate and that the assessment and mitigation is proportionate</p>

Reference	Relevant Representation	Highways England Response
		for the sensitive receptors mentioned. The environmental actions and commitments specified in the Environmental Management Plan, including the LEMP and need for licence, consent and permit applications where required, will be secured by the requirements in dDCO Requirement 4 'Environmental Management Plan' (APP-017).

RR-013 BRYAN ROBINSON

Reference	Relevant Representation	Highways England Response
RR-013.1	HE comments to Norfolk County Council on the NWL Scoping application stated that until such time as the A47 DCO is approved and delivery confirmed, the impact of and mitigation for the NWL should be considered with and without the A47 dualling. TR010038 should reciprocate with a base assessment without the NWL to establish environmental and climate changes from the existing situation as the core design with an alternative scenario reflecting the NWL. At present the environmental and climate figures are the extra over implications with the NWL but miss the impact of increased traffic due to the NWL above present traffic and emission levels.	Please see Common Response C .
RR-013.2	The submission does include a brief comparison without the NWL (DS1 map - fig 4.27 Doc 7.1) on which the numbers suggest that the Wood Lane junction is overdesigned, solely to accommodate the NWL and the creation of a dominant Norwich outer ring road. The design of all junctions is questionable, ranging from the known inadequacy of the existing Fox Lane, which HE deems acceptable, to the overdesign of both the Wood Lane and Norwich Road junctions when compared to design proposed in the concurrent TR010040 scheme.	The Applicant has provided information within the Scheme Design Report, Rev.1 (AS-009) on the junction design (Section 4) and interrelationship with the NWL (Section 9.2). The A47 North Tuddenham to Easton Junction & Sideroad Strategy Report ¹¹ (Highways England, 2020), referenced within Section 4 of the Scheme Design Report, was presented at statutory consultation by the Applicant and is available on the scheme website ¹² . This report outlines the junction design process undertaken in accordance with the UK Design Manual for Roads & Bridges (DMRB), CD 122 – Geometric Design of grade separated junctions. This assessment concluded that full grade separation is required in both the “With” and “Without” NWL traffic scenarios modelled at the Wood Lane junction. The Applicant has worked collaboratively with the promoter of the NWL scheme to design an integrated connection. However, as the NWL does not have planning consent, the DCO contains provision to not construct this element. This is discussed within Section 9.2 of the Scheme Design Report, Rev.1 (AS-009).
RR-013.3	Reference is made to the controversial Food Enterprise Park near Easton. Its LDO approval in 2017 was largely dependent upon a future access from an upgraded A47. The existing Blind Lane is required to be closed, whatever happens to the A47. The TR010038 documents are ambiguous, stating that the site can be connected to the new side road (Dereham Road) but stating that there is no requirement for it to be accessed directly from the A47, given the approved alternative route along Church Lane, Easton. If the latter is true, there is no necessity for the dumbbell roundabout near Blind Lane/Taverham Road, and this should be initiated and paid-for, if made necessary, by others. Local traffic could access the new A47 via the Wood Lane or Longwater junctions. The requirement of access to Honingham church and the minor traffic using Taverham Road can be catered for with a small spur underpass off Dereham Road, and no need at all for a junction at Blind Lane/Norwich Road, with a much lower cost and land requirement.	The Applicant has provided information within the Scheme Design Report, Rev.1 (AS-009) on the junction design (Section 4) and interrelationship with the Greater Norwich Food Enterprise Zone (Section 9.3). The A47 North Tuddenham to Easton Junction & Sideroad Strategy Report ¹³ (Highways England, 2020) referenced within Section 4, was presented at Statutory Consultation by the Applicant and is available on the scheme website. This report outlines the junction design process undertaken in accordance with the UK Design Manual for Roads & Bridges (DMRB), CD 122 – Geometric Design of grade separated junctions. This assessment concluded that full grade separation is required in both the “With” and “Without” NWL traffic scenarios modelled at the Norwich Road junction. The Norwich Road junction provides access to the Strategic Road Network for Easton and communities to the south and north of the A47, replacing the existing Easton roundabout. The proposed junction takes into account planned residential developments and future traffic growth forecasts as detailed within the Case for the Scheme (APP-140). The Applicant's position on the Food Enterprise Zone (FEZ) is covered within Section 9.3 of the Scheme Design Report, Rev.1 (AS-009). It is acknowledged that the developer of the FEZ site may wish to obtain consent to create their own connection to the Scheme in the future. The Applicant's Scheme traffic modelling has therefore taken this into account at the Norwich Road junction to provide capacity for the FEZ vehicle movements. The Applicant notes that the promoters of the FEZ have now lodged a planning application with the Local Planning Authority, Broadland District Council (Application No.: 20211335) for the provision of an access to the A47 Scheme.
RR-013.4	Other issues, amongst many more which I will raise at the earliest opportunity, are that the BCR calculations appear to contain errors; the agglomeration benefits specific to TR010038 lack evidence;	The Scheme's agglomeration benefits were undertaken using the Department for Transport's (DfT's) Wider Impacts in Transport Appraisal (WITA) software in line with DfT's Transport Analysis Guidance unit A2.1. The wider economic impacts (WEIs) assessment considers the impacts of the Scheme on non-transport market (i.e. secondary market) due to the connectivity improvement. These are: productivity (agglomeration), employment (labour market) and induced investment (output change in imperfectly competitive markets) . These benefits are considered as Level 2 benefits and do not form part of the Level 1 / core benefits / Benefit Cost Ratio (BCR) calculations as per DfT guidance. The Applicant has used WITA software (approved by DfT) to capture these impacts. The assessment utilising WITA assumes that employment between the Do Minimum and Do Something scenarios is consistent and therefore as a result does not consider the move to more / less productive jobs. The following three WEIs have been assessed within WITA: <ul style="list-style-type: none"> • Agglomeration: <i>firms derive productivity benefits from being close to one another. These productivity impacts are driven due to access to larger product, input and labour markets and knowledge and technology spill-overs.</i> • Output change in imperfectly competitive markets: <i>companies benefit from time savings due to a transport scheme, which is effectively a reduction in production costs, incentivising firms to increase their output whilst maintaining an attractive price-cost margin.</i> • Tax revenues arising from labour supply impacts: <i>the effect on taxes due to a change in the number of people attracted into work as a result of an improvement in travel costs. It should be noted that commuting decisions are based on after tax income, therefore the Value of Time (VOT) used for ordinary time savings appraisals does not include exchequer benefits.</i>

¹¹ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

¹² This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

¹³ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
		<p>The following methodology has been adopted for assessing the WEIs identified above using WITA:</p> <ul style="list-style-type: none"> NATS traffic model data for the forecast years of 2025 and 2040 has been used Opening year of the scheme is 2025 with a horizon year of 2084 Local authority economic parameters and number of workers were obtained from DfT's 2019 wider impacts data set TUBA v1.9.13 economics file was used and therefore is consistent with the May 2019 version of the TAG Databook The assessment has only considered the impacts on car commuting and car business users only In order to eliminate model noise and unrealistic benefits, the WITA outputs / results have been filtered so that only the direct impacts of the scheme are captured
RR-013.5	and the climate change/carbon emissions calculation figures which do not establish changes from existing levels and are distorted by the predetermination of the NWL and do not include all the categories in the Carbon tool workbook 2.3 nor is there an inclusion for change of land use/biomass removal.	<p>The carbon assessment has taken account of changes from existing levels of emissions. Following the methodology in Design Manual for Roads & Bridges (DMRB) guidance LA 114 Climate, the assessment looks at the difference between 'do minimum' (assuming no change) and 'do something' (assuming scheme goes ahead). The traffic assessment used to determine end user carbon emissions did account for the NWL scheme. As such, the end user carbon emissions reported within the operational assessment can be treated as a worst case cumulative scenario. The assessment of Construction Carbon has been undertaken using the Highways England Carbon Tool (V2.3). Some categories from this tool are not relevant for this scope of works (e.g. Business Travel and Commuting). With regards to emissions during the Scheme construction works, paragraph 14.8.2 in ES Chapter 14 Climate (APP-053) acknowledges "embodied carbon emissions from the use of construction materials are the main contributor to climate change, with additional carbon emissions arising from the transportation of these materials and the use of construction plant". Paragraph 14.5.1 of ES Chapter 14 and Paragraph 2.3.3 of ES Appendix 14.1 Embodied Carbon Assessment (APP-131), carbon emissions associated land use/biomass removal have been classified within site clearance and have been based on estimated fuel consumption at the preliminary design stage for the DCO application. As reported in Figure 2 (Carbon Emissions by DMRB series) of ES Appendix 14.1, this equates to 226 tCO_{2e}. As well as reporting estimated emissions associated with the Scheme, ES Chapter 14 (Section 14.9) highlights carbon mitigation opportunities taken forward during design and further opportunities to reduce emissions during construction. Mitigation measures are also put forward to address impacts on biodiversity, including the planting of woodland and hedgerows, in ES Chapter 8 Biodiversity (APP-047).</p>
RR-013.6	There is an unrealistic assumption that the NWL calculations by others will include the impact of emissions for that scheme for A47 traffic which is excluded from this submission. Therefore, under the cumulative process this submission should reflect these impacts or they will disappear into the ether.	<p>The climate assessment undertaken within ES Chapter 14 Climate (APP-053) has taken into account construction and operational carbon emissions associated with the Scheme. Regarding operational emissions, the traffic assessment which end user carbon emissions have been derived from did include the NWL. This means that operational carbon emissions within ES Chapter 14 include both schemes and therefore can be considered a worst case cumulative scenario.</p>

RR-014 TRANSPORT PLANNING ASSOCIATES FOR CLARION HOUSING

Reference	Relevant Representation	Highways England Response
RR-014.1	We wish to make additional representations to those already made in relation to the A47 road improvements consultation, on behalf of our clients, Clarion Housing Group. In making these further comments we reaffirm our support of the grade separated junction in this position as part of the A47 highway improvements. We note the indicative location for the potential future FEP access, that is being proposed by yourselves, facilitates the possibility to provide a satisfactory vehicular link to the Food Enterprise Park(FEP) which is required to connect to the A47 once the dualling has taken place. The level and type of vehicular traffic that will be seeking access and egress from the FEP will require a road connection that is substantially better than the current configuration of Blind Lane however. In addition, there are existing employment at Honingham Thorpe Farm Business park (300 staff) as well as the farming activities that would need to be accommodated at this junction. The proposed scheme will enable growth in and around Norwich, specifically the FEP and the Honingham Thorpe Settlement which would deliver c5,000 new homes.	<p>The Applicant acknowledges the support from Transport Planning Associates, on behalf of Clarion Housing.</p> <p>The Applicant notes that the developer of the Food Enterprise Zone (FEZ) site may wish to obtain consent to create their own connection to the Scheme in the future. Therefore, the Scheme's traffic modelling has taken this into account at the Norwich Road junction, to provide capacity and ability for a future connection to Norwich Road junction. Honingham Thorpe Farm Business Park would need to work with the FEZ to ensure their needs are catered for in any future planning application for the junction connecting to the Norwich Road junction.</p> <p>The Applicant notes that the promoters of the FEZ have now lodged a planning application with the Local Planning Authority, Broadland District Council, (Application No.: 20211335) for the provision of a private access to the Scheme.</p>

RR-015 DAVID LEWIS

Reference	Relevant Representation	Highways England Response
RR-015.1	Subject: Closure of Church Lane, Lower Easton Dear James and the Highways team, I wish to express my gratitude to you for producing the planned changes to the road system in Lower Easton, as well as the new footbridge across the A47. For the first time in 30 years I will soon be able to walk along Ringland Road without the danger of speeding traffic, HGVs etc and access the rest of my village safely across the new footbridge. For 30 years it has been impossible to leave my house on foot and have a walk up the road towards Easton for fear of becoming a statistic. I look forward to the start of roadworks to dual the A47 and remove the rat running traffic that plagues Lower Easton at present. I will no longer have to put up with HGVs passing within half a metre of the front wall	<p>The Applicant welcomes the feedback and confirms these are some of the anticipated road safety benefits of our Scheme.</p>

Reference	Relevant Representation	Highways England Response
	of my house and damaging my property. My near neighbours are also pleased with your plans as their properties are also being damaged by the heavy traffic that we are currently experiencing along Ringland Road. Thank you for all your hard work. Kind Regards, David Lewis	

RR-016 CHILDHOOD FIRST

Reference	Relevant Representation	Highways England Response
RR-016.1	<p>We wish to make a representation to confirm the arrangements we made with Highways England who have altered their plans to prevent disruption to one of our children's homes which is adjacent to the a47 development. We want the inspectorate to ensure that the new arrangements are honoured. The representation will consist of a brief letter and minutes of the meeting with HE. This will be submitted as an email and attachments.</p> <p>We are writing to provide a relevant representation in respect of the A47 extension. Although we have met with Highways England (HE) and received information from national Grid we wish to ensure that the safeguards we believe we have secured are embedded in your approved plan.</p> <p>Background</p> <p>Childhood First is a children's charity who operated children's homes for severely traumatised children. It is critical to their experience and recovery that they are cared for in tranquil and contained environments. All our homes are located in such places. Two of our homes are located along [REDACTED]; and [REDACTED]. [REDACTED] is [REDACTED] adjacent to the construction area identified in the plans submitted by HE. North of [REDACTED] is a field (forming a triangle along [REDACTED], [REDACTED]) Our principal concern has been about the use of this field in support of this project because of the impact it will have on the children in our care. In the original plan, it seemed this field would be used for heavy plant and equipment which may operate throughout the project (many years). This would have had debilitating effect on the home and would have risked its Ofsted status.</p> <p>Discussions with HE</p> <p>We made representations to HE in respect of this and explained in more detail about our concerns. They had been unaware of the nature and use of [REDACTED] and were sympathetic to the situation. They consequently agreed to modify the plan so it was clear that the field was not to be used during the construction of A47, thus dealing one key area of our concern. The revised plan appears to leave the field intact and without disruption during the construction period. We would like the Inspectorate to place necessary constraints to prevent any reversal of this undertaken. We attach the minutes of the meeting we had with HE in support of this.</p> <p>A second aspect in relation the construction was the repositioning of the gas pipeline by the national grid (utility conversion work). This would result in a drilling station being set up in the field so the gas pipe could be re-sunk to traverse the new A47 road. We have had to accept this work needs to take place within this field on the understanding the way it is done creates the least noise disruption to the children. We had a second meeting with National Grid who explained the process to us. Again the National Grid were sympathetic to our concerns and agreed further undertakings to minimise the impact on the home on the children. This included the timing of the key boring process. We enclose the minutes of this meeting for information.</p>	<p>The Applicant can confirm its commitment to continue working closely with Childhood First to minimise disturbance and disruption to residents of Merrywood House. The submitted DCO plans reflect the changes to the field north of Merrywood House in response to a commitment to remove the proposed A47 works compound and thereby the risk of heavy plant and equipment operating close to the boundary of Merrywood House for upwards of two years. Works are now limited to shorter duration statutory utility and footpath upgrade activities. This is confirmed in the General Arrangement Plans (APP-005).</p> <p>Action NV1 in the Environmental Management Plan (APP-143) also proposes the use of the temporary noise barriers to protect Merrywood House during construction; delivery of this commitment will be secured through dDCO Requirement 4 'Environmental Management Plan' (APP-017).</p>
RR-016.2	<p>Revised plans submitted to Inspectorate</p> <p>We note the latest plans that have been submitted. At this stage, we note that HE's 'Environmental Management Plan' includes the following commitment:-</p> <p>In support of limiting and controlling noise during construction, the PC [Principal Contractor – Galliford Try] may use, inter alia, the following good working practices to minimise potential impacts:</p> <p>Restrict construction working hours to 07:00-19:00 on weekdays and 07:00-19:00 on Saturdays as far as practicable. Night-time and weekend working hours to be determined in discussion with the LPA (including Section 61 prior consent applications where necessary).</p> <ul style="list-style-type: none"> • Temporary noise barriers at specific construction phases and receptors as detailed in Table 11.11 in Chapter 11 of the ES (TR010038/APP/6.1) and summarised below: <ul style="list-style-type: none"> - Stage 1 (Pre-construction works) - [REDACTED] <p>We believe the commitment is fairly woolly and could be improved upon, e.g. by excluding or restricting Saturday working if residents will be in occupation and affected by the</p>	<p>The Applicant acknowledges Childhood First's concerns and has consulted National Grid Gas Plc (NGG) on the below responses to the points raised.</p> <p>Working hours</p> <p>With regards the working hours, the Applicant is unable to exclude Saturday working for several reasons:</p> <ul style="list-style-type: none"> • There will need to be period of 24-hour continuous activity lasting for between a week and upwards of a month during the drilling works to install the pipeline under the A47. This is because the pipe pull through cannot be stopped once started, as stopping the pull through risks the apparatus becoming stuck. • Though efforts would be made to minimise the need to work weekends, there may be occasions where the benefits of excluding or restricting Saturdays may be offset by a longer presence of construction on site to offset the loss of Saturday working. • In some cases, the Applicant or NGG may wish to utilise the good weather and long summer days to accelerate completion of work, so as to reduce the number of days of potential disturbance. • Finally, should there be 'heat wave' conditions, working days or daily hours may be carried out at cooler times to reduce the impact on the welfare and safety of the construction workforce. Such an arrangement would only be

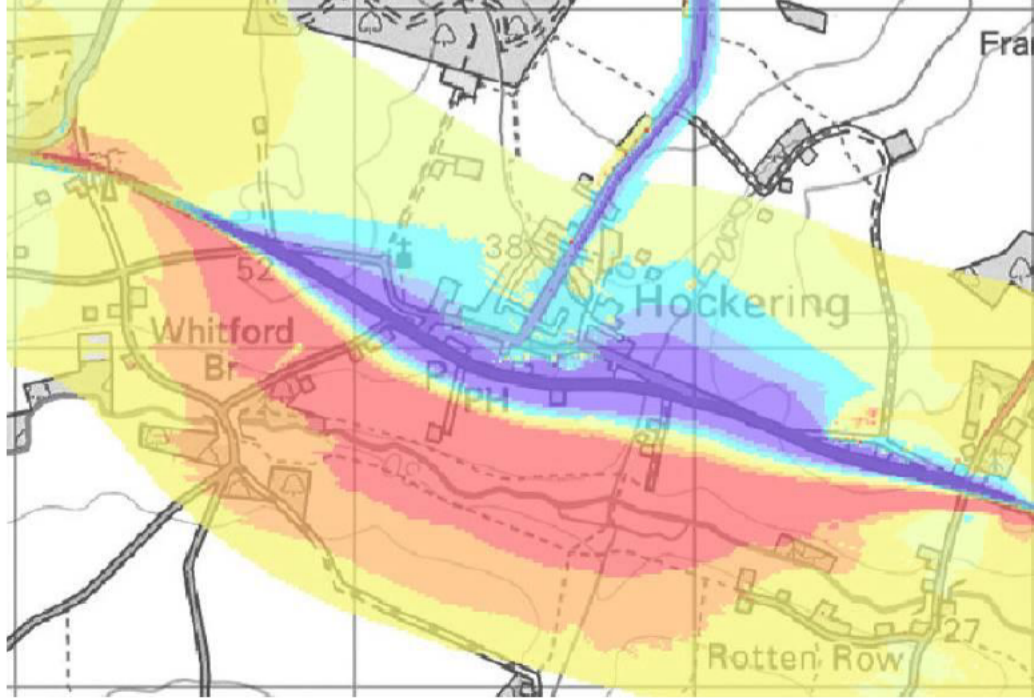
Reference	Relevant Representation	Highways England Response
	works. Looking at the points raised our the meeting notes, there may be further scope for minimising the impact of the utility diversion works on [REDACTED], for example a commitment that the mud mixer will be positioned so as to cause minimum inconvenience and to restrict sheet piling operations to certain times of day (e.g. avoiding early mornings and evenings).	<p>undertake after prior engagement with affected neighbouring properties. However, the nature of the works means there may be periods of reduced or quieter activity, such as during the testing stage, when restricted working hours may be feasible.</p> <p>Therefore, the Applicant and NGG are committed to continuing regular, on-going communications with Merrywood House prior to and during construction to minimise the disturbance and risks to the occupants of Merrywood House. Through this process the Applicant would seek to identify: opportunities for more disturbing activities to be programmed for less sensitive periods; periods when it may be suitable and feasible to restrict working hours; or where the activities would involve a low risk of disturbance. Action G7 in the Environmental Management Plan (APP-143) confirms the commitment to engage with local residents to provide prior notification of and manage concerns about periods of disruption; delivery of this commitment will be secured through dDCO Requirement 4 'Environmental Management Plan' (APP-017).</p> <p>Position of plant and equipment</p> <p>Utility diversion and drilling contractors have not yet been appointed, so the Applicant is unable to confirm the future position of any plant and equipment within the field north of Merrywood House.</p> <p>However, when appointed the contractors will be required to adhere to commitments to minimise disturbance to Merrywood House detailed in the Environmental Management Plan (APP-143). Through dDCO Requirement 4 'Environmental Management Plan' (APP-017), the relevant planning authority is to be consulted on the second iteration of the Environmental Management Plan (APP-143) and the Applicant proposes to include measures such as.:</p> <ul style="list-style-type: none"> accessing the field from Berrys Lane as far north as possible without impacting the woodland north of the field; placing other activities as far as possible away from Merrywood House, such as far north within the field as feasibly possible; and installing a temporary noise barrier along the southern side of the works area, which will also provide a visual screen. <p>The Applicant and NGG are also committed to continuing regular, on-going communications with Merrywood House prior to and during construction to minimise the disturbance and risks to the occupants of Merrywood House. Affected landowners and neighbouring properties will be notified of the communications arrangement for those interested parties to liaise with the Applicant or NGG accordingly. These commitments will be delivered through the above Action G7 in the Environmental Management Plan (APP-143).</p>
RR-016.3	As a general point we have had agreement that heavy plant and equipment is not be transported along [REDACTED] (the portion south of [REDACTED]) especially due the risks to the children in both our houses.	Heavy plant and equipment to the field north of Merrywood Lane will be transported via the A47 and Berrys Lane, not along Berrys Lane from Mattishall Road to the south. This commitment will be managed through the traffic management plan, secured through Requirement 10 'Traffic Management' of the dDCO (APP-017).

RR-017 CPRE NORFOLK

Reference	Relevant Representation	Highways England Response
RR-017.1	CPRE Norfolk does not agree with the need for an optional arm at the proposed Wood Lane Junction Northern Dumbbell roundabout and therefore that part of the junction needs to be redesigned. This is due to the supposed unlawfulness of the proposed Norwich Western Link road and therefore no junction of that proposed road with the A47 will be required.	<p>The Scheme is not dependent on the NWL road scheme and would still proceed without the NWL coming forward. However, in July 2019 Norfolk County Council announced the preferred route for their NWL and in May 2020 the Department for Transport approved the Strategic Outline Business Case. As a consequence, under the Department of Transport traffic modelling guidance, the NWL has to be considered as a 'certain development' in the traffic model determining the need case for the A47 North Tuddenham to East dualling scheme.</p> <p>Though the NWL does not currently have consent to be constructed, the Applicant is working with Norfolk County Council as it is important to understand how the two schemes would interact. In addition, as the local highway authority has a well advanced scheme that will connect with the A47, it is both sensible and pragmatic for the Scheme to anticipate that the NWL may come forward. Through this approach the Applicant is required to be as efficient as possible with public money and ensure the community benefits from joined up working with regards planning new major developments and cost control both for the short and long term.</p> <p>In addition, the reconfiguration of a newly built roundabout on a strategic highway junction to incorporate a new arm post construction of the Scheme would incur environmental and social impacts that could be avoided if the junction was designed to incorporate the NWL. These benefits are discussed in Section 9.2 of the Scheme Design Report, Rev.1 (AS-009).</p> <p>The Applicant confirms that if the NWL does not attain planning consent, the stub will not be built and the permanent land associated with Work Nos. 26a and 98 on the Works Plans (APP-007), would be reduced accordingly. However, the extent of the reduction would need to be determined at the detailed design stage. This is covered within the Scheme Design Report, Section 9.2.9 (AS-009).</p>
RR-017.2	Volume 6. 6.3 Environmental Statement appendices. Appendix 7.7 Lighting Assessment. CPRE Norfolk's understanding is that artificial lighting for the proposed junctions, slip roads and associated roundabouts is not a legal requirement. There are plenty of local examples where roundabouts on major routes maintained by the County Council are not artificially lit e.g. the Pulham roundabout on the A140 and roundabouts along the Broadland Northway. We wish to see clear evidence why lighting such as that which is proposed is a necessity, given the intrusion this would cause to sensitive and currently dark landscapes, particularly given much of the new infrastructure would be visible from the River Tud and its valley.	<p>The impacts of lighting and proposed mitigation measures are assessed within ES Chapter 7 Landscape and Visual Effects (APP-046) and ES Appendix 7.7 Lighting Assessment (APP-095). Section 7 of ES Appendix 7.7 provides a summary of the safety need for artificial lighting on the approach to and through the proposed junctions, slip roads and associated roundabouts.</p> <p>The Applicant has taken this into consideration by designing the junction below the proposed A47 mainline in a cutting to minimise the impact of light spill.</p> <p>The design of the Scheme lighting has been undertaken in accordance with the UK Design Manual for Roads & Bridges (DMRB) TA 501 – Road Lighting Appraisal. This document sets out the process for the appraisal of new and replacement road lighting for motorway and all purpose trunk roads.</p> <p>The conflict area for the roundabouts has been lit following the Institution of Lighting</p>

Reference	Relevant Representation	Highways England Response
		<p>Professionals (ILP) Professional Lighting Guide PLG 02 - The Application of Conflict Areas on the Highway, and in accordance with BS5489-1:2020 Table A4, Lighting Classes for Conflict Areas.</p> <p>In accordance with the ILP PLG02, lighting is provided on the approach to the conflict areas for 5 seconds of driving distance at the expected speed to ensure a good visual guidance path is provided.</p>
RR-017.3	<p>Section 2.2 of the Lighting Assessment (Local Policy) does not refer to Norfolk County Council's Environmental Lighting Zones Policy: this is something which needs to be addressed, as all the areas being proposed for artificial lighting are within the area designated as "rural dark landscape" within this policy. If, despite these concerns, artificial lighting is approved, CPRE Norfolk requests that it should incorporate dimming technology and should involve the use of white LED lamps mounted in full cut off flat glass shields</p>	<p>There is no specific reference to Norfolk County Council's Environmental Lighting Zones Policy in the assessment. However, Section 2.2.7 of the ES Appendix 7.7 Lighting Assessment (APP-095) reports Clause 3.89 of the South Norfolk Local Plan Development Management Policies Document:</p> <p><i>Lighting</i> "3.89 Amenity and environmental quality can be impacted in other ways including by poorly designed and managed lighting. This is a particular issue in rural parts where the relatively 'dark skies' contribute greatly to character and amenity. References to useful guidance and advice are given in the Notes below."</p> <p>The Applicant does not consider that specific reference to the Environmental Lighting Zones Policy is necessary, as the Applicant has given due consideration to protecting, so far as possible, the rural dark landscape. Please see the response to RR-017.2, above, for details on the need for lighting and how the Applicant has sought to minimise the impacts of lighting.</p> <p>The luminaires proposed to be incorporated in the Scheme emit warm white colour temperature light. They would be shielded to avoid emitting upward light, which meets the CPRE's request. All lanterns proposed have the capacity to be dimmed. However, the lighting provision will be confirmed as part of the detailed design, to be approved through dDCO Requirement 3 in consultation with the relevant planning authority.</p>

RR-018 EDWARD BROWN

Reference	Relevant Representation	Highways England Response
RR-018.1	<p>concern about the NMU link between Hockering and Mattishall</p>	<p>The proposed new Mattishall Lane Link Road has been designed to be suitable for non-motorised users (walkers and cyclists) to replace the severed link between Mattishall and Hockering via Mattishall Lane and Low Road.</p> <p>As reported in Section 5.5 of the Scheme Design Report, Rev.1 (AS-009), the route of the proposed A47 dual carriageway severs the existing NMU access between Hockering and Mattishall via Mattishall Lane or public rights of way Hockering footpaths FP7, FP8 and FP9. However, statutory consultation feedback highlighted the existing importance of a connection between Hockering and Mattishall via Mattishall Lane. In response to this statutory consultation feedback, the Applicant decided to provide a new link between the villages of Hockering and Mattishall via a highway underbridge beneath the A47 - known as Mattishall Lane Link Road. The design of the underbridge incorporates provision for walkers and cyclists.</p>
RR-018.2	<p>concern about the lack of noise barrier between Hockering and the new road.</p>	<p>The assessment of noise and vibration is presented within ES Chapter 11 Noise and Vibration (APP-050). Mitigation in the form of noise barriers is incorporated within the design of the Scheme, along with a noise-reducing road surface to be applied to the whole length of the new dual carriageway.</p> <p>For both the short and long term operational noise assessments, the majority of noise decreases are predicted at Hockering close to the existing A47, due to the re-alignment of the Scheme to the south, with lower traffic using the by-passed A47. This is illustrated in the below noise change contours for the area, from ES Figure 11.8 (APP-074).</p> <ul style="list-style-type: none"> • Orange and red = road traffic noise increase of 3 dB or more in the short-term; • Dark blue and purple = road traffic noise decrease of 3 dB or more in the short-term.  <p>As reported in Table 11.16 'Final operational noise significance summary table', in ES Chapter 11, there would be significant beneficial effects at 39 properties within Hockering and one property on Park Lane east of Hockering village (these include 36 properties within Noise Important Areas 5200 and 5201). There would be significant adverse effects at six properties along Mattishall Lane and two receptors along Gypsy</p>

Reference	Relevant Representation	Highways England Response
		<p>Lane, between Hockering and the Scheme, as shown in ES Figure 11.10 (APP-075). For the remaining properties within Hockering there would be no significant effects.</p> <p>Sections 11.9.22 to 11.9.30, in ES Chapter 11, present the review of locations for noise barriers and justification for including or discounting provision of noise barriers to mitigate operational noise impacts. Noise barriers are proposed within the Scheme design north and south of where the Scheme crosses Mattishall Lane to reduce the noise impact of the Scheme at properties close to Mattishall Lane. A noise barrier was considered for a small number of properties along Gypsy Lane in Hockering, but the magnitude of the adverse impact was not affected even with a substantial length of noise barrier. Therefore, a barrier at this location has not been provided as it would not reduce the assessment conclusions.</p>
RR-018.3	<p>speeds on the new road will be higher, there will be a lot more traffic therefore noise from the road is likely to increase.</p>	<p>The new dual carriageway will have a higher speed limit than the existing single lane A47. An aim of the Scheme is to provide additional capacity for future regional traffic growth up to 2040, as well as improve safety and journey times to support employment and housing growth in the local area as well as across the A47 corridor.</p> <p>The assessment of operational noise effects within ES Chapter 11 Noise and Vibration (APP-050) has assessed the impacts of these changes and respective increases and decreases in road speeds and traffic volumes on the wider affected road network. This has been done by using data from the traffic modelling for the Scheme, created in accordance with the Department for Transport (DfT) Transport Appraisal Guidance. The model data incorporates traffic flow, speed and composition assumptions, as described in Section 11.5 of the ES Chapter 11; see Table 11.4.</p> <p>The operational study area for this noise assessment was defined as the area within 600m of new road links or road links physically changed or bypassed by the Scheme. This was extended to include the area 50m either side of road links with the potential to experience a short-term basic noise level change of more than 1.0 dB(A), as described in the Design Manual for Roads and Bridge (DMRB) guidance 'LA111 – Noise and vibration'. Therefore the study area also includes areas where traffic speed changes on existing roads could result in perceptible changes in road traffic noise levels.</p> <p>The residual noise impacts during the operational stage are reported in Section 11.10 of ES Chapter 11 (APP-050). For the majority of the 1,877 noise sensitive receptors considered, changes in road traffic noise due to the Scheme would not be significant. Significant adverse noise effects are predicted at:</p> <ul style="list-style-type: none"> • Eighty-three receptors in Lyng or on Lyng Road (north of the A47) • Two receptors on Church Lane • Six receptors on Mattishall Lane • Hall Farm and Hall Farm Cottages • St Andrew's Church, Honingham • Hockering Nursery and Newgate, Gypsy Lane, Hockering • Seven PRoW Hockering FP8, FP7, East Tuddenham FP9, • Honingham RB1, Lyng RB1, RB12 and FP17 <p>However, significant beneficial noise effects are predicted at:</p> <ul style="list-style-type: none"> • Noise Important Area 5200 • Three receptors in Hockering (outside of Noise Important Area 5200) • Two receptors on Ringland Road • Two receptors on The Broadway • Three PRoW: Hockering FP3, FP10 and FP11 <p>For three other Noise Important Areas (5201, 5202 and 6287) considered in the assessment, no significant effects (beneficial or adverse) due to the Scheme are predicted.</p> <p>As stated in ES Chapter 11, paragraph 11.9.22, part of the embedded mitigation measures, within the Scheme design, include the A47 dual carriageway being surfaced with a low-noise road surface. For this high-speed carriageway, the surface material shall be specified to reduce road traffic noise by 3.5dB LA10,18hr when compared with hot-rolled asphalt.</p> <p>Noise barriers have also been included as part of the embedded mitigation of the Scheme design at the locations described in Table 11.13 of ES Chapter 11 (APP-050) and presented in ES Figure 11.2 'Proposed Noise Barriers' (APP-074).</p>
RR-018.4	<p>there is already some level of A47 noise in Hockering, this should decrease rather than increase when this project opens.</p>	<p>For both the short and long term operational noise assessments, the majority of noise decreases are predicted at Hockering close to the existing A47, due to the re-alignment of the Scheme to the south, with lower traffic using the by-passed A47.</p> <p>Please see the response to RR-018.4, above, for details.</p>
RR-018.5	<p>concern about the NMU link between Hockering east and west (there would be a clear benefit of an NMU route between Dereham and Norwich to reduce the reliance on private motor vehicles</p>	<p>The Scheme includes the creation of a non-motorised user (NMU) route along the existing A47 corridor between Main Road to the west of Hockering and Dereham Road in Easton, where a new pedestrian and cyclist overbridge (known as Easton footbridge) is proposed to provide a grade separated crossing of the A47. The NMU route uses a combination of new shared use cycle tracks (i.e. for walkers and cyclists) provided as standalone routes or adjacent to existing local roads and sections of the existing A47 to be de-trunked. In combination, these additional east-west shared use cycle tracks will provide an opportunity for walkers and cyclists to commute and travel into Norwich. These will also complement the walking and cycling improvements to be provided along Dereham Road, in Easton, and at the A47 junction to the east of Easton (the Showground junction) as part of consented residential development in Easton.</p>

RR-019 HOWARD JAMES REES

Reference	Relevant Representation	Highways England Response
RR-019.1	This scheme is not consistent with the UK's commitments under the Paris Agreement.	Please see Common Response H
RR-019.2	It also falls foul of many areas of Government commitments, policy and legislation regarding limits on greenhouse gas emissions and the protection of biodiversity, particularly in relation to the Ecological damage it will cause to the River Tudd and the habitats of many protected species including bat roosts.	Please see Common Responses F and H

RR-020 JOHN CUMMINGS

Reference	Relevant Representation	Highways England Response
RR-020.1	The Supreme Court has ruled that developments must accord with government commitments under the Paris Accord (which will include current G7 and CoP26 commitments. This means that Road traffic must be greatly reduced, biodiversity enhanced and air pollution reduced. Since the whole world is being affected by climate change and species loss, which will get worse for generations to come, everyone is an interested party.	Please see Common Responses A and H

RR-021 EASTON PARISH COUNCIL

Reference	Relevant Representation	Highways England Response
RR-021.1	On behalf of Easton Parish Council as chairman representing the unanimous support of the Parish Council members at a meeting of the council on the 27th May 2021, I make representation in support of this application. At present, there is no safe way to get to a part of our village on foot or by cycle which limited the travel options of this part of our community. The only safe way to travel is by motor vehicle and even then many Easton residents prefer not to cross the roundabout on the A47 near St Peters Church because of the actual and preceded dangers due to the high speed of traffic on the A47 not slowing down as they approach the roundabout. At present, Church Lane sees at least 4800 on average daily motor vehicle journeys along Church Lane and Ringland Road. This is an unclassified county track. The scheme devised stops the rat-running traffic and provides a safe and secure means for residents to move around the whole village on foot, by cycle, wheelchair or mobility scooter as well as a motor vehicle. This design is supported by the majority of residents as it will help improve the lives of the residents of Easton as a whole. With the proposed plan the dispersed traffic will use more suitable C and B class roads in the local area. This plan even protects the residents of Ringland against rat-running which NCC Highways has to date not been prepared to do.	The Applicant welcomes the feedback and confirms these are some of the anticipated road safety benefits of our Scheme.
RR-021.2	The current plan will improve the economic benefits of the area while improving road safety on this stretch of the A47.	The Applicant acknowledges support given towards the Scheme and Section 5 of the Case for the Scheme (APP-140) presents the economic benefits for the Scheme.
RR-021.3	It will remove flooding from a stretch of the A47 which has seen major delays and accidents over the years and with climate change has been increasing in recent years.	The Applicant acknowledges support given towards the Scheme and confirms a flood risk has been provided, along with climate change allowance, in ES Appendix 13.1 Flood Risk Assessment (APP-124 and APP-125).
RR-021.4	The removal of direct access to many side roads will reduce collisions in the area that have lead to serious injury and in some cases death.	The Applicant acknowledges the support for the Scheme and confirms the A47 is currently ranked 2nd nationally for fatalities on A roads and the accident severity ratio is above average. During the period 2014 to 2018 a total of 2 fatal, 15 serious and 76 slight accidents have been recorded along a 11km length of the existing A47 from North Tuddenham to Easton. The Scheme will deliver its objective to improve safety and operational issues by upgrading to dual carriageway and providing grade separated junctions at the Wood Lane junction and Norwich Road junction. In total, over a 60-year timeframe the Scheme's improvement will save a total of 291 accidents and 47 KSIs (killed or seriously injured).
RR-021.5	The only area of concern as a community we have is concerning the current lack of designed direct access from the FEP onto the A47. We fully accept it is not the responsibility of HE to use public money to build a stretch of road for a private business. However, we feel given that this site and the designated area forms part of the FEZ for this region it is of strategic importance as part of the food supply chain for the region it is vital to ensure everything is done to support a direct link to the A47 even if HE was to provide the connection point and suitable grading to enable access to be created.	The Applicant's position on the Food Enterprise Zone (FEZ) is covered within Section 9.3 of the Scheme Design Report, Rev.1 (AS-009). It is acknowledged that the developer of the FEZ site may wish to obtain consent to create their own connection to the Scheme in the future. Therefore, the Scheme's traffic modelling has taken this into account at the Norwich Road junction, to provide capacity and ability for a future connection to Norwich Road junction. The Applicant notes that the promoters of the FEZ have now lodged a planning application with the Local Planning Authority, Broadland District Council (Application No.: 20211335) for the provision of an access to the proposed scheme.
RR-021.6	Highways England engaged, you listened, you developed a locally agreed proposal and now it is time to implement without any further delays.	The Applicant acknowledges the comment from Easton Parish Council.

RR-022 BROWN & CO ON BEHALF OF MR NEIL ALSTON, A L ALSTON & SONS LTD

Reference	Relevant Representation	Highways England Response
RR-022.1	<p>We wish to make representations on behalf of A L Alston & Sons Ltd concerning the configuration of the proposed grade separate junction at Wood Lane. We have been engaged with Highways England at all the consultation stages that form part of the preparation of the highway improvements for the A47 in Norfolk. We have generally been supportive in developing a junction for Wood Lane which involves a proportion of our clients land. Our concern relates to a section of land bounded by the improved A47, and a side road leading from the Wood Lane junction westwards towards Hockering. It has been the intention of the landowner to promote the land (approximately 9 acres) for roadside services including a petrol filling / EV station. We have indicated our intentions over a lengthy period via letters and e-mails with the relevant Councils and Highways England. We can provide if necessary copies of representations, e-mails and letters to date. The subsequent road scheme that has been submitted shows the area concerned now the subject of landscaping/biodiversity net gain initiatives. This is illustrated on sheets 6 & 7 of the Environmental Masterplan (6.8). We believe that these biodiversity net gains can be achieved on an alternative section of our clients land to the south of the improved A47 where half of the land is proposed in part for an attenuation pond. We believe that the alternative position of for these measures, on an area of land already being used to deal with drainage matters, would be more appropriate and link to existing woodland to the south. Our client also has additional land to the north if it is needed. We have not been able to submit proposals as a planning application for our roadside services as the design of the Wood Lane junction was not fixed until a late stage. We don't believe that the landscaping proposals formed part of any consultation undertaken by Highways England so we haven't had the opportunity to discuss potential alternatives. By the time any discussion occurred the application had already been submitted. In summary, we object to the use of this area of land being used for landscape purposes and that there are reasonable alternatives to where the landscaping/biodiversity net gain solutions can be sited. This will allow appropriate roadside services to be sited at this junction</p>	<p>The Applicant notes that discussions with the Interested Party have taken place. The Applicant announced the Preferred Route for the Scheme in August 2017 and submitted a TR111 Statutory Notice to the local planning authorities, requiring the boundary of the Scheme to be protected from development.</p> <p>An Environmental Impact Assessment (EIA) Screening Report (APP-135) was submitted in September 2019, which detailed the Environmental Scoping Boundary.</p> <p>The Applicant has engaged and consulted with the local planning authorities as described within the Consultation Report (APP-024). In this location, the local planning authority (Breckland Council) did not raise any objections during the Statutory Consultation in February to April 2020 or targeted consultation in December 2020 to January 2021. Consultations responses are presented within Annex N (APP-038) and Annex O (APP-039).</p> <p>The Applicant confirms that no representation has been made from the local planning authorities on the provision of a petrol filling station.</p> <p>The relevant land has been identified for landscaping and biodiversity mitigation since early 2020. Although the final design proposals were not fully developed for statutory consultation, the Applicant made clear to stakeholders that the areas around the junctions would be landscaped.</p> <p>Section 7.9 of ES Chapter 7 Landscape & Visual Effects (APP-046) provides a summary of the design, mitigation and enhancement measures contained within the Scheme design. The Scheme design has also taken into account the proposed junction layouts and sought to provide a consistent approach to the landscape proposals at the new junctions, to make sure the Scheme sits within the landscape.</p> <p>This is reinforced in paragraph 7.93 of ES Chapter 7, which states:</p> <p><i>"Based on a review of the landscape and visual policy context and taking account of the potentially adverse impacts of the Proposed Scheme identified above, the following overarching landscape and visual objectives were identified and have guided the iterative development of the Proposed Scheme design. Securing these objectives is embedded within the location, scale, extent and height of the highway geometry and earthworks design:</i></p> <ul style="list-style-type: none"> • To minimise direct impacts on trees and woodlands through avoidance - especially mature or veteran specimen trees along roadsides. • To minimise the landscape effect and visibility of the main infrastructure by limiting the elevation of new infrastructure and earthworks within this low-lying landscape and by providing adequate screen planting. • To maintain the distinction between the trunk road network and the underlying peaceful, rural landscape by ensuring that elements of the Proposed Scheme away from the main trunk roads are detailed in a way which is appropriate to the local vernacular and rural character and distinct from the treatment of the A47 corridor." <p>The above second objective also reinforces the need to use landscape planting in this area to minimise adverse landscape effects and visibility of the main infrastructure.</p> <p>The area referred to also contains environmental mitigation measures required for protected species and also includes the presence of a Grade 1 tree. The landscape planting in this area is important to achieve effective ecological mitigation for protected species, which could be less effective due to the permanent presence of adjacent activity and lighting from a petrol filling / EV station and potential for regular disturbance.</p> <p>The provisional design of the proposed ecological mitigation is presented in the Environmental Masterplan, Rev.1 (AS-007), and all mitigation detailed in Section 8.9 of ES Chapter 8 will be detailed and implemented as part of the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143).</p>

RR-023 BROWN & CO ON BEHALF OF HONINGHAM AKTIESELSKAB

Reference	Relevant Representation	Highways England Response
RR-023.1	<p>We have received limited feedback on requests although 12 months or so ago, there were numerous meetings to discuss the scheme. The Farm is large and private and the owners would like it to remain so. If the scheme is to proceed, they accept the broad alignment, but would have preferred the route to be further to the edge of the farm as it introduces noise and visual and land use intrusion further into the farm than is ideal. We have made it clear that we are keen to work with HE to agree how to mitigate the impact, but with less success than we might have expected.</p>	<p>The Applicant has engaged extensively with the Interested Party during the development of the Scheme and confirms their intention to continue to work with Honingham Aktieselskab to mitigate the noise and visual impacts of the Scheme to the farm and also to make sure any accommodation works are appropriate.</p> <p>The Applicant has been in correspondence with the Interested Party through formal consultations (non-statutory, route options, statutory and targeted), meetings and communication via the Project Mailbox. The Applicant has provided responses to requests and accommodated design changes where possible, as indicated in the below responses. The proposed earth bund was also designed to provide security as well as visual mitigation, though a noise mitigation need was not required.</p> <p>With regards the preferred route option, this was based on a balance of considerations informed by technical and economic appraisals plus consultation feedback. As part of the Statutory Consultation in 2020, the Scheme Assessment Report (SAR)¹⁴ was published on the project website and available at consultation venues. The SAR included the Stage 1 Technical Appraisal Report, which outlined the 14 potential route options that were assessed comparatively in terms of their engineering, environmental, transportation and economic suitability; see Section 2 of the Case for the Scheme for details (APP-140). These route options includes an alignment and proposed Wood Lane junction further north than the preferred route alignment, which would have created greater noise, visual and land use intrusion into the farm. The statutory consultation in 2020 on the proposed Scheme design lead to the removal of a side road between Taverham Road and Church Lane, Easton, thereby reducing the landtake from this Interested Party; see Table 4.12 in the Consultation Report (APP-024).</p>

¹⁴ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
RR-023.2	We are advised that there is an embankment between Wood Lane and [redacted] but not between Taverham Road and Easton roundabout, at Lower Easton.	The position set out by the Interested Party is correct. An ES has been submitted by the Applicant with Chapter 7 Landscape & Visual (APP-046) and Chapter 11 Noise & Vibration (APP-051) outlining the assessment methodologies and embedded mitigation measures proposed by these assessments undertaken for the Scheme. Mitigation in the form of earth bunds has been proposed for noise attenuation or visual screening, where required and appropriate. The section between Taverham Road and Lower Easton has been assessed and does not require the provision of an earth bund for visual or noise mitigation. The Scheme design includes planting in this location for both: between the new A47 dual carriageway and the proposed cycle track to the north; and between the cycle track and the Scheme permanent works boundary. The landscape design has also considered the need for rights of access for maintenance by certain Statutory Undertakers and Orsted in this location. The proposals are presented in the Environmental Masterplan, Rev.1, (AS-007), on drawing sheets 7 to 10.
RR-023.3	We have not been able to discuss proactively whether the embankment design is suitable and would have liked to ensure that the mitigation is as good as possible. We are advised the bank is 2m in height and HE provided some drawings, but which few people have been able to interpret. To assist, we have employed consultants to prepare visualisations to assess whether 2m height is sufficient or more or less than is required. In most places the height is too low and increasing the bank to 3m or in some places to 4m would make a significant improvement in the future reduction in noise and increase in privacy and limit the reduction in value. Some places benefit from more height to a greater extent. We have requested discussions about the design of the embankment and will still be pleased to discuss it.	The Applicant has, and continues to, work with the landowner's team to provide a proposal that screens Restricted Byway 1 from the estate and also provides additional land security. The Applicant has provided information on the proposed earth bund (including to the Interested Party's appointed consultant) confirming locations, heights, viewpoint long sections, planting proposals and confirming that the provision is for visual screening purposes only. The proposed A47 mainline is in cut along the northern aspect from Chainage 5+650m to 6+100m, with the proposed 2m screening bund located at the top of the A47 mainline cut slope. This results in a higher screening height from the edge of carriageway to the top of screening bund through this section of the Scheme. The assessment process undertaken is detailed within the ES, in particular Chapter 7 Landscape & Visual (APP-046) and Chapter 11 Noise & Vibration (APP-051) that present potential impacts, during construction and operation, as well as the proposed mitigation and design decisions that include earth bunds for noise attenuation or visual screening. The outcomes of the noise, landscape & visual effect assessments are presented in the following sections of these chapters: <ul style="list-style-type: none"> • Chapter 7 (Landscape & Visual Effects) <ul style="list-style-type: none"> ○ Section 7.8 – Potential impacts ○ Section 7.9 – Design Mitigation & Enhancement measures. ○ Section 7.10 – Assessment of likely significant effects • Chapter 11 (Noise & Vibration) <ul style="list-style-type: none"> ○ Section 11.8 – Potential impacts ○ Section 11.9 – Design, mitigation and enhancement measures ○ Section 11.10 – Assessment of likely significant effects The Applicant's proposals include planting on the back face (non A47 side) of the screening bund and scheme boundary, as presented in the Environmental Masterplan, Rev.1, (AS-007) on drawing sheets 7 to 10.
RR-023.4	There are two principle areas along the route where there will be no visual screening, so we have requested 3m high fences at carriageway level to minimise the impact of high sided vehicles. We would benefit from screening with fencing between Taverham Road and Easton Roundabout to enable the tree planting to become established. There are gaps in the embankment at the [redacted] entrance and south east of [redacted] where we suggest the banks should be extended.	Screening for visual and noise purposes is provided where required as identified by the assessments undertaken. In this location the assessments indicate that there is no requirement for the provision of such infrastructure. The assessment process undertaken, proposed mitigation and design decisions are detailed within the ES, in particular Chapter 7 Landscape & Visual (APP-046) and Chapter 11 Noise & Vibration (APP-051), as outlined in the response to RR-023.3 above.
RR-023.5	There is a local roads closure order proposed, which will impact upon the farm traffic gaining access to owned land north of the river as the farm access is along Honingham Lane. The farm needs a private right or for the road to remain open to enable access, but this has not been discussed. The [redacted] entrance was discussed around 12 months ago or more.	Alternative access would be available via Weston Road and Ringland Road. However, the Applicant continues to engage with the landowner's estate manager and land agent to respond to and mitigate concerns where possible and within reason.
RR-023.6	We advised that the underpass needs to be a minimum of 5m in height and wide enough to provide a public right of way separate from farm traffic. We have not had confirmation that this is agreed, although we have provided evidence that 5m is necessary for articulated lorries. We have had no discussion about the specification for the modified farm access but it should be no less good than the existing roadway. Other accesses are not available for articulated lorries without building a new road across the farm, at vast expense. We have requested discussions about gates, hedges and fences but not agreement.	The Applicant has provided information previously regarding the structure cross section and the combined underpass carrying both the private farm vehicular access, between the existing A47 and Hall Farm and the restricted byway. The Applicant has also recently provided clarification on the specification for the modified farm access. Structure S04 (Hall Farm Underpass), as shown on drawing TR010038/APP/2.7(AU) in the Engineering Drawings and Sections (APP-010), will have a horizontal clear span of 9.025m, comprising of 0.5m verge / 3m restricted byway / 1.025m separation strip / 4m carriageway / 0.5m verge. The design of Structure S04 in drawing TR010038/APP/2.7(AU) has a vertical headroom of 4.5m, but upon review the Applicant can amend the Structure S04 design to provide a 5m vertical headroom within the overall box structure dimensions (i.e. not affecting any assessments of effects). The Applicant will submit a revised drawing TR010038/APP/2.7(AU) at Examination Deadline 3 or 4.
RR-023.7	The water supply to [redacted] will be cut off and we have not received confirmation that the meter will be moved to the north of the scheme works.	The Applicant is working with Anglian Water and landowners to identify all affected water supplies at risk of being cut off and will make sure all required water supply networks, including meters, are relocated accordingly to avoid existing water supplier to properties being cut-off.
RR-023.8	Access to the fields north of the Lower Easton stretch of road needs to be provided, but is not yet allowed for as far as we are aware. We remain keen to deal with as many of these issues as we can outside of the Inquiry, but do need more co-operation	The Applicant has closed all direct accesses to the Scheme and provided access to the strategic road network through the proposed Wood Lane junction and Norwich Road junctions as part of the Scheme design to improve safety. The Interested Party has been informed that access to the fields north of Lower Easton would be off Ringland Road, using the existing verge access south of Ford Cottage, accessed from Norwich Road junction via Taverham Road, Weston Road and Ringland Road. This route provides access into all field parcels in the Lower Easton area. The Applicant has engaged with the landowner's estate manager and land agent frequently throughout the development of the design and will continue to do so to

Reference	Relevant Representation	Highways England Response
		respond to and mitigate concerns where possible and within reason.

RR-024 LESLEY GRAHAME

Reference	Relevant Representation	Highways England Response
RR-024.1	A. Increasing road capacity increases traffic, and fails to support the aspiration to shift travel mode from car to active travel	Please see Common Response A
RR-024.2	B. Committing to new roads without knowing how our post-covid travel patterns will change is hasty, ignores up to date evidence and is likely to waste vast amounts of money and irreplaceable open land	Please see Common Response B
RR-024.3	C. It is at best spurious to ignore up to date evidence about travel patterns while at the same using modelling based on the completion of other road schemes, which do not have current planning permission.	Please see Common Responses B and C
RR-024.4	D The relationship between road schemes, and their cumulative impact on land use and biodiversity loss needs to be examined	Please see Common Responses C and D
RR-024.5	E. Traffic modelling based on 2015 is clearly out of date	Please see Common Response E
RR-024.6	F. The loss of trees, bats and wildlife habitat is simply not justified	Please see Common Response F
RR-024.7	G. The cumulative impacts on biodiversity & habitat loss, carbon emissions and climate require full assessment The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	Please see Common Response G
RR-024.8	H. Increasing carbon emissions go against the letter and spirit of the Paris agreement, the legally binding target under the Climate Change Act 2008 and the need to stay within the 6th carbon budget	Please see Common Response H
RR-024.9	I. The nationally significant bat colonies merit protection	Please see Common Response I

RR-025 NICK BISHOP-CLARKE

Reference	Relevant Representation	Highways England Response
RR-025.1	I object to the proposed scheme for these reasons: A. The case for the scheme (at 3.5.1) says that it will increase capacity which means that it will increase traffic growth in Norwich area. This does not comply with national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-025.2	B. The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for "increased capacity".	Please see Common Response B
RR-025.3	C. The application and traffic modelling assume that the Norwich Western link is already built. To comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the environmental statement should start from the current situation now as the environmental baseline.	Please see Common Response C
RR-025.4	D. The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposals, and needs to be fully examined at the examination.	Please see Common Response D
RR-025.5	E. The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-025.6	F. The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside.	Please see Common Response F
RR-025.7	G. In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021]	Please see Common Response G

Reference	Relevant Representation	Highways England Response
	demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	
RR-025.9	H. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-025.9	I. Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at [redacted]). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006.	Please see Common Response I

RR-026 OLIVIA HANKS

Reference	Relevant Representation	Highways England Response
RR-026.1	I am concerned that this scheme is being considered in isolation and that the application does not consider the relationship with other road infrastructure projects, in particular the proposed Norwich Western Link. The cumulative impact on carbon emissions and ecology from this and at least six other road expansion projects currently proposed in the Greater Norwich and East Norfolk area would be very significant, yet there has been no assessment of these cumulative impacts.	Please see Common Responses C and G
RR-026.2	Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats. The cumulative impacts of this scheme with the Norwich Western Link on this protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006.	Please see Common Response I
RR-026.3	The UK has committed to achieve 'net zero' carbon emissions by 2050. This requires very rapid emissions reductions across all sectors; major new projects should be able to demonstrate how they are compatible with this target and with the UK's legally binding carbon budgets under the Climate Change Act 2008. The case for this scheme says that it will increase capacity, i.e. it will contribute to additional traffic. This is not in line with either the UK's 'net zero' commitment or the need for modal shift away from car use towards walking, cycling and public transport.	Please see Common Responses A and G

RR-027 ROC SANDFORD

Reference	Relevant Representation	Highways England Response
RR-027.1	This project is inconsistent with national planning policies and the Paris agreement calling for a shift to low carbon transport modes	Please see Common Response H

RR-028 ANNE ROBINSON

Reference	Relevant Representation	Highways England Response
RR-028.1	I object to the proposed scheme for the following reasons: 1. The case for the scheme (at 3.5.1) says that it will increase capacity. New roads generate new traffic by up to 47% increases, as conclusively shown by CPRE's scrutiny of Highways England's own schemes (The End of the Road? Challenging the road building consensus - Report for CPRE, March 2017, Sloman et al). Such traffic growth would increase carbon emissions and air pollution and undermine modal shift to more sustainable modes.	Please see Common Response A
RR-028.2	2. The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic and Brexit. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts and changed patterns of journeys due to Brexit all need to be assessed against the supposed need for "increased capacity".	Please see Common Response B
RR-028.3	3. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 require the environmental statement to start from the existing environmental baseline but the application and traffic modelling assume that the	Please see Common Response C

Reference	Relevant Representation	Highways England Response
	Norwich Western link is already built.	
RR-028.4	4. The A47 dualling links with the Norwich Western link. The relationships between the two road proposals has not been fully explored but needs to be through the examination.	Please see Common Response D
RR-028.5	5. The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-028.6	6. The scheme would fragment and destroy important wildlife habitats such as wet grazing meadows and lead to displacement of protected species, particularly bats.	Please see Common Response F
RR-028.7	7. The cumulative impacts on biodiversity, ecology, air quality and carbon emissions have not been assessed for the scheme with the (at least six) other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions must be cumulatively assessed both locally, and nationally with up to 100 other schemes planned. The Courts accept the importance of cumulative environmental impact assessment (Pearce v Secretary of State BEIS 2021).	Please see Common Response G
RR-028.8	8. The Paris agreement, the legally binding 2050 net-zero carbon emissions target set by the UK's Climate Change Act 2008, the UK's Sixth Carbon Budget, science-based carbon budgets from the Tyndall Centre, and NPPF 148 all require radical reductions of greenhouse gas emissions. How the scheme would contribute to such reductions must be scrutinised through the examination.	Please see Common Response H
RR-028.9	9. The area north of the scheme has a nationally significant breeding colony of barbastelle bats which would qualify for, but is not yet protected by, SSSI or SAC status (page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at http://bit.ly/NCC_PlanDeleg_June2021). The cumulative impacts of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006.	Please see Common Response I

RR-029 DEEPAK RUGHANI

Reference	Relevant Representation	Highways England Response
RR-029.1	I object to the proposed scheme for these reasons: A. The case for the scheme (at 3.5.1) says that it will increase capacity which means that it will increase traffic growth in Norwich area. This does not comply with national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-029.2	B. The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for "increased capacity".	Please see Common Response B
RR-029.3	C. The application and traffic modelling assume that the Norwich Western link is already built. To comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the environmental statement should start from the current situation now as the environmental baseline.	Please see Common Response C
RR-029.4	D. The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposals, and needs to be fully examined at the examination.	Please see Common Response D
RR-029.5	E. The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-029.6	F. The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside.	Please see Common Response F
RR-029.7	G. In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021]	Please see Common Response G

Reference	Relevant Representation	Highways England Response
	demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	
RR-029.8	H. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-029.9	I. Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at [redacted]). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006.	Please see Common Response I

RR-030 DR LARCH MAXEY

Reference	Relevant Representation	Highways England Response
RR-030.1	I object to this proposed road scheme for these reasons: A. As someone who has researched, practiced and taught transport policy and planning since 1993 it is clear that this scheme will lead to more traffic, accelerating the risk of climate induced societal collapse and increasing premature deaths from air pollution. Indeed, the case for the scheme (at 3.5.1) says that it will increase capacity ie allow more traffic. This scheme therefore breaches national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-030.2	B. The scheme employs modelling data, assumptions and projections from before the Covid 19 pandemic, e.g. for traffic and economic projections. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for "increased capacity". This is particularly true when considered against the overriding policy imperatives to reduce emissions and pollution and thus enhance not undermine these traffic reducing trends.	Please see Common Response B
RR-030.3	C. The environmental statement should start from the current situation, not, as this application currently does, from an assumption that the Norwich Western link is already built. The application and traffic modelling thus fail to comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, by failing to take the current environmental and infrastructure context as the starting point. As is clear throughout the planning system we must avoid planning by stealth and anything that smacks of corruption and failure to uphold the highest standards of probity and process.	Please see Common Response C
RR-030.4	D. My above point re the need to avoid planning by stealth also relates to the A47 dualling's links with the Norwich Western link. The application fails to adequately explore the relationship between the two road proposals, and such relationships and, why they have thus far been largely ignored, needs to be fully examined.	Please see Common Response D
RR-030.5	E. The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-030.6	F. Given that we are in a nature, or ecological emergency as well as a climate emergency, as noted by parliament in 2019 and the loss of nature alone threatens human extinction, the scheme's destruction and fragmentation of rare habitats such as wet grazing meadows and those home to protected species, notably bats, needs careful examination. As has been well established in the literature and practice associated developments risk exacerbating this scheme's tendency to detrimentally urbanise mature, rare and biodiverse countryside.	Please see Common Response F
RR-030.7	G. I urge that this inspection exercise take the larger view and avoid piecemeal landing be stealth. In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100	Please see Common Response G

Reference	Relevant Representation	Highways England Response
	other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	
RR-030.8	H. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-030.9	I. Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at http://bit.ly/NCC_PlanDeleg_June2021). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006	Please see Common Response I

RR-031 DR MATT TOMLINSON

Reference	Relevant Representation	Highways England Response
RR-031.1	I wish to raise environmental points related to climate change and increasing road capacity. The impact this dual carriageway has on the local wildlife and on the wider impact via co2 driven climate change.	Please see Common Responses F and H

RR-032 EDWIN KEVIN O'HARA

Reference	Relevant Representation	Highways England Response
RR-032.1	I am concerned that most (if not all) examinations as to where we go with transport in the immediate future do not take account of the imminent full self-driving technologies expected to break over our heads within the next few years. These changes which will transform our societies will bring unknown changes to the way we organise transport - but most experts agree that the result will be far fewer vehicles, especially those owned by individuals (and so less "road use") and possibly different patterns of road use. These ideas don't seem to figure in the thinking of those who plan the expansion of our road system. It is essential that they do if we are to minimise misplaced capital spending	<p>The Scheme is identified as required to manage traffic and road safety impacts as part of the Department of Transport (DfT) published the Road Investment Strategy 2 (RIS2) and to be developed by Highways England in the period 2020-2025. The need case for this Scheme is discussed in the Case for the Scheme (APP-140).</p> <p>The traffic modelling and economic appraisal for the Scheme were undertaken in accordance with the Department for Transport (DfT) Transport Appraisal Guidance. The traffic modelling used to support the economic and environmental assessments accounts for predicted proportions of the vehicle types, fuel type, forecast fuel consumption parameters and emission factors according to the DfT. These data tables include forward forecasting of different vehicle types (such as electric) for future years. The uses of these data tables is considered best practice for calculating end-user (traffic) greenhouse gas emissions.</p> <p>The need case for the Scheme is more than improving capacity and economic growth. This section of the A47 also has a poor safety record, with the A47 ranked 2nd nationally for fatalities on A roads and the accident severity ratio is above average. During the period 2014 to 2018 a total of 2 fatal, 15 serious and 76 slight accidents have been recorded along a 11km length of the existing A47 from North Tuddenham to Easton.</p> <p>The Scheme will improve safety and operational issues by upgrading to dual carriageway and providing grade separated junctions at the Wood Lane junction and Norwich Road junction. In total, over a 60-year timeframe the Scheme's improvement will save a total of 291 accidents and 47 KSIs (killed or seriously injured).</p> <p>Section 4.14 'Walking, Cycling and Horse-riding (WCH) Assessment' of the Case for the Scheme (APP-140) also demonstrates how the Scheme would provide new WCH facilities, improve accessibility for users in the local area and provide the opportunity to choose active travel modes (e.g. walking, cycling).</p>

RR-033 EMMA TRISTRAM

Reference	Relevant Representation	Highways England Response
RR-033.1	I object to the proposed scheme for these reasons: A. The case for the scheme (at 3.5.1) says that it will increase capacity which means that it will increase traffic growth. "If road capacity increases, peak-period trips also increase until congestion again limits further traffic growth. The additional travel is called "generated traffic." (Todd Littman, Victoria Transport Policy Institute) This is incompatible with the Government's goals on climate change and modal shift.	Please see Common Response A
RR-033.2	B. The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working, and the shift towards Internet-based meetings, mean that traffic figures for the scheme (which are based on a 2015 baseline) are out of date.	Please see Common Responses B and E
RR-033.3	C. The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows	Please see Common Response F

Reference	Relevant Representation	Highways England Response
	and protected species, notably bats and the urbanisation of mature countryside. Today's news shows that George Eustice has stated in response to the Dasgupta Report that all new infrastructure projects must have a positive effect on nature.	
RR-033.4	D. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. Phil Goodwin, emeritus professor of transport policy at UCL, said in a deposition for the Transport Action Network legal case against the roads programme that "the total emissions of carbon from RIS2 schemes reported by Highways England in its separate scheme appraisals give a number which is roundly 100 times greater than that suggested by DfT witnesses."	Please see Common Response G
RR-033.5	E. Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found. The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006	Please see Common Response I

RR-034 JOE MCCARNEY

Reference	Relevant Representation	Highways England Response
RR-034.1	I object to the proposed scheme for these reasons: A. The case for the scheme (at 3.5.1) says that it will increase capacity which means that it will increase traffic growth in Norwich area. This does not comply with national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-034.2	B. The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for "increased capacity".	Please see Common Response B
RR-034.3	C. The application and traffic modelling assume that the Norwich Western link is already built. To comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the environmental statement should start from the current situation now as the environmental baseline.	Please see Common Response C
RR-034.4	D. The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposals, and needs to be fully examined at the examination.	Please see Common Response D
RR-034.5	E. The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-034.6	F. The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside.	Please see Common Response F
RR-034.7	G. In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	Please see Common Response G
RR-034.8	H. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-034.9	I. Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at http://bit.ly/NCC_PlanDeleg_June2021). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should	Please see Common Response I

Reference	Relevant Representation	Highways England Response
	be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006.	

RR-035 JOHN GREENAWAY

Reference	Relevant Representation	Highways England Response
RR-035.1	The long-term effects of Covid -19 on such things as home working will reduce the need for more road capacity and this needs to be taken into account at the inquiry.	Please see Common Response B
RR-035.2	The proposed road scheme seems to run counter to the government policy of encouraging a modal shift away from car use to public transport, cycling and walking and to the overriding desire to reduce carbon emissions.	Please see Common Response A
RR-035.3	How does the scheme meet the legally-binding target under the Climate Change Act 2008 to meet zero climate emissions by 2050?	Please see Common Response H
RR-035.4	The scheme will have a most undesirable impact upon the environment by diminishing wildlife habitats and adversely affecting protecting species such as bats.	Please see Common Response F
RR-035.5	The cumulative affect of the A47 dualling, the Western Link Road, Thickthorn roundabout remodelling and their combined impact needs to be considered by the enquiry	Please see Common Response G

RR-036 MIREILLE HEALD

Reference	Relevant Representation	Highways England Response
RR-036.1	I object to the proposed scheme for these reasons: A. The case for the scheme (at 3.5.1) says that it will increase capacity which means that it will increase traffic growth in Norwich area. This does not comply with national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-036.2	B. The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for "increased capacity".	Please see Common Response B
RR-036.3	C. The application and traffic modelling assume that the Norwich Western link is already built. To comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the environmental statement should start from the current situation now as the environmental baseline.	Please see Common Response C
RR-036.4	D. The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposal, and needs to be fully examined at the examination.	Please see Common Response D
RR-036.5	E. The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-036.6	F. The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside.	Please see Common Response F
RR-036.7	G. In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	Please see Common Response G
RR-036.8	H. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H

RR-037 NORFOLK COUNTY COUNCIL

Reference	Relevant Representation	Highways England Response
RR-037.1	<p>While the County Council has long supported the principle of full dualling of the A47 – and this proposal is consistent with that objective – there are a number of detailed issues in respect of, amongst other things, local highway and access matters, flood risk and environmental management, and potential impact on delivery of council services that will need to be resolved ahead of any final decision on the DCO. The most significant items of concern relate to resolving issues related to:</p> <ul style="list-style-type: none"> • How to deal with traffic issues rising on the local road network should the Norwich Western Link (NWL) not come forward, or not come forward within a reasonable time period after the dualling scheme • Connections to the Food Enterprise Park • The County Council taking on responsibilities for parts of the existing A47 trunk road that will be de-trunked following the scheme. 	<p>The Applicant acknowledges the Council's comments, which reflect the benefits and the planning policy review presented in the Case for the Scheme (APP-140).</p> <p>The following responses seek to address the concerns raised by the Council.</p>
RR-037.2	<p>In summary the County Council supports the principle of dualling the A47 between North Tuddenham to Easton subject to the implementation of appropriate highway, historic environment, and surface water conditions / requirements being resolved through the DCO process. NB the County Council will be submitting a full detailed statement to the Planning Inspectorate highlighting all issues it wishes to be resolved through the above process.</p>	
RR-037.3	<p>Norfolk County Council:</p> <p>Supports the principle of dualling the A47 between North Tuddenham and Easton subject to:</p> <p>(a) The implementation of appropriate highway, historic environment, and surface water conditions / requirements being resolved through the DCO process</p> <p>(b) The detailed comments set out in this report being addressed through the DCO process.</p> <p>1 Substantive Comments</p> <p>Overview Comments</p> <p>1.1 The principle of dualling the A47 is fully supported. This has been a longstanding objective of the county council. The county council leads the A47 Alliance, which has been campaigning for full dualling of the A47 from Lowestoft to the A1 at Peterborough with appropriate grade-separation. The current proposals meet this aspiration, providing a dual-carriageway standard A47 together with grade-separated junctions.</p>	
RR-037.4	<p>De-trunking Comments</p> <p>1.2 No agreement has been made to accept any current Highways England assets and we will not do so until an agreement process including exchange of data and provision of funding regarding assets which may require attention in the short to medium term has been completed.</p> <p>The agreement should be based on the condition and number of the assets to generate either a sum of funding to be transferred to Norfolk County Council, or the asset brought up to an as new or good condition. The county council would expect to receive a commuted sum, agreed with Highways England, for future maintenance of transferred assets.</p>	<p>The Applicant will work with Norfolk County Council to settle and conclude a detrunking agreement for the areas of highway that will no longer form part of the strategic road network, as well as new highway areas that would become the responsibility of the local highway authority.</p>
RR-037.5	<p>Norwich Western Link Comments</p> <p>1.3 <i>Non-motorised user (NMU) route across NWL</i></p> <p>The A47 scheme includes a proposed cycle track between the realigned Wood Lane and Hall Farm Underpass. This is shown as looping round the NWL arm of the Wood Lane junction. In discussions with Highways England, Norfolk County Council understands that this is a temporary arrangement and, on completion of the NWL, will be superseded by the permanent facilities being planned as part of the NWL scheme.</p> <p>The county council considers that this is an acceptable arrangement.</p> <p>However, we have concern that local users will not appreciate the temporary nature of Highways England's proposals in this area and would expect Norfolk County Council to provide a crossing of the NWL at the proposed A47 Wood Lane junction. This is not supported by the county council.</p> <p>(Document reference: GENERAL ARRANGEMENT PLANS REGULATION 5(2)(o) SHEET 10 OF 23 HE551489-GTY-LSI-000-DR-CH-31010 The rights of way and access plans – sheet 10)</p>	<p>This is a temporary arrangement intended to provide a link between Wood Lane and the diverted restricted byway (Honingham RB1) during the interim period of the two schemes becoming operational.</p> <p>It may be that this temporary route is not implemented depending on the overlap of the schemes and construction sequencing.</p> <p>The temporary route is defined in the dDCO, Schedule 1, as a standalone work item, Work No. 26a (APP-017), and is shown on drawing sheet 10 of the Rights of Way and Access Plans (APP-008) as CF1 to CF2a.</p> <p>Article 13 of the dDCO permits the Applicant to construct the cycle track between CF1 and CF2a and open it for use on such days as the Applicant may determine (i.e. provide a permissive route on a temporary basis as opposed to creating a permanent public right of way).</p>
RR-037.6	<p>1.4 <i>Wood Lane junction – single carriageway link</i></p> <p>The link road between the two roundabouts at the Wood Lane junction is proposed as a single carriageway through an underpass beneath the dualled A47. Norfolk County Council has raised concerns about the capacity of this, its possible</p>	<p>The Applicant has engaged with the Local Highway Authority (Norfolk County Council) and their internal project team promoting the NWL scheme regularly throughout the design development process.</p> <p>The Applicant has shared traffic information and models to ensure an efficient approach and to understand the differences between the two traffic models, as</p>

Reference	Relevant Representation	Highways England Response
	<p>future long-term capacity and also about its resilience should there be an incident on the underpass.</p> <p>This part of the network is proposed to form part of the local, non-trunk road network and future maintenance and management would fall to the county council. The county council needs to be assured that its design can accommodate future traffic flows (as it is through an underpass it would be difficult / expensive to widen in the future) and that the network can be properly managed in the event of any incidents occurring in the underpass.</p> <p>(Document reference: GENERAL ARRANGEMENT PLANS REGULATION 5(2)(o) SHEET 9 OF 23 HE551489-GTY-LSI-000-DR-CH-31009)</p>	<p>explained within Section 9.2 of the Scheme Design Report, Rev.1 (AS-009).</p> <p>The Applicant has undertaken traffic modelling of the proposed junctions and can confirm that no issues were reported with regards to capacity impacts on the single lane link road. Section 4.10 of the Case for the Scheme (APP-140) provides information on the Operational Modelling Assessments undertaken for both AM and PM 2040 Design Year scenarios. A Ratio of Flow to Capacity (RFC) value of 0.85 or lower indicates the junction arm is operating within capacity. The link road is modelled to have an RFC of 0.57 in the 2040 design year.</p> <p>The NWL project team undertook an independent assessment and concluded the same findings. This was reported back to the Applicant by Norfolk County Council's Infrastructure Delivery Manager.</p> <p>The Applicant has undertaken a Stage 1 Road Safety Audit and the road safety audit team did not raise any actions regarding the single lane link provision or resilience.</p> <p>The Applicant has consulted with Highways England Operations Department and Norfolk County Council's Safety team, and no concerns were raised regarding the provision or resilience of the proposed link road.</p> <p>The Applicant supplied in the DCO application a drawing of the proposed Wood Lane underbridge; see Structure S03 in the Engineering Drawings and Sections document (APP-010). The drawing illustrated that the proposed structure cross section carries a 7.3m wide carriageway, with 1m hard strips and 3m verges. This provides a clear span of 15.3m and would permit a future upgrade if required.</p> <p>The Applicant will continue to discuss this with Norfolk County Council and will record the outcome in the Statement of Common Ground.</p>
RR-037.7	<p>1.5 Wood Lane street lighting</p> <p>The lighting strategy for the Wood Lane junction has not been sufficiently defined to assess the interface with the NWL. This issue need to be resolved between Highways England and the county council.</p> <p>(Document reference: TR010038-000123-3.1 Draft Development Consent Order, page 47 paragraph (d) includes street lighting as further development works.)</p>	<p>The Applicant has engaged with the Local Highway Authority (Norfolk County Council) and their internal project team promoting the NWL scheme regularly throughout the design development process.</p> <p>The Applicant provided the Scheme's preliminary lighting design and cable duct information in both drawing and model formats to the NWL project team on the 10 November 2020.</p> <p>The Applicant also formed a user group with Norfolk County Council to commence early discussions on the de-trunking of existing assets and the handover of new assets. This has led to early discussions on how, through efficient design, capacity could be provided within the Applicant's Scheme allowing a simple connection point for the NWL scheme lighting on approach to the northern wood lane roundabout.</p> <p>The Applicant will continue to work collaboratively with the NWL contractor and project team.</p>
RR-037.8	<p>1.6 Honingham Lane Stopping Order</p> <p>Honingham Lane has been included in the DCO order limits, but it is unclear what orders or works are proposed for this road. It is not listed in the draft DCO. (Document reference: WORKS PLANS REGULATION 5(2)(j) SHEET 21, 22 and 23)</p>	<p>No works are proposed along Honingham Lane, although Schedule 1 of the dDCO (APP-017) sets out a list of ancillary works which may be carried out anywhere in the Order limits if any minor alterations are needed.</p> <p>Honingham Lane has been included within the Order Limits because it will be subject to a temporary Traffic Regulation Order to prevent vehicular use for a period to be agreed with Norfolk County Council. Article 20 of the dDCO (APP-017) provides the power to make such an order subject to the consent of the relevant traffic authority.</p>
RR-037.9	<p>1.7 DCO Order Limits overlap with NWL site extent</p> <p>The DCO Order limits at the Wood Lane junction overlap the proposed NWL site extent boundary. Granting of the DCO should ensure that the NWL proposals can be delivered after the DCO is in force.</p> <p>(Document reference: GENERAL ARRANGEMENT PLANS REGULATION 5(2)(o) SHEET 10 OF 23 HE551489-GTY-LSI-000-DR-CH-31010)</p>	<p>Article 7 of the dDCO (APP-017) has been included to ensure that if a planning permission is granted under the Town and Country Planning Act 1990 for the development of any land falling within the Order Limits, the implementation of the planning permission will not constitute a breach of the dDCO.</p>
RR-037.10	<p>1.8 Wood Lane junction – NWL Arm Order</p> <p>The NWL arm of the Wood Lane Junction is not highlighted as a new / improved / altered highway or other road. Also, there is no reference number for this arm therefore it is not clear what order if any is proposed.</p> <p>(Document reference: TR010038-000208-2.5 Rights of Way and Access Plans, Sheet 9)</p>	<p>There is no proposal to dedicate the NWL arm as public highway. The Scheme has been designed to facilitate a link from the Wood Lane junction northern roundabout to the NWL, but it will be for Norfolk County Council to dedicate as part of the NWL scheme, if and when it is delivered.</p>
RR-037.11	<p>1.9 Wood Lane speed limit</p> <p>There is an existing 50mph speed limit traffic regulation order along Wood Lane. The proposed link road to the existing Wood Lane should also be restricted to 50mph.</p> <p>(Document reference: TRAFFIC REGULATIONS PLANS REGULATION 5(2)(o) SHEET 10 OF 23 HE551489-GTY-LSI-000-DR-CH-35010)</p>	<p>The Applicant has agreed to update the Traffic Regulation Plans and dDCO schedule to reflect this requested change, which will not affect any of the EIA assessments. The updated plans and dDCO will be provided by either Deadline 2 or 3 to ensure the updated documents are available ahead of the November Hearings.</p>
RR-037.12	<p>Highways Impacts Comments</p> <p>1.10 Based on the assessment, Norfolk County Council's principal concern is the interim situation (following opening of the A47 dualling scheme and opening of the proposed NWL) as it is likely that the A47 dualling scheme will come into operation before the NWL is opened to traffic. If this situation does arise, it is proposed that Norfolk County Council and Highways England agree that they will work together to monitor the actual impacts of the introduction of the A47 dualling scheme on the local road network using traffic counts and other appropriate techniques. If it then becomes apparent that interim measures will be required until such time as the NWL is implemented, or if for any reason it is not to be delivered, Norfolk County Council and Highways England agree to work collaboratively using their respective powers to devise and implement appropriate interim measures. The presumption would be that any measures are funded by</p>	<p>The Applicant confirms that it will continue to work with Norfolk County Council to identify and (where appropriate contribute towards funding of such) interim measures to the local road network that arise from actual impacts from the introduction of the A47 dualling scheme.</p>

Reference	Relevant Representation	Highways England Response
	Highways England as they are essentially a consequence of the A47 scheme.	
RR-037.13	The county council also has concerns about the scheme's potential impacts on the adjacent Longwater Interchange. Highways England need to present clear evidence that this junction would not be affected by the proposal and – if it is – to propose appropriate mitigation.	The Applicant has engaged with the Local Highway Authority (Norfolk County Council) and their appointed Traffic lead regularly throughout the design development process and provided summary traffic information as requested to demonstrate there was no material impact on the Longwater Interchange. A Technical Note, presented at Deadline 1 as document 9.3 A47/A1074 Longwater Junction Impact Analysis, has been prepared recording the previous operational modelling discussions and issued to Norfolk County Council for review and comment. The Applicant will continue to discuss this with Norfolk County Council and will record the outcome in the Statement of Common Ground.
RR-037.14	Food Enterprise Park Comments 1.11 The council considers that the proposed arrangements at Blind Lane do not include a suitable access for the Food Enterprise Park (FEP) and do not suggest an alternative for how access might be provided. The FEP is a significant development comprising: Agri-tech businesses which make use of the local agri-science base; food technology; processing and manufacturing; and storage and distribution. A Local Development Order has been granted for the proposal. The council considers that Highways England should retain the connection of Blind Lane to the A47, via the new roundabout junction south of the A47 forming part of the Taverham Road junction. Blind Lane could be closed at a point to the south if concerns about additional through traffic resulting from the A47 dualling scheme materialise following opening. Such an arrangement could allow the FEP to form an access direct to the A47 at this point. If an access to the FEP is not provided at this point, there is likely to be an unacceptable increase in heavy goods movements through the village of Easton as the result of the FEP not having an appropriate alternative access once the Easton roundabout is closed.	The Applicant has explained its reason for not providing a connection to Blind Lane within Section 9.3 of the Scheme Design Report, Rev.1 (AS-009). The Applicant acknowledges that during statutory consultation, in 2020, the initial design concept proposed the Norwich Road junction with a side road connection to Blind Lane; see drawing on page 10 of Consultation Report Annex J - Section 47 Consultation Materials (APP-034). However, statutory consultation feedback raised concerns about the provision of a link to Blind Lane in light of Local Development Order (LDO) requiring the closure of Blind Lane and the provision of a link for the benefit of the private developers of the Greater Norwich Food Enterprise Zone (FEZ). Therefore, the Applicant reviewed the legal position and determined there is no existing or contingent requirement that the LDO requires the Greater Norwich FEZ site to be accessed directly from the A47 given the approved alternative route along Church Lane, Easton. The analysis is set out in Section 9.3 of the Scheme Design Report, Rev.1, (AS-009) and the removal of Blind Lane post statutory consultation is reported in Table 4.12 (item no. 12) of the Consultation Report (APP-024). However, the Applicant acknowledges that the developer of the FEZ site may wish to obtain consent to create their own connection to the Scheme in the future. Therefore, Scheme's traffic modelling has taken this into account at the Norwich Road junction to provide capacity for the FEZ vehicle movements. The design of the Honingham roundabout to Norwich Road junction side road would allow for a third party to create a new highway connection. This commitment is presented in Section 9.3 of the Scheme Design Report, Rev.1 (AS-009). The FEZ developer was invited to contribute funds to the Scheme to provide a direct connection to the FEZ, but as no offer was received before design was fixed for the assessments the Blind Lane connection remained removed from the Scheme design. The Applicant notes that the promoters of the FEZ have now lodged a planning application (27 July 2021) with the Local Planning Authority, Broadland District Council (Application No.: 20211335) for the provision of an access to the Scheme.
RR-037.15	Socio-Economic Impacts Comments 1.12 The county council would certainly want to see opportunities for inclusive growth and social mobility included in the socio-economic opportunities for Norfolk. We would be willing to work with Highways England or the appropriate agency to support this. The county council will continue to work proactively with Highways England to encourage apprenticeships, work experience and internships being included at an appropriate stage in the project. Productivity and other wider economic benefits will arise from the completed schemes. These include journey time savings and reliability improvements, benefitting businesses. These are to be welcomed.	An objective of the Scheme is to increase capacity and reduce journey times along this section of the A47 to support economic and housing growth in region. Section 4.14 'Walking, Cycling and Horse-riding (WCH) Assessment' of the 7.1 Case for the Scheme (APP-140) also demonstrates how the Scheme would provide new WCH facilities, improve accessibility for users in the local area and provide the opportunity to choose active travel modes (e.g. walking and cycling). The Applicant agrees with Norfolk County Council regarding productivity and wider economic benefits arising from the Scheme, which are reported in Chapter 5 of the Case for the Scheme (APP-140). The Applicant is grateful to Norfolk County Council for welcoming these positive benefits. The Applicant and Galliford Try, as the Principal Contractor, will explore opportunities to encourage direct and indirect local employment, proportionate to the scale and timescale of the project.
RR-037.16	Air Quality Comments 1.13 The county council supports improvements to air quality and would want to see continued monitoring including in operation of the scheme following construction. The county council would expect the construction phases to be co-ordinated with the appropriate district councils and local highways teams to minimise, for example, dust, construction vehicle emissions (eg from engine idling) and any short-term impacts of increased stationary traffic close to any local populations.	Section 5.11 of ES Chapter 5 Air Quality (APP-044) concludes that as no significant effects on human health receptors have been identified due to the Scheme, additional air quality monitoring is not required. A Highways England six-month monitoring study was conducted to inform the environmental assessment by supplementing current available monitoring data and identify pollutant conditions. There were no exceedances of the annual mean NO2 Air Quality Objective observed from the monitoring study. Measures to minimise impacts on air quality during construction (e.g. dust, vehicle emissions) would be delivered through dDCO (APP-017) Requirement 4 'Environmental Management Plan', which requires the second iteration to be approved by the Secretary of State following consultation with the relevant planning authority. This plan includes action AQ1 in Table 3.1 and Annex B.3 'Construction Noise and Dust Management Plan' to manage the risks to air quality o limit and control emissions to air during construction on sensitive receptors. The Environmental Management Plan will be supported by controls on construction traffic movements through the traffic management plan, secured through Requirement 10 'Traffic Management' of the dDCO (APP-017).
RR-037.17	Cultural Heritage Comments 1.14 <i>Archaeology</i> A significant amount of archaeological investigations has already been undertaken in association with the above mentioned scheme. Geophysical survey and archaeological trial trenching have been carried out within most of the 'redline' area of the Proposed Scheme. Following review of reports on the geophysical survey and trial trenching we agreed an outline scope for post-consent archaeological mitigation with Highways England's archaeological consultant at the end of November last year.	Requirement 9 of the dDCO has been updated as follows: 9.—(1) No part of the authorised development, is to commence until, for that part, a written scheme of investigation of areas of archaeological interest, reflecting the relevant mitigation measures set out in the REAC, has been submitted to and approved in writing by the Secretary of State, following consultation by the undertaker with the relevant planning authority, Norfolk County Council (historic strategy and advice team) and Historic England on matters related to its function. (2) The authorised development must be carried out in accordance with the scheme referred to in sub-paragraph (1). The requirements to carry out the site investigation and post investigation assessment

Reference	Relevant Representation	Highways England Response
	<p>We recommend that the following requirements are included with the draft DCO:</p> <p>1) No part of the authorised development is to commence until, for that part, a written scheme of investigation of areas of archaeological interest, reflecting the relevant mitigation measures, has been submitted to and approved in writing by the Secretary of State, following consultation by the undertaker with the relevant planning authority; Norfolk County Council (Historic Environment strategy and advice team); and Historic England on matters related to its function.</p> <p>2) The authorised development must be carried out in accordance with the scheme referred to in sub-paragraph (1);</p> <p>3) The authorised development shall not be put into first use until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the scheme referred to in subparagraph (1) and the provision to be made for analysis, publication and dissemination of results and archive deposition has been secured.</p>	<p>in line with the programme and the provision for analysis, publication and dissemination of results and archive deposition are set out in Table 3.1 'Record of Environmental Actions and Commitments' of the Environmental Management Plan (APP-143). The wording in sub-paragraph (3) repeats the commitments in sub-paragraphs (1) and (2), so it is not necessary to include the text proposed in sub-paragraph (3) in Requirement 9.</p>
RR-037.18	<p>1.15 Arboriculture</p> <p>NB: This section is in reference to document 6.3 Environmental Statement Appendices: Appendix 7.6 – Arboricultural Impact Assessment:</p> <p>The Arboricultural Impact Assessment (AIA), in accordance with BS5837:2012 'Trees in relation to design, demolition and construction, recommendations' submitted by RSK ADAS Ltd, dated January 2021 is fit for purpose (based on the information provided at the time of survey) with regards to assessing existing tree quality and calculating impacts. The report also gives clear advice with regards to relevant legislation, construction techniques, utility installation and other on-site methodology to mitigate impacts to trees.</p> <p>However, there are a significant number of category A and B trees designated for removal that should be considered for retention if the road layout changes. By examining the stem diameter measurements in the AIA Tree Survey Schedule and general observation notes, it is likely that a number of these trees are either ancient, veteran or have veteran features.</p> <p>Ancient and veteran trees can be individual trees or groups of trees within wood pastures, historic parkland, hedgerows, orchards, parks or other areas. They are often found outside ancient woodlands. They are irreplaceable habitats with some or all of the following characteristics (as stated in the .gov.uk guidance note: Ancient woodland, ancient trees and veteran trees: protecting them from development - GOV.UK (www.gov.uk)):</p> <p>An ancient tree is exceptionally valuable. Attributes can include its:</p> <ul style="list-style-type: none"> • Great age • Size • Condition • Biodiversity value as a result of significant wood decay and the habitat created from the ageing process • Cultural and heritage value. 	<p>The Applicant welcomes the positive feedback about the report. With regards trees that may be ancient, veteran or have veteran features, the tree survey, reported in ES Appendix 7.6 Arboricultural Impact Assessment (APP-094), was carried out by a team of two arboricultural consultants working together. Both arboricultural consultants are qualified (Level 4 and Level 6) and experienced in carrying out BS5837:2012 surveys, particularly for large infrastructure projects.</p> <p>Each tree was surveyed by both arboricultural consultants, and the assessment of each consultant was that whilst some of the trees proposed to be removed had large stem diameters, they were not deemed to be veteran.</p> <p>No ancient woodland or ancient trees were identified, and only one tree was identified as having veteran features (T13); however, T13 will be retained.</p> <p>Upon further review in response to this relevant representation, it has been agreed with the Principal Contractor to add an action to the 2nd iteration of the Environmental Management Plan specifically mentioning this veteran tree and the need to apply measures to avoid affecting this tree to ensure this assessment conclusion is achieved. This commitment will then be secured through the dDCO (APP-017) Requirement 4 'Environmental Management Plan', which requires approval of the second iteration Environmental Management Plan by the Secretary of State following consultation with the relevant planning authority.</p>
RR-037.19	<p>Very few trees of any species become ancient.</p> <p>All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value.' The National Planning Policy Framework (NPPF), updated in 2018, includes a provision that "development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons" (paragraph 175c). It is assumed that this development has been classed as 'wholly exceptional', in which case it should:</p> <ol style="list-style-type: none"> 1. Avoid impacts 2. Reduce (mitigate) impacts 3. And compensate as a last resort. 	
RR-037.20	<p>In reference to document 6.8 Environmental Masterplan: The Environmental Masterplan details replanting proposals in detail. It is not clear, at this stage, how mitigation planting has been calculated to ensure 'net-gain' will be achieved, although this is currently not required for NSIPs. This requires further clarification.</p> <p>Trees and woodlands are part of the wider landscape mitigation that will be required and it should be the quality and resilience of the resulting landscape, taking all habitats into account, rather than the number of replacement trees that will dictate whether the mitigation is acceptable. We would expect a minimum 30- year compensation strategy to be submitted,</p>	<p>Highways England projects are assessed every three months during the design process using the Defra Metric 2.0 in order to track their Biodiversity Net Gain (BNG) performance, with the final assessment of BNG for a project during the construction stage. Highways England are responsible for monitoring the BNG metric performance across all their road network. BNG will be achieved through considered planting to create new or extend landscaping and biodiversity elements, including species rich grassland, hedgerows, trees, woodland and biodiversity wetlands as shown in the Environmental Masterplan, Rev.1 (AS-007).</p> <p>Appendix B.5 of the Environmental Management Plan (APP-143) will contain a Landscape and Ecology Management Plan (LEMP) to be produced by the appointed Landscape Architect and Ecologist prior to construction. The LEMP will describe the proposed management and monitoring, including durations, of the landscape and</p>

Reference	Relevant Representation	Highways England Response
	<p>based on a calculation of habitat loss and demonstrating net gain. This strategy would usually include the area surrounding the application boundaries and should consider the following examples:</p> <ul style="list-style-type: none"> • Planting of new woodlands, hedgerows with trees, individual and tree groups • Management plans and schedules to maintain newly planted trees and woodlands • Connecting woodland and ancient and veteran trees separated by development with green bridges • Planting individual trees that could become veteran and ancient trees in future • Management agreements with adjacent landowners to provide or assist with woodland management to improve tree resilience and biodiversity • Providing management schedules for existing veteran and ancient trees / woodlands nearby • Extending existing woodland and ancient woodland through natural regeneration / rewilding • Selective veteranisation of specific trees. 	<p>ecological mitigation and compensation features of the Project. The commitment to deliver the LEMP will be secured through dDCO Requirement 4 'Environmental Management Plan'.</p> <p>The Scheme is currently forecast to achieve a BNG and the Applicant will seek further improvements in the final landscape design to be delivered under Requirement 5 'Landscaping' of the dDCO (APP-017).</p>
RR-037.21	<p>In addition, should the proposals be approved, it should be conditioned and submitted for approval prior to works commencing, that the AIA will be updated to include a:</p> <ul style="list-style-type: none"> • Tree Constraints Plan • Tree Protection Plan • Arboricultural Method Statement • Timetable for Implementation of Tree Protection Works. 	<p>Action LV3 in the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143), requires the Principal Contractor to engage an arboricultural consultant to complete an arboricultural method statement. The method statement shall include, but not limited to the following:</p> <ul style="list-style-type: none"> • Tree protection measures in compliance with BS5837:2012 (Trees in relation to design, demolition, and construction – Recommendations) during the construction phase. • Maintenance and monitoring requirements of the tree protection measures. • Schedule of trees to be removed and based on the Environmental Masterplan, Rev.1, (AS-007) and ES Appendix 7.7 Arboricultural Impact Assessment (APP-094). • Tree root protection zones. • Contingency plan (chemical spillage, collision, emergency access to the root protection zone). <p>Delivery of this commitment is secured through the dDCO, Requirement 4 'Environmental Management Plan' (APP-017).</p>
RR-037.22	<p>Landscape Comments</p> <p>1.16 In reference to Chapter 7 of the Environmental Assessment – Landscape and Visual Effects: Norfolk County Council considers that:</p> <ul style="list-style-type: none"> • Paragraph 7.2: Suitable expertise is provided for such an assessment. • Paragraph 7.3.2: Where losses are unavoidable, we would of course support suitable mitigation for these losses. Whilst not required, it would be beneficial to see enhancements that offers Net Biodiversity Gain in line with the upcoming environment bill and Norfolk County Council Environment Policy. It will also be important for the mitigation to be tailored to the areas in which it is being placed, what may be suitable at one end of the road, may not be so suitable at the other end. We support the use of Local Landscape Characters to help identify these changes in the landscape. 	<p>The Applicant notes Norfolk County Council's acknowledgement of the expertise provided for the assessment and the use of Local Landscape Character Areas as part of the assessment.</p> <p>Regarding mitigation, the Applicant has taken into account the variety in the landscape throughout the DCO boundary which is illustrated in the mitigation scheme as presented in the Environmental Masterplan, Rev.1 (AS-007). This was informed by baseline studies, as documented within ES Chapter 7 Landscape and Visual Effects (APP-046).</p> <p>Regarding biodiversity net gain (BNG), the Scheme is currently forecast to achieve a BNG, but will seek to improve this in the final landscape design to be delivered under Requirement 5 'Landscaping' of the dDCO (APP-017). The Applicant is responsible for monitoring the BNG metric performance across all their road network. Highways England projects are assessed every three months during the design process using the Defra Metric 2.0 in order to track their BNG performance, with the final assessment of BNG for a project during the construction stage.</p>
RR-037.23	<ul style="list-style-type: none"> • Paragraph 7.4.1: Suitable guidance is being used and adhered to, and we welcome other relevant references being taken account of. • Paragraph 7.4.5: Comments on Visual Receptors are discussed below. • Paragraph 7.4.6: Covers a well-considered and range of assessment criteria, it is encouraging to see such things as night/day impacts and perception of the landscape. • Paragraph 7.4.8: We support the consideration of deeper planting in key location to offer increased screening during winter months when vegetation is not in leaf. • Paragraph 7.4.10: There appears to be 21 months between Start of construction works and Open for traffic, whilst the estimated duration of construction is listed as 23 months. This may just need clarification if part of the road is to be opened whilst other parts are still under construction. • Paragraph 7.4.11: Comments on Cumulative Effects Assessment are discussed below. • Paragraph 7.4.12: Verified Photomontage Methodology is discussed below. • Paragraph 7.4.14: We understand and accept the need to amend the scope of the assessment following a review of changes in DMRB LA 107 Landscape and Visual Effects. • Paragraph 7.4.15: Tables 7-1 and 7-2 lay out the proposed scope in terms of both landscape and visual effects. We broadly agree with the elements which have been scoped in and out of the assessment. • Paragraph 7.4.16: We also acknowledge the change in guidance on Visual Representation of Development 	<p>The Applicant notes Norfolk County Council are satisfied with the following components of the methodology of ES Chapter 7 Landscape and Visual Effects chapter (APP-046): guidance considered; criteria for the assessment; scope of the assessment; and approach to agreeing viewpoints with the host planning authorities.</p> <p>Regarding the construction period, as stated in Paragraph 7.4.10 of ES Chapter 7 Landscape and Visual Effects (APP-046), we can clarify that the paragraph correctly sets out certain parameters regarding the construction period. However, in response to Norfolk County Council's query we can clarify that:</p> <ul style="list-style-type: none"> • The estimated construction period is 23 months which would commence in January 2022. • The road will open to traffic in October 2024, however construction activity (e.g. compound removal and site restoration) will continue past this point.

Reference	Relevant Representation	Highways England Response
	<p>Proposals and are pleased to see that whilst it does not change the approach, that the amended guidance has been considered.</p> <ul style="list-style-type: none"> • Paragraph 7.4.18: We are satisfied that the viewpoint locations have been agreed with both Breckland District Council and South Norfolk District Council. 	
RR-037.24	<ul style="list-style-type: none"> • Paragraph 7.6.2: We are happy with the 1km from DCO boundary study area of the LVIA and the justified reasoning and support the consideration of receptors beyond 1km where deemed necessary. 	The Applicant notes Norfolk County Council are happy with the 1km study area considered within ES Chapter 7 Landscape and Visual Effects (APP-046) and that receptors outside this distance have been considered where judged to be necessary.
RR-037.25	<ul style="list-style-type: none"> • Paragraph 7.7.1-7.7.10: We agree with the General Context as laid out within the Baseline conditions. Landscape features including Trees and Hedgerows in the vicinity of the site, and with the potential to be impacted are extensive, and as stated in the AIA, some of these are very high in quality. But it should be noted that even trees of low Arboricultural quality, can still play an important part in the landscape. • Paragraph 7.7.17: Landscape Character areas are discussed below. • Paragraph 7.7.36 – 7.7.50: We support the representative viewpoints and the reasons for selection. The receptors listed appear to be well considered and justified. 	The Applicant notes Norfolk County Council are satisfied with the baseline conditions, including representative viewpoints, as set out within ES Chapter 7 Landscape and Visual Effects (APP-046). We acknowledge the feedback given and in particular the Applicant agrees that trees assessed as being of lower quality in a BS:5837 arboricultural assessment can play an important role in the landscape.
RR-037.26	<ul style="list-style-type: none"> • Paragraph 7.8.2 – 7.8.5: We note that separation of Construction and Operational Impacts, but wonder if the removal of existing woodland, individual trees and areas of linear highway planting is a consideration during operation as well as the construction phase as even mitigation planting will not offer a direct replacement of what has been lost. 	The removal of trees during the site clearance phase of construction has been considered in the operational assessment. This is particularly relevant to the Year 1 assessment of operational landscape and visual effects, prior to the establishment of mitigation as presented in the Environmental Masterplan, Rev.1 (AS-007).
RR-037.27	<ul style="list-style-type: none"> • Paragraph 7.9.1: We support the measures proposed for mitigation during construction. • Paragraph 7.9.2: The protection and retention of existing vegetation will be imperative to minimise impacts of the scheme, so we fully support the appointment of an Arboricultural consultant. My Arboricultural colleague will be able to comment on the suitability of the tree protection and standard to be adhered to. • Paragraph 7.9.6: States the opening year to be 2025, whilst 7.4.10 states it to be October 2024. This should be clarified. All planting and mitigation measures should have taken place prior to opening. Depending on the correct year of opening, the Year 15 date will also need to be altered to reflect this. 	<p>The Applicant notes Norfolk County Council are satisfied with the mitigation measures during the construction phase as set out within ES Chapter 7 Landscape and Visual Effects (APP-046). The Applicant acknowledges Norfolk County Council's offer to liaise with Norfolk County Council's Arboricultural specialist.</p> <p>Regarding the opening year as 2025, as stated in Paragraph 7.9.6 of ES Chapter 7 Landscape and Visual Effects (APP-046), the Applicant can confirm that this is correctly stated as it comprises the first full calendar year following completion of construction at the end of 2024. The Applicant judges 2025 to be a reasonable basis for the consideration of landscape and visual effects following the opening of the road and 2040 to form a reasonable year to consider landscape and visual effects 15 years following opening. ES Chapter 7 therefore does not require alteration.</p>
RR-037.28	<ul style="list-style-type: none"> • Paragraph 7.10.4 – 7.10.6: There is extensive losses of landscape features and notable tree losses as a result of this scheme. It will be hard to offer replacements at such scale, but mitigation must be well thought out and the locations carefully considered so as to both minimise the visual impacts of the scheme and minimise the landscape scale impacts on a wider scale. • Paragraph 7.10.9 – 7.10.11: We agree that the overall removal of existing vegetation, earthworks and presence of construction plant, materials, machinery, construction compounds and construction lighting will have an adverse and significant impact on the local landscape character during construction and will, however temporary, change the perception of the area from a tranquil rural landscape to one of much more activity, movement and perceived development. • Paragraph 7.10.12 – 7.10.15: We broadly agree with the conclusion that the construction period would give way to minor adverse (day) and slight adverse (night) visual impacts. We note the potential for lighting during the winter months, but from the dates are led to assume this will only be one season October 2023-March 2024 which will minimise impacts. • Paragraph 7.10.16: We broadly agree with the effects on representative viewpoints as laid out in Table 7-8 during the construction phase. • Paragraph 7.10.39 – 7.10.40: We broadly agree that the initial impact of operation on the landscape character of the area would be significant and of moderate adverse magnitude, decreasing to not significant and slightly adverse magnitude at Year 15. • Paragraph 7.10.41: The sense of tranquillity lost due to the scheme is notable and would impact the experience of those both living near to the scheme or using recreational routes within the vicinity. • Paragraph 7.10.49: We note and agree with the conclusions drawn that the visual impacts of night-time effects, it appears that no conclusion is given to day-time effects, but the assessments given for the representative viewpoints are agreeable. • Paragraph 7.10.53: The residual significant moderate adverse effects in Year 15 at Viewpoint 4 (Sandy Lane Properties beside A47) and Viewpoint E (Church Lane) are of 	<p>The landscape and visual effects mitigation scheme, as presented in the Environmental Masterplan, Rev.1 (AS-007), has sought to mitigate for the losses of landscape features, including trees, and minimise visual effects due to the Scheme. In addition, actions LV1 and LV4 in the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143), require the retaining or replacing and reinforcing existing vegetation where this contributes to the distinctive qualities of the landscape.</p> <p>Delivery of these commitments, including consulting the relevant planning and highway authorities on the final landscaping design and 2nd iteration of the Environmental Management Plan, will be secured through dDCO Requirements 4 'Environmental Management Plan' and 5 'Landscaping' (APP-017).</p> <p>The Applicant notes Norfolk County Council broadly agrees with the landscape and visual effects during the construction and operational phases, including night-time lighting effects, as set out within ES Chapter 7 Landscape and Visual Effects (APP-046). As to the comment regarding the lack of a conclusion regarding day-time effects, the Applicant confirms that the main assessment of effects within ES Chapter 7 considers day-time effects of the Scheme, including the visibility of lighting columns when unlit.</p> <p>The Applicant acknowledges Norfolk County Council's concerns about the residual significant visual effect identified at the following viewpoints and receptors:</p> <ul style="list-style-type: none"> • Viewpoint 4 (Sandy Lane Properties beside A47) • Viewpoint E (Church Lane) • R11: Hill View Properties • R14: Newgate house • R18: Sycamore Farm Properties • R21/R22: Properties beside Sandy Lane (<i>represented by Viewpoint 4</i>) <p>Significant consideration has been given to mitigating the effects of the Scheme such as through the design of soft landscaping in proximity to the properties as part of the final mitigation scheme as presented in the Environmental Masterplan, Rev.1 (AS-007). However, at these viewpoints and receptors the assessment indicates that there would remain a residual significant visual effect.</p>

Reference	Relevant Representation	Highways England Response
	<p>concern.</p> <ul style="list-style-type: none"> Paragraph 7.10.57: The same applies to the residential receptors identified as having significant visual effect in Year 1, and more so those where the effect remains at year 15. Namely R11: Hill View Properties which is identified as large adverse, and R14: Newgate house, R18: Sycamore Farm Properties, R21/R22: Beside Sandy Lane which are all identified as moderate adverse. Whilst these are not widespread and extensive concerns, they are still impacts that will affect those living in those properties. Paragraph 7.10.62 – 7.10.64: Whilst the Year 1 impacts on Footpath receptors are disappointing as these routes will likely be primarily used for their recreational benefit and views, we understand that some impacts are unavoidable. It is however encouraging to see that by Year 15 the new planting will have reduced this impact. 	
RR-037.29	<p>In reference to Chapter 15 – Cumulative Effects Assessment: (Please note only elements relevant to Landscape and visual effects have been reviewed).</p> <p>The document has been reviewed for its inclusion of Landscape and Visual consideration, but comments cannot be made on the suitability of the methodology or the suitable qualifications of those who have undertaken the assessment.</p> <ul style="list-style-type: none"> Paragraph 15.3.6: We support the overall ZOI of 4km and note the increase boundary for the ZOI to 2km in relation to Landscape and Visual Impacts. Paragraph 15.5.32: States that “An assessment of inter-project cumulative effects has not been undertaken for other environmental topics as no scoping report has been submitted for the proposed Norwich Western Link (NWL) development. This is considered a Tier 3 development under Advice Note Seventeen guidance and it is assumed that the NWL will assess the Proposed Scheme in their coming EIA”, however this is incorrect. A Scoping report can be found on Norfolk County Council Planning Portal under the reference SCO/2020/0001. The Cumulative Effects Assessment should be updated to take account of this, and therefore include an assessment of other topics including Landscape and Visual Impacts. Paragraph 15.7.3: The cumulative landscape and visual impacts will need to be reassessed in line with the advice given above regarding the NWL. <p>In reference to Planning Policy Context (Appendix 7.1): The document provides a thorough and suitable summary of Planning Policy Context.</p>	<p>A cumulative effects assessment was presented in ES Chapter 15: Cumulative Effects Assessment (APP-054). The Chapter was prepared in accordance with the requirements of the Infrastructure Planning EIA Regulations 2017, Planning Inspectorate ‘Advice Note Seventeen: Cumulative Effects Assessment’ (2019) and DMRB LA 104 Environmental Assessment and Monitoring (2020) (Revision 1).</p> <p>The Applicant notes Norfolk County Council are satisfied with the planning policy context as set out within ES Appendix 7.1 Planning Policy Context (APP-089).</p> <p>ES Chapter 15 considers effects from a single project (the Scheme) and different projects in combination with the Scheme as detailed in Section 15.3 of ES Chapter 15.</p> <p>The assessment of inter-project cumulative effects has been undertaken for noise and vibration and air quality, considering the impact from both the Scheme and the proposed NWL scheme. The assessment considered the cumulative operational effects for noise and vibration and air quality in combination with the NWL road as a worst case scenario. This is because the predicted traffic models for these topics included future other developments including the NWL scheme.</p> <p>The Applicant acknowledges the feedback provided regarding the submission of an EIA Scoping Report and subsequent EIA Scoping Opinion for the NWL road which is available on Norfolk County Council’s Planning Portal.</p> <p>In light of the clarification on the NWL Scoping Report in the representation, the Applicant agrees that ES Chapter 15 should be updated to reflect the NWL scheme as a Tier 2 development under Advice Note Seventeen guidance. This proposed amendment will also require the provision of a new section to be added assessing the inter-project cumulative effects with the NWL scheme for other topics including landscape and visual as the NWL road falls within the ZOI identified for landscape and visual effects.</p> <p>The Applicant will seek to provide an amended ES Chapter 15 at Deadline 3 or 4.</p>
RR-037.30	<p>In reference to ZTV and Verified Photomontage Methodology (Appendix 7.2):</p> <p>1.1.3 Suitable methodology has been used and relevant and industry standard best practise and recommendations referred to.</p> <p>In reference to Landscape Character Areas (Appendix 7.3):</p> <p>1.1.1 Suitable Landscape Character Studies have been used to conduct this assessment.</p> <p>It is noted there are a number of areas where the constructional and operational activities will give rise to adverse and significant impacts on the landscape characters of the area the scheme passes through. This is of particular concern where the impacts are concluded to be “large adverse” magnitude of change and “major adverse” significance of effect – such as the construction phase within LCA D2. (paragraph 1.4.12). However, it is noted that construction impacts should be short lived and no more than 23 months in time. This same LCA also has such impacts in Year one of operation, decreasing to minor adverse magnitude of change and slight adverse significance by Year fifteen.</p> <p>The conclusions drawn from this assessment should be used to inform the Landscape Plan in order to minimise impacts where possible through avoidance and minimisation of impact, and where there is no scope to do this mitigation and compensation should be integrated into the scheme.</p>	<p>The Applicant notes Norfolk County Council are satisfied with ES Appendix 7.2 ZTV and Verified Photomontage Methodology (APP-090) and ES Appendix 7.3 Landscape Character Areas (APP-091).</p> <p>The Applicant confirms that the landscape and visual effects mitigation scheme, as presented in the Environmental Masterplan, Rev.1 (AS-007), has sought to integrate the Scheme into the existing landscape and visual baseline context and to mitigate landscape and visual effects which have been identified.</p>
RR-037.31	<p>In reference to Visual Receptors (Appendix 7.4): We are happy that the Visual Receptors have been agreed in consultation with the relevant district authorities. We have not undertaken a review of these at this stage.</p> <p>In reference to Representative Viewpoints (Appendix 7.5): We are happy that the Viewpoints have been agreed in consultation with the relevant district authorities. We have not undertaken a review of the viewpoints at this stage. 1.1.2 I have been unable to locate: Figure 8.4 (Visual Context) (TR010038/APP/6.2)</p>	<p>The Applicant notes Norfolk County Council are satisfied with the consultation carried out regarding viewpoints, as set out within ES Chapter 7 Landscape and Visual Effects (APP-046).</p>
RR-037.32	<p>In reference to Arboriculture Impact Assessment (Appendix 7.6):</p>	<p>The Applicant acknowledges Norfolk County Council consider the Arboricultural Impact Assessment (AIA) (APP-094) to be fit for purpose. The AIA formed an important set of</p>

Reference	Relevant Representation	Highways England Response
	<p>(Please note for these comments, this has only been reviewed from a Landscape perspective and not in relation to Arboricultural expertise – see Norfolk County Council Arboricultural Comments)</p> <p>The AIA appears to conform to industry standards and be fit for purpose. There are a considerable number of large trees proposed for removal. We would of course, in the first instance prefer to see these trees retained where possible, and amendments made to the scheme to allow the retention of more trees. Trees in such large numbers play an important part in the wider landscape and act as features seen from great distances. Where the retention of trees is not possible, then suitable mitigation in line with Norfolk County Council's tree policy would be our next expectation. Whilst this will not replace the loss of mature and veteran trees, it will form the foundation of the future landscape. The location of such trees, tree belts, hedges and woodland should be carefully chosen to not just screen the development, but also be reflective and respectful of the wider landscape.</p>	<p>reference information within the landscape and visual impact assessment, in ES Chapter 7 Landscape and Visual Effects (APP-046), and in the preparation of the Environmental Masterplan, Rev.1 (AS-007). The Environmental Masterplan seeks to locate proposed trees and hedgerows carefully within DCO boundary, with consideration of the wider landscape, as defined in the baseline section (Section 7.7) of ES Chapter 7 Landscape and Visual Effects (APP-046).</p> <p>In addition, actions LV1 and LV4 in the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143), require the retaining or replacing of and reinforcing existing vegetation where this contributes to the distinctive qualities of the landscape. Our response to RR-037.18, above, discusses our approach to protecting trees that are either ancient, veteran or have veteran features.</p> <p>Delivery of these commitments, including consulting the relevant local planning and highway authorities, on the final landscaping design and second iteration Environmental Management Plan, will be secured through dDCO Requirements 4 'Environmental Management Plan' and 5 'Landscaping' (APP-017).</p>
RR-037.33	<p>In reference to the Environmental Masterplan TR010038/APP/6.8:</p> <p>(Please note this has been viewed at a strategic level, there is no easy way to navigate the document at such a scale digitally with no location plan and I have no means to print a copy of the full plans at a legible scale)</p> <p>The plans provide detailed proposals for the landscaping of the scheme. Further planting specification and planting details will be required, as well as management plans for the establishment and long-term maintenance of the various landscaping, landscape features and landscaped elements. Detailed design may be required for some elements when specifications are confirmed further during the process.</p>	<p>The Environmental Masterplan, Rev.1, (AS-007) will be developed in greater detail during the detailed design stage, prior to construction.</p> <p>Appendix B.5 of the Environmental Management Plan (APP-143) will contain a Landscape and Ecology Management Plan (LEMP) to be produced by the appointed Landscape Architect and Ecologist prior to construction. The LEMP will describe the proposed management and monitoring of the landscape and ecological mitigation and compensation features of the Scheme. The commitment to deliver the LEMP, including consulting the relevant local planning and highway authorities, will be secured through dDCO Requirements 4 'Environmental Management Plan' and 5 'Landscaping' (APP-017).</p>
RR-037.34	<p>Biodiversity Comments</p> <p>1.17 In reference to the age of survey data:</p> <p>Some of the survey data collected is considered out of date in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM's) advice note on the lifespan of ecological reports and surveys (CIEEM; 2019). Norfolk Biodiversity Information Service (NBIS) were consulted for records of designated sites and protected and notable species in 2017 and for designated sites again in 2020. We recommend that the applicant fully updates the desktop study with protected species data too.</p>	<p>CIEEM (2019) Guidelines for Ecological Impact Assessment (EclA) requires ecological data to have been collected within one or two years prior to an EclA being written. Table 8-3 in ES Chapter 8 Biodiversity (APP-047) demonstrates the most recent surveys were completed in 2019 or 2020, which is within 2 years of the EclA being written end of 2020. Additional desktop data is not required as field surveys have been completed since 2017, which provide a more accurate record of ecology baseline within the DCO boundary.</p>
RR-037.35	<p>In reference to the site boundary:</p> <p>The site boundary has been amended since some of the surveys have been undertaken and therefore some of the reports need updating in-line with the current proposals.</p>	<p>Although the site boundary has been amended since some of the surveys were undertaken, the Applicant's ecologists were in the field during 2020 to acquire additional information and/or validate the original survey findings to present the ecological baseline, affected by the final DCO boundary and scheme design, presented in ES Chapter 8 Biodiversity (APP-047). The supporting botanical and protected species survey reports only provide a point in time record of the surveys completed in 2016 to 2020 to inform the main assessment in ES Chapter 8.</p> <p>In addition, paragraph 8.7.80 of ES Chapter 8, states further surveys for biodiversity resources that are to be licensed (e.g. bat roosts, badger, water vole and great crested newt) will be undertaken as per the respective licence method statements in order to update results. Action BD2 in the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143), requires pre-construction ecological surveys prior to any site clearance by an Ecological Clerk of Works and prior to vegetation clearance. Delivery of this commitment will be secured through dDCO Requirement 4 'Environmental Management Plan'.</p> <p>Therefore, updating of historic survey reports is not required.</p>
RR-037.36	<p>In reference to survey areas:</p> <p>The bat activity survey area (all species) was up to 1km from the DCO boundary. As previously stated in comments in response to the Preliminary Environmental Information Report (PEIR) document bat survey work should consider in-combination impacts with the Norwich Western Link and it should be acknowledged that core sustenance zones for bats varies with species (6km for barbastelles). It should be noted that the Core Sustenance Zones for Barbastelle bats is 6km away and there is moderate confidence in zone size. There is a known colony of bats at Morton-on-the-Hill which is less than 6km from the site.</p> <p>In reference to mitigation measures:</p> <p>The applicant states in their biodiversity statement they have undertaken their assessment in accordance with LA 108 Biodiversity and LD 118 Biodiversity design. We recommend asking the applicant to demonstrate that mitigation measures proposed are effective. Section 4.5 of LD 118 Biodiversity design states "only mitigation measures that are effective and proven shall be included in project design". However, it has not been demonstrated that mitigation measures are effective where proposed, for example "hop overs" are proposed in the</p>	<p>Please see Common Response I.</p> <p>With regards the effectiveness of hop overs, Table 8-14 in ES Chapter 8 Biodiversity (APP-047) acknowledges that it is unknown whether mitigation at the underpasses, overpasses and River Tud Crossing to enable bats to fly safely across the new road will work until monitoring surveys are complete. However, Section 8.4 of ES Chapter 8 confirms the Applicant consulted Anna Fullford (formerly Berthinussen), at Conservation First. Ms Fullford has published papers in 2012¹⁵ and 2015¹⁶ on bats use of gantries and underpasses to cross roads safely. It is acknowledged that mitigation effectiveness in terms of 'hop overs' (dependent on design and approach) is currently unknown and there is a lack of published research within this field. As such, on a precautionary basis, the assessment assumed the absence of mitigation in the project design, complying with LD118 Biodiversity, and the residual impact was concluded to be major adverse due to the potential for permanent damage to populations.</p>

¹⁵ Berthinussen, A., & Altringham, J. (2012). Do bat gantries and underpasses help bats cross roads safely? PLoS ONE, 7.

¹⁶ Berthinussen, A., & Altringham, J. (2015). WC1060 Development of a Cost-Effective Method for Monitoring the Effectiveness of Mitigation for Bats Crossing Linear Transport Infrastructure. Leeds.

Reference	Relevant Representation	Highways England Response
	bat crossing point report.	
RR-037.37	In reference to monitoring: Where monitoring is required, we recommend asking the applicant to outline the following points as detailed in section 4.1.1. of LA 108 Biodiversity: 1) monitoring methodology; 2) mechanisms for implementation; 3) criteria for determining success/failure; 4) frequency and duration of monitoring; and 5) frequency of reporting.	The request is acknowledged by the Applicant as reasonable. Monitoring is recommended for several mitigation measures proposed to minimise impacts on biodiversity. The monitoring commitments are presented in the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143). Delivery of these commitments will be secured through the dDCO Requirement 4 'Environmental Management Plan' (APP-017), which requires consultation with the relevant planning authority on the second iteration of the Environmental Management Plan. The Applicant recommends that during the process of developing the second iteration Environmental Management Plan for Secretary of State approval pre-construction, the monitoring commitments are developed to reflect the final detailed design and construction strategy taking into account the points detailed in section 4.1.1. of LA 108 Biodiversity.
RR-037.38	In reference to Defra Metric 2.0: Section 8.4.15 of Chapter 8 of the ES states "Biodiversity gains and losses have been assessed by using the Defra metric 2.0, which has informed the proposed mitigation measures to minimise the effects of the Proposed Scheme." The calculations have not been provided and it is not clear if net gain will be achieved. If there is off-site mitigation/compensation proposed no details of off-site mitigation/compensation has been provided.	Highways England projects are assessed every three months during the design process using the Defra Metric 2.0 in order to track their Biodiversity Net Gain (BNG) performance, with the final assessment of BNG for a project at the construction stage. Highways England are responsible for monitoring the BNG metric performance across all their road network. At DCO application submission the Scheme was forecast to achieve a positive BNG Metric score. This was achieved through considered planting, landscaping and biodiversity elements including species rich grassland, woodland and wetland habitats as shown in the Environmental Masterplan, Rev.1 (AS-007). Table 8-13 in ES Chapter 8 Biodiversity (APP-047) presents the net gain or loss of each habitat, with a net gain in most of the higher biodiversity habitats. All land for provision of all ecology mitigation and compensation requirements is identified within the DCO boundary.
RR-037.39	All reports need to be consistent and the recommendations in Chapter 8 of the Environmental Statement need to be in-line with the recommendations of the targeted botanical and protected species reports.	ES Chapter 8 Biodiversity (APP-047) presents the recommendations proposed following an assessment of the impacts of the Scheme design and DCO boundary presented in the DCO application. However, the supporting botanical and protected species reports were developed primarily to provide baseline survey data records from 2016 to 2020 to inform the main assessment in ES Chapter 8. Consequently, any recommendations in the supporting technical reports were based on a less developed scheme design and DCO land take needs information; for example ES Appendix 8.1 Botanical Survey Report (APP-096) was published before the Scheme was altered following statutory consultation in 2020. Therefore, though the 2019 baseline survey data remained applicable for use in an assessment of the final Scheme design and the recommendations in the technical reports were considered when developing ES Chapter 8, it is not appropriate to align the ES Chapter 8's recommendations with the recommendations in the technical survey reports in the ES appendices.
RR-037.40	1.18 Bats In reference to the Bat Survey Report (Appendix 8.12): Section 5 of the Bat Activity Survey Report, Annex E highlights that further transect and static surveys are required to aid confirmation of potential crossing points used by bats, however due to COVID restrictions transect surveys were only undertaken in April 2020. Transect surveys were not carried out in May 2020 and surveys in June comprised of more targeted crossing point activity. Best practice (Collins; 2016) recommends a combination of transects and static surveys. Transect surveys also have limited ability to identify spatial and temporal variations in bat activity as they are biased towards the dusk period, and where the surveyor is when they encounter a bat. We recommend that there is greater use of static bat detectors to record bat activity within the site/along linear landscape features (see Stahlscmidt & Bruhl, 2012). Bat Survey report mitigation section 7.1.1. states "CIEEM advise that survey results more than 3 years old are unlikely to be valid (CIEEM, 2019)". It should be noted in accordance with CIEEM's guidance on the age of survey data, where survey data is over 18 months of age, a site visit is required and some or all of the ecological surveys will need updating and also the desktop study data information may also need updating. There appears to be some uncertainty in Table 5-1 with regards to some of the type of roosts identified for example 'potential maternity' and 'potential day roost', additionally some species remain unidentified. Full impacts on bats cannot be determined until the type of roost and species involved has been identified. The report highlights that a bat licence will determine specific mitigation. Section 4.4- 4.8.LD 118 Biodiversity Design outlines the requirement that mitigation and compensation measures should be specific and proportionate to the nature, magnitude and duration of the impact. However, the proposed mitigation/compensation measures for impacts on roosting bats has not been provided. Section 7.1.3 refers to "although artificial bat roosting habitat cannot replace the range of natural cavities and features that trees provide, they can create additional roosting opportunities for a variety of species (particularly where no potential existed previously) and boxes can be fitted on trees." It is not clear how many bat boxes, what type, design to mitigate impacts on roosting bats are proposed. Section 8.11.6 of the Chapter Biodiversity document briefly refers to "Schwegler 1FF bat boxes recommended in the licence".	Transect and static detector surveys will be carried out in 2022 to update results and ensure that up to date baseline conditions are fully understood to inform detailed design. COVID restrictions in 2020 made it exceptionally difficult to carry out surveys, with surveyors required to be at home self-isolating and all non-essential retail and accommodation was closed; so there was no safe suitable accommodation for staff, particularly at the beginning of the survey season. It is acknowledged that best practice guidelines recommend a combination of transects and static surveys and this will be carried out during the detailed design stage, which will align with CIEEM guidance on timing and validity of survey data prior to assessment and implementation of works. This said, transect surveys and static detector were carried out between July and October inclusive in 2019; the findings of the surveys provided enough information on the baseline of the site to determine baseline conditions for the ES written in late 2020. Further survey effort will be carried out during the detailed design stage to support the formal licence application and additional effort will be taken to clarify the status of identified roosts. Mitigation required for any impacts on confirmed roosts will be carried out under the terms of a Natural England derogation licence. ES Chapter 8 assessed a residual major adverse impact on bats. For the purposes of the DCO, the assessment was based on a probable worst-case scenario to ensure suitable mitigation and compensation is recommended. The major adverse impact may be reassessed as a lesser impact following further assessment and survey. In the detailed design habitat loss might change and therefore providing detailed recommendations for it at this stage is not appropriate. Detail on how many bat boxes, what type and their design will be written into the Landscape and Ecology Management Plan (LEMP) and Record of Environmental Actions and Commitments (REAC) as it will be based upon habitat loss calculated in the detailed final design. The LEMP and REAC form Annex B.5 and Table 3.1, respectively, in the Environmental Management Plan (APP-143). Delivery of these commitments will be secured through dDCO Requirement 4 'Environmental Management Plan' (APP-017), in consultation with the relevant planning authority. Mitigation measures at crossing points, hedgerow planting, retention of existing vegetation, and planting to reduce light spill etc were included in the Environmental Masterplan, Rev.1 (AS-007). Lighting plans specify that cowls are used that change the lumens in the bulbs where possible to reduce any light spill into sensitive areas. Lighting will be directional and positioned sympathetically, to minimise light spill and disturbance sensitive biodiversity resources including foraging bats. The use of thermal imaging and infrared cameras for emergence/re-entry is not a requirement of BCT best practice guidelines. All surveys carried out followed general accordance with best practice BCT guidelines on survey effort.

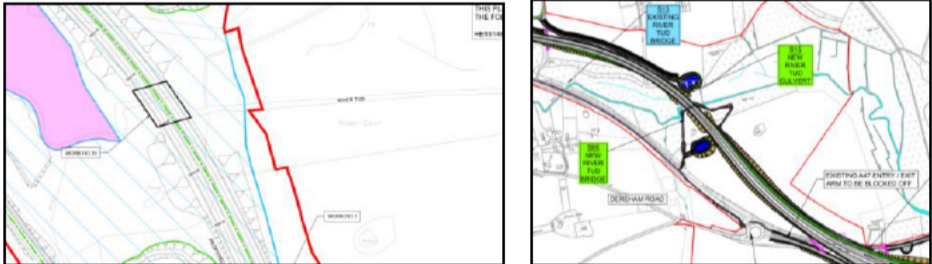
Reference	Relevant Representation	Highways England Response
	<p>It is noted that thermal imaging equipment was not used during emergence/re-entry surveys. We previously recommended in our response to the PEIR document the use of infra-red/thermal imaging equipment when undertaking emergence surveys of the trees to obtain more accurate population counts.</p>	
RR-037.41	<p>No collision surveys have been undertaken to-date. These surveys could be undertaken to provide a baseline against which changes post -construction can be measured. We would recommend the use of detector dogs, as these have been shown to be significantly more effective at searching for animals than human surveyors.</p>	<p>Collision surveys are not suitable for highways as surveyors can't safely access the highway to search for carcasses, unlike wind farm studies, etc. in fields. In addition, any such data that may be collected could not be used as a robust data set as it would be ad hoc and biased towards larger animals.</p> <p>The ES contains analysis of a crossing point survey for bats that assesses where bats currently cross to identify locations for mitigation measures to minimise risk of future collisions, such as planting fully grown trees to help encourage bats to cross the highway at height above the traffic.</p> <p>ES Appendix 8.13 Bat Crossing Point Report (APP-108), section 3.1.6, states: "During the surveys undertaken in 2020 one surveyor was positioned at either side of the A47 at the crossing point. They were equipped with a full spectrum bat detector (Anabat Walkabout) to aid detection of bats and made notes of the times and locations of bat calls and any bat activity that had been seen or heard (commuting, foraging or social calls). Particular attention was paid to bats crossing the A47, with flight height and direction recorded. The locations of the origins of the bat calls were plotted on a map. Bat calls were recorded in full spectrum format using the Anabat Walkabout detector for later analysis using Anabat Insight and AnalookW analysis software. The recordings and the field notes were used to help identify any bats crossing the A47, and the point of crossing, by comparing the notes of surveyors at each side of the A47."</p>
RR-037.42	<p>In reference to the Bat Crossing Point Report (Appendix 8.13):</p> <p>We previously recommended in our response to the PEIR document the use of infra-red/thermal imaging equipment when undertaking emergence surveys of the trees to obtain more accurate population counts, and the use of IR/TI is also important for identifying the height that bats cross the landscape and collision risk modelling.</p> <p>It is noted that the use of the thermal imaging scope (Pulsar Helion XP28) was proposed for a minimum of two of the six further surveys at each of the four chosen crossing points, however due to COVID restrictions it was only possible to employ thermal imaging equipment on one survey at crossing points one, seven and nine. It is not clear which element of the COVID restrictions prevented the use of the scope in accordance with the original proposals. That being said, it is not clear why the scope could not be used on every occasion at the survey points.</p> <p>Section 4.1.2 of the bat crossing points report states "in order to identify any further 'potential unseen bat crosses' which may not have been visually observed. Due to visibility limitations as light levels fall during the surveys it becomes harder to see bats and bats may cross the road without being seen (particularly on darker, more overcast nights). This is a common, unmanageable limitation of bat surveys." However, this would be manageable with the use of thermal imaging equipment as outlined above.</p> <p>Hop overs and fencing are recommended at bat crossing points, however it has not been demonstrated that this would be an effective mitigation measure to protect bats. Mitigation measures must take into account specific species differences. Many factors are likely to affect levels of use and the 'attractiveness' of the proposed mitigation measures for bats, including size, alignment, connection to existing flight lines, roadside vegetation and land use.</p> <p>The monitoring recommendations in section 5.4 of the bat crossing points report are vague and do not outline the criteria for determining success.</p>	<p>COVID restrictions at the time required surveyors to be at home self-isolating. All non-essential retail and accommodation was closed so there was no safe suitable accommodation for staff, particularly at the beginning of the survey season. Obtaining use of specialist equipment at this time was also problematic. This led to thermal imaging equipment being deployed at one survey only at crossing points one, seven and nine. Crossing point eight was not surveyed using a scope, but this does not invalidate the results as visibility was very good and the road is narrow at this point. Crossing point surveys were undertaken under best practice guidance (WC1060 Development of a Cost Effective Method for Monitoring the Effectiveness of Mitigation for Bats Crossing Linear Transport Infrastructure) (Berthinussen and Altringham, 2015). Bats crossing the road were recorded by sight and by survey equipment. The number of bats observed during transect, static and emergence re-entry surveys compares favorably to the data set of biological records. On that basis, it can be concluded that the Applicant's surveys give a fair representation of bats present and crossing the road.</p> <p>With regards the effectiveness of hop overs and fencing, Table 8-14 in ES Chapter 8 Biodiversity (APP-047) acknowledges that it is unknown whether mitigation at the underpasses, overpasses and River Tud Crossing to enable bats to fly safely across the new road will work until monitoring surveys are complete. However, Section 8.4 of ES Chapter 8 confirms the Applicant consulted Anna Fullford (formerly Berthinussen), at Conservation First. Ms Fullford has published papers in 2012¹⁷ and 2015¹⁸ on bats use of gantries and underpasses to cross roads safely. It is acknowledged that mitigation effectiveness in terms of 'hop overs' (dependent on design and approach) is currently unknown and there is a lack of published research within this field. As such, on a precautionary basis, the assessment assumed the absence of mitigation in the project design, complying with LD118 Biodiversity, and the residual impact was concluded to be major adverse due to the potential for permanent damage to populations.</p> <p>The monitoring recommendations state clearly what locations and what years will require further survey. The report does not specify the methodology that will be used, but the Applicant can confirm this will be consistent with best practice methodology and utilise infra-red and thermal imaging technology where appropriate. The criteria for success would be recording the continued use of the crossing points identified by bats. The Applicant recommends that during the process of developing the second iteration of the Environmental Management Plan pre-construction, under Requirement 4 of the dDCO (APP-017), the monitoring commitments are developed to reflect the final detailed design and construction strategy taking into account the points detailed in section 4.1.1. of LA 108 Biodiversity.</p>
RR-037.43	<p>In reference to the Bat Hibernation Report (Appendix 8.11):</p> <p>Section 8.7.57 of the Biodiversity Chapter states "Between December 2019 and February 2020 further automated detector hibernation surveys were undertaken on T1, T8 and T9. Results for all ten trees are that hibernacula are likely absent and five trees contained features that could be used as summer roosts and not for hibernation. The five trees were surveyed for summer roosts during 2019. However, Section 5.2.1 of the hibernation survey report highlights that "As it is not possible to conclude with a degree of certainty whether bats are or are not hibernating in trees one, eight and/or nine based upon this data an accurate impact assessment on hibernating bats cannot be undertaken." The report outlines in section 5.3 of the report that further surveys are required.</p>	<p>The Applicant will further assess these three trees (T1,T8 and T9) for hibernation roost potential. Surveys (static monitoring) will be undertaken in advance of construction works and by appropriately qualified specialists. Should any or all of these trees be reported as having hibernation roosts appropriate mitigation will be applied and this will be managed under licence from Natural England.</p> <p>In absence of definitive conclusions from the ES Appendix 8.11 Bat Hibernation Report (APP-106) relating to these 3 trees (T1, T8 and T9), ES Chapter 8 Biodiversity (APP-047) does assess the overall impact to bats (which includes the loss of habitat and roosts) on a worst case scenario and assigns a level of impact pre-mitigation as major adverse for both construction and operational impacts (ES Chapter 8 Tables 8-9 and 8-10). With mitigation in place, the impact is reduced slightly and a large adverse significance of residual effect is given.</p> <p>The Bat Hibernation Report (APP-106) confirms in Section 5.1.2 that T1 has been subject to access restrictions during surveys and is also noted to be covered in ivy which has highlighted health and safety restrictions with aerial mount surveys. T1 is located within the DCO boundary and should be retained and as such, appropriate mitigation during construction is to be applied. These mitigation measures are detailed within the Environmental Management Plan (APP-143) and will also be managed</p>

¹⁷ Bethinussen, A., & Altringham, J. (2012). Do bat gantries and underpasses help bats cross roads safely? PLoS ONE, 7.

¹⁸ Berthinussen, A., & Altringham, J. (2015). WC1060 Development of a Cost-Effective Method for Monitoring the Effectiveness of Mitigation for Bats Crossing Linear Transport Infrastructure. Leeds.

Reference	Relevant Representation	Highways England Response
		<p>within the Natural England licence.</p> <p>Unfortunately, T9 will be lost as part of the construction works for a new slip road, as noted in section 5.1.4 of the Bat Hibernation Report (APP-106). However, the results of the future surveys will ensure that appropriate mitigation is applied if this tree is found to have hibernation roost potential.</p> <p>Mitigation measures specified for construction are recorded in Table 3.1 Record of Environmental Actions and Commitments in the Environmental Management Plan (APP-143). Table 3.1 also details the measures that have been incorporated into the Scheme design to minimise any operational impacts. These environmental actions and commitments will be secured by the requirement 4 in the dDCO (APP-017), which will ensure they are provided as part of the Scheme.</p>
RR-037.44	<p>1.19 Otters and Water Voles</p> <p>In reference to the Otter and Water Vole Survey (Appendix 8.14):</p> <p>Section 4.2.1. states "one potential otter holt was found at Point 3." The full scale of the impacts on otters has not yet been determined because it is unclear if this is an otter holt.</p> <p>Section 3.4.1 states "Throughout the survey area, there were sections that could not be surveyed due to the water depth or dense vegetation. These sections were bypassed, and the survey continued in areas that were accessible further along the water courses. This is a significant constraint, as an accurate density of water voles on each water course could not be calculated." It is not clear if various methods of access were explored to enter the water course, such as a using a boat or using waders was explored.</p> <p>Area 3c is not shown on the plans showing the results of the surveys in Appendix A.</p> <p>The report and biodiversity chapter recommends the translocation of water voles in the area where the Proposed Scheme will cross the river to a receptor area that has previously been enhanced with vegetation and allowed to mature so the site is suitable to receive the water voles. The location of the proposed receptor area needs to be provided.</p>	<p>ES Chapter 8 Biodiversity (APP-047) assesses the overall impact to otters and water voles on a worst case scenario assuming presence of both species site wide. This has been done in the absence of definitive conclusions as noted in the representation regarding the potential otter holt in the Otter and Water Vole Survey Report (APP-109).</p> <p>The surveys were limited by health and safety considerations as working in water in either waders or using a floatable craft was not allowed since appropriate safe access to the water was not achievable.</p> <p>For both species, the assessment assigns a level of impact pre-mitigation as major adverse for both construction and operational impacts (see ES Chapter 8 Tables 8-9 and 8-10) (APP-047). With mitigation in place, the impact is reduced and a neutral significance of residual effect is given.</p> <p>Mitigation measures specified for construction are recorded in the Record of Environmental Actions and Commitments which forms Table 3.1 in the Environmental Management Plan (EMP)(APP-143). Table 3.1 also details the measures that have been incorporated into the Scheme design to minimise any operational impacts. Furthermore, and as detailed in the EMP, pre-construction and follow up surveys will be undertaken for these protected species by a suitably qualified specialist. These surveys will update the information already received.</p> <p>The environmental actions and commitments specified in the EMP (APP-143) will be secured by Requirement 4 in the dDCO (APP-017), which will ensure that they are provided as part of the Scheme.</p> <p>The water vole relocation will be managed under licence from Natural England. Areas identified for water voles are also shown on Sheet 10 of the Environmental Masterplan, Rev.1, (AS-007) and will continue to be developed as the detailed design progresses.</p> <p>Following consultation with Natural England's advice service, Natural England has advised the Applicant that it sees no impediment to a licence being issued based on the information provided.</p>
RR-037.45	<p>1.20 Reptiles</p> <p>In reference to the Reptile Survey Report (Appendix 8.7):</p> <p>This report, detailing surveys undertaken in 2019, is intended as an update to the reptile survey undertaken by Amey in 2016 (Amey, 2017).</p> <p>The reptile report states "Field surveys, including one visit to place artificial refugia on site and nine subsequent visits undertaken in May, June, July, August and September to survey the refugia and site for reptiles." Froglife (1999) Advice Sheet 10 states "to establish presence, generally at least seven visits in suitable weather conditions at the appropriate time of year may be required. For detailed surveys to gain some idea of relative population size or to identify key areas, at least 20 visits per season, in suitable weather, are recommended". However, eight survey visits were undertaken in Area B to determine population size.</p>	<p>The Applicant acknowledges the comment regarding number of field site surveys which have been undertaken for reptiles across the site.</p> <p>As noted in the representation, only Area B recorded evidence of reptiles and 8 visits were undertaken. ES Appendix 8.7 Reptile Survey Report (APP-102), in paragraph 5.1.3, notes "the lack of observations of other common reptile species, in Areas A, C, and E, does not prove their absence, but likely absence." The Applicant undertook more than the minimum recommended number of surveys to establish presence or absence (seven surveys over a minimum five-week period), as set out in the guidance (Froglife Advice Sheet 10). It is acceptable to base conclusions on presence on these surveys. It is also acceptable to base the conclusions of the population size of reptiles being low on this number of surveys, using professional judgement, given the low number of reptiles encountered during the eight visits, and the fact the surveys were carried out over the extended survey period of May to September inclusive in suitable weather conditions.</p> <p>The impact assessment presented in ES Chapter 8 Biodiversity (APP-047) and ES Appendix 8.7 Reptile Survey Report (APP-102) assumes a presence of reptiles and considers that the total area of suitable habitat which will be temporarily lost is relatively small. This is not considered to be significant in the wider landscape where further suitable habitat is available. The creation of road verges and planting detailed within the Environmental Masterplan, Rev.1, (AS-007) post-construction will replace and provide new habitat for reptiles.</p> <p>Reptiles are highly mobile species and, therefore, their distribution is likely to change over time. Further reptile surveys will be required before the start of works to update these results; these will be scheduled appropriately and with sufficient time allowed for the consideration of further mitigation or avoidance works as required.</p> <p>The Reptile Survey Report (APP-102) also confirms in paragraph 3.4.2, relating to Area A, that "To mitigate this constraint, the area will have a fingertip search by an Ecological Clerk of Works during the reptile active season immediately prior to works commencing in the area. If reptiles are found, they will be moved to the allotments which are adjacent to the DCO boundary." Area E will also be subject to precautionary measures of fingertip searching prior to construction, if required.</p> <p>Appropriate mitigation measures during construction works are also listed in the Record of Environmental Actions and Commitments which forms Table 3.1 in the Environmental Management Plan (APP-143). These environmental actions and commitments will be secured by the requirements in dDCO Requirement 4 (APP-017).</p>
RR-037.46	<p>1.21 Barn Owls</p> <p>In reference to the Barn Owl Survey Report (Appendix 8.9):</p> <p>Table 6.1 highlights that the development will result in the loss of a breeding site at location 5, however elsewhere it is stated that a breeding site will only be lost at location 3.</p> <p>Two alternative barn owl nest boxes to mitigate for the loss of a single nest box at site 3 and five additional nest boxes appear to be proposed in locations less than 1.5km from the A47 road, for example within Type 1 habitat or in areas of created rough grassland. Barn owl boxes must be placed no</p>	<p>The loss of a breeding site at location 5 in Table 6.1 of ES Appendix 8.9 is an error; Site 5 is located outside the DCO boundary and will not be lost as confirmed in Section 6.5, Section 7 and drawing 778575-MLM-ZZ-XX-DR-J-0001 in ES Appendix 8.9. A breeding site will only be lost at location 3.</p> <p>Replacement nest boxes should be placed within 200m of the original box within 30 days ahead of the impact with a clear line of sight to the original from the hole of the two erected boxes; see https://www.barnowltrust.org.uk/wp-content/uploads/Barn-Owls-and-Rural-Planning-Applications-a-Guide-2015.pdf.</p> <p>Compensatory rough grassland will be created in areas where tree screening will prevent them flying low to cross the road, requiring the barn owls to cross the road at a safe height. Where no tree screening exists the low nutrient flower-rich grassland that</p>

Reference	Relevant Representation	Highways England Response
	<p>closer than 1.5km from the road (Shawyer, 2011). It is noted that the barn owl report recommends "compensatory rough grassland should be created alongside the motorway" to compensate for foraging habitat that will be lost". The report also states, "efforts should also be undertaken to render the roadside verges unsuitable for foraging barn owls, though regular cutting, this will deter them from foraging alongside the carriageway", this contradicts the earlier statement. The recommendations must be consistent. Section 4.5 of LD 118 Biodiversity design states "only mitigation measures that are effective and proven shall be included in project design". Shawyer, C.R., 2011. Barn Owl Tyto alba Survey Methodology and Techniques for use in Ecological Assessment: Developing Best Practice in Survey and Reporting. IEEM, Winchester.</p>	<p>will be managed for wildflower diversity will be unfavourable foraging for barn owls. This approach is based on guidance on the Barn Owls and Major Roads document produced by the Barn Owl Trust. Under the section "The creation of obstacles which force birds to fly higher across roads" (see https://www.barnowltrust.org.uk/wp-content/uploads/Barn_Owls_and_Major_Roads.pdf) there are further references of individual studies that support these findings here. The approach is also covered in the Shaw 2011 document they reference: http://ousewashes.org.uk/wp-content/uploads/2017/07/Survey_Methodology.pdf.</p>
RR-037.47	<p>1.22 Birds In reference to the Breeding Bird Survey Report (Appendix 8.8) and the Wintering Bird Survey Report (Appendix 8.10): Section 2.4 highlights that a data search from the National Biodiversity Network (NBN) Atlas was undertaken. A record search of Local Records Centre data does not appear to have been undertaken but instead NBN gateway data is relied upon. NBN gateway data is not necessarily comprehensive or are not at a fine enough resolution to inform local decisions. Some sensitive records (such as rare species data) are not available for public view, and this could result in an erroneous assumption being made that a given species is absent from a particular area. Whilst web-based sources such as the NBN Atlas, a biodiversity database, provide a useful dataset, these should be used to complement, rather than as a substitute for, records held by the Local Environmental Records Centre (LERC) or equivalent. In all cases it should be made explicit in the ecological report that a data search has not been undertaken, justification for the absence of a data search should be included, the likelihood of key information being missed as a result should be assessed, and the implications of this clearly set out (CIEEM; 2020).</p>	<p>Section 8.4 of ES Chapter 8 Biodiversity (APP-047) confirms the Norfolk Biodiversity Information Service (NBIS) were consulted for records of designated sites and protected and notable species. The bird survey reports are only used to provide a point in time record of field survey data alongside other data considered in ES Chapter 8. Therefore, local records centre data has informed the final ecological impact assessment of the DCO application scheme design.</p>
RR-037.48	<p>It is noted that nest boxes are proposed but it is not clear what type of nest boxes. The locations of nest boxes would need to be appropriate and consideration should be given to the increased risk of collision in close proximity to the carriageway. Section 4.5 of LD 118 Biodiversity design states "only mitigation measures that are effective and proven shall be included in project design". CIEEM; March 2020. Guidelines for accessing, using and sharing biodiversity data in the UK. Available at: https://cieem.net/wp-content/uploads/2016/03/Guidelinesfor-Accessing-and-Using-BiodiversityData-March-2020.pdf</p>	<p>Action BD1 and BD5 in the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143), require provision of nest boxes. Delivery of this commitment will be secured through dDCO Requirement 4 'Environmental Management Plan' (APP-017).</p>
RR-037.49	<p>1.23 Terrestrial Invertebrates In reference to Terrestrial Invertebrate Survey Report (Appendix 8.3): No desk study was undertaken as part of the assessment. The report states "It is assumed that a data search will be undertaken as part of the impact assessment at a later stage." However, an impact assessment including invertebrate records does not appear to have been undertaken. Further surveys are recommended for Units K,L and RY1, which could not be accessed for survey during 2019 because of continuous livestock presence, these do not appear to have been undertaken yet. The report states "Three areas of district value for invertebrates were identified – off Church Lane, East Tuddenham (Unit TU), south of Hall Farm, Honingham (Hall Farm Meadows), and off Mattishall Road, Hockering (Unit 88). A further area, Easton Church fields, is considered to be of local value." The report goes on to state that "Hall Meadows are due to be bisected by the new route of the A47, which will also cross the River Tud. This would represent a major negative impact on this invertebrate habitat, valued at district level, and will therefore require mitigation. The habitats might be more challenging to mitigate, as they are less replaceable than the drier grasslands, and may require offsite compensation. Remaining areas should be managed in order to provide continuity of invertebrate habitat." However, section 8.7.27 of Biodiversity – Chapter 8 of the ES states "The terrestrial and aquatic invertebrate assembly has been assessed as a biodiversity resource of local level importance. The reports must be consistent and mitigation/ compensation must be effective and proven. There is no mention of off-site compensation for terrestrial invertebrates in Chapter 8 – Biodiversity of the ES.</p>	<p>Section 8.4 of ES Chapter 8 Biodiversity (APP-047) confirms the Norfolk Biodiversity Information Service (NBIS) was consulted for records of designated sites and protected and notable species. The invertebrate survey reports are only used to provide a point in time record of field survey data alongside other data considered in ES Chapter 8. Therefore, local records centre data has informed the final ecological impact assessment of the DCO application scheme design. The Applicant acknowledges the comment regarding lack of invertebrate survey data for units K, L and RY1 which could not be accessed in 2019 due to the presence of livestock, or in 2020 due to both access and COVID restrictions. The Applicant will integrate invertebrate surveys into the detailed design stage if safe access to the fields can be obtained (i.e. landowner can remove all cattle from the field to allow safe access). Significant effort will be made to liaise with landowners to achieve permission to carry out these surveys at the detailed design stage. The Applicant is committed to developing a landscape design that is considerate of invertebrate habitat and provide adequate mitigation for the loss of part of Hall Meadows, required for the new River Tud Crossing, in consultation with the relevant planning authority; this will be secured through dDCO Requirement 5 'Landscaping'. All land for provision of all ecology mitigation and compensation requirements, including for terrestrial invertebrates, is within the DCO boundary. The assemblage of invertebrates and specific areas of habitat that support them, as reported in ES Appendix 8.3 Terrestrial Invertebrate Survey Report (APP-098), were assessed in accordance with The Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines on Ecological Impact Assessment (EclA). The Applicant acknowledges that "district" level importance is not defined in the CIEEM guidelines. Section 6 "Site evaluation" states "The district context is defined as the catchment of the River Tud, in which the site is situated." The assessment of the identified species assemblages, in ES Appendix 8.4 River Tud Corridor Aquatic Invertebrate Survey (APP-099) was carried out using SAFIS (Site Analysis for Freshwater Invertebrate Surveys) Version 30. This identified that the River Tud supports a species of national importance (the white-clawed crayfish) but all other areas were of no significant conservation value since all taxa noted were common or very common. The biodiversity assessment in ES Chapter 8 uses the Design Manual for Roads and Bridges (DMRB) biodiversity assessment methodology, which differs from the CIEEM</p>

Reference	Relevant Representation	Highways England Response
		<p>guidelines on EclA. The assessment methodology is described in ES Appendix 8.2 (APP-097) and the methodology for assessing the geographic scale of biodiversity resource importance, included as Table 1-1, is taken from Table 3.9 from DMRB guidance LA 108 - Biodiversity. This provides a scale where "local importance" is followed by "county or equivalent authority importance" and definitions for species are given. The importance of the invertebrate assemblage described in the terrestrial and aquatic invertebrate reports most accurately meets the definition of local importance and does not meet the criteria required to be classified as county importance.</p> <p>Finally, with regards reports needing to be consistent, please see the response to RR-037.39, above.</p>
RR-037.50	<p>1.24 Vegetation and trees</p> <p>In reference to the Botanical Survey Report (Appendix 8.1): The botanical report refers "offsite compensation may be required for Unit RYW", however there is no mention of off-site compensation in Chapter 8 of the ES. It is not clear from the information provided if the entirety of Unit k will be retained. Unit K is woodland on a shoulder of the Tud valley, which has continuously occupied the site since the Tithe map of 1836-1850 and is possibly ancient woodland.</p> <p>In accordance with section 4.2 of LD 118 Biodiversity design needs to address adverse impacts on biodiversity resources as far as possible through the use of a hierarchical system for the identification and assessment of impacts in accordance with requirements in LA 104. Examples of measures to avoid or prevent impacts include consideration of alternative route corridors, or alternative design options, to avoid sensitive sites. It has not been demonstrated that the mitigation hierarchy has been followed, for example it is not clear if Unit K "could be completely avoided by a relatively minor southward shift in the route" as recommended in the botanical report.</p> <p>In reference to the Arboricultural Impact Assessment: We fully support the recommendations of the Arboricultural and Woodland Officer's comments including that the significant number of category A and B trees designated for removal should be considered for retention if the road layout changes. Ancient and veteran trees are irreplaceable habitats.</p>	<p>The Applicant confirms they are committed to developing a landscape design that is considerate of the habitat in Unit RYW and provides adequate mitigation for the loss of part of Unit RYW, required for the new River Tud Crossing, in consultation with the relevant planning authority. This will be secured through dDCO Requirement 5 'Landscaping'. Off-site compensation is not required since all land for provision of all ecology mitigation and compensation requirements is within the DCO boundary.</p> <p>With regards Unit K, the alder woodland east of the new River Tud Crossing, the Scheme design would require a partial permanent loss of the eastern edge of the woodland. The DCO boundary extent into the woodland also allows for a safe temporary construction work area, though efforts will be made to minimise the loss of woodland habitat. However, the botanical survey report was authored in 2019 when the Scheme design proposed a walking and cycling route under the River Tud Crossing, which would have required permanent loss of approximately a third of the woodland area, plus a construction work area, to create this graded access. This was subsequently removed and replaced by the Honingham Church underpass within the Scheme design in the DCO application. Although the main dual carriageway alignment could not be moved to avoid any loss of the woodland, the area at risk is significantly less than was presented at the 2020 statutory consultation. Please see the comparative impacts below, with the proposed Scheme on the left, from the Sheet 12 of the Works Plans (APP-007), and statutory consultation design on the right¹⁹</p>  <p>With regards protecting category A and B tree, especially ancient and veteran trees, please see the Applicant's response to RR-037.18 and RR-037.19. There is no ancient woodland in Unit K, and no ancient woodland will be lost.</p>
RR-037.51	<p>1.25 Badgers</p> <p>In reference to the Badger Survey Report (Appendix 8.15): There are areas of suitable badger habitat located immediately outside of the survey area. It is not clear why these areas were not included within the survey area given their proximity to the site and their suitability to support badgers.</p> <p>Natural England's standing advice is that sett entrances must be monitored over an extended period of time, eg up to 4 weeks, to see if they're active. The setts were not monitored in accordance with Natural England's advice on survey effort therefore it is not possible to have confidence in the results provided to date. There are several setts that are listed as partially active in sections 4.1.1 of the report and in Table 4.1.17 and therefore it is not clear if these setts are active or disused. Further surveys were recommended at one of the setts, however this survey work has not yet been undertaken.</p> <p>Section 3.2.2 and 3.2.3 highlights that some areas of the survey area were not surveyed and were inaccessible. The ecologist must attempt to gain access to these areas to survey for badgers.</p> <p>It is not clear from the information in the biodiversity chapter or the badger survey report the impacts on any setts identified and the mitigation measures proposed. The details provided in the badger survey report do not match the details provided in the biodiversity chapter. The proposed locations of badger underpasses have also not been provided.</p> <p>Sett 13 is marked on Appendix A as disused, however it is stated within the report that this is a 'potential sett'.</p>	<p>Surveys were carried out at all parcels where land access was granted. In some instances land access to parcels, particularly land outside of the DCO boundary, was not achievable. The 'survey area' includes land within the Scheme plus a 50m buffer zone, where accessible.</p> <p>Further surveys for biodiversity resources that are to be licensed (including badger) will be undertaken as stated in the respective licence method statements to update results, as stated in ES Chapter 8 Biodiversity (APP-047), paragraph 8.7.80. Monitoring of setts for four weeks is not required to determine use of setts to inform the impact assessment, since badgers will regularly move around between different setts over time. The monitoring of setts for four weeks is a requirement for surveys required to support a licence application, and for this survey remote cameras as well as other methods will be used to accurately categorise the status of setts. Setts that are disused at the time of a survey may still be a potential sett in use at other times of the year.</p> <p>Due to the confidential nature of badger sett information, a separate confidential note has been provide to the ExA and Norfolk County Council responding to the request for further details regarding mitigation and status of badger setts.</p>
RR-037.52	<p>1.26 Designated Sites and Priority Habitats</p> <p>County Wildlife Sites must be shown on Figure 8.1. The Biodiversity Chapter outlines potential indirect impacts on County Wildlife Sites, however from the information provided including the Environmental Master Plan some of the County Wildlife Sites appear to be directly impacted by the proposed works, for example there is a drainage feature proposed in a section of Brook House Marshes CWS.</p>	<p>Table 8-5 in ES Chapter 8 Biodiversity (APP-047) lists 21 non-statutory designated County Wildlife Sites (CWSs) plus one proposed CWS within 2km of the DCO boundary. No CWSs are located within the DCO boundary footprint, with the closest being Old Covert, Wood Land, CWS adjacent to the DCO boundary. Brook House Marshes is not listed as a County Wildlife Site in ES Chapter 8 or on the NBIS records, but may have a different official name. The assessment has assessed the risk of indirect effects (e.g. pollution risks and air emissions) and conclude a neutral (no change) residual effects on all CWSs.</p>
RR-037.53	<p>1.27 Cumulative Effects Assessment (Chapter 15)</p> <p>Section 15.5.32 states "an assessment of inter-project</p>	<p>Please refer to the Applicant's response to RR-037.29. The Applicant agrees that, in light of the clarification on the NWL Scoping Report, ES Chapter 15 should be updated</p>

¹⁹ From the drawing available at: https://highwaysengland.citizenspace.com/he/a47-north-tuddenham-to-easton-february/supporting_documents/A47%20North%20Tuddenham%20to%20Easton%20Scheme%20boundary%20plan.pdf

Reference	Relevant Representation	Highways England Response
	cumulative effects has not been undertaken for other environmental topics as no scoping report has been submitted for the proposed NWL development. This is considered a Tier 3 development under Advice Note Seventeen guidance and it is assumed that the NWL will assess the Proposed Scheme in their coming EIA." However, a scoping report has been submitted for the Norwich Western Link (planning ref: SCO/2020/0001) which is located on Norfolk County Council's planning portal.	to reflect the NWL scheme as a Tier 2 development and provision of a new section to be added to ES Chapter 15 Cumulative Effects Assessment (APP-054) assessing the inter-project cumulative effects with the NWL scheme for topics other than just air and noise. The Applicant will seek to provide an updated ES Chapter 15 by Deadline 3 or 4.
RR-037.54	Geology and Soils Comments 1.28 No comments in respect of this particular topic in the submission.	The Applicant acknowledges the feedback on ES Chapter 9 Geology and Soils (APP-048).
RR-037.55	Material Assets & Waste Comments 1.29 The Mineral Planning Authority (MPA) welcomes the inclusion of a Mineral Impact Assessment as part of the proposed scheme. The MPA agrees with the summary of mineral resources within the scheme and the constraints which are outlined in paragraph 10.4.4. The MPA also agrees with the assessment of reuse suitability of site-won materials, as outlined paragraphs 10.6.5-10.6.24. The use of the Specification for Highway Works Series 600 to grade materials for use into classes is considered appropriate. The MPA notes that an estimate of site won material likely to be extracted during the construction phase is included, for the following superficial geological deposits likely to be encountered. • Alluvium: 4,450m ³ approx 60% class 1, 40% class 2 • Sheringham Cliffs Formation: 29,500m ³ approx 60% class 1, 40% class 2 • Lowestoft Formation: 580,000m ³ approx 20% class 1, 80% class 2 The MPA recognises that this an estimate and that a full assessment of the reuse potential of material will be required as it is excavated. Paragraph 10.7.8 states that any opportunity to reuse the excavated material will be taken. In conclusion, the MPA considers that the Mineral Impact Assessment appropriately assesses the safeguarded mineral resources for the proposed scheme and contains an appropriate strategy for identifying suitable material for reuse in the construction phases of the scheme.	The Applicant acknowledges the positive feedback from the Mineral Planning Authority that ES Appendix 10.4: Minerals Impact Assessment (APP-103) appropriately assesses the safeguarded mineral resources and contains an appropriate strategy for identifying suitable material for reuse in the construction phases of the Scheme. The Applicant can confirm the Environmental Management Plan (APP-143) contains Annex B.3 Materials Management Plan (MMP), which will be secured through dDCO Requirement 4 'Environmental Management Plan' (APP-017).
RR-037.56	Noise and Vibration Comments 1.30 The county council would expect disruption to be kept to a minimum during the A47 dualling construction period and would want to work with Highways England, or its contractors, on managing traffic during the works.	The Applicant has committed to keeping disruption to a minimum during the Scheme construction period and will work with Norfolk County Council, as the highway authority and other affected major developers (e.g. wind farm developers), to manage traffic during the works. This commitment will be managed through the traffic management plan, secured through Requirement 10 'Traffic Management' of the dDCO (APP-017).
RR-037.57	Population and Human Health Comments 1.31 In addition to the previous comments on short term impacts of dust and air quality relating to construction process (Section 3.35). In addition, we would want to minimise long term impacts on accessibility to and use of walking, cycling and other active travel routes for the whole local population covering a range of health conditions. We would also want to avoid reduced ability to access, for example, open or wooded space for recreational activity. Additional active travel routes to join up communities are supported and if the overall proposal has the effect of making active travel appear more attractive in terms of, for example, segregated pathways and / or traffic speed and visibility, we would support this. Use of green or wooded space to mitigate traffic noise and maintain or enhance the cooling effects of such environments would be supported.	The ES reports on the potential impacts during construction and operation as well as the proposed mitigation and design decisions to minimise adverse effects and maximise beneficial opportunities of the Scheme where possible. Noise, air quality and vibration assessments are presented in the following chapters: • ES Chapter 5 Air Quality (APP-044) • ES Chapter 11 Noise and Vibration (APP-050) • ES Chapter 15 Cumulative Effects Assessment (APP-054)
RR-037.58	Norfolk County Council fully supports the range of improvements and additional walking, cycling and horse-riding (WCH) provision this scheme provides to the A47 corridor in this part of the county, but at the same time feel strongly that there are some very obvious missed opportunities or apparent lack of understanding of the breadth and range of WCH usage that could actually result in increased local and short-distant motor-vehicle usage rather than, as such provision is intended, encourage more cycling and walking as a travel or recreation choice. Notable aspects of the scheme include the creation of a WCH route the full length of the scheme following the existing A47 corridor from Hall Lane in the west to Dereham Road at Easton. This is a significant increase in east-west WCH facilities providing the opportunity for WCH commuting and travel into Norwich. This is a combination of new provision with existing and local roads, although we are disappointed to note that some existing roads are not to be closed to motor vehicles as originally proposed, although the reasons for this	The Applicant acknowledges the positive feedback and support from Norfolk County Council for the range of improvements and additional walking, cycling and horse-riding (WCH) facilities to be provided as part of the Scheme and the stopping up of Hockering FP12. Hockering FP11 is located east of Hockering village and, according to the Definitive Map, provides a connection between The Street and the existing A47. This footpath has fallen into disuse and is no longer accessible. As such, it does not offer a meaningful route for either utility or recreational trips. Whilst the request from NCC to stop up this section of footpath is acknowledged, the Applicant is not able to consider the request due to FP11 crossing a land parcel outside the Scheme DCO boundary. The Applicant has compared the legal alignments of the Public Rights of Way shown on the Definitive Map with those shown on the Rights of Way and Access Plans (APP-008). A number of minor drafting errors have been identified. The Applicant proposes to revise the Rights of Way and Access Plans and issue an amended version at either Deadline 2 or 3 to allow for inclusion of other possible amendments arising from a review of both Relevant Representations and the ExA's first round of written questions. The decision not to provide a WCH overbridge along the route of Hockering FP7 was informed by the level of existing WCH usage. To provide an indication of current usage

Reference	Relevant Representation	Highways England Response
	<p>are accepted. The other notable provision is the new WCH overbridge in the location of Easton roundabout providing a grade-separated crossing. Other proposed improvements to crossings, additional sections of segregated WCH routes along existing and new roads, and the diversion and upgrade of a public footpath to a cycle path or bridleway to provide a WCH connection between minor roads are all welcomed as improvements to the county's WCH provision.</p> <p>We are pleased this scheme is a resolving a problematic short public footpath (Hockering FP12) created during the construction of the current A47 through closure but would like to see a solution for a similar situation – Hockering FP11 – put forward. In respect to any PRoW diversions, plans should depict the legal alignment of the PRoW as shown on the Definitive Map and not what is found on the ground, to avoid the creation of short, disconnected, unusable PRoW (as in Hockering FP12) and ensure new facilities on the ground correspond to the legal alignment.</p> <p>Our main area of concern is that no crossing facility, either by underpass or overbridge in the immediate vicinity of Hockering FP7 is to be provided. The scheme will create a highways maintainable short, potentially inaccessible, cul-de-sac public right of way between the current and new A47. We feel this is a missed opportunity to provide another WCH overbridge (especially a green bridge). This is further segregation of communities than currently and will also remove from Hockering residents the current option of a quickly accessible countryside walk using the PRoW network to the south. The provision of WCH facilities along existing and proposed roads and bridges, does to some extent provide this link, but the significant additional distance, makes this a WCH travel (or long-distance recreation) choice and not a short distance recreation choice and so is excluding a significant area of WCH provision.</p>	<p>of Hockering FP7, WCH surveys were conducted at the junction of the footpath with the existing A47 between 7am and 7pm for 14 consecutive days between Monday 13 July and Sunday 26 July 2020. In the main, the weather during the surveys was dry and bright. As such, we would expect that the usage information collected is representative of the average use and is sufficient to inform the assessment of the Scheme.</p> <p>The WCH surveys recorded very low usage of Hockering FP7 and it is evident that the footpath is used mainly for recreational purposes, i.e. dog walking, as reported in Table 12.6 of ES Chapter 12 Population and human health (APP-051). In total, only 18 movements (17 pedestrian and 1 cyclist) were recorded over the 14-day survey period and no movements were recorded on the majority of days. The maximum number of movements recorded on any single day was 3 movements and this occurred on 2 days. No electric scooter or wheelchair users were recorded on any of the survey days.</p> <p>Norfolk County Council previously noted that Public Rights of Way Hockering FP8, Hockering FP7 and East Tuddenham FP9 form a circular walk either side of the River Tud and claimed that this circular walk was well used by the local community. The results of the WCH surveys do not support the usage suggested by Norfolk County Council. With the Scheme in place, residents of Hockering will have improved access to the circular walk albeit that they will need to access the footpaths on either side of the River Tud via use of the shared use cycle tracks to be provided adjacent to the section of the A47 to be de-trunked and the new Mattishall Lane Link Road. Use of the cycle tracks to access the circular walk will be no less convenient for the residents of Hockering and underbridge provided as part of the Mattishall Lane Link Road will facilitate the safe segregated crossing of the new A47.</p> <p>The Applicant acknowledges that those users currently using Hockering FP7 to undertake a trip between Hockering and East Tuddenham will experience an increase in journey length (in excess of 500 metres) as a result of the Scheme. However, the WCH surveys have indicated that the number of users undertaking such a trip is likely to be very low and any such trips will likely be for recreational purposes. For users undertaking recreational trips, taking a direct route is likely to be of less importance, and the creation of additional lengths of cycle track is far more likely to be considered as beneficial since it creates additional walking and cycling opportunities for them.</p> <p>It is therefore not possible to justify the third party landtake, environmental impacts and construction and maintenance costs to provide an additional crossing facility (e.g. WCH overbridge) to accommodate Hockering FP7.</p>
RR-037.59	<p>Another area of concern is the proposed WCH provision in the vicinity of the proposed Norwich Western Link. (see also Section 3.12-3.19). In addition to east-west provision, the diversion and alignment of sections of Honingham Restricted Byway 1 (RB1) appear to be dependent on the alignment and WCH provision of the proposed Norwich Western Link (NWL). The county council would want to continue its dialogue with Highways England on such matters to ensure that delivery of measures associated with the A47 scheme are coordinated with the delivery of the NWL and that any continuation of routes for WCH must be considered. The county council would also want to ensure that it will not be burdened with unusable additional PRoW or other WCH provision on completion of the schemes.</p> <p>There are other matters of concern with the diversion of RB1. It appears that the section of it not being diverted does not link at its northern end with the new WCH provision. This needs to be addressed to provide continuity and accessibility even though there is additional WCH in the vicinity. Where the diverted RB is to cross a highway or be concurrent with the new private means of access, it is imperative that the public access rights on this type of PRoW (ie horse and carriage) are fully understood so that suitable crossing facilities, segregation methods, surfaces and most importantly widths of route, are installed.</p>	<p>The Applicant will continue dialogue with Norfolk County Council regarding WCH provision in the vicinity of the proposed NWL. With regards the section of new cycle track shown as CF1 to CF2a on Sheet 10 of the Rights of Way and Access Plans (APP-008), Highways England acknowledges the concern raised by NCC and the interaction with NWL's proposal to provide an overbridge further north to connect RB1 to Wood Lane; thus the request not to be required to replace CF1 to CF2a.</p> <p>The Applicant confirms this is a temporary arrangement intended to provide a link between Wood Lane and the diverted restricted byway (Honingham RB1) during the interim period of the two schemes becoming operational. It may be that this temporary route is not implemented depending on the overlap of the schemes and construction sequencing.</p> <p>The temporary route is defined in the dDCO, Schedule 1, as a standalone work item, Work No. 26a (APP-017), and is shown on drawing sheet 10 of the Rights of Way and Access Plans (APP-008) as CF1 to CF2a. Article 13 of the dDCO permits the Applicant to construct the cycle track between CF1 and CF2a and open it for use on such days as the Applicant may determine (i.e. provide a permissive route on a temporary basis as opposed to creating a permanent public right of way).</p> <p>The retained southern section of Honingham Restricted Byway 1 (RB1), between the existing A47 and Dereham Road in Honingham, does not link at its northern end with the new WCH provision (reference point A39 on Sheet 9 of the Rights of Way and Access Plans (APP-008)). This issue will be rectified on a revised version of the Rights of Way and Access Plans.</p> <p>The Applicant understands the public access rights on the diverted section of RB1. The proposed width of RB1 will be 3 metres, making it suitable for use by horse and carriage. Where running concurrent to the new private means of access to Hall Farm, RB1 will be separated from the carriageway of the new access road by a 1025mm separation strip incorporating a pedestrian guard rail, for Structure S04 shown on the Engineering Drawings (APP-010).</p> <p>Although the diverted RB1 will be of sufficient width for horse and carriage use, further liaison will be undertaken with Norfolk County Council's Public Rights of Way/Access Officer to understand the particular requirements of these uses at where the diverted RB1 will cross the existing A47.</p> <p>With regards the proposed cycle track between CF10 and CF9, on Sheets 9 and 11 of the Rights of Way and Access Plans (APP-008), this will be split to show: a 3m wide restricted byway between CF10 and where the cycle track crosses RB1 on the south side of the existing A47; and a 2m wide cycle track between the RB1 crossing on the south side of the existing A47 and point CF9 on Dereham Road, Honingham.</p> <p>It has also been noted that on Sheets 12 and 13 of the Rights of Way and Access Plans (APP-008), the proposed cycle track routes CF5 to CF6 do not connect to cycle track CF11 to CF12. This will be amended by extending point CF6 along the existing footpath north of Honingham roundabout to connect with point CF11; this does not materially change the Scheme as it will adapt an existing footpath within the highway design limits of deviation.</p> <p>The above changes will be shown on updated Rights of Way and Access Plans and amendments to the dDCO schedules (APP-017) to be issued at either Deadline 2 or 3 to allow for inclusion of other possible amendments arising from a review of both Relevant Representations and the ExA's first round of written questions.</p>
RR-037.60	<p>Road Drainage and the Water Environment Comments 1.32 We confirm that consultation has been on-going in August, September and November 2020 and January and</p>	<p>The Lead Local Flood Authority (LLFA) has requested clarification on a number of matters in relation to the Flood Risk Assessment and several aspects of the design related to Oak Farm and Hockering culverts and the requirement for compensatory</p>

Reference	Relevant Representation	Highways England Response
	<p>February 2021. We acknowledge there are some remaining comments that require addressing. We acknowledge that some of the on-going activities relate to requests for clarification or further information comments from the Lead Local Flood Authority (LLFA) during 2020 and 2021.</p> <p>These relate to the comments provided in March 2021 for the Flood Risk Assessment and the request for further clarification regarding several aspects of the design related to Oak Farm and Hockering culverts and the requirement for compensatory flood storage in February 2021. No agreement has yet been made. We have not stated that no flood floodplain compensation storage is acceptable. We acknowledge that, in principle, flood compensatory storage at Oak Farm and Hockering might not possible due to the local topography and land availability. However, further evidence previously requested must be provided to determine the extent of the off-site impacts before NCC can come to an agreement. The current Environmental Statement chapter has overstated the position of the LLFA, while the Flood Risk Assessment presents a fairer summary of the current position.</p> <p>The Environmental Statement indicates further information about the flood storage compensation will be provided during detailed design stage. However, the LLFA seeks assurances that this work will be undertaken to determine the impacts of the current proposed design in its ability to manage the potential future flood risk that could be derived from this scheme.</p> <p>We are aware that the temporary drainage design during construction is yet to be confirmed. At present, the high-level summary of the temporary drainage approach requires some clarifications. For example, are the proposed settlement ponds mentioned in section 13.5.6 of the Environmental Statement (ES) temporary ponds or are they the proposed permanent ponds? The LLFA seeks assurances that further information and work will be undertaken in the future in the interests of managing potential future flood risk that could be derived from this scheme. In relation to the drainage strategy, no information regarding the proposed drainage approach is provided for the construction stage. Therefore, the information presented in the ES chapter 13 is not substantiated by the current evidence base. The LLFA seeks assurances that further information will be provided regarding the construction drainage strategy to ensure there is no increase in flood risk during the construction phase, prior to the permanent surface water drainage system becoming operational.</p>	<p>flood storage. The Applicant confirms they are working with the LLFA to provide the required additional information to clarify the Flood Risk Assessment and design; the outcome of these discussions will be recorded in the Statement of Common Ground and, if required, an additional information note to the Examining Authority.</p> <p>ES Chapter 13 (APP-052) and the Flood Risk Assessment (APP-124 and APP-125) imply that the LLFA stated no flood floodplain compensation storage is acceptable. The Applicant tried to reflect its understanding that this position was not definitive in those documents by stating that this view was 'in principle' and that flood compensation 'might not be required'. ES Chapter 13 and the FRA also state that further information is required prior to determining any requirement regarding the off-site impacts, and that this information was provided within the flood risk assessment and will be further detailed during detailed design. This is also reflected by the DCO boundary still including land for the provision of potential flood storage compensation for works on watercourses at Oak Farm; which reflects the recognition that flood storage compensation may still be required.</p> <p>However, the Applicant agrees that there is potential for confusion and will seek to clarify the position in the Statement of Common Ground with Norfolk County Council. The Statement of Common Ground should note that the final flood compensation need will be determined in consultation with Norfolk County Council as part of the detailed design development and in support of applications for the required land drainage consents.</p> <p>The LLFA seeks assurances that further information regarding the flood storage compensation will be provided at detailed design stage. Delivery of this commitment will be secured through dDCO (APP-017) Requirements 4 'Environmental Management Plan' and 8 'Surface and foul water drainage'. Action RD9 in the Environmental Management Plan states the Drainage Strategy and Flood Risk Assessment to be approved by the Lead Local Flood Authority (Norfolk County Council).</p> <p>Temporary drainage design work is yet to be completed and may comprise temporary settlement ponds within the mainline works area and use of the permanent ponds in the design that will be constructed early to facilitate control of run-off from the construction site as well as operational highway.</p> <p>The LLFA seeks assurances that further information regarding the proposed drainage strategy during construction will be provided. The temporary drainage design strategy will be provided as part of the Environmental Management Plan (APP-143). Delivery of this commitment will be secured through dDCO (APP-017) Requirement 4 'Environmental Management Plan' and requirement 8 'Surface and foul water drainage'. Meanwhile, the Applicant will develop an outline Water Management and Monitoring Plan, which will include an outline Temporary Drainage Strategy, for Norfolk County Council to provide reassurance at this stage; the outcome will be recorded in the Statement of Common Ground.</p>
RR-037.61	<p>In section 13.9.22 of the Environmental Statement, it is indicated that of the 12 outfalls, nine will be new outfalls. The new outfalls will discharge to surface water via filter drains and vegetated detention basins or wetlands to provide water quality or quantity improvements. While it is appreciated that the existing outfalls and drainage system are currently being surveyed, it is not clear what water quality processes will be applied to the existing outfalls in the current ES.</p> <p>We note that the drainage strategy report does not refer to the LLFA's Developer Guidance.</p> <p>Further Information We would like to make you aware that the Greater Norwich Level 2 Strategic Flood Risk Assessment was published in February 2021 and can be found at https://www.gnlp.org.uk/regulation-19-publication/evidence-base in its own section. We suggest appropriate consideration is given to relevant aspects of this recently published study.</p>	<p>A Highways England Water Risk Assessment (HEWRAT) was undertaken as part of the water quality assessment, with the results provided in ES Appendix 13.3 Water Quality Assessment (APP-128). The results are also summarised in ES Chapter 13 Water and Road Drainage Environment (APP-052) paragraphs 13.9.22-25 and Table 13.9, and ES Appendix 13.2 Drainage Strategy Report, Part 1 of 2 (APP-126). The HEWRAT assessment was undertaken on the proposed outfalls and existing outfalls to assess risks to the water environment from routine runoff and spillages.</p> <p>Three existing outfalls are to be utilised as part of the Scheme where it ties into the existing drainage (drainage catchments M1, S3 and S4). The assessment indicated that water quality mitigation was not required for all three existing outfalls due to the risk of accidental spillage. For routine road run off, mitigation was only required for one drainage catchment M1. Filter drains are proposed as mitigation for this catchment. These assessments will be reviewed at detailed design level once the survey has been completed.</p> <p>There are a further six existing outfalls on the existing A47 where it is to be retained (de-trunked) as a local access road. These outfalls are currently classed as low pollution risk and given the significantly reduced traffic forecast for the proposed local access road then no water quality treatment is required (subject to drainage survey). This is stated in section 3.4 of ES Appendix 13.3 Water Quality Assessment (APP-128). The relevant planning authority will be consulted on the final surface water drainage system design, reflecting the drainage strategy and the mitigation measures set out in Table 3.1 of the Environmental Management Plan (e.g. pollution control), under dDCO Requirement 8 'Surface and foul water drainage' (APP-017).</p> <p>Norfolk County Council, the Lead Local Flood Authority (LLFA), Developer Guidance has been referenced in ES Appendix 13.2 Drainage Strategy Report, Part 1 of 2 (APP-126) section 5.2 and paragraph 5.6.5. The document also states that the Norfolk County Council Developer Guidance and advice provided through consultation has been adopted in regard to climate change (paragraph 5.2.1), pipe size (paragraph 5.4.2), run off factor (paragraph 5.5.2) and attenuation (paragraph 6.6.1).</p> <p>The Greater Norwich Level 2 Strategic Flood Risk Assessment (SFRA) published in February 2021 is noted. The Applicant has reviewed the document and confirms that the SFRA does not alter the findings of the Flood Risk Assessment (APP-124 and APP-125).</p>
RR-037.62	<p>In addition, please note that any works on ordinary watercourses and flow paths would normally require an ordinary watercourse consent prior to construction. The LLFA in Norfolk seeks assurances that this proposed scheme will be undertaken in accordance with the principles and regulations associated with ordinary watercourse consents and that applications will be made within an adequate</p>	<p>The Scheme will be undertaken in accordance with the principles and regulations associated with ordinary watercourse consents and that applications will be made within an adequate timescale.</p> <p>Action RD8 in the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143), requires the Principal Contractor to obtain an ordinary watercourse consent from the Lead Local Flood</p>

Reference	Relevant Representation	Highways England Response
	timescale. This is to ensure the management of potential future and residual flood risk that could be derived from this scheme.	Authority (Norfolk County Council) for any works associated with ordinary watercourses. The commitment to deliver this action will be secured through dDCO Requirement 4 'Environmental Management Plan' (APP-017).
RR-037.63	<p>Climate Comments</p> <p>1.33 Norfolk County Council adopted its Environmental Policy at the end of 2019. This included a commitment to move towards carbon neutrality across all sectors by 2030. Emissions from the trunk road network would be included within this. In order to help meet the commitment in its environmental policies the council would want Highways England to commit to undertaking work across the trunk road network to understand in more detail the carbon emissions arising from use of this network and how these might be mitigated.</p> <p>Norfolk County Council supports Highways England's efforts to reduce the footprint of the construction process. The county council would want to work closely with Highways England to identify measures to reduce carbon emissions on the trunk road network, eg by installation of Electric Vehicle charging points to encourage electric vehicles, and understand how these will be brought forward, their impact on emissions reduction and how they dovetail with measures that local partners are taking on the local transport network and across other sectors.</p>	<p>Information on carbon emissions relating to the Scheme is provided in the ES Chapter 14 Climate (APP-053).</p> <p>The Applicant has recently secured additional funding to review potential environmental opportunities around the Scheme. The Applicant will work with Norfolk County Council to develop potential feasibility study to assess the implementation of such opportunities.</p>

RR-038 NORWICH GREEN PARTY GROUP OF CITY AND COUNTY COUNCILLORS

Reference	Relevant Representation	Highways England Response
RR-038.1	Norwich and Norfolk Green Party councillors (twelve councillors) object: Scheme is over-engineered at considerable loss to the local and global environment.	<p>Highways England's The Road to Good Design (2018) and DMRB GG103 Good road design identify the ten principles of good design that have been applied to the A47 North Tuddenham to Easton scheme to avoid overengineering and to minimise the impacts on of the local and global environment.</p> <p>Good road design:</p> <ul style="list-style-type: none"> • is safe and useful • is inclusive • is understandable • fits in context • is restrained • is thorough • is sustainable • is innovative • is long lasting • is a collaborative process. <p>In addition to the above ten design principles, Highways England have applied an objective to reduce carbon emissions when developing the Scheme design.</p> <p>The application of the good design principles and other design considerations are outlined in the Scheme Design Report, Rev.1 (AS-009).</p>
RR-038.2	AADT flows in base scenario are modest compared to many parts of SRN.	The Scheme's modelled base year Average Annual Daily Traffic (AADT) flows were derived from the modelled peak hour flows which were calibrated and validated against the observed traffic counts in line with calibration and validation criteria specified in DfT's TAG (Transport Analysis Guidance) unit M3.1. The Scheme's modelled baseline AADT (24,286 vehicles) matches well with Highways England's WebTRIS traffic count data (24,454 vehicles, 2015 yearly average) on the A47 mainline east of Wood Lane junction.
RR-038.3	Highway is currently operating just below available capacity during AM and PM peaks eastbound. We request travel analysis data to show scope for influencing travel behaviour along corridor. Highways England A47 studies found travel along corridor is predominantly local. The scheme is intended to increase road capacity and facilitate traffic growth. Traffic surveys, traffic model and traffic forecast use inputs that pre-date the Covid-19 pandemic. The latter has most likely resulted in permanent flexible working and a change in travel patterns, with fewer car commuting trips at peak times. It is likely that future traffic growth, time savings and economic benefits have been over-estimated and a larger scheme designed than is necessary. The DM and DS models are unreliable and sensitivity tests do not take sufficient account of and uncertainties. We request new surveys, updated traffic model and revised forecast.	Please see Common Response A and B
RR-038.4	The large increase in greenhouse gas emissions is incompatible with 2015 Paris Agreement and new legally-binding target of 78% cut in emissions over 1990 levels by 2035. Even so, the estimated increase excludes emissions from several sources, for example, vegetation removal and traffic from developments facilitated by scheme.	<p>Please see Common Responses G and H with regards compliance with the 2015 Paris Agreement and consideration of traffic from other developments.</p> <p>With regards vegetation removal, this has been considered as outlined in Paragraph 14.5.1 of ES Chapter 14 and Paragraph 2.3.3 of ES Appendix 14.1 Embodied Carbon Assessment (APP-131); carbon emissions associated land use/biomass removal have been classified within site clearance and have been based on estimated fuel consumption at the preliminary design stage for the DCO application.</p>
RR-038.5	Moreover, this is one of three A47 schemes close to Norwich undergoing examination simultaneously (North Tuddenham,	Please see Common Response G

Reference	Relevant Representation	Highways England Response
	Thickthorn, Blofield). In total, seven road schemes are planned for construction in Greater Norwich/ East Norfolk by 2025. The synergistic effect of significant new road capacity on induced traffic and their cumulative impacts on climate change would be considerable, but the NWL is the sole road scheme referenced in Cumulative Effects Assessment (6.1). HE must assess cumulatively impacts of full set of schemes on GHG emissions.	
RR-038.6	A 'Large Adverse' impact on biodiversity would reinforce UK's position as one of the most nature depleted countries. The scheme involves fragmentation or loss of diminishing wildlife habitats and unquantifiable adverse impacts on protected species. Eg bats and water voles would suffer direct mortality. It would see further urbanisation of ancient countryside around Norwich. The three A47 schemes and NWL would have a deleterious cumulative impact on biodiversity and landscape. This has not been recognised and should be assessed.	Please see Common Responses F and G
RR-038.7	We object to Wood Lane junction for connecting NWL with A47.	<p>The Scheme is independent of the NWL road scheme and would proceed without the NWL coming forward. However, if the Scheme was built without the NWL a junction is still required to connect the A47 with the B1535 (Wood Lane), which is the locally assigned heavy goods vehicles (HGV) route to the north and provides access for Hockering and parishes north of the A47 to the A47. The locally appointed HGV route (B1535 Wood Lane) would be replaced by the NWL. Therefore, the Scheme needs to plan for building a junction at this location whether the NWL is built or not.</p> <p>Section 4 of the Scheme Design Report, Rev.1, (AS-009) explains the considerations that informed the design of the Wood Lane junction for the Scheme, including why a grade separate junction is needed.</p> <p>Section 9.2 of the Scheme Design Report also presents the Applicant's position as to why it has provided for the ability to create a stub connection to the NWL within its design.</p> <p>As well as Department of Transport traffic modelling guidance requiring the NWL to be considered as a 'certain development' in the need case for the Scheme, it is both sensible and pragmatic for the Scheme to anticipate that the NWL may come forward. Through this approach the Applicant is required to be as efficient as possible with public money and ensure the community and environmental benefits from joined up working with regards planning new major developments for the short and long term. These benefits are discussed in Section 9.2 of the Scheme Design Report, Rev.1 (AS-009).</p>
RR-038.8	Surveys record a nationally significant barbastelle bat colony in NWL area. Responding to A47/A11 Thickthorn upgrade, NCC acknowledges that the colony size would qualify for pSAC status.	Please see Common Response I
RR-038.9	Planning approval of NWL is by no means certain. HE should assess 'Without NWL' in core design and consider 'With NWL' as an alternative scenario.	Please see Common Response C
RR-038.10	A smaller junction without NWL would reduce land-take, biodiversity loss and GHGs.	<p>The proposed new junctions were presented at statutory consultation along with the A47 North Tuddenham to Easton Junction & Sideroad Strategy Report²⁰ (Highways England, 2020). This report describes the existing and modelled operation of the Norwich Road junction and Wood Lane junction intersections with the A47. Selection of junction types and designs are guided by thresholds set out in the UK Design Manual for Roads & Bridges (DMRB)</p> <p>The Scheme is not dependent on the NWL scheme and would still proceed without the NWL coming forward. However, though removal of the NWL stub may remove some impacts of creating the stub connection, it is also important to recognise that if the NWL achieved consent the reconfiguration of a newly built roundabout on a strategic highway junction to incorporate a new arm post construction of the Scheme would incur environmental and social impacts that could be avoided if the junction was designed upfront to incorporate the NWL. These benefits are discussed in Scheme Design Report, Rev.1 (AS-009).</p> <p>In July 2019 Norfolk County Council announced the preferred route for their NWL (a new 3.8mile dual carriageway road) and in May 2020, the Department for Transport approved the Strategic Outline Business Case. As a consequence, under the Department of Transport traffic modelling process, the NWL has to be considered as a 'certain development' in the traffic model determining the need case for the A47 North Tuddenham to East dualling scheme.</p> <p>Though the NWL does not currently have consent to be constructed, as the local highway authority has a well advanced scheme that will connect with the A47, it is both sensible and pragmatic for the A47 Scheme to anticipate that the NWL may come forward. Through this approach the Applicant is required to be as efficient as possible with public money and ensure the community and environmental benefits from joined up working with regards planning new major developments both for the short and long term. These benefits are discussed in the Scheme Design Report, Rev.1 (AS-009).</p>
RR-038.11	HE acknowledges lower environmental impact of on-line dualling but has opted for off-line dualling to reduce driver inconvenience during construction, at greater cost to the local environment. HE has not tested lower cost measures for addressing road safety and encouraging modal shift.	<p>The decision to select off-line dualling as the preferred route option was based on a balance of considerations informed by technical and economic appraisals plus consultation feedback.</p> <p>Non-statutory public consultation on the route options took place in March 2017 ahead of the Preferred Route Announcement (PRA) in August 2017. As part of the Statutory Consultation in 2020, the Scheme Assessment Report (SAR)²¹ was published on the project website and available at consultation venues. The SAR</p>

²⁰ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

²¹ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
		<p>included the Stage 1 Technical Appraisal Report, which outlined the 14 potential route options that were assessed comparatively in terms of their engineering, environmental, transportation and economic suitability; see Section 2.2 of the Case for the Scheme for details. The Economic Assessment compromised a comparative economic assessment of each option based on high level estimate of scheme costs and potential benefits. Four options were subsequently taken forward to non-statutory consultation and the identification of the Preferred Route; one of these short-listed options included an option representing as close to an online dualling improvement that modern standards allow.</p> <p>Therefore, the Applicant has tested lower cost measures and even consulted the public on an on-line route option alongside offline route options for addressing road safety and encouraging a modal shift.</p> <p>The Applicant has provided information outlining the above within the Case for the Scheme (APP-140):</p> <ul style="list-style-type: none"> • Section 2.1 (Development History and Options Considered) • Section 2.2 (Options Identification and Assessment) • Section 2.3 (Options Consultation) • Section 2.4 (Preferred Route) • Section 2.5 (Statutory Consultation) • Section 2.6 (Design Development).

RR-039 RINGLAND PARISH COUNCIL

Reference	Relevant Representation	Highways England Response
RR-039.1	The A47 project involves the removal of the existing roundabout at Easton and as a consequence effectively closes one of the three current routes for light traffic to cross the Wensum valley. Traffic flow across the valley is already highly congested and is a major problem for local residents and businesses. This situation will only be resolved if the proposed Norwich Western Link Road is built, but this is a separate project administered by Norfolk County Council rather than Highways England. If the NWL is not built or is significantly delayed as seems highly likely then the impact on the local and wider community and business will be disastrous.	<p>In line with Scheme objective to provide a more free-flowing network, the existing Easton roundabout is to be removed.</p> <p>With regards the closure of the Ringland Road connection to the A47 at Easton roundabout, the initial design concept proposed the Norwich Road junction with a side road connection between Taverham Road (C174) and Church Lane (unclassified local road) at Easton to the east. This arrangement was presented at the March 2020 statutory consultation along with the supporting A47 North Tuddenham to Easton Junction & Sideroad Strategy Report²² (Highways England, 2020); the arrangement was shown on drawing on page 10 of Consultation Report Annex J - Section 47 Consultation Materials (APP-034).</p> <p>However, statutory consultation feedback raised concerns that the link between Taverham Road (C174) and Church Lane, Easton, would result in additional traffic using Ringland Road where there are existing safety concerns. Therefore, the proposed northern roundabout at Norwich Road junction and link to Taverham Road (C174) was reconfigured to remove the road linking Taverham Road to Church Lane, Easton. This change also offered benefits of reduced landtake and is reported in Table 4.12 (item no. 11) of the Consultation Report (APP-024).</p> <p>With regards impact of traffic travelling on the local sideroad network until the NWL is built, the Applicant has engaged with the Local Highway Authority (Norfolk County Council) and their internal project team promoting the NWL scheme regularly throughout the design development process. The Applicant has also included mitigation measures for Taverham Road within the proposed design as a result of engagement with the Local Liaison Group (Norfolk County Council and Parish Councils). As stated within Section 9 (paragraph 9.2.10) of the Scheme Design Report (AS-009), the Applicant proposes to implement the temporary closure of Honingham Lane to through traffic, in the interim period between the Scheme opening and NWL opening. If the NWL scheme does not obtain planning consent, the Applicant would continue to engage with the local highway authority, Norfolk County Council, on the implementation of longer-term mitigation measures.</p>
RR-039.2	Both projects should be reviewed as one entity and neither should proceed without the other being approved at the same time.	<p>The Scheme is identified as required to manage traffic and road safety impacts as part of the Department of Transport (DfT) published the Road Investment Strategy 2 (RIS2) and to be developed by Highways England in the period 2020-2025. The need case for this Scheme is discussed in the Case for the Scheme (APP-140).</p> <p>The Scheme is not dependent on the NWL road scheme and would still proceed whether the NWL comes forward or not.</p>

RR-040 ADRIAN HOLMES

Reference	Relevant Representation	Highways England Response
RR-040.1	I object to the proposed scheme for these reasons: The case for the scheme (at 3.5.1) says that it will increase capacity which means that it will increase traffic growth in Norwich area. This does not comply with national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-040.2	The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for "increased capacity".	Please see Common Response B
RR-040.3	The application and traffic modelling assume that the Norwich Western link is already built. To comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the environmental statement should start from the current situation now as the environmental baseline.	Please see Common Response C

²² This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
RR-040.4	The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposal, and needs to be fully examined at the examination.	Please see Common Response D
RR-040.5	The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-040.6	The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside.	Please see Common Response F
RR-040.7	In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	Please see Common Response G
RR-040.8	Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-040.9	Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at [redacted]). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006.	Please see Common Response I

RR-041 BROADLAND DISTRICT COUNCIL

Reference	Relevant Representation	Highways England Response
RR-041.1	This letter sets out Broadland District Council's Relevant Representation in respect of the application made by Highways England for a Development Consent Order for alterations to a section of the A47 between North Tuddenham and Easton (the Scheme). The adopted Joint Core Strategy for Broadland, Norwich and South Norfolk seeks to enhance the transport system in order to develop the role of Norwich as a Regional Transport Node. This is to be achieved by, amongst other things, promoting improvements to the A47. This strategic aim is echoed in the emerging Greater Norwich Local Plan (GNLP), which supports strategic infrastructure improvements that support the growth needs of the area. The emerging GNLP specifically refers to improvements to the A47 between North Tuddenham and Easton as one of the schemes that will help the plan achieve its aims. The Regulation 19 Publication of the GNLP was undertaken between 1 February 2021 and 22 March 2021 and is anticipated to be examined between November and December 2021 and adopted in September 2022. As such, the North Tuddenham to Easton dualling scheme is given in principle support by the existing and emerging development plan.	The Applicant acknowledges the Council's comments, which reflect the benefits and the planning policy review presented in the Case for the Scheme (APP-140). The following responses seek to address the concerns raised by the Council.
RR-041.2	The potential for the scheme to deliver economic growth is strongly supported by the District Council. These benefits, in combination with the wider programme of A47 improvements being proposed by Highways England, include: <ul style="list-style-type: none"> • help to boost the economic prosperity of a large part of the East of England and contribute to national economic growth. • Shorter and more reliable journey times along the road and onwards to the Midlands. • Reduce delay, congestion and inefficiency. • Attracting more customers for businesses and attracting new businesses. • supporting existing businesses to grow and become more productive and profitable. • allowing businesses to invest with confidence. • encouraging more visitors to the region. • creating more jobs. 	

Reference	Relevant Representation	Highways England Response
RR-041.3	<p>However, whilst the District Council is supportive of the scheme in principle, there is the potential for impacts that will require detailed consideration through the examination process ahead of any final decision on the Development Consent Order. Matters of particular interest to the District Council through the examination stage are considered to be:</p> <ul style="list-style-type: none"> • Access to the Food Enterprise Park • Landscape and visual impact • Impacts arising from noise, air quality and vibration. • Impacts on designated heritage assets 	
RR-041.4	<p>Access to Food Enterprise Park The Food Enterprise Park (FEP) (referred to as the Food Enterprise Zone (FEZ) in the application documents) is a 100 acre development site, the first 46 acres of which benefits from a Local Development Order to encourage and support food production, processing and agriculture through the co-location of commercial enterprises. The FEP is considered to be a strategically important employment site which has the potential to support significant economic growth in Greater Norwich and Norfolk more generally. Earlier iterations of the Scheme proposed by Highways England included provision of a spur off the southern most roundabout at the proposed Norwich Road junction. This spur would have allowed direct access to be provided from the FEP onto the strategic road network. In previous responses to the scheme the Council has made clear that direct access to the strategic road network is an integral element of delivering the FEP vision in its entirety and would be extremely supportive of this. Direct access into the FEP as previously proposed would avoid the need for vehicles associated with the FEP (including heavy goods vehicles) to use local roads and would make the FEP a more attractive prospect for future occupants thereby accelerating the delivery of the site and its associated economic benefits. If an access to the FEP is not provided at this point there is likely to be an unacceptable increase in heavy goods movements through the village of Easton. The scheme, as submitted, does not facilitate direct access from the strategic road network into the FEP and Highways England have adopted the position that they are not responsible for its provision, nor is its provision necessary to deliver the FEP. The Council would continue to request that the Scheme includes this important access.</p>	<p>The Applicant has explained its reason for not providing a connection to Blind Lane within Section 9.3 of the Scheme Design Report, Rev.1, (AS-009).</p> <p>During statutory consultation, in March 2020, the initial design concept proposed the Norwich Road junction with a side road connection to Blind Lane; see Consultation Report Annex J - Section 47 Consultation Materials (APP-034). However, statutory consultation feedback raised concerns about the provision of a link to Blind Lane in light of Local Development Order requiring the closure of Blind Lane and the provision of a link for the benefit of the private developers of the Greater Norwich Food Enterprise Zone (FEZ).</p> <p>Therefore, the Applicant reviewed the legal position and determined there is no existing or contingent requirement that the LDO requires the Greater Norwich FEZ site to be accessed directly from the A47 given the approved alternative route along Church Lane. The analysis is set out in Section 9.3 of the Scheme Design Report, Rev.1, (AS-009) and the removal of Blind Lane post statutory consultation is reported in Table 4.12 (item no. 12) of the Consultation Report (APP-024).</p> <p>The FEZ developer was invited to contribute funds to the Scheme to provide a private direct connection to the FEZ, but as no offer was received before design was fixed for the DCO assessments so the Blind Lane connection remained removed from the Scheme design.</p> <p>However, the Applicant acknowledges that the developer of the FEZ site may wish to obtain consent to create their own connection to the Scheme in the future. Therefore, the Scheme's traffic modelling has taken this into account at the Norwich Road junction to provide capacity for the FEZ vehicle movements. The design of the Honingham roundabout to Norwich Road junction side road would allow for a third party to create a new highway connection. This commitment is presented in Section 9.3 of the Scheme Design Report, Rev.1 (AS-009).</p> <p>The Applicant notes that the promoters of the FEZ have now lodged a planning application (27 July 2021) with the Local Planning Authority, Broadland District Council (Application No.: 20211335) for the provision of an access to the proposed scheme.</p>
RR-041.5	<p>Landscape and Visual Impact The key landscape issues are considered to be:</p> <ul style="list-style-type: none"> • Impacts of scheme on existing vegetation; hedgerows and trees • Effect of the engineering and landform on the landscape character, in particular the relatively gentle landform. • Whether there are significant adverse visual effects for sensitive receptors, e.g. users of PROWs, that cannot be sufficiently mitigated • Appropriateness of proposed Environmental Masterplan 	<p>The Applicant acknowledges the key issues identified by the Broadland District Council and confirms these are considered in ES Chapter 7 Landscape and Visual Effects (APP-046).</p> <p>These will be considered when developing the final landscaping design under DCO Requirement 5 'Landscaping' (APP-017) and the detailed Landscape and Ecology Management Plan (LEMP), which forms Appendix B.5 of the Environmental Management Plan (APP-143), during the detailed design stage prior to construction.</p> <p>The relevant planning authority will be consulted on the LEMP and the detailed landscaping scheme. This is secured in the dDCO (APP-017) by Requirement 4 'Environmental Management Plan' and 5 'Landscaping'.</p>
RR-041.6	<p>Hedgerows and Arboricultural implications: The Council welcome that the submission has identified where 'important' (and other) hedgerows will be lost as a result of the scheme. Where it is necessary to remove sections of 'important' hedgerows for construction working margins – and the 'importance' was due to an historical line, it would be preferable to have the line re-instated after construction by replanting (if the original form of the land is unchanged). There is inevitable tree loss as a result of this scheme which is impossible to avoid in such a landscape. The Council are pleased to see that whilst some category 'A' trees are scheduled for removal, no Veteran trees appear to be implicated. The Council are concerned about potential construction compounds being within root protection areas of retained trees (including category As); would like to see this avoided if at all possible.</p>	<p>During the detailed design of the Scheme, the Applicant will continue to avoid or minimise any impact to important hedgerows. However, the Applicant notes Broadland District Council's request that where 'important' hedgerows are removed for construction and the 'importance' was due to an historical line, it would be preferable to have the line re-instated after construction by replanting (if the original form of the land is unchanged).</p> <p>With regards potential construction compounds being within root protection areas of retained trees, action LV3 in the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143), requires the Principal Contractor to engage an arboricultural consultant to complete an arboricultural method statement. The method statement shall include, but not limited to the following:</p> <ul style="list-style-type: none"> ○ Tree protection measures in compliance with BS5837:2012 (Trees in relation to design, demolition, and construction – Recommendations) during the construction phase. ○ Maintenance and monitoring requirements of the tree protection measures. ○ Schedule of trees to be removed and based on the Environmental Masterplan, Rev.1, (AS-007) and ES Appendix 7.7 Arboricultural Impact Assessment (APP-094). ○ Tree root protection zones. ○ Contingency plan (chemical spillage, collision, emergency access to the root protection zone). <p>Delivery of this commitment is secured in the dDCO by Requirement 4 'Environmental Management Plan' (APP-017).</p>
RR-041.6	<p>Landscape Character: Significant adverse effect on landscape character is anticipated within the Broadland section of the scheme, but the mitigation is expected to reduce this within 15 years to not be significant.</p>	<p>The Applicant welcomes Broadland District Council agreeing that the mitigation would reduce the significant adverse landscape and visual effects to not be significant.</p>
RR-041.7	<p>Visual Effects: Significant adverse visual effects are anticipated within the Broadland section of the scheme, but the mitigation is expected to reduce these within 15 years to not be significant.</p>	

Reference	Relevant Representation	Highways England Response
RR-041.8	Environmental Masterplan: The sensitive design and integration of hard landscape features, such as barriers requires careful consideration. Notwithstanding the highway maintenance requirements, it would be preferable for fencing in more visible locations to be set with planting that will soften the built elements.	The design and integration of hard landscape features, plus preference for fencing in more visible locations to be set with planting that will soften the built elements will be considered when developing the detailed Landscape and Ecology Management Plan (LEMP), which forms Appendix B.5 of the Environmental Management Plan (APP-143), during the detailed design stage prior to construction. The relevant planning authority will be consulted on the final landscaping scheme and LEMP. This is secured in the dDCO (APP-017) by Requirements 4 'Environmental Management Plan' and 5 'Landscaping'.
RR-041.9	Impacts arising from Noise, Air Quality and Vibration Whilst the project is in a predominantly rural area, the scheme has the potential to impact on the amenity of local residents during the construction and operational phases as a result of noise, emissions and vibration. Although the Council raises no specific issues on these matters at this stage, we may wish to make representations on these issues through the examination process and ensure that these issues are adequately addressed in the Development Consent Order.	These impacts and mitigation requirements have been considered in the following chapters of the ES: <ul style="list-style-type: none"> • Chapter 5 - Air quality (APP-044) • Chapter 11 - Noise and vibration (APP-050) • Chapter 12 - Population and human health (APP-051) • Chapter 13 - Road drainage and the water environment (APP-052) • Chapter 14 - Climate (APP-053). • Chapter 15 – Cumulative Effects Assessment (APP-054).
RR-041.10	Impact on Heritage Assets The Council notes that the Scheme would have a large adverse impact on St Andrew's Church, a Grade II* listed building, identified by the applicant as having a high level of heritage value. The Council does not disagree with this assessment. However, the Council notes that the existing pedestrian access into the church yard is currently from a footpath through a lychgate. The proposed landscaping (Environmental Masterplan Sheet 11 of 14 TR010038/APP/6.8) does not appear to be designed for retaining pedestrian access through lychgate. The Council consider this an important issue when considering consequential changes around the church as a result of the roads construction and further design consideration in relation to access to the church is therefore required.	The lych gate and churchyard will not be affected physically. Environmental Masterplan, Rev.1, (AS-007) drawing sheet 11 shows a proposed footpath and grass verge at grade, which would allow foot access through the gate, via the grass verge. However, the Applicant has recognised that this would not be as accessible as a paved connection from the proposed highway footpath to the path passing under the lychgate. There is an existing path leading from the church entrance to the existing highway footpath, via the lych gate. Therefore, the Applicant will amend the proposed design to incorporate a paved link between the proposed highway footpath and the existing footpath passing under the lych gate; this does not materially change any of the application assessments and will be reflected in the updated DCO plans (APP-004 to APP-016 , as required) and Environmental Masterplan, Rev.1, (AS-007) to be issued at Deadline 2 or Deadline 3. The existing footpath is in fair condition and it is envisioned that there will be no need to conduct works on the lych gate itself or on any other part of the grounds of St Andrew's Church (NHLE1170701). For the sake of clarity, the structural assessment and monitoring measures outlined in sections 6.9.13 and 6.9.14 of the ES Chapter 6 Cultural Heritage (APP-045), following industry best practice, are intended to include the lych gate as part of St Andrew's Church.
RR-041.11	In the Cultural and Heritage section of the ES, the applicants have not included a C19 lodge to Honingham Hall (to the east of St Andrew's Church) which the Council considers to have sufficient heritage and architectural interest to be a non-designated heritage asset (due to its historic connection to the hall and typical example of a C19 lodge). However, the Council considers that the diversion of the road will be beneficial to the setting of this building so is not a cause of concern. The Council supports the protection of milestones during the construction of the Scheme as is proposed by the applicant.	Although not separately listed, ES Appendix 6.1 Cultural Heritage Information (APP-085) mentions the lodge in paragraph 6.3.96 in relation to Church Farm House (NHLE 1051542) and Barn at Church Farm (NHLE 1170764): " <i>...There is a three to five-foot tall red brick wall from Taverham Road along the A47, forming the southern boundary of the garden and for Honingham Park. The fence then continues to seven-foot tall brick and stone gate piers for a gate lodge to Honingham Hall. These elements of the setting illustrate the connection of the farm complex to the park and hall and make a positive contribution to the setting.</i> " The Applicant concurs that the diversion of the Scheme will be beneficial to the setting of this building so is not a cause of concern. However, the value of these features is recognised in the Action CH2 of the Environmental Management Plan (APP-143) which required the gateway piers and southern boundary of Honingham Park (MNF49020) between St Andrew's Church and Taverham Road to be recorded prior to any works taking place and the gate piers protected during construction works. Action CH2 also excludes certain assets in the DCO boundary from the works and to be recorded and protected during construction (for example with fencing). These assets include the milestone opposite St Andrew's Church (MNF62797). Delivery of Action CH2 is secured in the dDCO by Requirement 4 'Environmental Management Plan' (APP-017).
RR-041.12	The decision maker should, as required by Section 66 (1) of the Planning (Listed Buildings & Conservation Areas) Act 1990, have special regard to the desirability of preserving the setting of the building or any features of special architectural or historic interest which it possesses.	Section 7.4.6 of the Case for the Scheme (APP-140) sets out the Applicant's position on this issue with regard to compliance with Paragraphs 5.131 and 5.132 of the National Planning Policy for National Networks (2014).
RR-041.13	Conclusion The Council is strongly supportive of the scheme in principle subject to further consideration of the issues identified above. The Council wishes to continue to work pro-actively with the applicants as the application is progressed through to Examination to try to resolve any issues in respect of the above.	A Statement of Common Ground will be provided to the ExA as a record of issues agreed or still under discussion. The Applicant will continue to engage with the Council during the detailed design, construction and operation of the Scheme.

RR-042 GLEBE HOUSE

Reference	Relevant Representation	Highways England Response
RR-042.1	I believe a review of the road development needs to take place given the change in road use as a result of the Covid 19 pandemic. The development is based on our of date information.	Please see Common Response B
RR-042.2	My strong view is that the expansion of road building will increase traffic at a time when the climate crisis means the County should be investing in public transport, cycle lanes and improved rail networks for freight.	Please see Common Response A
RR-042.3	Increased emissions will effect the air quality of the region and have an adverse effect on the air that local residents	Please see Common Responses A and F

Reference	Relevant Representation	Highways England Response
	breathe, destroying the rural landscape and what makes Norfolk such a wonderful place to live. Roads can be conduits for pollutants into the wider environment.	
RR-042.4	Our rural cultural heritage and our landscape will be adversely and irreversibly affected by further road expansion.	<p>These impacts and mitigation requirements have been considered in the following chapters of the ES:</p> <ul style="list-style-type: none"> • Chapter 6 – Cultural heritage (APP-044) • Chapter 7 – Landscape and visual effects (APP-046) <p>ES Chapter 7 concludes that the Scheme would not result in an overall significant residual effect on landscape and visual amenity.</p> <p>ES Chapter 6 concludes the Scheme will have both beneficial and adverse effects on cultural heritage. However, potential adverse effects have been reduced or eliminated with a combination of sensitive design and targeted mitigation. Where adverse effects could not be avoided, a programme of archaeological recording and publishing is proposed to mitigate the impact. Residual adverse effects on setting have been identified as a result of construction and operation activities on the following heritage assets:</p> <ul style="list-style-type: none"> • St Peter's Church (NHLE 1305921 Grade I Listed Building) - Moderate • St Andrew's Church (NHLE 1170701 Grade II* Listed Building) - Large • Church Farm House (NHLE 1051542 Grade II Listed Building) – Slight • Berry Hall (NHLE 1396730 Grade II Listed Building) - Slight <p>Section 7.4.6 of the Case for the Scheme (APP-140) explores compliance with Paragraphs 5.131 and 5.132 of the National Planning Policy for National Networks (2014) with regards the large and moderate impacts on designated heritage assets, their settings and any features of special architectural or historic interest. Though St Andrew's Church, Honingham, and St Peter's Church, Easton, are currently located immediately adjacent to the existing A47, the Scheme carefully considered their setting in the Scheme design process. For St Andrew's Church, following statutory consultation the alignment of the proposed A47 dual carriageway was moved 150m away from St Andrew's Church and a proposed north facing retaining wall replaced with landscaped earth embankment. This reduced the intrusion of the Scheme on the church's setting.</p> <p>Consideration of the Grade I listed status of St Peter's Church contributed to deciding the final location of the Norwich Road junction, at Blind Lane and Taverham Road junction with the A47 rather than at the existing Easton roundabout immediately adjacent to the church. The construction and operational impacts on the settings of Listed Buildings are discussed in Tables 6.3 and 6.4, respectively, of ES Chapter 6 Cultural Heritage (APP-044). In particular, the tables demonstrate the efforts made to minimise the harm so far as possible to the settings of St Andrew's Church and St Peter's Church.</p> <p>Beneficial effects have been identified for the setting of the Grade I listed St Michael's Parish Church in Hockering and three other Grade II listed buildings near the existing A47 in Hockering by moving traffic further away and maintaining an appropriate density of planted screening along the new carriageway. Other significant beneficial effects have been identified in the planned conservation of two mileposts along the route of the existing A47, which Highways England will also propose for listing by Historic England.</p>
RR-042.5	There also needs to be a robust impact assessment of the impact on biodiversity and wildlife at a time when wildlife is in crisis globally as precious habitats are irredeemably lost.	Please see Common Response F
RR-042.6	My particular concern is that the very nature of our county and what makes it stand out head and shoulders above the rest will be irredeemably effected by unnecessary road building, and is out of step with the critical need to address climate change	<p>The Scheme is identified as required to manage traffic and road safety impacts as part of the Department of Transport (DfT) published Road Investment Strategy 2 (RIS2); and to be developed by Highways England in the period 2020-2025. The need case for this Scheme is discussed in the Case for the Scheme (APP-140).</p> <p>However, the need case for the Scheme is more than improving capacity and economic growth. This section of the A47 also has a poor safety record, with the A47 ranked 2nd nationally for fatalities on A roads and the accident severity ratio is above average. During the period 2014 to 2018 a total of 2 fatal, 15 serious and 76 slight accidents have been recorded along a 11km length of the existing A47 from North Tuddenham to Easton.</p> <p>The Scheme will improve safety and operational issues by upgrading to dual carriageway and providing grade separated junctions at the Wood Lane junction and Norwich Road junction. In total, over a 60-year timeframe the Scheme's improvement will save a total of 291 accidents and 47 KSIs (killed or seriously injured).</p> <p>The Scheme would also provide new WCH facilities, improve accessibility for users in the local area and provide the opportunity to choose active travel modes (e.g. walking and cycling); further detail is available int Section 4.14 'Walking, Cycling and Horse-riding (WCH) Assessment' of the 7.1 Case for the Scheme (APP-140).</p> <p>The Applicant recognises the importance of minimising the impact on the environmental and has completed an environmental impact assessment of the Scheme; see ES Chapters 1 to 15 (APP-040 to APP-054).</p> <p>The Scheme Design Report, Rev.1, (AS-009) also discusses where reducing carbon emissions has influenced the design of the Scheme, with Section 3.12 summarising the Applicant's approach to reduce carbon emissions through the design development. ES Chapter 14 Climate (APP-053) assesses the impact on and mitigation for carbon emissions and climate vulnerability by the Scheme.</p>

RR-043 HANNAH HOECHNER

Reference	Relevant Representation	Highways England Response
RR-043.1	I object to the proposed scheme for the following reasons: A. The case for the scheme (at 3.5.1) says that it will increase capacity which means that it will increase traffic growth in Norwich area. This does not comply with national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-043.2	B. The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for "increased capacity".	Please see Common Response B
RR-043.3	C. The application and traffic modelling assume that the Norwich Western link is already built. To comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the environmental statement should start from the current situation now as the environmental baseline.	Please see Common Response C
RR-043.4	D. The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposals, and needs to be fully examined at the examination.	Please see Common Response D
RR-043.5	E. The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-043.6	F. The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside.	Please see Common Response F
RR-043.7	G. In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	Please see Common Response G
RR-043.8	H. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-043.9	I. Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at http://bit.ly/NCC_PlanDeleg_June2021). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006.	Please see Common Response I

RR-044 HANNE LENNE SCHIERFF

Reference	Relevant Representation	Highways England Response
RR-044.1	I object to the proposed scheme for these reasons: The case for the scheme (at 3.5.1) says that it will increase capacity which means that it will increase traffic growth in Norwich area. This does not comply with national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-044.2	The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for "increased capacity".	Please see Common Response B
RR-044.3	The application and traffic modelling assume that the Norwich Western link is already built. To comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the environmental statement should start from the	Please see Common Response C

Reference	Relevant Representation	Highways England Response
	current situation now as the environmental baseline.	
RR-044.4	The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposal, and needs to be fully examined at the examination.	Please see Common Response D
RR-044.5	The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-044.6	The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside. In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk.	Please see Common Response F
RR-044.7	Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	Please see Common Response G
RR-044.8	Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-044.9	Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at [redacted]). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006	Please see Common Response I

RR-045 HISTORIC ENGLAND

Reference	Relevant Representation	Highways England Response
RR-045.1	Historic England (retaining the formal title of the Historic Buildings and Monuments Commission for England) is the government service championing England's heritage and giving expert, constructive advice. We summarise our representation regarding this proposed project as follows: 1. The development would include alteration of a section of the A47 in Norfolk including 9km of new carriageway with four new bridges, two new junctions with local roads, the removal of an existing roundabout, a new access road and lay-bys and associated changes to existing roads along the route. 2. The applicant has carried out an assessment of the historic environment within a defined study area. Assets within this area which could be affected by the proposed development include three grade I, three grade II* and 19 grade II listed buildings along with 244 undesignated heritage assets. We will comment on the assessment of and impact on the grade I and II* listed buildings where there is potential for impact on their setting. We will defer advice on grade II listed buildings and undesignated heritage assets to the local planning authorities.	The Applicant acknowledges the review provided by Historic England and notes the feedback stating advice on Grade II listed buildings and undesignated heritage assets would be deferred to the local planning authority. Paragraph 6.4.19 of ES Chapter 6 Cultural Heritage (APP-045) confirms that during the assessment " <i>Historic England was consulted regarding the Grade I and Grade II* listed buildings</i> ". The advice provided in the representation is also recorded in the Statement of Common Ground (TR010038/EXAM/8.3) agreed between Highways England and Historic England.
RR-045.2	3. The development has the potential to harm archaeological deposits of interest, both directly and indirectly. A mitigation strategy has been presented by the applicant, which includes a programme of archaeological works that will inform preservation strategies, either preserving remains in situ or by record. We will not comment on this strategy and associated documents and are content for Norfolk County Council's Historic Environment Service to comment on this.	The Applicant acknowledges the review provided by Historic England and the feedback regarding intention to defer provision of comments on the mitigation strategy to Norfolk County Council's Historic Environment Service. Paragraph 6.9.24 of ES Chapter 6 Cultural Heritage (APP-045) confirms that " <i>All recording and conservation measures will be secured through DCO requirements and captured within a Written Scheme of Investigation (WSI) which will be agreed with Historic England, NCCES and the Breckland, Broadland and South Norfolk District Council Conservation Officers as appropriate.</i> " The advice provided in the representation is also recorded in the Statement of Common Ground (TR010038/EXAM/8.3) agreed between Highways England and Historic England.

RR-046 HONINGHAM PARISH COUNCIL

Reference	Relevant Representation	Highways England Response
RR-046.1	<p>The Parish of Honingham sits directly on the route of the proposed dualled A47. The Council has had significant involvement during the initial stages, consulting regularly with Highways England about the design and details of the dualled A47.</p> <p>The Council has fed back on many issues regarding the evolving designs but continues to have significant concerns about the final design and the impact it will have on the parish of Honingham and its residents. Many key aspects of the design of the A47 hinge on the construction of the Norwich Western Link. This road, proposed by Norfolk County Council, has currently neither the funding nor the approval to build it, yet the implications of the two roads combined will create a traffic nightmare for those living in the area.</p>	<p>The Applicant will continue to engage with Honingham Parish Council and support Norfolk County Council, as promoter of the NWL, to manage the impact of the Scheme on the parish of Honingham and its residents.</p> <p>Following Statutory Consultation feedback raising concerns about traffic passing through Honingham village, the Applicant changed the Scheme design to integrate more of the existing A47 into the local road network. The existing A47 north of Honingham was reintegrated to avoid traffic from passing through Honingham village by connecting the Scheme's proposed Wood Lane junction with the existing Honingham roundabout. This change is reported in Table 4.12 (item no. 8) of the Consultation Report (APP-024).</p> <p>The Scheme proposes to install traffic calming measures on the east and west approaches to Honingham village (Dereham Road and Norwich Road) to deter and slow traffic passing through Honingham village. More recently, in August 2021, the Applicant agreed with Norfolk County Council, as the local highway authority, to amend the dDCO and DCO plans by Deadline 3 to show the whole of Dereham Road within the Scheme DCO boundary as 30mph speed limit (currently the road is 60mph national speed limit) to further improve road safety and deter traffic from taking a short cut through Honingham village.</p> <p>If the DCO is approved, these measures will be provided as part of the Scheme, which is not dependent on the NWL and would still proceed without the NWL coming forward. The need case and justification for the Scheme is presented in the Case for the Scheme (APP-140).</p>
RR-046.2	<p>The Council continue to be extremely concerned about the impact of additional traffic through the village of Honingham which will be seeking to gain access to roads to the South, such as the A11, from the Wood Lane roundabout to the west of the village.</p> <p>After consultation with local parish councils Highways England have agreed to close Berrys Lane, cutting off the obvious route to travel South. However, it has not provided enough detail on how they will prevent traffic from cutting through Dereham Road and the village centre.</p>	<p>The Applicant acknowledges the support from Honingham Parish Council for the proposed closure of Berrys Lane.</p> <p>The Applicant has engaged extensively with the five directly affected Parish Councils, the Local Liaison Group and the South of the A47 Taskforce. An additional sub-group was also developed for the Local Liaison Group specifically focusing on the traffic modelling for both the A47 and NWL schemes. This focused on the traffic modelling, scenarios tested and modelled results.</p> <p>The traffic modelling does not demonstrate traffic cutting through Dereham Road and the village centre as being a concern, as traffic will favour the 50mph proposed sideroad to the north of the parish, connecting the proposed Wood Lane junction with the existing Honingham roundabout, before heading south along Mattishall Road.</p> <p>However, the Applicant has taken the concerns into account and the proposed design contains committed traffic mitigation measures at either extent of the approach to Honingham to discourage traffic passing through the village. The proposed measures are two physical build outs acting as "Gateway" features, on Dereham Road, west of Honingham, and on Norwich Road, east of the village, which would reduce these roads to a single lane over a short distance with priority given to vehicles leaving the village on both extents. The Applicant's position on this is stated within Section 5.9 of the Scheme Design Report, Rev.1, (AS-009) and committed to being delivered through Work No. 28 and ancillary works item (a) in Schedule 1 of the dDCO (APP-017).</p> <p>Post submission of the DCO, the Applicant has engaged with Norfolk County Council and proposed to implement a 30mph speed limit on Dereham Road from the existing A47 to the village. This was agreed and the dDCO and associated DCO plans will be updated to reflect this change. This speed reduction in addition to the already agreed build outs (priority access) on Dereham Road will further discourage vehicles from using this as a through route.</p> <p>The Applicant will continue to engage with Honingham Parish Council (and have given these assurances on several occasions) regarding how the proposals will fit into the existing landscape.</p>
RR-046.3	<p>The proposed Norwich Road roundabout to the east of Honingham village has been placed in an unsuitable location, connecting to a narrow single track country lane on one side (Taverham Road) and another narrow lane which is due to be closed under a Local Development Order on the other (Blind Lane). There seems no justifiable reason for this junctions location or the impact the noise, lighting, construction and increase in traffic will have on this rural area.</p>	<p>The justification and design for the route alignment and junction arrangement, based on a technical, economic and environmental analysis, was outlined in the A47 North Tuddenham to Easton Scheme Assessment Report (December 2017) which was available on the Highways England project consultation website²³ during the Statutory Consultation.</p> <p>The Preferred Route Announcement (2017)²⁴ indicated the locations for the proposed junctions. The preferred route decision making is also explained in the Case for the Scheme (APP-140).</p> <p>In line with scheme objectives, to provide a more free-flowing network, the existing Easton roundabout is to be removed. The proposed new junctions have been designed in accordance with the UK Design Manual for Roads & Bridges (DMRB), to cater for the traffic in the opening year (2025) and design year (2040). The A47 North Tuddenham to Easton Junction & Sideroad Strategy Report²⁵ (Highways England, 2020), presented during statutory consultation, outlined the junction design hierarchy in accordance with the UK DMRB.</p> <p>The location of the junction at Easton was determined based on the requirement for a fully grade separated junction, whilst taking into account the existing constraints such as the Grade 1 listed St Peter's Church, existing accesses and sideroads, Orsted cable route, Food Enterprise Zone (FEZ) planning permission and local topography.</p>
RR-046.4	<p>The issue of increased traffic on Taverham Road both during and after the completion of the A47 remains an area of deep concern for the Parish Council. Highways England have continued to reiterate that this problem is not one they are responsible for solving, passing responsibility to Norfolk County Council, yet it is a problem of their creation. The current proposal by Highways England is for a Temporary Traffic Order which proposes the closure of Honingham Lane just north of what is locally known as the Merryhill crossroads.</p>	<p>The Applicant will continue to engage with Honingham Parish Council and support Norfolk County Council on the wider sideroad concerns.</p> <p>The Applicant has engaged with Norfolk County Council and shared traffic models to ensure an efficient approach; and to understand the differences between the two traffic models, as explained within Section 9.2 of the Scheme Design Report, Rev.1 (AS-009).</p> <p>The Applicant's position regarding the Temporary Traffic Order is covered within Section 9.2.10 of the Scheme Design Report, Rev.1 (AS-009).</p>

²³ <https://highwaysengland.co.uk/our-work/east/a47-north-tuddenham-to-easton-improvement/>

²⁴ This report is available amongst the Consultation 2017 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

²⁵ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
	The outcome of this will be to redirect all the local (and new) traffic across the Ringland Hills via Taverham Road. Traffic modelling by Norfolk County Council has indicated that traffic flow on this road will vastly increase during this time but there has yet to be any significant or conclusive decisions as to how to mitigate this, and the impact it will have on those living on that road. There are significant details for this application which remain unresolved and the Council seek to ensure they continue to contribute to this application.	<p>The Applicant notes that Norfolk County Council presented traffic modelling results to the Local Liaison Group on 23 February 2021, where Honingham Parish Council were represented. The results demonstrated that the Average Annual Daily Traffic (AADT) on Taverham Road with the proposed mitigation measures in place (Honingham Lane Closure) was 400 AADT in the scheme opening year of 2025.</p> <p>Local Transport Note 1/20 (July 2020) Cycle Infrastructure Design references rural lanes as those with flows of less than 1000 AADT and speeds of 40mph or less.</p> <p>The Applicant has continued to engage with the Local Highway Authority since the submission of the DCO and has proposed to implement a speed restriction of 30mph on Taverham Road from the proposed Norwich Road junction to the River Tud bridge. This has now been agreed and the dDCO and associated DCO plans will be revised accordingly.</p> <p>The Applicant has advised stakeholders that they are responsible for the Strategic Road Network and that wider local issues, such as a reduction from a National Speed Limit to a lower speed limit outwith the Scheme limits, are the responsibility of the Local Highway Authority.</p> <p>The Applicant also notes that there are conditions within the Hornsea Three Offshore Wind Farm Order 2020 for improvements to Taverham Road (outwith the Applicant's scheme extents) during Orsted's construction phase, which could potentially be delivered early and retained permanently if agreed to by the Local Highway Authority.</p>

RR-047 JONATHAN MAYNARD

Reference	Relevant Representation	Highways England Response
RR-047.1	I strongly object to the proposed A47 Tuddenham to Easton scheme. This is contrary to a move towards greener transport and we should be looking at ways to reduce our car usage.	Please see Common Response A

RR-048 LAURA BLAKE

Reference	Relevant Representation	Highways England Response
RR-048.1	I have concerns over the impact of this project if it goes ahead. I do not believe that it would comply with the Government's legal commitments to Carbon Net Zero by 2050.	Please see Common Response H
RR-048.2	The traffic modelling is assuming that the Norwich Western Link is already in place which is unacceptable. I have concerns that it seems when it suits the scheme the traffic and other roads are considered, yet when it comes to the cumulative negative impacts or considerations that should be taken into account they are not considered. It also doesn't seem to be compliant with taking NMU into account.	Please see Common Responses C and G
RR-048.3	Nor have the changes pre and post COVID been taken into account and considering the changes that have and are occurring this is something that really should be considered.	Please see Common Response B
RR-048.4	I have serious concerns about the negative impact to the environment and wildlife, how the scheme would fragment the habitats, and also the impact to creatures like the nationally significant breeding barbastelle colony of bats. This would be a hugely destructive scheme and I don't believe that adequate consideration has been given to those impacts and they need to be addressed and taken seriously	Please see Common Response F

RR-049 MATTISHALL PARISH COUNCIL

Reference	Relevant Representation	Highways England Response
RR-049.1	The following represent the concerns of Mattishall Parish Council. A concern that the spill over of traffic issues resulting from the proposed junctions on the new A47 dual carriageway. In particular the Wood Lane junction. We understand the limitations of the HE remit on the ancillary roads network resulting from that work, but stress that the impact locally of it can not be allowed to fall into a void between HE and Norfolk County Council. It is therefore essential that those two organisations work together with us to mitigate and resolve emerging issues. In this context, there is a concern from several other Parishes as well as ours regarding the proposed Wood Lane complex. Where HE's remit ends on Berry's Lane, the road is currently unsuitable for any volume of traffic likely to arise from the new Wood Lane Junction complex. It will require significant investment and improvements from NCC to deal with it, and even more should the final link of the NW Link completes at that same new A47 Wood Lane junction.	<p>Following statutory consultation feedback and engagement with the Local Liaison Group (Norfolk County Council and Parish Councils), residents and landowners around Berrys Lane, the Scheme design was amended to close access to Berrys Lane to through traffic from the A47. This change is reported in Table 4.12 (item no. 6) of the Consultation Report (APP-024).</p> <p>Local access to properties along Berrys Lane will only be available from Mattishall Road to the south. The existing public right of way linking Berrys Lane with Dereham Road will be upgraded to improve walking and cycling connectivity.</p>
RR-049.2	The whole North South route will then be opened up on both the Northern side and the Southern side of the A47 bringing substantial increases in traffic for adjacent villages on either side and as far south as the A11. Other minor local North/South roads such as Church Lane, Fox Lane/Mattishall	The Scheme Design Report, Rev.1, (AS-009) sets out the Applicant's final proposals for the sideroad network. The sideroad network design was presented at statutory consultation along with the A47 North Tuddenham to Easton Junction & Sideroad Strategy Report (Highways England, 2020) ²⁶ . The proposed sideroad network was refined as a result of consultation feedback and further stakeholder engagement, as

²⁶ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
	Lane, and Stone Road west of Mattishall are even less suitable for any increase in traffic being already heavily used as links from the Mattishall Road and Dereham Road which runs East West in parallel with, and to the south of the A47.	referenced within Table 4.12 of the Consultation Report (APP-024). In particular, concerns about north-south traffic movements were noted and explored. The Applicant has engaged throughout the design development process with the Local Highway Authority (Norwich County Council), the South of the A47 Taskforce (led by George Freeman MP), the multi parish "Local Liaison Group" and individual Parish Councils. As a result of these collaborative engagements several changes to the proposed sideroad network were incorporated in the final Scheme design, including closure of Berrys Lane to through traffic and removal of proposed new side road connections. These changes are reported in Table 4.12 of the Consultation Report (APP-024). The Applicant has shared traffic models, survey data and submitted design and traffic proposals for review; and continues to support Norfolk County Council with the mitigation assessments they are undertaking regarding localised mitigation measures north and south of the A47 corridor.
RR-049.3	Easy local access North South, to and past, the new A47 is vital for local services such as farmers, schools, doctors surgeries and emergency services. The Mattishall surgery has a large catchment area on both sides of the A47 with significant numbers of patient journeys.	Following statutory consultation on the impacts on north-south access due to severing access along Low Road and Mattishall Lane, the Scheme was amended to include provision of a new link road and underpass, known as Mattishall Lane Link Road, to retain the connection between Hockering with Mattishall. This change is reported in Table 4.12 (item no. 1) of the Consultation Report (APP-024).
RR-049.4	Finally, there are some issues that may arise from Norfolk County's decision on how much of the old existing road is retained for local use such as farm transport, bus services, cyclists etc given that several existing access points to the A47 will be severed.	Following statutory consultation, more of the existing A47 was integrated into the local road network; for example, the design now has the existing A47 north of Honingham forming part of the local road network to keep traffic from passing through Honingham village. This change is reported in Table 4.12 (item no. 8) of the Consultation Report (APP-024).

RR-050 DAVID HOOKER ON BEHALF OF ANN GOWING

Reference	Relevant Representation	Highways England Response
RR-050.1	My family's house and land are on the route of the proposed dualled A47. We have had numerous meetings with Highways England to discuss their proposals and suggestions. We have made every effort to keep up to date with Highways England's plans though 1) they have been poorly communicated 2) they have frequently changed 3) they often ignore the points raised by others and ourselves 4) they take no account of the substantial acreages involved 5) they appear to reverse earlier points agreed	The Applicant acknowledges the concerns and has provided below responses to the issues raised: 1. The Applicant undertook non-statutory public consultation in March 2017 ahead of the Preferred Route Announcement (PRA) in August 2017, statutory consultation in February 2020 and a further targeted consultation in December 2020. The Applicant has engaged throughout the design development process with the Local Highway Authority (Norwich County Council), the South of the A47 Taskforce (led by George Freeman MP), the multi parish "Local Liaison Group", Parish Councils and stakeholders individually. The Applicant has also engaged with this affected landowner since 2017, including meetings and email correspondence as well the above non-statutory and statutory consultations. 2. The Applicant has provided a summary of the Scheme development stages and options selection within Section 2 of the Case for the Scheme (APP-140). As a result of the engagement outlined in point 1, several changes to the Scheme design have been incorporated; these design changes are presented in Table 4.12 of the Consultation Report (APP-024). 3. The Applicant has had regard to all statutory consultation responses, and has given proper consideration to all non-statutory consultation. Unfortunately, it is impossible to incorporate the wishes of all respondents into the Scheme, as there are many differing views presented by consultees and stakeholders. The Applicant's responses to the February to April 2020 statutory consultation feedback and December 2020 to January 2021 further stakeholder engagement are presented in Annex N (APP-038) and Annex O (APP-039), respectively, of the Consultation Report. The Applicant has engaged with the Local Highway Authority (Norfolk County Council) and their Network Safety team on the design of the sideroads as these will be handed over to become local highway authority assets. This has included engagement on design standards, cross sections, design speeds, speed restrictions, and road signage strategies. 4. The Applicant has sought to reduce land take through the Scheme development process and has engaged with all affected landowners during the Scheme development. The design considerations are reported in the Scheme Design Report, Rev.1, (AS-009), which include Chapter 11 that explains the reasons for the landtake due to the construction compounds and material storage / processing areas. 5. The Applicant understands this point to be in relation to the relocation of Norwich Road junction 150m away from St Andrew's Church to reduce the intrusion on its setting and allow a retaining wall to be replaced by a landscaped earth bank. This followed statutory consultation feedback, in particular from Historic England. Though this increased the impact on the landowner in one area, the permanent and temporary landtake was reduced near the River Tud with the removal of a proposed footbridge and access track (replaced by a less intrusive underpass) and reduction in DCO boundary for temporary landtake in the field between St Andrew's Church and the River Tud.
RR-050.2	Of particular concern are 1) the proposed closure of the existing A47 between Easton and Honingham	The Scheme retains a sideroad connection between Easton and Honingham using sections of the existing A47 east and west of the proposed Norwich Road junction to connect Dereham Road in Easton with A47 Honingham roundabout, which connects to Honingham village via Norwich Road. The Applicant announced the Preferred Route for the Scheme in August 2017 ²⁷ , as summarised in the Case for the Scheme (APP-140). This announcement contained a graphic illustrating the proposed route of the A47 mainline as a result of the feedback received from the non-statutory public consultation on the route options in March 2017. The announcement included the following statement: <i>"Keep route to the north at the existing junction at Easton to maximise the chance of the local road reconnection being alongside and to the north of the church at Easton."</i>

²⁷ This report is available amongst the Consultation 2017 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
		<p>The sideroad network design presented at the 2020 statutory consultation proposed using a section of the existing A47 to link Dereham Road in Easton to the southern roundabout of the Norwich Road junction. A new sideroad westwards from the southern roundabout of the Norwich Road junction connects to Norwich Road into Honingham village; the arrangement was shown on drawing on page 11 of Consultation Report Annex J, Section 47 Consultation Materials (APP-034).</p> <p>This design was refined as a result of consultation feedback to retain the existing A47 Honingham roundabout and section of existing A47 north of Honingham to direct traffic to Wood Lane junction without passing through Honingham village. This revised design was presented at the December 2020 further targeted consultation and the design change is referenced in Table 4.12 of the Consultation Report (APP-024).</p> <p>The Scheme Design Report, Rev.1, (AS-009) sets out the Applicant's current proposals for the sideroad network.</p>
RR-050.3	2) the lack of an overpass or underpass for the new A47 where it crosses the old A47	<p>The Applicant understands this concern relates to a wish to retain the whole of the A47 throughout for local access. Allowing vehicle access to be retained along the existing A47 between Taverham Road and Honingham roundabout was not possible as this would raise the height of the proposed A47 dual carriageway, which would adversely affect the setting the Grade II* listed St Andrew's Church.</p> <p>Norwich Road junction has already been moved 150m away from St Andrew's Church to reduce the intrusion on its setting and allow a retaining wall to be replaced by a landscaped earth bank, a change made to reflect the important of protecting the setting of the Church.</p> <p>Although an underpass is proposed to connect walkers, cyclists and horse riders between St Andrew's Church and Honingham roundabout, the vehicle access via Norwich Road junction and its side road connection to Honingham Road roundabout means there is no justification to increase the scale and third party landtake to make the proposed underpass suitable for vehicle access. In addition, the reduction in vehicle traffic passing St Andrew's church further support the protection of its setting.</p>
RR-050.4	3) the safety implications for Taverham Road and its use as a rat run	<p>The Applicant has undertaken an independent Stage 1 Road Safety Audit of the Scheme, which did not identify any safety concerns in this location.</p> <p>The Applicant has engaged with the Local Highway Authority (Norfolk County Council), their internal project team promoting the NWL scheme and their Network Safety team regularly throughout the design development process. The Applicant confirms that no safety concerns have been raised by the Local Highway Authority.</p> <p>Norfolk County Council presented independent traffic modelling results to the Local Liaison Group on the 23 February 2021. The results demonstrated that the Average Annual Daily Traffic (AADT) on Taverham Road with the proposed mitigation measures in place (Honingham Lane Closure) was 400 AADT in the Scheme opening year of 2025. The Applicant's transport assessment, in Chapter 4 of the Case of the Scheme (APP-140), shows a prediction of 200 AADT for the Scheme opening year of 2025 with NWL also open. Both these situations are still lower than the 2015 baseline of 600 AADT along Taverham Road</p> <p>Local Transport Note 1/20 (July 2020) Cycle Infrastructure Design references rural lanes as those with flows of less than 1000 AADT and speeds of 40mph or less.</p> <p>The Applicant has continued to engage with the Local Highway Authority since the submission of the DCO application and has proposed to implement a speed restriction of 30mph on Taverham Road from the proposed junction to the River Tud bridge. This has now been agreed and the dDCO and DCO plans will be revised accordingly.</p> <p>However, through analysis of traffic modelling scenarios and engagement with the local liaison group, the Applicant has explored the concerns related to safety and disturbance from increased traffic passing through Ringland, via Honingham Lane and onto Taverham Road during the period between the Scheme opening and NWL opening. As an outcome of this process and engagement with the Local Liaison Group, the Applicant proposes to implement the temporary closure of Honingham Lane to through traffic, in the interim period between the A47 Scheme and NWL opening. If the NWL scheme does not obtain planning consent, the Applicant would continue to engage with the local highway authority, Norfolk County Council, on the implementation of this proposal (e.g. long term closure of Honingham Lane or alternative measures). This commitment is stated within Section 9.2 of the Scheme Design Report, Rev.1 (AS-009); see paragraph 9.2.10.</p>
RR-050.5	4) the need for and location of the proposed Norwich Road roundabout	<p>The Scheme Design Report, Rev.1, (AS-009) sets out the justification for the design of Norwich Road junction and discusses the options considered. The Applicant notes this matter was raised by stakeholders during the February to April 2020 statutory consultations and December 2020 targeted consultation; the Applicant's responses are summarised within the Scheme Consultation Report (APP-024) with individual responses provided within supporting Annexes N (APP-038) and Annex O (APP-039)</p> <p>The Preferred Route Announcement (2017)²⁸ identified three proposed junctions along the route. The preferred route decision making and need for the junctions is explained in the Case for the Scheme (APP-140).</p> <p>Since that time, the junction locations were refined whilst taking account of the existing network junction locations and existing constraints. Details of the proposed new junctions were presented at statutory consultation along with the A47 North Tuddenham to Easton Junction & Sideroad Strategy Report²⁹ (Highways England, 2020). This report describes the existing and modelled operation of the existing junctions at the Norwich Road and the Wood Lane intersections with the A47. It also explains the need for fully graded separated options at these locations to support the Applicant's aim to create a more free-flowing, safe and serviceable, integrated network.</p> <p>An all-movements junction was selected in accordance with the forecast future traffic flows do-minimum scenario within the strategic traffic model.</p> <p>The location of the Norwich Road junction at the existing A47 junction with Taverham Road and Blind Lane, west of the existing Easton roundabout, was determined based</p>

²⁸ This report is available amongst the Consultation 2017 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>
²⁹ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
		on the requirement for a fully grade separated junction, whilst taking into account the existing constraints such as the Grade 1 listed St Peter's Church, existing accesses and sideroads, Orsted cable route, Food Enterprise Zone planning permission and local topography.
RR-050.6	5) the effects of additional noise, drainage and lighting on the Tud river valley	<p>These impacts and mitigation requirements have been considered in the following ES documents:</p> <p><u>Noise</u></p> <ul style="list-style-type: none"> • Chapter 11 – Noise and vibration (APP-050). • Chapter 12 – Population and human health (APP-051) <p><u>Drainage</u></p> <ul style="list-style-type: none"> • Chapter 13 – Road drainage and the water environment (APP-052). • Appendix 13.1 – Flood Risk Assessment (APP-124 and APP-125). • Appendix 13.2 – Drainage Strategy Report (APP-126 and APP-127). • Chapter 14 – Climate (APP-053). <p><u>Lighting</u></p> <ul style="list-style-type: none"> • Chapter 7 – Landscape and visual effects (APP-046). • Appendix 7.7 – Lighting Assessment (APP-095). • Chapter 8 – Biodiversity (APP-047).

RR-051 NORFOLK BARBASTELLE STUDY GROUP

Reference	Relevant Representation	Highways England Response
RR-051.1	<p>We are concerned that the Ecological Assessment of the proposed scheme does not adequately consider the short and long-term impacts on the nationally important colony of Western Barbastelle <i>Barbastella barbastellus</i>, a rare Annex II bat species which is located in the Lenwade/Ringland Hills/Weston Longville area.</p> <p>The cumulative impacts of this scheme and the Norwich Western Link are not addressed, despite the fact that both schemes fall within the Core Sustenance Zone of the barbastelle colony.</p> <p>On-going comprehensive research on this colony by Wildwings Ecology, in collaboration with the University of East Anglia and the Norfolk Barbastelle Study Group, has shown that barbastelles from the colony cross the A47. To our knowledge, there has been no attempt to consider this information in the impact assessment.</p> <p>The dualled road corridor road will considerably increase the risk of road kills and habitat severance which, together with the adverse impacts from the Norwich Western Link, will have a major adverse impact on the long-term viability of the colony. There is no existing evidence to give confidence that green bridges, gantries or underpasses will successfully mitigate for these impacts.</p> <p>Although not designated, the barbastelle colony exceeds the criteria for Special Area of Conservation (SAC) designation. The national importance of the colony should not be ignored in the impact assessment.</p>	Please see Common Response I

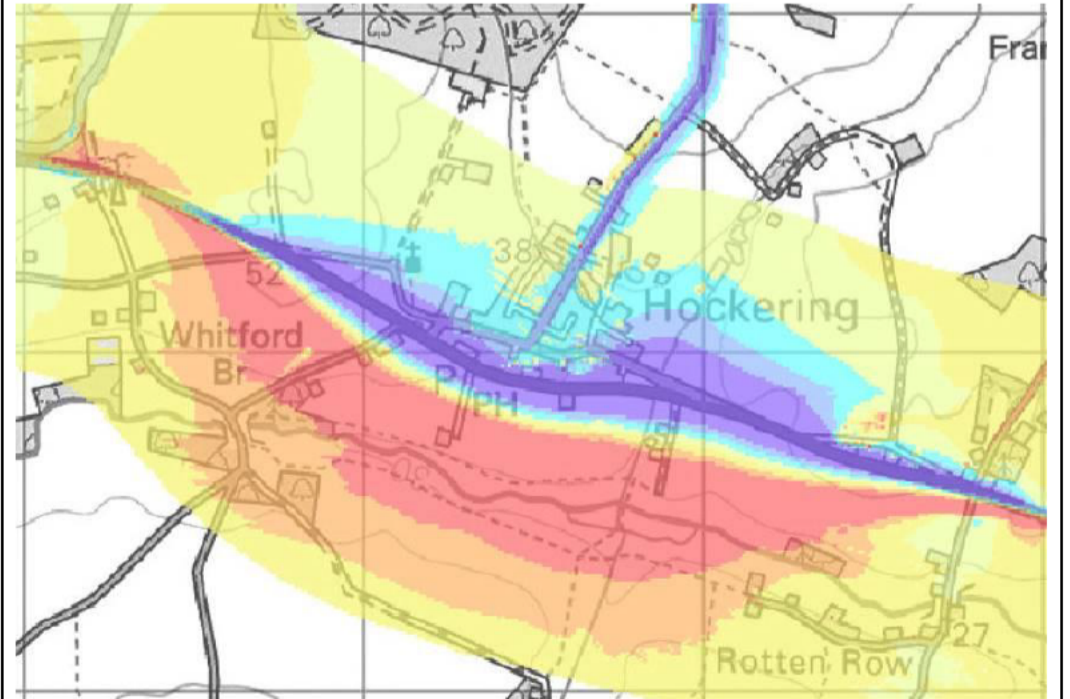
RR-052 NORTH TUDDENHAM PARISH COUNCIL

Reference	Relevant Representation	Highways England Response
RR-052.1	Generally, the route met with approval of North Tuddenham PC as it will meet the key objectives of providing a safer and faster route into Norwich and beyond. The complex road interchanges at Wood Lane and Blind Lane (Norwich Road) did raise a few eyebrows.	The Applicant acknowledges the positive feedback.
RR-052.2	Concern was expressed about increased traffic along narrow minor roads especially Taverham Road to Ringland and Berry's Lane towards Barnham Broom.	<p>This issue was discussed during the pre-application design development with representatives of the Parish Council, through the Local Liaison Group (Norwich County Council and Parish Councils) and South of the A47 taskforce (led by George Freeman MP).</p> <p>The initial design concept proposed several additional side road connections to minimise the severance impact. This initial design was presented at the 2020 statutory consultation along with the supporting A47 North Tuddenham to Easton Junction & Sideroad Strategy Report³⁰ (Highways England, 2020); the arrangement is shown on the drawings in Consultation Report Annex J - Section 47 Consultation Materials (APP-034).</p> <p>However, statutory consultation feedback raised concerns about several of the sideroad connections with requests to remove connections to reduce the risk of rat running. Upon review of these concerns and completion of further engagement, with Norfolk County Council, affected Parish Councils, the South of the A47 Taskforce (led by George Freeman MP), the NWL project team, landowner and local residents several sideroad connections were removed. The connection of Berrys Lane to the A47 was severed to avoid increased traffic between the B1535 Wood Lane junction and south of Mattishall Road. Similarly the proposed sideroad connection between Taverham Road and Church Lane, Easton, was removed due to existing safety concerns along Ringland Road. These changes are reported in Table 4.12 (item no. 11) of the Consultation Report (APP-024).</p>

³⁰ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
		<p>However, these changes have since lead to concerns about traffic travelling along Taverham Road (C174), especially if the NWL scheme does not get consent. As a result of engagement with the Local Liaison Group, and as stated within Section 9 (paragraph 9.2.10) of the Scheme Design Report, Rev.1 (AS-009), the Applicant has included mitigation measures for Taverham Road. This would comprise a temporary closure of Honingham Lane to through traffic, in the interim period between the A47 Scheme and NWL opening.</p> <p>The Applicant has engaged with the Local Highway Authority (Norfolk County Council), their internal project team promoting the NWL scheme and their Network Safety team regularly throughout the Scheme design development. Norfolk County Council presented independent traffic modelling results to the Local Liaison Group on the 23 February 2021. The results demonstrated that the Average Annual Daily Traffic (AADT) on Taverham Road with the proposed mitigation measures in place (Honingham Lane Closure) was 400 AADT in the Scheme opening year of 2025. The Applicant's transport assessment, in Chapter 4 of the Case of the Scheme (APP-140), shows a prediction of 200 AADT for the Scheme opening year of 2025 with NWL also open. Both these situations are still lower than the 2015 baseline of 600 AADT along Taverham Road. Local Transport Note 1/20 (July 2020)³¹ Cycle Infrastructure Design references rural lanes as those with flows of less than 1000 AADT and speeds of 40mph or less.</p> <p>The Applicant has continued to engage with the Local Highway Authority since the submission of the DCO application and has proposed to implement a speed restriction of 30mph on Taverham Road from the proposed junction to the River Tud bridge. This has now been agreed and the dDCO and DCO plans will be revised accordingly.</p> <p>No safety concerns have been raised by the Local Highway Authority.</p> <p>If the NWL scheme does not obtain planning consent, the Applicant would continue to engage with the local highway authority, Norfolk County Council, on the implementation of mitigation measures. This commitment is stated within Section 9.2 of the Scheme Design Report, Rev.1 (AS-009); see paragraph 9.2.10.</p>
RR-052.3	We are not convinced that the impacts of the proposed FEP in Colton or the future housing development plans west of Norwich have been considered deeply enough.	<p>The response to RR-059.1 and Section 9.3 of the Scheme Design Report, Rev.1, (AS-009) provide the Applicant's reason for not providing a connection to Blind Lane.</p> <p>An objective of the Scheme is to increase capacity and reduce journey times along this section of the A47 to support economic and housing growth in region. However, any impacts caused by the FEP and new housing on local roads, such as Church Lane, would remain the same in the baseline scenario without the Scheme due to the closure of Blind Lane by the Local Development Order for the Greater Norwich Food Enterprise Zone (FEZ). The LDO states that all relevant vehicles are required to enter and leave the LDO Site using a 'Permitted Route' (being the existing A47 Easton roundabout – Dereham Road – Church Lane). This route to the A47 would remain unchanged by the Scheme.</p> <p>The developers of the FEZ site may wish to obtain consent to create their own connection to the Scheme in the future. Therefore, the Scheme's traffic modelling has taken this into account at the Norwich Road junction to provide capacity for the FEZ vehicle movements. The design of the Honingham roundabout to Norwich Road junction side road would allow for a third party to create a new highway connection. This commitment is presented in Section 9.3 of the Scheme Design Report, Rev.1 (AS-009).</p> <p>The Applicant notes that the promoters of the FEZ have now lodged a planning application (27 July 2021) with the Local Planning Authority, Broadland District Council (Application No.: 20211335) for the provision of a private access to the Scheme.</p>
RR-052.4	Locally, we wanted assurances about maintaining a road into Hockering whilst slowly down and limiting the traffic coming from Lyng - mainly HGVs from the Industrial Zone and the A1067. This has been accepted with T-Junction to Lyng and use of existing road to Hockering village.	The Applicant welcomes the support on this proposal.
RR-052.5	The possibility of encouraging a local bus service to Norwich from Dereham via North Tuddenham and Hockering has been suggested but nothing has developed to date.	The Applicant has passed this comment onto the Local Highway Authority, Norfolk County Council for consideration.
RR-052.6	The issues of HGVs continuing to use Stone Road to access the A47 at North Tuddenham despite the proposed NWL road or more worryingly if the NWL does not happen, must be addressed.	<p>The C493 Stone Road is located outside the Scheme DCO boundary and falls under the remit of the Local Highway Authority, Norfolk County Council.</p> <p>The Applicant has passed on this feedback to the Local Highway Authority for consideration as part of the proposed NWL scheme.</p>
RR-052.7	With both Low Road East and Mattishall Lane in Hockering due to be closed off, concern was expressed as to how Hockering villagers would access the surgery in Mattishall and potential traffic congestion, if diverted around Fox Lane. Fortunately, Mattishall Lane will remain open as an underpass, so this is positive news for North Tuddenham.	The Applicant welcomes the positive feedback.
RR-052.8	4 other main points were raised in discussions with both HE and Norfolk County Council about the route and the effect on minor roads. At the time of writing no answers have been given. 1. Blind exit from Fox Lane overpass towards old Main Road especially turning right to Lyng or Hockering. Several 'near misses' have been reported as traffic coming from these directions is far too fast.	<p>The C489 Main Road is located outside the Scheme boundary and falls under the remit of the Local Highway Authority, Norfolk County Council.</p> <p>Since the submission of the DCO application the Applicant has continued to engage with the Local Highway Authority (LHA), Norfolk County Council. The LHA had a scheme in development to implement a Traffic Regulation Order to reduce a section Lyng Road and a section of Main Road to a 50mph speed restriction. Through engagement it has been agreed that the LHA will undertake further consultation on the extension of the proposed 50mph restriction from Lyng Road through to North Tuddenham. The Applicant will update the submitted DCO Traffic Regulation plans, sheets 1 & 2 accordingly, to reflect this change (APP-009).</p>
RR-052.9	2. Exits from existing A47 are very sharp and roads signs are continually being knocked over as cars negotiate the very demanding curvatures.	The Applicant has undertaken a Stage 1 Road Safety Audit and has included proposed mitigation measures in the Scheme design. These include new road markings, new verge signage and new advanced direction signs.

³¹ Available on-line at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/951074/cycle-infrastructure-design-ltn-1-20.pdf

Reference	Relevant Representation	Highways England Response
RR-052.10	3. Residents have also expressed concern about the proximity of the River Tud south of Hockering to the new dual carriageway.	<p>Section 2.4 of the Case for the Scheme (APP-140) explains why Option 2 was selected as the preferred route, but also adjusted in response to public consultation feedback on the route options in March 2017 ahead of the Preferred Route Announcement (PRA) in August 2017, statutory consultation in February to April 2020 and a further targeted consultation in December 2020 to January 2021.</p> <p>As route Options 2 and 3 were close in overall terms, an exercise was undertaken to develop Option 2 by removing or reducing some of the potential issues associated with it. The alignment of Option 2 was moved to ensure the preferred route could be built with the least disruption to drivers during construction as the existing road could remain open for local traffic movements, walkers, cyclists and horse-riders.</p> <p>Therefore, the final preferred option alignment deviated locally from the existing A47 to provide the following benefits:</p> <ul style="list-style-type: none"> • reduce the impact at the western end on Oak Farm • minimise the impact on the existing properties on Mattishall Lane • minimise, where possible, the impact on the properties on close to the existing A47 at Hockering reduce the impact of the road on the River Tud • keep the route to the north side of the corridor as it passes Honingham to achieve noise and air quality benefits • keep the route to the north at the existing Easton junction to maximise the chance of the local road reconnection being alongside and to the north of the church at Easton. <p>The effects on the River Tud have been assessed as part of the assessment the impacts on the water environment, soils and ecological habitats from works in, over or adjacent to the River Tud in the following application documents:</p> <ul style="list-style-type: none"> • ES Chapter 8 Biodiversity (APP-047): assesses effects on habitats and species, including the River Tud. • ES Chapter 9 Geology and Soils (APP-048): assesses impacts and mitigation from the disturbance of soils and geology. • ES Chapter 10 Material Assets and Waste (APP-049): assesses the consumption of materials and products including the use of excavated soils. • ES Chapter 13 Road Drainage and the Water Environment (APP-052): assesses impacts and mitigation for effects on the water environment, including the River Tud. <p>Mitigation measures together with good construction practice in relation to pollution prevention, run-off management, soils management and protection of ecological receptors and protected species have been identified. These commitments are reflected in Table 3.1 'Record of Environmental Actions and Commitments' in the Environmental Management Plan (APP-143). The Applicant has also consulted the Environment Agency and Natural England throughout the Scheme development process which has informed the final design and environmental assessment.</p>
RR-052.11	4. Will there be any noise reduction on the new stretch of dual carriageway between North Tuddenham and Hockering? Thank you	<p>A noise and vibration impact assessment is presented within ES Chapter 11 Noise and Vibration (APP-050).</p> <p>For both the short and long term operational noise assessments, the majority of noise decreases are predicted at Hockering close to the existing A47, due to the re-alignment of the Scheme to the south, with lower volumes of traffic using the by-passed A47. This is illustrated in the below noise change contours for the area, from ES Figure 11.8 (APP-074).</p> <ul style="list-style-type: none"> • Orange and red = road traffic noise increase of 3 dB or more in the short-term; • Dark blue and purple = road traffic noise decrease of 3 dB or more in the short-term.  <p>As reported in Table 11.16 'Final operational noise significance summary table', in ES Chapter 11, there would be significant beneficial effects at 39 properties within Hockering and one property on Park Lane east of Hockering village (these include 36 properties within Noise Important Areas 5200 and 5201). There would be significant adverse effects at six properties along Mattishall Lane and two receptors along Gypsy Lane, between Hockering and the Scheme, as identified in ES Figure 11.10 (APP-075). For the remaining properties in Hockering there would be no significant effects. Sections 11.9.22 to 11.9.30, in ES Chapter 11, presents the review of locations for noise barriers and justification for including or discounting provision of noise barriers to</p>

Reference	Relevant Representation	Highways England Response
		mitigate operational noise impacts. Noise barriers are proposed within the Scheme design north and south of where the Scheme crosses Mattishall Lane to reduce the noise impact of the Scheme at properties close to Mattishall Lane. A noise barrier was considered for a small number of properties along Gypsy Lane in Hockering, but the magnitude of the adverse impact was not affected even with a substantial length of noise barrier. Therefore, a barrier at this location has not been provided as it would not reduce the assessment conclusions.

RR-053 NORWICH & NORFOLK FRIENDS OF THE EARTH

Reference	Relevant Representation	Highways England Response
RR-053.1	I am extremely concerned about the environmental impact of building new roads in general and the A47 North Tuddenham-Easton in particular. This is because the dualling of this road is very much part of plans to build the Norwich Western Link, yet is not adequately addressed in the Application.	<p>The Scheme is identified as required to manage traffic and road safety impacts as part of the Department of Transport (DfT) published the Road Investment Strategy 2 (RIS2) and to be developed by Highways England in the period 2020-2025. The need case for this Scheme is discussed in the Case for the Scheme (APP-140).</p> <p>The Scheme is not dependent on the NWL road scheme and would still proceed without the NWL coming forward. Work No. 98 in Schedule 1 of the dDCO (APP-017) consists of a 50 metre length of carriageway which will connect to the NWL road scheme, but this will not be constructed unless the NWL road scheme is granted consent.</p> <p>However, as the Strategic Outline Business Case for the NWL was approved by the Department for Transport in May 2020, the NWL has to be considered as a 'certain development' in the traffic model determining the need case for the A47 North Tuddenham to Easton dualling scheme. In addition, as the local highway authority has a well advanced scheme that will connect with the A47, it is both sensible and pragmatic for the A47 Scheme to anticipate that the NWL will come forward and accommodate a connection in its design. Through this approach the Applicant is required to be as efficient as possible with public money and ensure the community and environmental benefits from joined up working with regards planning new major developments and cost control both for the short and long term. These benefits are discussed in the Scheme Design Report, Rev.1 (AS-009).</p>
RR-053.2	This area, The Wensum Valley, has two chalk rivers, the Wensum and the Tud, which are extremely rare and will be affected by construction and run off, etc of dualling the A47.	<p>The effects on the Rivers Tud and River Wensum have been assessed in the following application documents as part of the assessment of impacts on the water environment, soils and ecological habitats from works in, over or adjacent to the River Tud:</p> <ul style="list-style-type: none"> ES Chapter 8 Biodiversity (APP-047): assesses effects on habitats and species, including the River Tud. ES Chapter 9 Geology and Soils (APP-048): assesses impacts and mitigation from the disturbance of soils and geology. ES Chapter 10 Material Assets and Waste (APP-049): assesses the consumption of materials and products including the use of excavated soils. ES Chapter 13 Road Drainage and the Water Environment (APP-052): assesses impacts and mitigation for effects on the water environment, including the River Tud. Report to Inform Habitats Regulations Assessment (APP-139) assesses the effects on the ecology of the River Wensum Special Area of Conservation (SAC). No works are to take place within the River Wensum and, without mitigation, there will be no likely significant indirect effects on any of the qualifying features of the River Wensum SAC. This was primarily down to the distance the site is away from the works (1.6km overland, 7.3km downstream), thereby any pollution would be highly dissolved or dispersed before reaching the site the impacts would be negligible. <p>Mitigation measures together with good construction practice in relation to pollution prevention, run-off management, soils management and protection of ecological receptors and protected species have been identified. These commitments are reflected in Table 3.1 'Record of Environmental Actions and Commitments' in the Environmental Management Plan (APP-143). The second iteration of the Environmental Management Plan will also contain the following annexes to be produced by the Principal Contractor in advance of construction works:</p> <ul style="list-style-type: none"> Annex B.1 Materials Management Plan (MMP) – to monitor and track the movement, storage and placement of excavated materials. Annex B.2 Soil Handling Management Plan – details the soil handling strategy. <p>Consultation has been undertaken throughout the Scheme development, and continues, with Norfolk County Council (as Lead Local Flood Authority), Natural England and the Environment Agency with regards works in, near or over the River Tud. The Applicant will also need to submit applications prior to undertaking these works to the Lead Local Flood Authority and Environment Agency for land drainage consent and Flood Risk Activity Permit applications, respectively.</p> <p>Delivery of the Environmental Management Plan actions and commitments, including consulting the relevant planning authority on the second iteration of the plan, will be secured through dDCO Requirement 4 'Environmental Management Plan' (APP-017).</p>
RR-053.3	The area is wildlife-rich, inc rare barbastelle bat colonies which habitats will be destroyed	<p>Effects on biodiversity, such as fragmentation of habitats and impacts on protected species, including bats, has been assessed in ES Chapter 8 Biodiversity (APP-047) supported by technical appendices (APP-096 to APP-112).</p> <p>The assessment was informed by extensive site surveys for ecological receptors (botanics and wildlife, including bats). Surveys and assessments were undertaken in consultation with key stakeholders, including Natural England, the Environment Agency, Norfolk Wildlife Trust, Norfolk County Council and local wildlife groups as detailed in Section 8.4 of the ES Chapter 8.</p> <p>Section 8.9 of ES Chapter 8 outlines the measures proposed to minimise effects on and maximise opportunities for biodiversity. For example, at the River Tud crossing bats would be encouraged to fly high above traffic by planting high trees and fencing along the bridge. Underpasses are known to be successful when placed directly on the current flight paths of bats (Berthinussen and Altringham, 2015) and planting will be</p>

Reference	Relevant Representation	Highways England Response
		<p>used to encourage bats to use the Scheme's underpasses.</p> <p>Section 8 of the Scheme Design Report, Rev.1, (AS-009) presents an overview of the environmental considerations that have influenced and form an embedded part of the Scheme design. These include:</p> <ul style="list-style-type: none"> • Ecological measures to reduce habitat fragmentation through provision of: safe mammal crossing points through mammal ledges in culverts and mammal underpasses; and protecting the flight and foraging routes of bats. • Re-meandering and additional riparian planting along the Oak Farm tributary and Hockering tributary. • Sustainable drainage systems design, including wetland habitat creation at two drainage basins. • Landscaping with sensitive planting, native plant species and wildflowers. <p>Section 8.9 of ES Chapter 8 describes the recommended mitigation measures, which include: providing artificial bat roosting habitat prior to construction; providing bat crossing points at high tree lines; installation of bat boxes and sensitive; and phased planting proposals. Pre-construction surveys will also be undertaken in advance of the works to ensure that surveys are up to date and any new identifications are appropriately recorded and mitigated. An Ecological Clerk of Works (ECoW) will also be present on site and any works near trees or that may disturb roosting bats in buildings will be undertaken under supervision from a registered bat licence holder.</p> <p>The provisional design of the proposed ecological mitigation is presented in the Environmental Masterplan, Rev.1, (AS-007) and all mitigation detailed in ES Chapter 8 will be detailed and implemented as part of the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143).</p> <p>Additional information regarding the mitigation design will be detailed in Annex B5 'Landscape and Ecology Management Plan (LEMP)' of the Environmental Management Plan, to be produced by an appointed Landscape Architect and Ecologist prior to construction. The LEMP will describe the proposed management and monitoring of the landscape and ecological mitigation and compensation features of the Scheme.</p> <p>Delivery of these commitments, including a requirement to consult the relevant planning authority on the second iteration of the Environmental Management Plan, is secured through Requirements 4 'Environmental Management Plan' and 5 'Landscaping' of the dDCO (APP-017)</p>
RR-053.4	Carbon emissions are inadequately and confusingly calculated and expressed	<p>ES Chapter 14 Climate (APP-053) for the Scheme has followed guidance in the Design Manual for Roads and Bridges LA 114 Climate (DMRB LA 114). To align with the requirements of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the National Networks National Policy Statement (NNNPS) 2014 and DMRB LA 114, the chapter covers the effects on climate from the Scheme and also the vulnerability of the Scheme to climate change. The effect on climate demonstrates carbon emissions associated with the Scheme, which are presented in relation to the UK's legally binding carbon budgets.</p> <p>With regards to the effects on climate, a detailed assessment of the embodied carbon through the construction, operation and maintenance has been undertaken using the Highways England Carbon Tool and following the methodology within the associated guidance document³². The Scheme's comparison against carbon budgets is quantified using carbon equivalents (CO₂e). This is a quantification of the global warming potential of a range of greenhouse gases expressed as a single equivalent unit of carbon. With regards to changes in end-user emissions associated with the Scheme, the Department for Transport's WebTAG GHG methodology was followed to calculate end-user emissions.</p> <p>ES Appendix 14.1 Embodied Carbon Assessment (APP-131) provides more details on the methodology for the embodied carbon assessment.</p>
RR-053.5	Traffic movement data is out of date	Please see Common Response E.

RR-054 PATRICIA DAY

Reference	Relevant Representation	Highways England Response
RR-054.1	I am very concerned by the impact on local wildlife and their unique and specific habitats as yet another new structure encroaches on mature countryside.	Please see Common Response F
RR-054.2	The increase of capacity anticipated by the proposal contradicts local and national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-054.3	The change in work and travel patterns post covid has not been considered and therefore the need for increased road capacity is not current.	Please see Common Response B
RR-054.4	The Norwich Western link has not been built. How can we make decisions about the environmental impact using this non-existent construction as a starting point?	Please see Common Response C

³² Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/899360/Highways_England_Carbon_Tool_Guidance_Document_v2.3.pdf

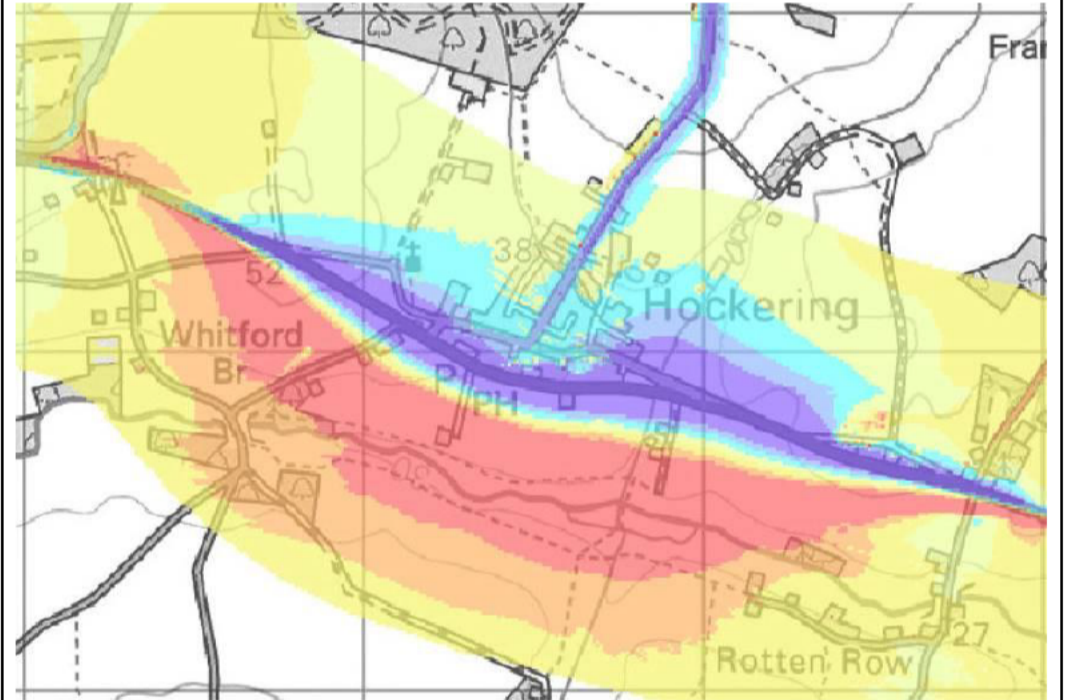
RR-055 RICHARD HAWKER

Reference	Relevant Representation	Highways England Response
RR-055.1	<p>Please can the following topics be explored in the examination.</p> <p>1) Procedural - initial consultation was late and poor. Early offer to co-operate was declined. Only four options for the route. Difficulty of finding out information from Highways England. Not told of SoCC. Very little notice was given of statutory consultation. No time to publicise and obtain local opinion. Plans are difficult to see on screen, and almost no chance of getting full-sized paper copies, especially during lockdown, yet project timetable hardly extended. Arrangement of hundreds of DCO documents difficult to understand. No time to read and digest properly before registration.</p>	<p>Non-statutory public consultation was undertaken in March 2017 ahead of the Preferred Route Announcement (PRA) in August 2017. Formal Statutory Consultation was then undertaken in early 2020 with a further Targeted Consultation end of 2020.</p> <p>The Consultation Report (APP-024) demonstrates the approach taken to advertise, provide information for and comply with the legal requirements under the Planning Act 2008 for each of these consultation events.</p> <p>The report also confirms the Applicant completed the legal requirement, under the Planning Act 2008, to consult on the draft SoCC with each local authority. The final SoCC was made available to the public during the statutory consultation in 2020 and remains available under the 2020 consultation material on Highways England project website at https://highwaysengland.co.uk/our-work/east/a47-north-tuddenham-to-easton-improvement/.</p> <p>Statutory Consultation was held from 26 February 2020 to 8 April 2020 with information made available online and at local venues. The Statutory Consultation was extended to 30 April 2020 to allow more time to review material online in response to the impacts of coronavirus and the lockdown measures put in place by the government. This provided a total of 64 days, which is 36 days longer than the statutory requirement of 28 days. Additional targeted statutory consultation was completed in 7 December 2020 to 13 January 2021, extended as required for new Category 1 and 2 land interests.</p> <p>The Applicant has also provided Mr Hawker and Parish Councils with printed copies of documents requested throughout the development of the Scheme.</p> <p>The Applicant has engaged extensively with Mr Hawker throughout the design development process, through many forms, including:</p> <ul style="list-style-type: none"> • Direct communications • Email • Statutory Consultation Events • Informal Statutory Consultation • Local Liaison Group • Local Liaison Group – Traffic sub-group. <p>The Applicant also notes that as part of the DCO acceptance procedure and Preliminary Meeting, the adequacy of the consultation process in accordance with the Planning Act 2008 was confirmed by the Planning Inspectorate in consultation with the relevant local authorities.</p>
RR-055.2	<p>2) Cumulative effects. 4 large road schemes, very close together (an even more just a little further away), launched over almost the same period, prevents adequate consideration and scrutiny, particularly over cumulative effects.</p>	<p>Cumulative impacts for all the disciplines considered in the environmental impact assessment, including biodiversity, ecology, air quality and carbon emissions, are considered in ES Chapter 15: Cumulative Effects Assessment (APP-054). Chapter 15 has been completed in accordance with the requirements of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and Planning Inspectorate Advice Note Seventeen. Other developments, such as the other A47 schemes and the NWL, were included as part of the cumulative assessment methodology and this is detailed in section 15.3 of the chapter.</p>
RR-055.3	<p>3) Accuracy of information given. Preferred route announcement was headlined as Option 2, yet the actual route decided-upon was nearer the River Tud than the actual Option 2. This is misleading.</p>	<p>Section 2.4 of the Case for the Scheme (APP-140) explains why Option 2 was selected as the preferred route, but also adjusted in response to public consultation feedback on the route options in March 2017 ahead of the Preferred Route Announcement (PRA) in August 2017, statutory consultation in early 2020 and a further targeted consultation end of 2020.</p> <p>As route Options 2 and 3 were close in overall terms, an exercise was undertaken to develop Option 2 by removing or reducing some of the potential issues associated with it. The alignment of Option 2 was moved to ensure the preferred route could be built with the least disruption to drivers during construction as the existing road could remain open for local traffic movements, walkers, cyclists and horse-riders.</p> <p>Therefore, the final preferred option alignment deviated locally from the existing A47 to provide the following benefits:</p> <ul style="list-style-type: none"> • reduce the impact at the western end on Oak Farm • minimise the impact on the existing properties on Mattishall Lane • minimise, where possible, the impact on the properties on close to the existing A47 at Hockering reduce the impact of the road on the River Tud • keep the route to the north side of the corridor as it passes Honingham to achieve noise and air quality benefits • keep the route to the north at the existing Easton junction to maximise the chance of the local road reconnection being alongside and to the north of the church at Easton.
RR-055.4	<p>4) Need for the scheme. This has not been fully addressed in the DCO, especially bearing in mind government policy on modal shift and the need for carbon emissions.</p>	<p>The Scheme is identified as required to manage traffic and road safety impacts as part of the Department of Transport (DfT) published Road Investment Strategy 2 (RIS2) and to be developed by Highways England in the period 2020-2025. The need case for this Scheme is discussed in the Case for the Scheme (APP-140).</p> <p>The need case for the Scheme is more than improving capacity and economic growth. This section of the A47 also has a poor safety record, with the A47 ranked 2nd nationally for fatalities on "A" roads and the accident severity ratio is above average. During the period 2014 to 2018 a total of 2 fatal, 15 serious and 76 slight accidents have been recorded along a 11km length of the existing A47 from North Tuddenham to Easton.</p> <p>The Scheme will improve safety and operational issues by upgrading to dual carriageway and providing grade separated junctions at the Wood Lane junction and Norwich Road junction. In total, over a 60-year timeframe the Scheme's improvement will save a total of 291 accidents and 47 KSIs (killed or seriously injured).</p> <p>Section 4.14 'Walking, Cycling and Horse-riding (WCH) Assessment' of the 7.1 Case for the Scheme (APP-140) also demonstrates how the Scheme would provide new WCH facilities, improve accessibility for users in the local area and provide the opportunity to choose active travel modes (e.g. walking and cycling).</p>

Reference	Relevant Representation	Highways England Response
RR-055.5	5) Alternatives, both in routes and lower-cost road schemes, some offered by the public were not adequately assessed.	<p>A summary of the Scheme development stages and options selection is provided within Section 2 of the Case for the Scheme (APP-140).</p> <p>Non-statutory public consultation was undertaken in March 2017 ahead of the Preferred Route Announcement (PRA) in August 2017, statutory consultation in early 2020 and a further targeted consultation end of 2020; this information is presented within the Consultation Report (APP-024).</p> <p>The Applicant has had regard to all statutory consultation responses, and has given proper consideration to all non-statutory consultation. Unfortunately, it is impossible to incorporate the wishes of all respondents into the Scheme, as there are many differing views presented by consultees and stakeholders. The Applicant's responses to the 2020 statutory consultation feedback and 2020 further targeted consultation are presented in Annex N (APP-038) and Annex O (APP-039), respectively, of the Consultation Report. Table 4.12 of the Consultation Report (APP-024) provides a summary of the design changes arising from this consultation feedback, including changes to the sideroad network.</p> <p>The Applicant notes a sketch provided by Mr Hawker in April 2020 which formed part of a consultation submission. The sketch depicted a route for the A47 mainline which significantly deviated from the Applicant's Preferred Route Announcement. Furthermore, the layout presented did not comply with the requirements of the UK Design Manual for Roads and Bridges (DMRB) and required additional highway structures, thereby incurring additional costs and environmental impacts.</p> <p>The Applicant has engaged extensively with Mr Hawker throughout the design development process; see response to RR-055.1.</p>
RR-055.6	6) Access and PROW. Several are to be severed or massively diverted. Certain roads providing local contact are to be severed. Cycling routes very badly compromised	<p>The initial design concept proposed several additional side road connections to reduce the severance impact. This initial design was presented at the 2020 statutory consultation along with the supporting A47 North Tuddenham to Easton Junction & Sideroad Strategy Report³³ (Highways England, 2020); the arrangement is shown on the drawings in Consultation Report Annex J - Section 47 Consultation Materials (APP-034).</p> <p>However, statutory consultation feedback raised concerns about several of the sideroad connections with requests to remove connections to create the severance the connection was seeking to offset (e.g. connections to the A47 from Church Lane, East Tuddenham, and Berrys Lane). Upon review of these concerns and completion of further engagement, with Norfolk County Council, affected Parish Councils, the South of the A47 Taskforce (led by George Freeman MP), the NWL project team, landowner and local residents several sideroad connections were removed. Equally, Mattishall Lane Link Road was added to the design in response to statutory stakeholder feedback about the impact of severing Low Road and Mattishall Lane. These changes are reported in Table 4.12 (item no. 11) of the Consultation Report (APP-024).</p> <p>The Scheme would provide new walking, cycling and horse-riding (WCH) facilities, improve accessibility for users in the local area and provide the opportunity to choose active travel modes (e.g. walking and cycling).</p> <p>ES Chapter 12 Population and human health (APP-051) assesses the impacts on WCH facilities, with key summaries available in Table 12.5 (WCH facilities), Table 12.6 (WCH sensitivity), Table 12.16 (residual effects) and a conclusion statement in paragraphs 12.12.5 to 12.12.7. An overview summary is also available in Section 4.14 'Walking, Cycling and Horse-riding (WCH) Assessment' of the Case for the Scheme (APP-140). Though public right of way Hockering FP7, along Gypsy Lane in Hockering, will be severed, access to the other footpaths along the River Tud will be retained through provision of walker and cyclist provision through the proposed Mattishall Lane Link Road.</p> <p>The additional east - west WCH facilities will provide an opportunity for walking and cycling commuting and travel into Norwich, plus complement the walking and cycling improvements to be provided along Dereham Road in Easton and at the A47 junction to the east of Easton, (the Showground junction), as part of consented residential development in Easton. The new WCH routes proposed are shown on the rights of way and access plans (APP-008).</p>
RR-055.7	7) Landscape. Local tranquil areas devastated. Tud Valley landscape altered massively.	<p>ES Chapter 7 Landscape and Visual Effects (APP-046) identifies, assesses and proposes mitigation for the likely effects (both adverse and beneficial) of the Scheme on landscape character, landscape features and visual receptors. ES Chapter 7 is supported by figures (APP-060 to APP-070) and technical appendices (APP-089 to APP-095).</p> <p>The Scheme design has taken full account of the need to integrate the Scheme into the landscape, such designing the junctions below the proposed A47 mainline in a cutting. The design has also taken into consideration the findings of ES Chapter 7 and, where possible, been amended to reduce the residual effects and enhance the surrounding environment. Mitigation measures have also been proposed to avoid or minimise the risk of significant effects during construction of the Scheme.</p> <p>The Environmental Masterplan, Rev.1, (AS-007), has sought to mitigate for the losses of landscape features, including trees, and minimise visual effects due to the Scheme. The Environmental Masterplan also shows the creation and extension of landscaping and biodiversity elements, including species rich grassland, hedgerows, trees, woodland and biodiversity wetlands.</p> <p>All the mitigation commitments are recorded in Table 3.1 'Record of Environmental Actions and Commitments' in the Environmental Management Plan (APP-143). Furthermore, a Landscape and Ecology Management Plan (LEMP) will also be produced by the appointed Landscape Architect and Ecologist prior to construction. The LEMP will describe the proposed management and monitoring of the landscape and ecological mitigation and compensation features of the Scheme.</p> <p>Delivery of these commitments, including consulting the relevant local planning and highway authorities, on the second iteration of the Environmental Management Plan, is secured by Requirements 4 'Environmental Management Plan' and 5 'Landscaping' of the dDCO (APP-017).</p>

³³ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

Reference	Relevant Representation	Highways England Response
RR-055.8	8) Environment. Huge threat to River Tud from run-off, and disturbance of habitat and earth during construction.	<p>As part of the EIA, the impacts on the water environment, soils and ecological habitats from works in, over or adjacent to the River Tud during construction were fully assessed in the following ES chapters:</p> <ul style="list-style-type: none"> Chapter 8 Biodiversity (APP-047): assesses effects on habitats and species, including the River Tud. Chapter 9 Geology and Soils (APP-048): assesses impacts and mitigation from the disturbance of soils and geology. Chapter 10 Material Assets and Waste (APP-049): assesses the consumption of materials and products including the use of excavated soils. Chapter 13 Road Drainage and the Water Environment (APP-052): assesses impacts and mitigation for effects on the water environment, including the River Tud. <p>Mitigation measures together with good construction practice in relation to pollution prevention, run-off management, soils management and protection of ecological receptors and protected species have been identified. These commitments are reflected in Table 3.1 'Record of Environmental Actions and Commitments' in the Environmental Management Plan (APP-143). The second iteration of the Environmental Management Plan will also contain the following annexes to be produced by the Principal Contractor in advance of construction works:</p> <ul style="list-style-type: none"> Annex B.1 Materials Management Plan (MMP) – to monitor and track the movement, storage and placement of excavated materials. Annex B.2 Soil Handling Management Plan – details the soil handling strategy. <p>Delivery of the Environmental Management Plan actions and commitments, including consulting the relevant local planning authority on the final version of the plan, is secured by Requirement 4 'Environmental Management Plan' of the dDCO (APP-017)</p>
RR-055.9	9) Public transport. So many roundabouts puts buses on potential routes through villages at a serious disadvantage compared with private car.	<p>The Scheme's junction operational assessment demonstrates that all four roundabouts of the two proposed grade separated junctions will operate well within capacity in both opening year (2025) and design year (2040) during both AM and PM peak hours. Therefore, no significant delays are expected to buses going through those roundabouts.</p>
RR-055.10	10) Impact on local road system not properly addressed; temporary traffic orders should not be relied upon to alleviate what could be a permanent problem. Nor can other, separate planned road schemes, whether or not considered 'near certain' be relied upon to alleviate problem caused by the design of this road.	<p>The Scheme Design Report, Rev. 1, (AS-009) sets out the Applicant's proposals for the sideroad network. The sideroad network design was presented at Statutory Consultation and refined as a result of consultation feedback and further stakeholder engagement; the design changes arising from this consultation feedback are reported in Table 4.12 of the Consultation Report (APP-024).</p> <p>The Applicant has included mitigation measures for Taverham Road within the proposed design as a result of engagement with the Local Liaison Group (Norfolk County Council and Parish Councils). As stated within Section 9 (paragraph 9.2.10) of the Scheme Design Report, Rev. 1, (AS-009), the Applicant proposes to implement the temporary closure of Honingham Lane to through traffic, in the interim period between the A47 Scheme and NWL opening.</p> <p>Norfolk County Council presented independent traffic modelling results to the Local Liaison Group on the 23 February 2021. Hockering Parish Council was represented by Mr Hawker at that meeting, and minutes were circulated to all Parish Councils. The results demonstrated that the Average Annual Daily Traffic (AADT) on Taverham Road with the proposed mitigation measures in place (Honingham Lane Closure) was 400 AADT in the scheme opening year of 2025. The Applicant's transport assessment, in Chapter 4 of the Case of the Scheme (APP-140), shows a prediction of 200 AADT for the Scheme opening year of 2025 with NWL open.</p> <p>The Applicant has engaged with the Local Highway Authority (Norfolk County Council) and their internal project team promoting the NWL scheme regularly throughout the design development process. An objective of the NWL scheme is to improve the strategic connectivity of the local road network with the national road network, plus reduce the impacts of traffic on people and places within the western area of Greater Norwich. As stated within Section 9 (paragraph 9.2.10) of the Scheme Design Report, Rev. 1, (AS-009), if the NWL scheme does not obtain planning consent, the Applicant would continue to engage with the local highway authority, Norfolk County Council, on the interactions of the A47 Scheme with the side road network.</p>
RR-055.11	11) Lighting. Very little information. A serious issue for people in country areas who value the night sky. 1	<p>The impacts of lighting and proposed mitigation measures are assessed within ES Chapter 7 Landscape and Visual Effects (APP-046) and Appendix 7.7 Lighting Assessment (APP-095).</p> <p>As detailed in the Environmental Management Plan (APP-143), during construction of the Scheme, works lighting shall be directional, at the minimum luminosity necessary and use low energy consumption fittings.</p> <p>Whilst lighting is required with respect to health and safety regulations, the lighting proposed will be positioned sympathetically to minimise light spill and disturbance for sensitive receptors. Where lighting columns back onto residential properties and/or sensitive receptors, backlight shields or similar mitigation will be required to mitigate significant effects. Lighting at the junction will be designed with backlight shields and LED bulbs to reduce light spill onto habitats.</p> <p>Section 7 of ES Appendix 7.7 provides a summary of the safety need for artificial lighting on the approach to and through the proposed junctions, slip roads and associated roundabouts. The Applicant has taken this into consideration by designing the junction below the proposed A47 mainline in a cutting to minimise the impact of light spill.</p> <p>The design of the proposed scheme lighting has been undertaken in accordance with the UK Design Manual for Roads & Bridges (DMRB) TA 501 – Road Lighting Appraisal. This document sets out the process for the appraisal of new and replacement road lighting for motorway and all purpose trunk roads.</p> <p>The conflict area for the roundabouts has been lit following the Institution of Lighting Professionals (ILP) Professional Lighting Guide PLG 02 - The Application of Conflict Areas on the Highway, and in accordance with BS5489-1:2020 Table A4, Lighting Classes for Conflict Areas. In accordance with the ILP PLG02, lighting is provided on</p>

Reference	Relevant Representation	Highways England Response
		<p>the approach to the conflict areas for 5 seconds of driving distance at the expected speed to ensure a good visual guidance path is provided.</p> <p>Section 7.10 of the ES Chapter 7 (APP-046) concludes that some isolated residential properties in close proximity to proposed location of compounds may experience some glimpsed views of night-time lighting of compounds. However, given the sparsely developed nature of the study area, effects due to night-time lighting are expected to be limited. Overall, there would be a minor adverse magnitude of change and slight adverse (not significant) effect on night-time views arising from construction.</p> <p>During operation, Scheme lighting and vehicle headlights would result in night-time effects on views. Overall, there would be a minor adverse magnitude of change and slight adverse (not significant) effect on night-time views at Year 1 reducing to a no change magnitude and neutral (not significant) effect at year 15. The effect identified at Year 1 is due to the potential for headlights on the Scheme to be glimpsed from some locations within the study area.</p>
RR-055.12	<p>2) Noise. Very little information, especially regarding impact on Hockering village residents, to show HOW their noise type may be affected (even if absolute values may be lower) – we are not told.</p>	<p>A noise and vibration impact assessment is presented within ES Chapter 11 Noise and Vibration (APP-050). The assessment included a baseline noise survey at positions representing noise-sensitive receptors in the vicinity of the Scheme. Environmental noise levels measured during the survey have been analysed to determine the UK road traffic noise index, dB LA10,18hr, at each position.</p> <p>Construction and operational noise and vibration levels for sensitive receptors were also estimated and, where necessary, mitigation against such impacts have been accommodated into the Scheme design (noise barriers and noise-reducing road surface) or detailed in Table 3.1 'Record of Environmental Actions and Commitments' of the Environmental Management Plan (APP-143), which will be finalised and commitments secured by Requirement 4 of the dDCO (APP-017).</p> <p>For both the short and long term operational noise assessments, the majority of noise decreases are predicted at Hockering close to the existing A47, due to the re-alignment of the Proposed Scheme to the south, with lower volume of traffic using the by-passed A47. This is illustrated in the below noise change contours for the area, from ES Figure 11.8 (APP-074).</p> <ul style="list-style-type: none"> • Orange and red = road traffic noise increase of 3 dB or more in the short-term; • Dark blue and purple = road traffic noise decrease of 3 dB or more in the short-term.  <p>As reported in Table 11.16 'Final operational noise significance summary table', in ES Chapter 11, there would be significant beneficial effects at 39 properties within Hockering and one property on Park Lane east of Hockering village (these include 36 properties within Noise Important Areas 5200 and 5201). There would be significant adverse effects at six properties along Mattishall Lane and two receptors along Gypsy Lane, between Hockering and the Scheme, as identified in ES Figure 11.10 (APP-075). For the remaining properties in Hockering there would be no significant effects.</p> <p>Sections 11.9.22 to 11.9.30, in ES Chapter 11, present the review of locations for noise barriers and justification for including or discounting provision of noise barriers to mitigate operational noise impacts. Noise barriers are proposed within the Scheme design north and south of where the Scheme crosses Mattishall Lane to reduce the noise impact of the Scheme at properties close to Mattishall Lane. A noise barrier was considered for a small number of properties along Gypsy Lane in Hockering, but the magnitude of the adverse impact was not affected even with a substantial length of noise barrier. Therefore, a barrier at this location has not been provided as it would not reduce the assessment conclusions.</p>
RR-055.13	<p>13) Costs. These have risen considerably since the start of the project. Some attempt should be made to assess realistically what a maximum final cost could be.</p>	<p>The Funding Statement (APP-022) demonstrates that the Scheme will be adequately funded through the Road Investment Strategy and that funding is no impediment to the delivery of the Scheme.</p> <p>The Scheme has a most-likely estimate of £195.27 million, including allowances for risk and inflation at the date of application. This estimate includes all costs to deliver the Scheme from Options stages through to the opening for traffic. It includes an allowance for compensation payments relating to the compulsory acquisition of land interests in, and rights over, land and the temporary possession and use of land. It also takes into account potential claims under Part 1 of the Land Compensation Act 1973, Section 10 of the Compulsory Purchase Act 1965 and Section 152(3) of the 2008 Act.</p>

RR-056 ROBERT PALGRAVE

Reference	Relevant Representation	Highways England Response
RR-056.1	I object to the proposed scheme for these reasons: A. The case for the scheme (at 3.5.1) says that it will increase capacity which means that it will increase traffic growth in Norwich area. This does not comply with national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-056.2	B. The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for "increased capacity".	Please see Common Response B
RR-056.3	C. The application and traffic modelling assume that the Norwich Western link is already built. To comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the environmental statement should start from the current situation now as the environmental baseline.	Please see Common Response C
RR-056.4	D. The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposals, and needs to be fully examined at the examination.	Please see Common Response D
RR-056.5	E. The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-056.6	F. The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside.	Please see Common Response F
RR-056.7	G. In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	Please see Common Response G
RR-056.8	H. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-056.9	I. Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at [redacted]). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006.	Please see Common Response I

RR-057 SOUTH NORFOLK COUNCIL

Reference	Relevant Representation	Highways England Response
RR-057.1	This letter sets out South Norfolk Council's Relevant Representation in respect of the application made by Highways England for a Development Consent Order for alterations to a section of the A47 between North Tuddenham and Easton (the Scheme). The adopted Joint Core Strategy for Broadland, Norwich and South Norfolk seeks to enhance the transport system in order to develop the role of Norwich as a Regional Transport Node. This is to be achieved by, amongst other things, promoting improvements to the A47. This strategic aim is echoed in the emerging Greater Norwich Local Plan (GNLP), which supports strategic infrastructure improvements that support the growth needs of the area. The emerging GNLP specifically refers to improvements to the A47 between North Tuddenham and Easton as one of the schemes that will help the plan achieve its aims. The Regulation 19 Publication of the GNLP was undertaken between 1 February 2021 and 22 March 2021 and is anticipated to be examined between November and December 2021 and adopted in September 2022. As such,	The Applicant acknowledges the Council's comments, which reflect the benefits and the planning policy review presented in the Case for the Scheme (APP-140). The following responses seek to address the concerns raised by the Council.

Reference	Relevant Representation	Highways England Response
	the North Tuddenham to Easton dualling scheme is given in principle support by the existing and emerging development plan.	
RR-057.2	<p>The potential for the scheme to deliver economic growth is strongly supported by the District Council. These benefits, in combination with the wider programme of A47 improvements being proposed by Highways England, include:</p> <ul style="list-style-type: none"> • help to boost the economic prosperity of a large part of the East of England and contribute to national economic growth. • Shorter and more reliable journey times along the road and onwards to the Midlands. • Reduce delay, congestion and inefficiency. • Attracting more customers for businesses and attracting new businesses. • supporting existing businesses to grow and become more productive and profitable. • allowing businesses to invest with confidence. • encouraging more visitors to the region. • creating more jobs. 	
RR-057.3	<p>However, whilst the District Council is supportive of the scheme in principle, there is the potential for impacts that will require detailed consideration through the examination process ahead of any final decision on the Development Consent Order. Matters of particular interest to the District Council through the examination stage are considered to be:</p> <ul style="list-style-type: none"> • Access to the Food Enterprise Park • Landscape and visual impact • Impacts arising from noise, air quality and vibration. • Impacts on designated heritage assets 	
RR-057.4	<p>Access to Food Enterprise Park The Food Enterprise Park (FEP) (referred to as the Food Enterprise Zone (FEZ) in the application documents) is a 100 acre development site, the first 46 acres of which benefits from a Local Development Order to encourage and support food production, processing and agriculture through the co-location of commercial enterprises. The FEP is considered to be a strategically important employment site which has the potential to support significant economic growth in Greater Norwich and Norfolk more generally. Earlier iterations of the Scheme proposed by Highways England included provision of a spur off the southern most roundabout at the proposed Norwich Road junction. This spur would have allowed direct access to be provided from the FEP onto the strategic road network. In previous responses to the scheme the Council has made clear that direct access to the strategic road network is an integral element of delivering the FEP vision in its entirety and would be extremely supportive of this. Direct access into the FEP as previously proposed would avoid the need for vehicles associated with the FEP (including heavy goods vehicles) to use local roads and would make the FEP a more attractive prospect for future occupants thereby accelerating the delivery of the site and its associated economic benefits. If an access to the FEP is not provided at this point there is likely to be an unacceptable increase in heavy goods movements through the village of Easton. The scheme, as submitted, does not facilitate direct access from the strategic road network into the FEP and Highways England have adopted the position that they are not responsible for its provision, nor is its provision necessary to deliver the FEP. The Council would continue to request that the Scheme includes this important access.</p>	<p>The reason for not providing a connection to Blind Lane is set out within Section 9.3 of the Scheme Design Report, Rev.1 (AS-009).</p> <p>During the 2020 statutory consultation the initial design concept proposed the Norwich Road junction with a side road connection to Blind Lane; see drawing on page 10 of Consultation Report Annex J - Section 47 Consultation Materials (APP-034).</p> <p>However, statutory consultation feedback raised concerns about the provision of a link to Blind Lane in light of Local Development Order requiring the closure of Blind Lane and the provision of a link for the benefit of the private developers of the Greater Norwich Food Enterprise Zone (FEZ).</p> <p>Therefore, the Applicant reviewed the legal position and determined there is no existing or contingent requirement that the Local Development Order requires the Greater Norwich FEZ site to be accessed directly from the A47 given the approved alternative route along Church Lane. The analysis is set out in Section 9.3 of the Scheme Design Report, Rev.1, (AS-009) and the removal of Blind Lane post statutory consultation is reported in Table 4.12 (item no. 12) of the Consultation Report (APP-024).</p> <p>The FEZ developer was invited to contribute funds to the Scheme to provide a direct connection to the FEZ, but as no offer was received before design was fixed for the DCO assessments, the Blind Lane connection remained removed from the Scheme design.</p> <p>However, the Applicant acknowledges that the developer of the FEZ site may wish to obtain consent to create their own connection to the Scheme in the future. Therefore, Scheme's traffic modelling has taken this into account at the Norwich Road junction to provide capacity for the FEZ vehicle movements. The design of the Honingham roundabout to Norwich Road junction side road would allow for a third party to create a new highway connection. This commitment is presented in Section 9.3 of the Scheme Design Report, Rev.1 (AS-009).</p> <p>The Applicant notes that the promoters of the FEZ have now lodged a planning application (27 July 2021) with the Local Planning Authority, Broadland District Council (Application No.: 20211335) for the provision of a private access to the proposed scheme from the proposed Norwich Road junction side road.</p>
RR-057.5	<p>Landscape and Visual Impact The key landscape issues are considered to be:</p> <ul style="list-style-type: none"> • Impacts of scheme on existing vegetation; hedgerows and trees • Effect of the engineering and landform on the landscape character, in particular the relatively gentle landform. • Whether there are significant adverse visual effects for sensitive receptors, e.g. users of PROWs, that cannot be sufficiently mitigated • Appropriateness of proposed Environmental Masterplan. 	<p>The key issues identified by South Norfolk Council are considered in ES Chapter 7 Landscape and Visual Effects (APP-046).</p> <p>These issues will be considered further when developing the final landscaping design under DCO Requirement 5 'Landscaping' (APP-017) and the detailed Landscape and Ecology Management Plan (LEMP), which forms Appendix B.5 of the Environmental Management Plan (APP-143), during the detailed design stage prior to construction.</p> <p>The relevant planning authority will be consulted in the final landscaping scheme and LEMP as a commitment through dDCO Requirements 4 'Environmental Management Plan' and 5 'Landscaping' (APP-017).</p>
RR-057.6	<p>Hedgerows and Arboricultural implications: The Council welcome that the submission has identified where 'important' (and other) hedgerows will be lost as a result of the scheme. Policy DM4.8 of the South Norfolk Development Management Policies Document presumes in favour of 'important' hedgerows except in cases where there is an overriding justification; in this instance it is agreed that the proposed improvements to the A47 constitute an overriding justification. Where it is necessary to remove sections of 'important' hedgerows for construction working margins – and the 'importance' was due to an historical line, it would be</p>	<p>During the detailed design of the Scheme, the Applicant will continue to avoid or minimise any impact to important hedgerows but welcomes the Council's decision that the proposed improvements to the A47 constitute an overriding justification for any unavoidable loss of important hedgerows.</p> <p>However, the Applicant notes South Norfolk Council's request that where 'important' hedgerows are removed for construction and the 'importance' was due to an historical line, it would be preferable to have the line re-instated after construction by replanting (if the original form of the land is unchanged).</p> <p>With regards potential construction compounds being within root protection areas of retained trees, action LV3 in the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143), requires the</p>

Reference	Relevant Representation	Highways England Response
	preferable to have the line re-instated after construction by replanting (if the original form of the land is unchanged). There is inevitable tree loss as a result of this scheme which is impossible to avoid in such a landscape. Pleased to see that whilst some category A trees are scheduled for removal, no Veteran trees appear to be implicated. Concern about potential construction compounds being within root protection areas of retained trees (including category As); would like to see this avoided if at all possible.	Principal Contractor to engage an arboricultural consultant to complete an arboricultural method statement. The method statement shall include, but not limited to the following: <ul style="list-style-type: none"> • Tree protection measures in compliance with BS5837:2012 (Trees in relation to design, demolition, and construction – Recommendations) during the construction phase. • Maintenance and monitoring requirements of the tree protection measures. • Schedule of trees to be removed and based on the Environmental Masterplan, Rev.1, (AS-007) and ES Appendix 7.7 Arboricultural Impact Assessment (APP-094). • Tree root protection zones. • Contingency plan (chemical spillage, collision, emergency access to the root protection zone). Delivery of this commitment is secured through dDCO Requirement 4 'Environmental Management Plan' (APP-017).
RR-057.7	Landscape Character There are no significant adverse landscape effects anticipated within the South Norfolk section of the scheme.	The Applicant welcomes South Norfolk Council confirming there would be no significant adverse landscape and visual effects within the South Norfolk section of the Scheme.
RR-057.8	Visual Effects There are no significant adverse visual effects anticipated within the South Norfolk section of the scheme.	
RR-057.9	Environmental Masterplan The sensitive design and integration of hard landscape features, such as barriers requires careful consideration. Notwithstanding the highway maintenance requirements, it would be preferable for fencing in more visible locations to be set with planting that will soften the built elements. The Council has reservations about the proposed formal approach to planting around the Easton pedestrian/cycle bridge; this is not an urban area as the annotation suggests.	The design and integration of hard landscape features, and whether fencing in more visible locations ought to be set with planting that will soften the built elements will be considered when developing the final landscaping design under DCO Requirement 5 'Landscaping' (APP-017) and the and detailed Landscape and Ecology Management Plan (LEMP), which forms Appendix B.5 of the Environmental Management Plan (APP-143), during the detailed design stage prior to construction. With regards the planting around the Easton pedestrian/cycle bridge, though the annotation refers to reflecting the urban context the annotation also acknowledges the need to reflect the rural context to the north and south, in particular the tie-in to the adjacent rural lanes. The 'urban context' note reflected the southern tie-in beside residential housing along Dereham Road. However, the final landscaping scheme and LEMP are to be developed in consultation with the relevant local planning authorities as a commitment in the dDCO, Requirements 4 'Environmental Management Plan' and 5 'Landscaping'.
RR-057.10	Will it be possible to view St Peter's Church Easton from the pedestrian/cycle crossing and/or its approach(es)? If not, is this desirable/possible?	The landscape mitigation design seeks to minimise views of the Easton footbridge from people using / visiting St Peter's Church Easton, but users of the footbridge will likely see some or part of the church building. With regards whether it is desirable/possible to see the church from the footbridge, final landscaping planting design will be confirmed, in consultation with the relevant planning authority, under Requirement 5 'Landscaping' of the dDCO (APP-017). The Applicant will consider this matter as part of that process to balance screening views from the church and allow users of the footbridge to see the heritage of Easton in the form of St Peter's Church.
RR-057.11	What is the function of the spur of former Church Lane to the north of the proposed Easton pedestrian/cycle bridge? Is this necessary?	Works are required to Church Lane, Easton, to retain a cycle track connection between the Easton pedestrian/cycle bridge and Ringland Road, while restricting vehicle access to a short section at the northern end to access a new agricultural field access. The Applicant has also noted that where the northern end of the Easton pedestrian/cycle bridge turns west down the access slope, the eastern connection to a stepped access down to the former Church Lane is not illustrated as steps. This will be amended in the design shown in the updated DCO plans (APP-004 to APP-016, as required) and Environmental Masterplan (AS-007) to be issued at Deadline 2 or Deadline 3, but will not materially change any of the DCO application assessments.
RR-057.12	Impacts arising from Noise, Air Quality and Vibration Whilst the project is in a predominantly rural area, the scheme has the potential to impact on the amenity of local residents during the construction and operational phases as a result of noise, emissions and vibration. Although the Council raises no specific issues on these matters at this stage, we may wish to make representations on these issues through the examination process and ensure that these issues are adequately addressed in the Development Consent Order.	The Applicant can confirm these impacts and mitigation requirements have been considered in the following chapters of the ES: <ul style="list-style-type: none"> • Chapter 5 Air quality (APP-044) • Chapter 11 Noise and vibration (APP-050) • Chapter 12 Population and human health (APP-051) • Chapter 13 Road drainage and the water environment (APP-052) • Chapter 14 Climate (APP-053). • Chapter 15 Cumulative Effects Assessment (APP-054).
RR-057.13	Impact on Heritage Assets The Council supports the protection of milestones during the construction of the Scheme as is proposed by the applicant.	The Applicant confirms that Action CH2 of the Environmental Management Plan (APP-143) excludes the milestone opposite St Andrew's Church (MNF62797) from the works and requires it to be recorded and protected during construction (for example with fencing). Delivery of Action CH2 will be secured through dDCO Requirement 4 'Environmental Management Plan' (APP-017). In addition, as stated in sections 6.9.17 and 6.9.18 of the ES Chapter 6, the milestones will be proposed for listing after site works to protect and conserve them are completed. The decision to enter the stones onto the list rests with the Secretary of State as per section 1 (1) of the Planning (Listed Buildings & Conservation Areas) Act 1990 and is a separate process from development consent.
RR-057.14	The decision maker should, as required by Section 66 (1) of the Planning (Listed Buildings & Conservation Areas) Act 1990, have special regard to the desirability of preserving the setting of the building or any features of special architectural or historic interest which it possesses.	Section 7.4.6 of the Case for the Scheme (APP-140) sets out the Applicant's position on this issue with regard to compliance with Paragraphs 5.131 and 5.132 of the National Planning Policy for National Networks (2014).
RR-057.15	Conclusion The Council is strongly supportive of the scheme in principle subject to further consideration of the issues identified above. The Council wishes to continue to work pro-actively with the applicants as the application is progressed through to	A Statement of Common Ground is being developed to be provided to the ExA as a record of issues agreed or still under discussion. The Applicant will continue to engage with the Council during the detailed design, construction and operation of the Scheme.

Reference	Relevant Representation	Highways England Response
	Examination to try to resolve any issues in respect of the above.	

RR-058 WILD WINGS ECOLOGY

Reference	Relevant Representation	Highways England Response
RR-058.1	<p>The proposed scheme is located within the 6km radius Core Sustainment Zone of a nationally important 'super-colony' of a very rare Annex II bat species, the western barbastelle (<i>Barbastella barbastellus</i>). This super-colony is located in the Ringland/Attlebridge/Weston Longville/Lenwade area and includes a known 77 confirmed barbastelle roosts (to date - located from radio-tracking), one of which is the largest known extant barbastelle roost in the country. The area exceeds criteria for Special Area of Conservation (SAC) designation and as such should be treated in the same manner. We have been carrying out research on this barbastelle super-colony for a number of years, in collaboration with the University of East Anglia and the Norfolk Barbastelle Study Group. This has included radio-tracking of 40 adult female barbastelles. Night-tracking of individuals which travel south to cross the A47 has identified a single, specific crossing point over the A47, within the scheme's boundary/proposed dualling area. Very careful consideration is therefore needed as to how safe crossing of barbastelles over the road at this location will be maintained by the scheme, noting that standard mitigation approaches (green bridges, gantries, underpass) on the Norwich Northern Distributor Road (NDR) have failed. The cumulative impacts on the barbastelle super-colony of the proposed A47 dualling, Norwich Western Link road and the off-shore windfarm cable route are likely to be substantial and will need very careful consideration to avoid damaging the Favourable Conservation Status of this nationally important population. We have not been consulted about this scheme and therefore our research findings on the barbastelle population here have not been considered by the proposal. We do not consider that a full and informed assessment of impacts on the barbastelle population has been made; the road is likely to negatively impact this nationally important population and no suitable, effective mitigation measures have been proposed</p>	<p>Please see Common Response I.</p> <p>With regards consideration of Wild Wings Ecology's research findings, Section 8.4 of ES Chapter 8 outlines how the Applicant has consulted the NWL scheme promoters on a monthly basis regarding barbastelle bats and the wider mitigation proposals for bats by the Scheme. In addition, data was exchanged on the locations of barbastelle bats, survey techniques and mitigation. These meetings are still on-going.</p> <p>As the Applicant understands matters, the only evidence of the super-colony is the study carried out Wild Wings Ecology. The Applicant is aware that Norfolk County Council has requested Wild Wings Ecology's research findings, but has not received that data. This was confirmed at a meeting of Norfolk County Council's planning and highways delegation committee on Friday 28 August 2021, where cabinet member Graham Plant said he was concerned as to why data had not been released by Dr Packman following her study³⁴.</p> <p>In order to further assess the position, the Applicant asks that the Examining Authority requests that a copy of the Wild Wing's Ecology research findings is provided to the Examining Authority and relevant Interested Parties (Norfolk County Council, Natural England and the Applicant) in order that that data can be properly understood in advance of any Issue Specific Hearing to address the topic.</p>

RR-059 BROWN & CO ON BEHALF OF ALSTON FARMS LTD (JAMES ALSTON) (HONINGHAM THORPE FARMS)

Reference	Relevant Representation	Highways England Response
RR-059.1	<p>Respondant: James Alston Submission is made on behalf of James Alston as shareholder and director of Alston Farms Ltd, parent company of Ebony Holdings Ltd as owner of the property known as [redacted] (Hereafter referred to as the Estate) and partner in Honingham Thorpe Farms. The Estate extends to circa 421 ha (1040 acres) of what is primarily high quality agricultural land used to grow a wide variety of cereals and high value root crops. The farming business is carried on by Honingham Thorpe Farms (HTF) which is a farming partnership owned and operated by the Alston family. The shareholders of Alston Farms Ltd are partners in HTF, thus creating a synergy of interest and representation. HTF farming operations are based at Colton, some 5.7km by road to the south of the Estate.</p> <p>Access is simple being via Blind Lane, crossing the A47 and north up Taverham Road into the heart of Ringland. It is acknowledged that these roads are narrow, as is typical of most rural highways, but they have been suitable for use in the past and should remain so in the future. There is no record of an RTA involving HTF arm machinery using this route. An additional benefit of this route is that it does not pass through any residential areas and Ringland village itself can be circumnavigated used Estate tracks. The greatest weight of traffic is during harvest time, which for the Estate can span across a large period of the year as the different crops grown will come to harvest at different points through the year. The pressure is not just concentrated around the usual cereal harvest period of July and August. Field scale potatoes have an average yield of 48t/ha (varying year or year) and some main crop varieties can push towards 60t/ha. With a 1 in 5 rotation there will be an average area of 80ha of potatoes on the Estate. This gives a potential crop of 3840t to move back to HTF base and stores at Colton. An average trailer will hold 16t of produce, meaning 240 round trips (480 vehicle movements) per year between the Estate and HTF. This is in addition to any other root crops that might be grown on the Estate and the cereal crops. The proposed road layout</p>	<p>The reason for not providing a connection to Blind Lane is provided within Section 9.3 of the Scheme Design Report, Rev.1 (AS-009).</p> <p>For the 2020 statutory consultation the initial design concept proposed the Norwich Road junction with a side road connection to Blind Lane; see drawing on page 10 of Consultation Report Annex J - Section 47 Consultation Materials (APP-034). However, statutory consultation feedback raised concerns about the provision of a link to Blind Lane in light of Local Development Order (LDO) requiring the closure of Blind Lane and the provision of a link for the benefit of the private developers of the Greater Norwich Food Enterprise Zone (FEZ).</p> <p>Therefore, the Applicant reviewed the legal position and determined there is no existing or contingent requirement that the LDO requires the Greater Norwich FEZ site to be accessed directly from the A47 given the approved alternative route along Church Lane. The analysis is set out in Section 9.3 of the Scheme Design Report, Rev.1, (AS-009) and the removal of Blind Lane post statutory consultation is reported in Table 4.12 (item no. 12) of the Consultation Report (APP-024).</p> <p>The current LDO seeks to close Blind Lane. The impacts of such closure on the agricultural businesses currently using Blind Lane will occur with or without the Scheme, thereby directing agricultural vehicles via Church Lane past St Peter's Church into the edge of Easton to access the A47. On that basis, the situation is a baseline Do Minimum scenario situation to the A47 design and assessment. However, though the Scheme removes the north-south connection across Easton roundabout, the replacement route reduces the existing risk of delays waiting to cross the east-west flows of traffic along the A47 with slow moving vehicles.</p> <p>However, the Applicant recognises that the developer of the FEZ site may wish to obtain consent to create their own connection to the Scheme in the future. Therefore, the Scheme's traffic modelling has taken this into account at the Norwich Road junction to provide capacity for the FEZ vehicle movements. The design of the Honingham roundabout to Norwich Road junction side road would allow for a third party to create a new highway connection. This commitment is presented in Section 9.3 of the Scheme Design Report, Rev.1 (AS-009).</p> <p>The FEZ developer was invited to contribute funds to the Scheme to provide a direct connection to the FEZ, but as no offer was received before design was fixed for the DCO assessments so the Blind Lane connection remained removed from the Scheme design.</p> <p>The Applicant notes that the promoters of the FEZ have now lodged a planning application (27 July 2021) with the Local Planning Authority, Broadland District Council</p>

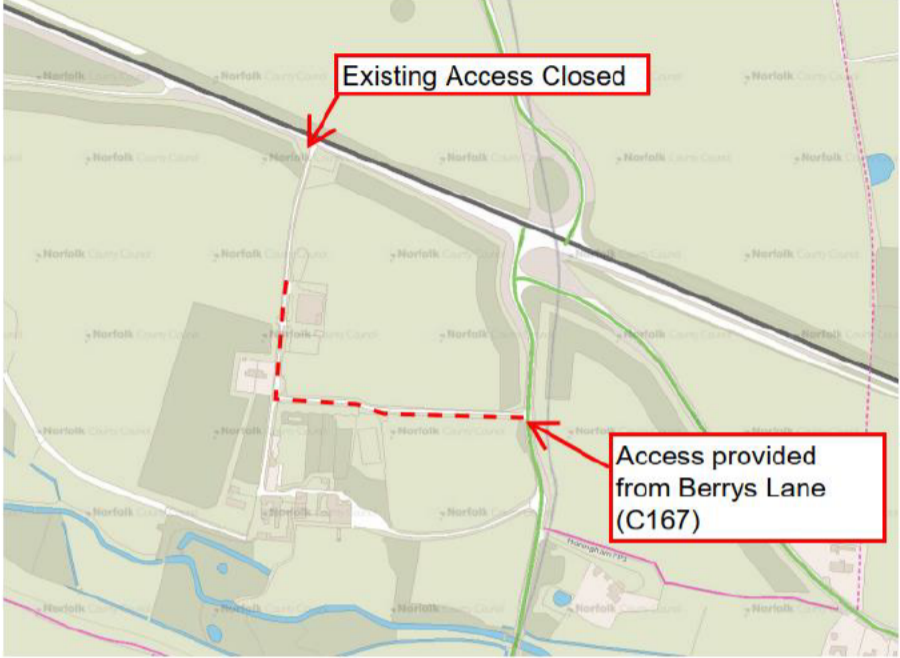


³⁴ See local news article: <https://www.edp24.co.uk/news/local-council/concern-over-bat-colony-amid-plans-dualled-a47-8279474>

Reference	Relevant Representation	Highways England Response
	will push this traffic onto Church lane, where it will interact with the FEP traffic, through to Easton Church junction, back along the spur road to the grade separated junction to pick up Taverham Road. A journey that will be 2.7kn longer, create conflict with traffic on Church Lane, increase large vehicle traffic through Easton, increase pressure at the Easton Church junction, cause added disturbance to the use of Easton Church and clash with the proposed residential development on the southwest side of Easton. It is inefficient, disruptive, and illogical.	(Application No.: 20211335) for the provision of a private access to the Scheme from the proposed Norwich Road junction side road
RR-059.2	Consideration should be given to the working hours of a farm and how this will interact with the residential areas.	The Applicant has engaged with the Land Agent representing the stakeholder on this matter and has provided confirmation that access north – south of the Scheme corridor will remain during the construction of the Scheme. This will be managed through the Traffic Management Plan (APP-144), to be approved through Requirement 10 of the dDCO (APP-017) following consultation with the relevant highway authority (Norfolk County Council). The Applicant has also stated a willingness to engage with the local farming community to understand harvest patterns and incorporate measures within the Traffic Management Plan where possible.
RR-059.3	The respondent believes that Blind Lane should remain available as a private means of access to join the southern Honingham spur off the grade separated junction, near where the potential future FEP access might be. The southern access to Blind Lane could be close to public traffic, a link created from the HTF roadway at Red Barn onto Blind Lane to preclude public access and then the Honingham spur could be joined at the most suitable point. There is potential interaction with the FEP and the potential access point and it is considered possible for the two uses to be combined. Nobody could rat run through the FEP and down Blind Lane as they would only end up in HTF yard, they could not join Church Lane. The farm access at the northern end, where it interacts with the FEP, could be separately gated and fob controlled to add further security. Highways England have stated that this is not possible, and that Blind Lane should be closed as it is not fit for purpose. They consider it is agreeable to push all the traffic onto Church Lane, through Easton and past the Church and on to joint the other local traffic at the grade separated junction. The respondent contests this and requests that their proposal is given consideration for the benefit of the respondent and the inhabitants of Easton.	Please see the response to RR-059.1 for the Applicant's reason for not providing a connection to Blind Lane. In response to the comment about 'pushing traffic onto Church Lane, through Easton and past the Church', the Applicant notes this arrangement is the same as in the baseline scenario without the Scheme due to the closure of Blind Lane by the Local Development Order for the Greater Norwich Food Enterprise Zone (FEZ). The FEZ developer was invited to contribute funds to the Scheme to provide a private direct connection to the FEZ, but as no offer was received before design was fixed for the DCO assessments, the Blind Lane connection was removed from the Scheme design. However, the Applicant acknowledges that the developer of the FEZ site may wish to obtain consent to create their own connection to the Scheme in the future. Therefore, the Scheme's traffic modelling has taken this into account at the Norwich Road junction to provide capacity for the FEZ vehicle movements. The design of the Honingham roundabout to Norwich Road junction side road would allow for a third party to create a new highway connection. This commitment is presented in Section 9.3 of the Scheme Design Report, Rev.1 (AS-009). The Applicant notes that the promoters of the FEZ have now lodged a planning application (27 July 2021) with the Local Planning Authority, Broadland District Council (Application No.: 20211335) for the provision of an access to the proposed scheme.

RR-060 ALYSON LEE

Reference	Relevant Representation	Highways England Response
RR-060.1	I would like to register as an interested party for the following reasons:- 1. All new roads mean increased traffic and therefore increased air pollution and carbon emissions. We are in a climate emergency – tackling this means reducing the number of cars on the roads as well as converting to EVs.	Please see Common Response A
RR-060.2	2. Congestion needs to be solved through investment in active travel and public transport and a general reduction in freight volumes through a national policy of degrowth as opposed to the suicidal policy of perpetual growth in a finite world.	Please see Common Response A
RR-060.3	3. We are also in an ecological crisis – this scheme threatens many wildlife habitats such as wet grazing meadows. Many species will be harmed by the scheme. Britain is one of the most nature depleted countries in the world and we need to stop destroying our natural habitats for the sake of growth.	Please see Common Response F
RR-060.4	4. The environmental assessments do not look at cumulative effects – this scheme is not an isolated scheme – there are several other road schemes near to Norwich and East Norfolk. The effects on biodiversity, pollution and carbon emissions should be assessed in combination with these other schemes.	Please see Common Response G
RR-060.5	5. There are also many other major road schemes within the government's RIS2 programme - the cumulative effect of this scheme, along with all other road schemes nationally, should be seriously considered in terms of the national carbon budgets – road transport is the only sector where carbon emissions are still increasing – this is probably because the cumulative carbon emissions of individual schemes are ignored. This can't go on!	Please see Common Response G
RR-060.6	6. All road schemes should be re-evaluated in the light of the Covid pandemic – much has changed that will affect future traffic volumes such as home-working – the government should be taking steps to make this a permanent change by investing in improved broadband and local work hubs rather than continuing with outdated policies of ever expanding roads.	Please see Common Response B

RR-061 SAVILLS UK LTD ON BEHALF OF ANTHONY MEYNELL

Reference	Relevant Representation	Highways England Response
RR-061.1	<p>INTRODUCTION</p> <p>1. This relevant representation is made on behalf of Mr Anthony Meynell ('the Owner'), in respect of the application made by Highways England ('the Applicant') for development consent for the dualling of the A47 North Tuddenham to Easton ('the DCO').</p> <p>2. The Owner is the registered freehold owner of land known as [redacted], Honingham, Norfolk ('the Estate'). The Estate has been in the Owner's family since 1948.</p> <p>3. The Estate comprises some 125 acres/50.5 ha of land in use as a small agricultural and forestry estate. It is situated to the west of the village of Honingham and approximately 8 miles west of Norwich. The northern boundary of the greater part of the Estate is the existing A47, to which the Estate benefits from a private right of way (to be stopped up without substitute); at its eastern end the Estate abuts a section of the former A47 known as Dereham Road.</p>	<p>The existing single carriageway A47 has 41 direct connections from existing side roads, farm, field and property accesses between North Tuddenham and Easton. In order to meet the objective of creating a more free-flowing and safe A47 there will be no direct connections to the dualled A47 in the Scheme. Access will be solely via the proposed junctions. This is presented within Section 5 of the Scheme Design Report, Rev.1 (AS-007).</p> <p>Access is retained to the northern area of the estate from Berrys Lane (C167) along the existing access route as depicted below. The Scheme closes Berrys Lane to through traffic and takes account of the existing access which is to be retained.</p> <p>Map Extract:</p>  <p>Existing Access / Junction with Berrys Lane (C167):</p> 
RR-061.2	<p>4. The whole of the Estate is designated by the Treasury as being of outstanding scenic or historic or scientific interest, pursuant to s.31(1)(b) of the Inheritance Tax Act 1984 ('ITA 1984'). The designation confers upon the Estate conditional exemption from certain taxes e.g. inheritance tax and capital gains tax, on death or in the event of certain authorised disposals (eg to a member of the family or to a heritage body such as the National Trust). The purpose of the designation, however, is to ensure the continued management and maintenance of qualifying property in private hands, and continuing public access to the assets, so that they may be secured and conserved for the benefit of the public as part of the nation's cultural heritage. Consequently, although a private benefit accrues as a result of the existence of the designation, the designation is made for public interest reasons, in the public interest.</p> <p>5. There are fewer than 350 such designated national heritage properties or estates in the whole of the UK. Other well-known examples include Blenheim Palace, Chatsworth House, Bamburgh Castle, the Holkham and Houghton Estates in Norfolk, and the Syon Park Estate in west London (the last being the only designated asset in London). These examples will give the Examining Authority an indication as to the quality required of qualifying property. As a condition of this statutory designation as a national heritage asset, which was made in 2003, the Estate was at the same time made subject to a bespoke Heritage Management Plan ('HMP'), which has been funded by the Owner placing cash and assets into an irrevocable settlement (the 'Maintenance Settlement') approved by the Treasury and designed to secure the Estate's improvement and preservation. The Owner's stewardship of the Estate since its designation, and the management of the Maintenance Settlement, each in fulfilment of and compliance with the HMP, is subject to</p>	<p>Documents kindly provided by the Berry Hall Estate Owner include the notification of the HMRC designation decision. Unfortunately, this decision notification does not state which criterion or criteria of s.31(1)(b) has been applied.</p> <p>The Berry Hall Estate is described by HMRC as "An area of outstanding scenic interest in Norfolk" (see HMRC document at http://www.visitukheritage.gov.uk/servlet/com.eds.ir.cto.servlet.CtoLandDetailServlet?D=584, with a screen capture from 02/08/2021 at 14:30 included below for reference).</p>  <p>Only the "Scenic" criterion has been given in this public document. Other examples in</p>

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	<p>periodic monitoring by Natural England ('NE'). As noted above, as well as complying with the HMP, the Owner is required to provide opportunities for public access to the Estate, and disposals are subject to restriction to ensure the continued maintenance of the Estate in its designated condition.</p>	<p>the Eastern Region have been granted the exemption for several criteria, such as the Broxtead Estate (http://www.visitukheritage.gov.uk/servlet/com.eds.ir.cto.servlet.CtoLandDetailServlet?ID=342, accessed 02/08/2021 at 14:34) described as "An area of scenic scientific and historic interest [...]" and the Sloley Estate (http://www.visitukheritage.gov.uk/servlet/com.eds.ir.cto.servlet.CtoLandDetailServlet?ID=259, accessed 02/08/2021 at 14:40), described as "An historic and scenic Estate [...]".</p> <p>These examples show that exemption can be granted on one or more criteria listed in s.31(1)(b) of the Inheritance Tax Act 1984.</p> <p>Of the examples cited, all have additional protections through designations that are accounted for in local plan policy or through legislation which makes it an offence to cause harm:</p> <ul style="list-style-type: none"> • The Blenheim Palace estate is a world heritage site, grade I registered Park and Garden, includes several grade I, II* and II listed buildings and partially overlaps a conservation area. • The Chatsworth Estate is a grade I registered Park and Garden and includes several grade I, II* and II listed buildings. • Bamburgh Castle is a grade I listed building and within a conservation area. • The Holkham estate is a grade I registered Park and Garden and includes several grade I, II* and II listed buildings. • The Houghton estate is a grade I registered Park and Garden and includes several grade I, II* and II listed buildings. • The Syon Park estate is a world heritage site, grade I registered Park and Garden and includes several grade I and II listed buildings. <p>As such, in considering the quality of the asset, it is not appropriate to directly compare Berry Hall estate (two grade II listed buildings) with these specific assets.</p> <p>A guidance document (Preparing a Heritage Management Plan, Natural England et al, 2008 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/350304/NE63-preparing-a-heritage-management-plan.pdf p33,) goes further to define the assessment criteria for land of outstanding scenic interest (quoted below, emphasis added). The terminology is not that used in any cultural heritage guidance and the bodies referenced are not cultural heritage bodies.</p> <p><i>"Whilst the terms 'outstanding scenic, historic or scientific interest' are not defined in the legislation, the Memorandum Capital Taxation and the National Heritage (Inland Revenue, 1986) states that: 'An area of land will be judged to be outstanding for its scenic interest only if it has qualities well in excess of scenic land of its general type. A starting point for consideration will be if the land is in one of the National Parks in England and Wales, in a designated Area of Outstanding Natural Beauty (AONB) in England, Wales or Northern Ireland or in a National Scenic Area in Scotland. Nevertheless within these identifiable areas there may be land which will not meet the high standards applicable to conditional exemption. Conversely there may be some land outside such areas which will qualify. Buildings on the land, and trees and underwood, may share in the exemption if they contribute to the scenic interest. The Countryside Commission and the Countryside Committee for Northern Ireland will advise in what respects the land is of outstanding interest. Relevant factors might include diversity of land form and feature, relative relief, vegetation cover including trees and woods, presence of water, land use and manmade features, or the contribution which the land makes to its wider setting, all assessed by national and not regional or local standards."</i></p> <p>With reference to whether this tax designation is a heritage designation: NPS NN section 5.123 states:</p> <p><i>Some heritage assets have a level of significance that justifies official designation. Categories of designated heritage assets are: World Heritage Sites; Scheduled Monuments; Listed Buildings; Protected Wreck Sites; Protected Military Remains; Registered Parks and Gardens; and Registered Battlefields; Conservation Areas</i></p> <p>NPPF Annex 2 defines designated heritage assets as:</p> <p><i>A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.</i></p> <p>This guidance is clear that the tax designation of the estate per se is not a "designated heritage asset". However, the Listed Buildings and their setting are designated heritage assets and have been fully taken into account in the EIA.</p> <p>The Applicant notes the existence of this tax designation and the concern of the owner with respect to the potential impact on the tax designation and is currently liaising with the Owner and their representatives to explore any potential issues.</p> <p>The Applicant has also reviewed the designation and Heritage Management Plan to ascertain any effect on the assessments and conclusions within the route options studies and ES Chapter 6 – Cultural Heritage (APP-045) and ES Chapter 7 Landscape and Visual Effects (APP-046); see response below to the following representations.</p> <p>With regards the provision of opportunities for public access to the Estate, the Scheme will not prohibit access to the established routes within the Estate; in fact the Scheme will upgrade the footpath between Dereham Road and Berrys Lane to a bridleway.</p>
RR-061.3	<p>6. The principal residence on the Estate, [redacted], is, additionally, Grade II Listed (List entry No. 1306730). A further structure on the estate, a C18 icehouse, is the subject of another, independent Grade II listing (List entry No. 1077350) (This is a separate listing and not part of a group with Berry Hall, as appears to be suggested in Doc 6.1 Environmental Statement – Chapter 6 Cultural Heritage at [6.7.24]). Other properties within the Estate boundary are used as tenanted dwellings and one for holiday letting, and the income from these supports the maintenance of the Estate.</p>	<p>The reference contained in section 6.7.24 of the ES Chapter 6 – Cultural Heritage (APP-045) states "It [Berry Hall NHLE1306730] has an associated icehouse [NHLE 1077350] to the south, with which it forms a group". This is a reference to its contextual group and is not intended to imply a group listing, or that either the hall or icehouse was listed for group value alone.</p> <p>The Applicant notes the presence of tenanted dwellings and a holiday property provide an income to maintain the Estate. Any effect on this income will be considered as part of the land compensation negotiations between the Applicant and the landowner, which will take place outside of the Examination process.</p>

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RR-061.4	7. Within the Estate is [redacted], built in the 1950s as the Estate's second residence. This property is now let to a charity, Childhood First, as a [REDCATED]. Its freehold ownership (subject to the tenancy to Childhood First) has been transferred by the Owner to the Maintenance Settlement. The property now forms the principal asset of that settlement and the income derived from the letting to the charity is devoted to the maintenance of the Estate. It is understood that the Charity Trustees and Childhood First's Managers are in separate discussions with the Applicant concerning the effect of the proposals on Merrywood House and the children living there.	The Applicant can confirm they have been liaising with Childhood First since before DCO submission and continue to engage to try to manage the risks of indirect effects (e.g. noise disturbance and construction traffic risks) to the occupiers of their properties. See RR-016 for further detail.
RR-061.5	8. The Estate falls within the Order Limits of the DCO. It principally comprises Plots 9/1a, 9/1b, 9/1c, 9/1d, 9/1f, 9/1g, 9/1h, 9/1i, 9/1j, 9/1l, 9/1m, and 9/2a. Some of these plots are required permanently, whilst others are required only temporarily, or temporarily subject to the later acquisition of permanent rights. 9. The Owner has participated in two prior rounds of consultation: the non-statutory consultation undertaken by the Applicant in April 2020, and statutory consultation undertaken in January 2021. The Applicant's response to the points raised in the statutory consultation are addressed at pp.27-30 of Annex O to the Consultation Report ('Annex O'), to which further reference is made below. SUMMARY OF THE OWNER'S CASE 10. Although the Owner is supportive of the principle of the DCO, and the aims it seeks to achieve, he objects to the application in its current form.	The Applicant acknowledges the comment and landowner's support of the principle of the DCO and the aims it seeks to achieve. The Applicant can also confirm they have been engaging with the landowner pre DCO submission, including in 2017, and continues to engage with the landowner and representatives of the Berry Hall Estate to minimise any potential for adverse effects and respond to their concerns.
RR-061.6	11. The application fails to take into account the heritage significance of the Estate, consistent with its designation by the Treasury as described above. There is no acknowledgement in any of the application materials of the status the Estate enjoys, and/or any consideration of the implications of the DCO for that status, and the features that have led to its designation. The effect of this potential loss is not principally complained of because of the impact upon a private beneficial tax arrangement (though that disbenefit does fall to be taken into account), but because the public interest in preserving and maintaining the Estate in its outstanding present form and in the condition envisaged by the HMP, as reflected by the designation, would be compromised.	The heritage significance of Berry Hall is taken into account and set out in sections 6.7.24 through 6.7.28 of the ES Chapter 6 – Cultural Heritage (APP-045). The estate is assessed as part of the setting of the listed buildings. Berry Hall was assessed as of "High value" and the setting was assessed as making a moderate positive contribution to that value. The methodology used to arrive at this assessment is compliant with the legislation and guidance detailed in sections 6.3 and 6.4 of ES Chapter 6 (APP-045). The historic landscape characterisation data provided by Norfolk County Council, and shown on ES Figure 6.3 (APP-059), does not present the estate as a coherent landscape type. Instead, it is divided among areas of Woodland, Inland Managed Wetland and 20 th Century Agriculture, with the latter two types extending well beyond the estate. The assessment did not therefore seek to create a new standalone asset for assessment, as the estate has been assessed sufficiently as the setting of the listed building. As noted in the response to RR-061.02, the exemption designation by the Treasury is not a heritage designation per the NPS NN and NPPF. The exemption is therefore not directly relevant to the heritage assessment. However, listed buildings are protected under section 59 of the Planning (Listed Buildings and Conservation Areas) Act 1990, which makes it an offence to cause damage or to fail to prevent damage except in cases where planning, listed building or development consent has been given. Additional protection is given under section 47 of the same Act should the owner of a listed building be unable to provide repair required to avoid an offence under section 59. With regards to the setting (which includes the estate as explained above), protection is afforded under Policy ENV 07 of the Joint Core Strategy for Broadland, Norwich and South Norfolk: <i>"The significance of designated heritage assets (including their settings), such as listed buildings, scheduled monuments, registered parks and gardens and conservation areas, will be conserved, or wherever possible enhanced. Great weight shall be given to their conservation."</i> However, in response to the representation the Applicant has reviewed the Berry Hall Estate designation and Heritage Management Plan and concluded that, while they contain some additional information to that considered during the assessment (detailed in sections 6.5.4 of ES Chapter 6 (APP-045)), this would not affect the conclusions of ES Chapter 6 with respect to the impact on Berrys Hall and Estate. With regards the scenic status, ES Chapter 7 Landscape and Visual Effects (APP-046) identifies, assesses and proposes mitigation for the likely effects (both adverse and beneficial) of the Scheme on landscape character, landscape features and visual receptors. Though the Applicant acknowledges ES Chapter 7 does not specifically mention the Berry Hall Estate designation, it does consider Berry Hall in the visual assessment and the effects on the host landscape character areas that Berry Hall Estate forms a part of. Berry Hall Estate falls within the published Landscape Character Areas (LCAs) A2 and D2. However, in response to the representation the Applicant has reviewed the Berry Hall Estate designation and Heritage Management Plan and concluded it would not affect the conclusions of ES Chapter 7.
RR-061.7	12. The failure to have regard to this matter is in direct conflict with the requirements of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the National Networks NPS (particularly Section 5) and the NPPF (particularly Section 16), as well as the freestanding requirement to take into account (Figure 2.1 (Doc 6.2 Environmental Statement Figures) identifies the Grade II listed buildings as environmental constraints, but is silent as to the designation of the wider Estate under the ITA 1984) all relevant material considerations. It further represents an environmental constraint not taken into account in the consideration of alternatives (to which we return below), and a matter not assessed in the Applicant's consideration of the compelling case for temporary and permanent acquisition of the affected land. 13. This failure has arisen notwithstanding the matter having	As noted in the response to RR-061.02, the Applicant does not agree that designation under the ITA 1984 is a matter requiring separate and additional consideration under Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the National Networks NPS or the NPPF, particularly where both the heritage and landscape impacts on the asset are already assessed fully in the EIA. A designation under ITA 1984 for scenic (or indeed heritage) value does not by itself confer any special planning policy consideration or development control constraint. Whilst an exemption granted for historic criteria would be a useful signpost to potential heritage and landscape values and sensitivities, this would not be an environmental constraint in and of itself. The Applicant notes that the ITA 1984 is granted following consultation with Natural England but that, according to the documents kindly provided by the Berry Hall Estate Owner, Historic England (then English Heritage) did not choose to respond to the application when consulted by Natural England. The Applicant accepts that the designation of the Berry Hall Estate under the ITA 1984 was not separately considered as part of the initial ES. For the reasons set out, it is a

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	been raised with the Applicant in the previous rounds of consultation referred to above. The Applicant's response to the issue of designation as set out in Annex O refers only to their having taken into account the separate Grade II listings of Berry Hall itself, and the Icehouse, suggesting a fundamental failure either to understand or grapple with the point raised.	private designation not listed as a planning policy consideration or development control constraint. The relevant documents are not public documents. In any event, as noted in the response to RR-061.6, the effects on Berry Hall Estate as a heritage, visual and landscape constraint were considered in ES Chapter 6 – Cultural Heritage (APP-045) and ES Chapter 7 Landscape and Visual Effects (APP-046). Furthermore, upon review of the ITA 1984 designation and supporting Heritage Management Plan following the submission of this relevant representation, further assessment has determined that the designation of the Berry Hall Estate under the ITA 1984 would not have affected the assessment and conclusions in those chapters. Berry Hall was recognised as a Grade II Listed Building and visual receptor constraints within Section 4.3 of the Scheme Assessment Report (SAR) ³⁵ , which reported on the Stage 2 options development to arrive at the Preferred Route Announcement in August 2017. The SAR was available in hard copy at the Statutory Consultation events and on the Applicant's website. The route options assessment process is also summarised within Section 2 of the Case for the Scheme (APP-140).
RR-061.8	14. The DCO will see the temporary loss within the Estate of 12ha of land (c.27%) and a permanent loss of 3 ha (c.7%) (Both figures taken from Doc 6.1 Environmental Statement – Chapter 12 Population and human health (where the Estate is identified as Holding 10), and have not yet been verified by the Owner.), with the works resulting in the loss of or substantial harm to its arboricultural and landscape interest and historic integrity – features for which it was designated. It seriously risks compromising the ability of the Owner to comply with the HMP. These unacceptable impacts expose the Estate to the loss of its designated status, and consequently conflict with the public interest in securing its preservation and enhancement for the benefit of the nation.	Please see the Applicant's response to RR-061.6 above. In addition, following feedback during statutory consultation from February to April 2020, the Applicant has made several changes to the Scheme design to reduce the impact on Berry Hall Estate, including: <ul style="list-style-type: none"> • Removal of a propose side road connection between Church Lane, East Tuddenham, and the proposed Wood Lane junction thereby reducing the permanent landtake along the northern edge of the Berry Hall Estate. • Reduced the length of the National Grid Gas pipeline diversion works so as to keep all works east of Berrys Lane, instead of within the landscaped parkland to the south-east of Berry Hall. • Avoiding use of land immediately north of Merrywood House and north-east of Berry Hall for site compound of material storage area; these are not just for construction work areas / access needs. • Positioned the construction compound and material storage area required south of the A47 at Wood Lane junction in the agricultural field the north-west of Berry Hall in order to utilize the existing natural tree screening. The Applicant notes the concern of the potential impact from the temporary and permanent loss of land potentially affecting the ability to comply with the HMP and retain the tax designation and are currently liaising with the Owner and their representatives to explore and mitigate this risk.
RR-061.9	15. The Owner considers that an alternative option could see the route alignment in proximity to the Estate sited on less sensitive land, to the north of the existing A47, which would either avoid or reduce the impact upon the Estate, and consequently the adverse effects of the DCO generally, including as-yet unassessed heritage-related harm.	The Applicant has developed the preferred route following a review of 22 alternative route options considered through the assessment process and responses to the non-statutory route options consultation outlined in Section 2 of the Case for the Scheme (APP/140). As described in Section 23.3 'Junctions on the Route' of the Scheme Assessment Report ³⁶ , all four route options presented for non-statutory consultation in 2017, included a junction on the axis of Berrys Lane and Wood Lane, including one option north of the existing A47 proposed Scheme location; these are illustrated on the options drawings contained within Appendix N of the SAR and were (and continue to be) available on the Applicant's website during statutory consultation. The graphic showing the preferred route, also used in the Preferred Route Announcement leaflet ³⁷ , had the junction indicated at the existing A47 junction with Sandy Lane and Church Lane, east of Hockering. However, as noted above the assessed route options were based on and described as having a junction at the existing A47 junction with Wood Lane and Berrys Lane. The scheme design presented at statutory consultation in 2020 also had a new A47 junction shown at Wood Lane and Berrys Lane, whilst the EIA Scoping Report showed baseline study areas based on a provisional DCO boundary that also assumed a junction in this location. However, the Applicant acknowledges the request to consider an alternative option of a route alignment in proximity to the Estate sited to the north of the existing A47, on land owned by a different Interested Party. Therefore, the Applicant is currently engaging with the Berry Hall Estate Owner's representative, including sharing design data, to understand the details of the proposed alternative. The Applicant will arrange a professional review of the alternative option when received and will provide feedback to the ExA when complete.
RR-061.10	16. This option would also have the benefit of avoiding or reducing the unacceptable effects on the agricultural holding (identified as number 10 in the ES Chapter Population and Human Health), which even on the Applicant's assessment are identified as being "large adverse" during the construction phase and "slight adverse" during operation – effects which the Owner considers are likely to underplay the significance of the impact upon the present agricultural tenants and the future viability of the working agricultural unit, which forms a vital part of the Estate and is integral to its character. The Applicant's assessment will be challenged on that basis.	As part of ES Chapter 12 Population and Human Health (APP-051), an assessment of the effects on agricultural land holdings was undertaken. Agricultural questionnaires were sent out to landowners and occupiers to facilitate the assessment of the impact on agricultural land holdings. A telephone interview was held with the owner of agricultural holding 10 on the 3 September 2020 following receipt of the agricultural questionnaire. It is noted that Question 16 of the questionnaire asks the opinion of the respondent on the effects of the Proposed Scheme on the farm business. The response was that they believed that there would only be a slight adverse effect on the agricultural business. The sensitivity of agricultural land holding 10 was assigned very high due to the severance of one of two access routes to the holding during construction. Access is maintained via Berrys Lane onto the agricultural access track although some moderation to day to day operations may be required. Around 3ha of mature shelter belt and arable land will be required to be permanently taken from holding 10 to accommodate the Scheme north of Berrys Lane, this equates to 7% of the total holding area. A slight adverse impact residual effect was therefore assessed as it was considered unlikely to impact on the long-term viability of the holding.
RR-061.11	17. The need to accommodate a junction in the location of the Wood Lane/Berry's Lane junction, and the impacts it might have, was not a matter that can have informed the selection	The information on the Scheme development and route options considered is provided within Section 2 of the Case for the Scheme (APP-140).

³⁵ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

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³⁷ Available at: <https://highwaysengland.citizenspace.com/he/a47-north-tuddenham-to-easton-dualling/results/s170173-a47-preferred-route-announcement-leaflet--tuddenham--b.pdf>

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	of 'Option 2' as the preferred route alignment, no junction being proposed at the location at the time that the option selection was undertaken.	<p>The Scheme Assessment Report (SAR)³⁸ reported on the Stage 2 options development, review of the non-statutory consultation feedback and the process followed to arrive at the Preferred Route Announcement in August 2017.</p> <p>The SAR was available in hard copy at the Statutory Consultation events and on the Applicant's website.</p> <p>As a prescribed consultee, the landowner was issued a Section 42 letter with an enclosed Section 48 Notice, scheme map and USB stick containing all of the consultation information. This is covered within section 3.3 of the Scheme Consultation Report (APP-024).</p> <p>The Scheme Consultation Report Annex I: Section 42 Letters and enclosures (APP-033) provides copies of the letters issued and evidence of the information contained within the USB enclosure is covered in Section 2.</p> <p>As described in Section 23.3 'Junctions on the Route' of the SAR, all four route options considered included a junction on the axis of Berrys Lane and Wood Lane; these are illustrated on the options drawings contained within Appendix N of the SAR and available on the Applicant's website.</p>
RR-061.12	<p>18. The prospect of the alternative option referred to above has previously been raised with the Applicant who has so far declined to consider it on the basis that it would require an alteration to the red-line boundary, which had been selected prior to the identification of the need for the Wood Lane junction as just described, and would therefore result in programme delay. This is not an acceptable response, and is evidence of an inadequate consultation procedure, with the Owner being denied an opportunity to influence the scheme design at a sufficiently formative stage.</p> <p>19. The availability of an alternative which would have fewer adverse impacts is particularly significant in the context of the Applicant's case for compulsory acquisition. In short, no compelling case can be made out where (as here) such a reasonable alternative exists.</p>	<p>Please see response to RR-061.9 and RR-061.11.</p> <p>However, the Applicant acknowledges the request to consider an alternative option of a route alignment in proximity to the Berry Hall Estate, sited to the north of the existing A47. Therefore, the Applicant is currently engaging with the Berry Hall Estate Owner's representative, including sharing design data, to understand the details of the proposed alternative. The Applicant will arrange a professional review of the alternative option when received and will provide feedback to the ExA when complete.</p>
RR-061.13	<p>20. Other material inadequacies in the Applicant's claimed compelling case can be identified – most notably the failure to acknowledge, seek to mitigate and otherwise take into account the substantial public and private disbenefits flowing from the impact upon the designated Estate, and also the total absence of any attempt to acquire the land or rights required for the DCO by agreement, even by way of option (as is commonplace on other major linear schemes) or conditional sale.</p> <p>21. The Owner will consequently contend that, in view of the above matters, no compelling case for acquisition of his land has been made out.</p> <p>22. In light of and in a manner consistent with the above, the Owner intends to participate in the Examination and make representations in relation to the following topics: a. Cultural heritage; b. Ecology; c. Population and human health; d. Alternatives; e. Adequacy of environmental information; f. Adequacy of consultation; and g. The case for compulsory acquisition.</p> <p>23. The above is based on the best information presently known to the Owner. In the short time available since the commencement of the consultation, it has not been possible for him to obtain all the professional input he may wish to secure. The Owner therefore reserves the right to amend or supplement these representations as appropriate during the course of the Examination.</p>	<p>Please see response to RR-061.8 with regards how the Scheme has considered the effects on the Berry Hall Estate and taken steps to minimise landtake.</p> <p>The Applicant has been in correspondence with the landowner and their representatives since early 2020 in response to concerns raised about the effects on the Berry Hall Estate. The landowner was also consulted on the route options in 2017 (see response to RR-061.11) and on the preferred route design during Statutory Consultation (February – April 2020), Targeted Consultation (December 2020-January 2021) and via meetings and direct correspondence. These are part of the process to confirm the extent and nature of impacts on the land to inform agreements to acquire the land or rights to access the land. However, as there remain outstanding matters to be resolved, it has not been possible to engage with the landowner in order to substantively progress formal negotiations on an agreement.</p>
RR-061.14	<p>NEXT STEPS</p> <p>24. In light of the above, the Owner considers that it is necessary for the Applicant to revisit its chosen route alignment.</p> <p>25. The Owner would wish to be able to withdraw his objection to the DCO. This will however necessitate meaningful engagement by the Applicant so that changes to the scheme can be made that will enable the impacts upon the Estate to be avoided or, at the very least, reduced to an acceptable level, in view of its statutory designation.</p> <p>26. The Owner and his representatives are willing to meet with the Applicant in order to discuss both the alternative proposals and/or what further mitigation/compensation may be possible. Appropriate fee undertakings will be sought for the professionals involved.</p>	<p>The Applicant has engaged in discussions pre-DCO submission and continues to engage with the landowner and representatives of the Berry Hall Estate to minimise any adverse effects and respond to their concerns. Meetings have been held since the submission of this Relevant Representation to discuss the alternative proposals and more are planned post Deadline 1.</p>

³⁸ This report is available amongst the Consultation 2020 documents at: <https://highwaysengland.co.uk/ourwork/east/a47-north-tuddenham-to-easton-improvement/>

RR-062 BRECKLAND COUNCIL

Reference	Relevant Representation	Highways England Response
RR-062.1	Breckland Council, as the host authority for the proposals, has been in discussions with Highways England for some time in relation to the proposed scheme. It welcomes the chance to be an active part of the Examination Process and considers that the following matters are relevant to the scheme and would ask that they are addressed by the Examining Inspector(s). <ul style="list-style-type: none"> The impact of the development on the economy of the area including the improvements in connectivity between Dereham and Norwich 	The Scheme meets its objective to increase capacity and reduce journey times along this section of the A47 to support economic and housing growth in region. The economic benefits arising from the Scheme are reported in Chapter 5 of the Case for the Scheme (APP-140).
RR-062.2	<ul style="list-style-type: none"> The impact of the development on the amenity of local residents 	Impacts on the local residents and mitigation requirements have been considered in the following chapters of the ES: <ul style="list-style-type: none"> Chapter 5 Air quality (APP-044) Chapter 7 Landscape and Visual Effects (APP-046) Chapter 11 Noise and vibration (APP-050) Chapter 12 Population and human health (APP-051) Chapter 15 Cumulative Effects Assessment (APP-054).
RR-062.3	<ul style="list-style-type: none"> The impact of the development on the character and appearance of the landscape and the area in which it located 	ES Chapter 7 Landscape and Visual Effects (APP-046) identifies, assesses and proposes mitigation for the likely effects (both adverse and beneficial) of the Scheme on landscape character, landscape features and visual receptors. The assessment concludes that the Scheme would not result in an overall significant residual effect on landscape and visual amenity.
RR-062.4	<ul style="list-style-type: none"> The impact of the development on local areas of designated open space with particular reference to Poppys Wood. This is designated as an area of open space within the Breckland Local Plan and therefore Policy ENV01 applies. The impact of the proposals upon this area clearly needs to be considered. The need for any mitigation, and the form of any mitigation, will need to be considered if there is found to be an unacceptable impact on this area off Public Open Space. 	Poppy Wood, west of Hockering, is a designated Public Open Space in Breckland Council's Local Plan. The Scheme will not permanently affect or need to acquire land from Poppy Wood, but the southern edge lies within the DCO boundary to allow the rights to provide a temporary construction work area and access point to realign the local road plus remove a redundant overhead utility line. The land would be restored to open space after construction, causing no permanent loss of Public Open Space. This is reported in the National Policy Statement for National Networks Accordance Tables (APP-141) against paragraph 5.174 of the National Policy Statement.
RR-062.5	<ul style="list-style-type: none"> The impact of the development on designated heritage assets, including a veteran woodland area. This is with specific reference to a Grade II listed building (Berry Hall) and an area of veteran woodland at Berry's Lane as being situated in close proximity to the location of the proposed junction. It also relates to the Grade II Listed building (Icehouse - listing 1077350) on Berry's Lane. The impacts of the proposal upon these will clearly need to be considered carefully. 	No ancient woodland or ancient trees were identified within the DCO boundary. Only one tree within the DCO boundary was identified as having veteran features (T13), but this tree is located in Easton and will be retained; see ES Appendix 7.6 - Arboricultural Impact Assessment (APP-094). It is also noted in the Berry Hall Estate Heritage Management Plan that in 2000 "To north and north-east a newly planted belt of mixed species will shortly help screen the property from the A47". This representation uses the term 'veteran woodland' which is considered incorrect, and an assumption has been made that in fact they are referring to 'ancient woodland'. A check of the 'ancient woodland' designation was undertaken using the online resource, MAGIC. MAGIC is a website providing authoritative geographic information about the natural environment from across government, which is managed by Natural England. This check revealed that there is no woodland along Berry's Lane which is designated as 'Ancient Woodland' The heritage significance of Berry Hall (NHLE1306730) and the Icehouse (NHLE1077350) is set out in sections 6.7.24 through 6.7.28 of the ES Chapter 6 – Cultural Heritage (APP-045). The estate, including woodland, is assessed as part of the setting of the listed buildings. The assessment of potential effects is given in sections 6.8.8, 6.8.15, 6.8.31 and 6.8.32, the design mitigation is given in section 6.9.11 and assessment of effects in Table 6.3 on page 33 and table 6.4 on pages 38-9 (ibid). There would be a slight adverse residual effect on Berry Hall, but no significant effects are predicted for the Icehouse.
RR-062.6	<ul style="list-style-type: none"> Drainage and flooding – in particular the impact of the proposal upon the area of surface water flood risk that exists to the south of Hockering. 	These impacts and mitigation requirements have been considered in the following ES documents: <ul style="list-style-type: none"> Chapter 13 Road drainage and the water environment (APP-052). Appendix 13.1 Flood Risk Assessment (APP-124 and APP-125). Appendix 13.2 Drainage Strategy Report (APP-126 and APP-127). Chapter 14 Climate (APP-053). The Scheme crosses the Hockering tributary to the south of Hockering in an area of surface water flood risk as shown on the Environment Agency's indicative long-term flood risk map. Flood risk is considered in ES Appendix 13.1 Flood Risk Assessment (APP-124 and APP-125). For the Hockering watercourse, floodwaters are predicted to remain within the channel in the area of interest. Hydraulic modelling was undertaken to inform the design of the culvert carrying the Hockering tributary. The culvert has been designed to convey a fluvial design event with a return period of 1 in 100 year with an additional climate change allowance of 65% with an additional freeboard of 600mm without any additional increase in flood risk. The design is sensitive to blockage hence maintenance of the culvert must be prioritised, and a trash screen installed. ES Appendix 13.2 Drainage Strategy Report (APP-126 and APP-127) documents the drainage strategy and selection process, demonstrating compliance with technical standards. Drainage network designs have been checked for exceedance events of 1 in 100 year with 40% rainfall climate change allowance. Any additional discharge is shown to be volumetrically minimal and should be retained within the highway boundaries, and eventually routed back into the drainage networks once the extreme event has receded. Therefore, the residual flood risk to others is considered to be low and is reduced compared to the existing drainage systems Consultation has been ongoing with Norfolk County Council, as the Lead Local Flood Authority (LLFA), and the Environment Agency with regard to the flood risk associated with the Hockering tributary culvert. The final flood risk assessment would need to be prepared in consultation with the LLFA and the Environment Agency and agreed as

Reference	Relevant Representation	Highways England Response
		part of applications for land drainage consent from the LLFA and a Flood Risk Activity Permit from the Environment Agency. As a principle, where surface water flood flow pathways cross the Scheme the Applicant intends to install 'dry culverts' design for a 1 in 100 year event (including an additional climate change allowance) to maintain the overland flow pathways and to avoid increasing flood risk upstream or downstream of the Scheme.
RR-062.7	<ul style="list-style-type: none"> The improvement of connectivity of existing villages through improvements to walking and cycling routes in the vicinity of the proposed schemes. 	<p>The Scheme would provide new walking, cycling and horse-riding facilities, improve accessibility for users in the local area and provide the opportunity to choose active travel modes (e.g. walking and cycling); further detail is available in Section 4.14 'Walking, Cycling and Horse-riding (WCH) Assessment' of the Case for the Scheme (APP-140).</p> <p>The additional east - west WCH facilities will provide an opportunity for walking and cycling commuting and travel into Norwich and will complement the walking and cycling improvements to be provided along Dereham Road in Easton and at the A47 junction to the east of Easton, (the Showground junction), as part of consented residential development in Easton.</p>
RR-062.8	<ul style="list-style-type: none"> The impact of the development upon through traffic, in particular the proposal to stop up Berry's Lane. The Council would seek to have Berry's Lane and Wood Lane connected by way of an underpass under the A47 but separate from the proposed A47/Norwich Western Link Road junction. Ensuring that there is connectivity to the Norwich Western Link Road. 	<p>During statutory consultation and engagement with the parish councils and stakeholder groups concerns were raised about existing traffic volumes using Berrys Lane and potential increased traffic.</p> <p>Following engagement with Norfolk County Council, Local Liaison Group (Norfolk County Council and Parish Councils), South of the A47 Taskforce, it was decided that access to Berrys Lane should be closed to through traffic directly to/from the A47 and will be only for local access from the south. This proposal was supported by all parties.</p> <p>The existing public right of way linking Berrys Lane with Dereham Road will be upgraded to maintain walking and improve cycling connectivity. This change is reported in Table 4.12 (item no. 11) of the Consultation Report (APP-024).</p> <p>Creation of an underpass would be contrary to feedback from statutory consultation and engagement with the parties outlined above.</p>
RR-062.9	<ul style="list-style-type: none"> Assessment of the proposal against the policies of the Breckland Local Plan (November 2019). 	Section 6.3 of the Case for the Scheme (APP-140) contains a review of the Scheme against the policies of the Breckland Local Plan (November 2019).

RR-063 CHRISTINE WAY

Reference	Relevant Representation	Highways England Response
RR-063.1	I object to the proposed scheme for these reasons: A. Increasing capacity means an increase in traffic growth in the Norwich area which is contrary to the national policies for climate change and a shift towards walking, cycling and public transport.	Please see Common Response A
RR-063.2	B. Since the pandemic levels of home-working and internet based meetings has increased resulting in a significant reduction in traffic which may well continue. Therefore the data, assumptions and projections used for traffic and economic modelling are outdated and a reassessment is needed.	Please see Common Response B
RR-063.3	C. The Environmental Impact Assessment should be made using the current situation as the baseline and not assume that the Norwich Western link is already built.	Please see Common Response C
RR-063.4	D. The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposals, and needs to be fully examined at the examination.	Please see Common Response D
RR-063.5	E. There are discrepancies in vehicle kilometres between the NATS 2015 model used and recent modelling by Norfolk County Council based on the newer NATS 2019 model which should be examined and reconciled.	Please see Common Response E
RR-063.6	F. The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside.	Please see Common Response F
RR-063.7	G. In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	Please see Common Response G
RR-063.8	H. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-063.9	I. Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet	Please see Common Response I

Reference	Relevant Representation	Highways England Response
	afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at [redacted]). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006.	

RR-064 CLIMATE EMERGENCY PLANNING & POLICY CEPP (ANDREW BOSWELL)

Reference	Relevant Representation	Highways England Response
RR-064.1	Dr Andrew Boswell, Climate Emergency Planning and Policy As an independent environmental consultant specialising in science, policy, and law, I object to the A47NTE scheme for these reasons: A. In combination with the Norwich Western link (NWL) road, the scheme would increase capacity and traffic growth (APP-140, s3.5.1; AADT data at APP-140, s4.5 & s4.9) contrary to national policies for climate change, air quality and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-064.2	B. Data, assumptions and projections in the traffic and economic modelling do not take account of the impact of the Covid 19 pandemic on travel patterns and road capacity need.	Please see Common Response B
RR-064.3	C. The application, EIA, and traffic modelling *baselines* assume the NWL is already built.	Please see Common Response C
RR-064.4	D. EIA baseline should express the *current* environmental situation which is NO_NWL and NO_A47NTE.	Please see Common Response C
RR-064.5	E. Do-Minimum (DM) traffic model should codify the *current* situation (ie: NO_NWL + NO_A47NTE). Sensitivity testing requires *THREE* Do-Something models: (NO_NWL + A47NTE), (NWL + NO_A47NTE), (NWL + A47NTE).	Please see Common Response C
RR-064.6	F. Major discrepancies are observed between Norfolk County Council (NCC) NATS traffic models run 2015 and 2019 baseline years for the NWL study area. At 2019-baseline, there is substantially lower (c. -30%) vehicle kilometres ([redacted]) over the 2015-baseline ([redacted]).	Please see Common Response E
RR-064.7	G. The substantive traffic reduction at the 2019 baseline indicates that A47NTE capacity requirement (APP-140, s3.5.1 and based on 2015-baseline) needs greater assessment.	Please see Common Response E
RR-064.8	H. Notwithstanding C, D, E, F & G above, the relationship between the scheme and a possible NWL is confused (especially at APP-142, s9.2).	Please see Common Response D
RR-064.9	I. The scheme fragments and displaces nature and wildlife habitats, wet grazing meadows, protected species (notably bats).	Please see Common Response F
RR-064.10	J. NCC identifies near-by a nationally significant breeding colony of barbastelle bats, which would qualify for SSSI or SAC status [redacted], PDF page 85). The in-combination impacts of A47NTE and NWL on this European protected species have not been assessed.	Please see Common Response I
RR-064.11	K. In-combination, and cumulative impacts, for biodiversity, ecology, and air quality have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. (Note Natural England on the EIA Scoping, APP-163, PDF page 163). The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	Please see Common Response G
RR-064.12	L. Carbon emissions need to be cumulatively assessed *both* locally within the Norwich area (in combination effects with the six other possible schemes identified above), and nationally with up to 100 other schemes planned by Government, including under RIS2.	Please see Common Response G
RR-064.13	M. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the UK Tyndall Centre, the NPPF 148 planning requirement to "radical reductions of greenhouse gas emissions", and the NCC Environmental Policy.	Please see Common Response H
RR-064.14	N. Note, the relevant NPS requires that the scheme be assessed against national carbon reduction targets and the UK's international commitments in place at the time when a DCO application is determined	Please see Common Response H

RR-065 DAVID MORTON

Reference	Relevant Representation	Highways England Response
RR-065.1	Dear Sirs, My representation is that I oppose this scheme, primarily because of the increase in greenhouse gases that would entail not only due to its construction, but the inevitable increase in road traffic.	Please see Common Response A
RR-065.2	The climate and ecological emergency is upon us. Other considerations are the effect on local wildlife,	Please see Common Response F
RR-065.3	air quality	The assessment of potential impacts, during construction and, on air quality and sensitive human and ecological receptors is presented in ES Chapter 5 Air Quality (APP-044). During construction, it was concluded the impact of construction dust would be highly unlikely to trigger a significant air quality effect. The assessment has concluded there would be no significant adverse effects on these receptors from the operation of the Scheme.
RR-065.4	and the lack of provision for active travel which should be promoted instead.	The Scheme would provide new walking, cycling and horse-riding facilities, improve accessibility for users in the local area and provide the opportunity to choose active travel modes (e.g. walking and cycling); further detail is available in Section 4.14 'Walking, Cycling and Horse-riding (WCH) Assessment' of the Case for the Scheme (APP-140). The additional east - west WCH facilities will provide an opportunity for walking and cycling commuting and travel into Norwich and will complement the walking and cycling improvements to be provided along Dereham Road in Easton and at the A47 junction to the east of Easton, (the Showground junction), as part of consented residential development in Easton.
RR-065.5	It may also have an impact on the availability of agricultural land that is going to be required in future years. Thank you for your consideration	The Applicant has sought to reduce landtake through the scheme development process and has engaged with all affected landowners during that process. The design considerations are reported in the Scheme Design Report, Rev.1 (AS-009), which include Chapter 11 that explains the reasons for the landtake due to the construction compounds and material storage / processing areas. ES Chapter 9 Geology and Soils (APP-048) assesses impacts and mitigation for permanent and temporary agricultural landtake.

RR-066 ENVIRONMENT AGENCY

Reference	Relevant Representation	Highways England Response
RR-066.1	APPLICATION BY HIGHWAYS ENGLAND FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE A47 NORTH TUDDENHAM TO EASTON PROJECT Please find below our relevant representation for the A47 North Tuddenham to Easton project. The Role of the Environment Agency The Environment Agency is a statutory consultee on all applications for development consent orders. We have a responsibility for protecting and improving the environment, as well as contributing to sustainable development. We have three main roles: (i) We are an environmental regulator – we take a risk-based approach and target our effort to maintain and improve environmental standards and to minimise unnecessary burdens on business. We issue a range of permits and consents. (ii) We are an environmental operator – we are a national organisation that operates locally. We work with people and communities across England to protect and improve the environment in and integrated way. We provide a vital incident response capability. (iii) We are an environmental advisor – we compile and assess the best available evidence and use this to report on the state of the environment. We use our own monitoring information and that of others to inform this activity. We provide technical information and advice to national and local governments to support their roles in policy and decision-making. One of our specific functions is as a Flood Risk Management Authority. We have a general supervisory duty relating to specific flood risk management matters in respect of flood risk arising from Main Rivers or the sea. Overview and issues of concern. Our relevant representation outlines where we consider further work, clarification or mitigation is required to ensure that the proposal has no detrimental impact on the environment.	The Applicant has recognised the role of the Environment Agency in its consultation and discussions with the Environment Agency prior to the application for a DCO being submitted. The Applicant will continue to work with the Environment Agency as the detailed design progresses, should the DCO be granted, and is seeking to agree a Statement of Common Ground.
RR-066.2	We have highlighted that further information is required in respect of assessing and mitigating the potential impacts of shading on the ecology of the River Tud at the proposed crossing.	The Applicant is continuing to liaise with the Environment Agency to provide the information required to clarify the assessment and mitigation for potential impacts from shading on the ecology of the River Tud at the proposed crossing. The outcome of these discussions will be recorded in a Statement of Common Ground.
RR-066.3	We are broadly satisfied with the assessments and proposals in respect of managing fluvial flood risk, subject to a number of points of clarification and a review of the detailed design. In general we are also satisfied with the approach taken to date and the mitigation proposed in respect of protecting surface water quality and groundwater resources. We have made a number of observations in respect of these issues and have highlighted that we will need to review further assessments and the detailed proposals prior to development commencing.	The Applicant is grateful for the positive feedback from the Environment Agency with regards the proposals to manage flood risk and proposed mitigation for surface and ground water resources. The Applicant is continuing to liaise with the Environment Agency to provide the information required in response to their observations and has responded below to the requested DCO Requirement changes. The outcome of these discussions will be recorded in a Statement of Common Ground.

Reference	Relevant Representation	Highways England Response
RR-066.4	We have requested an amendment to Requirement 6, and that we are added as a named consultee to Requirements 4 and 8. Please do not hesitate to contact me if you require any further information. We look forward to continuing to work with the applicant to resolve the matters outlined within our relevant representation to ensure the best environmental outcome for the project.	
RR-066.5	1.0 Document 3.1 Draft Development Consent Order (DCO) 1.1 We note that the applicant is not seeking to dis-apply environmental permits. We would like to remind the applicant that it will be necessary to apply for and have in place all necessary permits prior to any works commencing.	The Applicant acknowledges the requirement to apply for, and have in place, all necessary permits prior to any works commencing. This process will begin in early 2022 and the Applicant will consult with the Environment Agency on the permit requirements.
RR-066.6	1.2 Requirement 4 requires the preparation of an Environmental Management Plan (EMP) and associated documents. The EMP is a mechanism to ensure the delivery of mitigation measures during the construction phase as outlined in the Environmental Statement, including those in Chapter 13 Road drainage and the water environment. Although we are generally satisfied with the approach taken in identifying the potential adverse effects of the proposed scheme on surface water quality and groundwater resources, and with the mitigation outlined to date, the Environment Agency should have the opportunity to review and comment on the detailed proposals prior to construction.	The Environment Agency will be a named consultee under dDCO (APP-017) Requirement 4 'Environmental Management Plan' and will be able to review and comment on the detailed design and through the application of permits.
RR-066.7	1.3 The Environment Agency should be included as a named consultee in respect of Requirement 4, for matters relevant to our remit.	Requirement 4 of the dDCO has been updated as follows: 4.—(1) No part of the authorised development, except for the ecological works, is to commence until an EMP (Second Iteration) for that part, substantially in accordance with the EMP (First Iteration) has been submitted to and approved in writing by the Secretary of State, following consultation by the undertaker with the relevant planning authority, and local highway authority and the Environment Agency to the extent that the content of the EMP (Second Iteration) relates to matters relevant to their functions.
RR-066.8	1.4 Given that construction activity will be required to take place in and around areas of fluvial Flood Zone 2 and 3 (medium and high probability), an Emergency Flood Plan should be prepared. It is currently not clear whether such a document will form part of the EMP, and this should be confirmed.	Action RD2 in the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143), proposes emergency response procedures to manage risks to people and property during construction. Action RD2 also confirms construction method statements and other requirements would need to be approved by the Environment Agency, Norfolk Rivers District Internal Drainage Board and Norfolk County Council (the Lead Local Flood Authority) as required by their respective consenting and approvals. The commitment to deliver this action will be secured through dDCO Requirement 4 'Environmental Management Plan'.
RR-066.9	1.5 We support the inclusion of Requirement 6 Contaminated land and groundwater, and we welcome the inclusion of the Environment Agency as a named consultee. However, the proposed wording should be amended. The determination of the need for remediation in part (2) should be based on a consideration of the risk assessment by all parties, rather than determined solely by the undertaker. Additionally, and also in respect of part (2), remedial measures should be taken to render the land fit for its intended purpose and to prevent any impacts on controlled waters.	Requirement 6 of the dDCO has been updated as follows: (2) Where the risk assessment prepared in accordance with sub-paragraph (1) undertaker determines that remediation of the contaminated land is necessary, a written scheme and programme for the remedial measures to be taken to render the land fit for its intended purpose and to prevent any impacts on controlled waters must be submitted to and approved in writing by the Secretary of State, following consultation by the undertaker with the relevant planning authority on matters related to its function and the Environment Agency.
RR-066.10	1.6 Requirement 8 is concerned with Surface and foul water drainage. As detailed below, we are generally satisfied with the approach proposed to date. However, work on the detailed drainage design is on-going. It will be important for us to review and confirm that the detailed proposals are acceptable.	The Environment Agency will be a named consultee under DCO Requirement 8 'Surface and foul water drainage' and will be able to review and comment on the detailed design and through the application of permits.
RR-066.11	1.7 The Environment Agency should therefore be a named consultee in respect of Requirement 8 Surface and foul water drainage system.	Requirement 8 of the dDCO has been updated as follows: 8.—(1) No part of the authorised development, except for the ecological works, is to commence until, for that part, written details of the surface and foul water drainage system, reflecting the drainage strategy and the mitigation measures set out in the REAC including means of pollution control, have been submitted and approved in writing by the Secretary of State following consultation by the undertaker with the relevant planning authority and the Environment Agency on matters related to its function.
RR-066.12	2.0 Document 3.3 Consents and Licences Position Statement 2.1 We note the inclusion of Appendix A - Table of Consents and Agreements as required from consenting authorities, including the Environment Agency. We welcome early discussions on these authorisations and note that progress is to be reported in a Statement of Common Ground.	The Applicant is continuing to liaise with the Environment Agency and will be discussing the required authorisations. The Applicant is working with the Environment Agency to prepare a Statement of Common Ground.
RR-066.13	2.2 It should be noted that the Environment Permitting (England and Wales) Regulations from 2007 onwards replaced the permitting system in the Pollution Prevention and Control Act. Guidance on this can be found in the DEFRA Environmental Permitting: Core Guidance document.	The comments from the Environment Agency have been noted and the Consents and Agreements Position Statement (APP-020) has been updated.
RR-066.14	2.3 On the issue of 'Waste and Materials', it should be noted that an Environmental Permit will be required for the importation and treatment of waste material falling outside the scope or limits detailed in either a Regulatory Position Statement or a waste exemption. In respect of 'Waste Materials', the consenting authority for certain mobile plant permits such as concrete crushers is the relevant local authority, and therefore they should be listed along with the	The comments from the Environment Agency have been noted and the Consents and Agreements Position Statement (APP-020) has been updated.

Reference	Relevant Representation	Highways England Response
	Environment Agency.	
RR-066.15	3.0 Document 6.1 Environmental Statement Chapter 8 - Biodiversity 3.1 This chapter details the loss of some habitat types that fall within the footprint of the work, and acknowledges that compensatory habitat can take some time to re-establish (including floodplain grazing marsh and mixed deciduous woodland). We note that compensatory habitat is to be delivered, monitored and managed through the Landscape and Ecology Management Plan (LEMP), as part of the Environmental Management Plan (EMP). The EMP falls under Requirement 4, and as highlighted in 1.2 (above) we would wish to be consulted on this.	Please see the response to RR66.07; the dDCO (APP-017) has been amended accordingly.
RR-066.16	3.2 The results of the white-clawed crayfish survey (Appendix 8.5), show that the invasive signal crayfish have become much more numerous in the past 3-4 years, and that numbers of white clawed crayfish have further declined. The remaining population of white clayed crayfish is extremely vulnerable to crayfish plague. It must be ensured that any work in or near the water will be preceded by strict biosecurity measures, in particular a thorough Check-Clean-Dry of machinery equipment and clothing must be undertaken. Such measures must be included in the EMP.	The Environmental Management Plan (APP-143) will contain Annexes B.6 Biosecurity Management Plan and B.10 Invasive Non-Native Species, to be produced prior to construction. These plans will describe the biosecurity and invasive species control measures to be applied during construction of the Project. The commitment to deliver these plans will be secured through dDCO Requirement 4 'Environmental Management Plan'.
RR-066.17	3.3 As laid out in section 5.2.3 of the Otter and water vole survey report (Appendix 8.14), measures must be in place to ensure that otters can move freely up and down the watercourse ensuring access during both construction and scheme operation. Excavations and trenches must be covered overnight to prevent entrapment, and permanent fencing should be in place to exclude otter from the carriageway. We note the proposed installation of otter ledges at new culverts and the River Tud crossing. 3.4 The Otter and water vole survey report (Appendix 8.14), also states that measures must be in place during construction to ensure that water vole are not impacted. A 5m buffer is to be retained from the top of the bank of the River Tud. Any displacement, if required, must be carried out within the displacement window 15 February – 15 April under Natural England licence. We note the reference to these measures in the EMP table 3.1 Record of Environmental Actions and Commitments (REAC).	All these measures are recorded under action BD8 in the record of environmental actions and commitments, which forms Table 3.1 in the Environmental Management Plan (APP-143). The commitment to deliver this action will be secured through dDCO Requirement 4 'Environmental Management Plan'.
RR-066.18	4.0 Document 6.1 Environmental Statement Chapter 9 – Geology and Soils 4.1 In respect of Table 9-4: Sensitivity of receptor; we would suggest that any aquifer, principal or secondary, which supports potable supply should be accorded 'very high' values. However, we note that within Table 9-13: Determination of the significance of residual effects, 'Groundwater' as a feature (encompassing both principal and secondary aquifer) is identified as having 'very high' sensitivity.	The ES Chapter 9 Geology and Soils (APP-048) does align regarding the sensitivity value prescribed for groundwater receptors. Table 9.13 gives a "Very High" sensitivity for Groundwater principal and secondary A aquifers based on Table 9-4 of the ES Chapter 9 and DMRB LA 113. The Applicant confirms that the assessment undertaken in ES Chapter 9 primarily addresses the risk to groundwater receptors from contamination in geology or the soils from disturbance and mobilisation of contamination during construction and operation. Controlled water risks (including the effects on groundwater and abstractions) are assessed further in ES Chapter 13 Road drainage and the water environment (APP-052).
RR-066.19	4.2 Regarding Table 9-5: Magnitude of impact; any impacts on groundwater abstraction, whether those abstractions are used for public or private potable supply, should be deemed to be of major magnitude. It will be essential to apply the principle that no private drinking water supplies can be derogated, even temporarily, without the prior consent of the owner and the provision of mitigation measures.	The ES Chapter 9 Geology and Soils (APP-048) addresses the risk to groundwater from disturbance or mobilisation of contamination in the geology and soils during construction and operation only. The impact and effect on groundwater is assessed further in ES Chapter 13 Road drainage and the water environment (APP-052). The magnitude of impact and sensitivity of receptor applied in Table 9-5 is compliant with that specified in DMRB LA 109 and LA 113.
RR-066.20	4.3 Table 9-6: Baseline data. We have a few corrections to make in respect of this table. We would highlight that both the chalk and the sand & gravel aquifers are used for private domestic (i.e. potable) supplies in the area of the scheme, not just for agricultural purposes as recorded in the table. The new Anglian Water Services Public Water Supply borehole is in East Tuddenham not North Tuddenham; the associated Source Protection Zone 1 (SPZ1) should be assumed to extend 250m to east, south and west in addition to 1 km to the north. For information, the site was licensed in September 2020, to take water from the chalk for public supply, all year round.	Existing text regarding the private abstractions does not specifically include private potable use as well as the currently mentioned agriculture and industrial processes. The impact and effect on abstractions, regardless of end use, are assessed within ES Chapter 9 Geology and Soils (APP-048) and ES Chapter 13 Road drainage and the water environment (APP-052). While the description of the SPZ may not match exactly the extents as it stands, this does not materially affect the assessment of risks to the abstraction, and all abstractions, in ES Chapter 9. The SPZ lies >1km to the south of the Scheme and therefore does not intersect the new road layout. See also the Applicant's response to RR-066.38.
RR-066.21	4.4 Regarding 'Landfill records' and baseline data, records of former landfills taking 'inert' waste should be substantiated. Prior to regulation, proper records of waste types deposited were not kept, and records that do exist have been found to be incorrect at other sites.	The type of waste described as 'inert' when the landfill operated may not align with current inert definitions and could include a wider selection of wastes, but is the description in the source information consulted. The description of the waste types accepted by the landfill do not alter the outcome of the assessment as the landfill is outside of the Scheme and therefore not likely to be encountered.
RR-066.22	4.5 For table 9-8: Potential receptors; this should include East Tuddenham SPZ1 and private groundwater abstractors.	Please see the response to RR-066.20.
RR-066.23	4.6 As highlighted above, we support the inclusion within the draft DCO of Requirement 6 Contaminated land and groundwater, but have suggested two amendments to the proposed wording. We welcome the inclusion of the Environment Agency as a named consultee in respect of that Requirement.	Please see the response to RR66.09; the dDCO (APP-017) has been amended accordingly.

Reference	Relevant Representation	Highways England Response
RR-066.24	5.0 Document 6.1 Environmental Statement Chapter 10 – Material Assets and Waste 5.1 Appendix 10.2 Outline site waste management plan is comprehensive in its current form. But the references at 10.1.20 and 10.1.32 to the Environmental Permitting (England and Wales) Regulations 2010, should be updated to Environmental Permitting (England and Wales) Regulations 2016.	This is a typographical error and it does not affect the assessment and proposed mitigation reported in ES Chapter 10 Material assets and waste (APP-049).
RR-066.25	6.0 Document 6.1 Environmental Statement Chapter 13 – Road Drainage and Water Environment and Appendices 6.1 In respect of fluvial flood risk, a Flood Risk Assessment (FRA) has been prepared and is included as Appendix 13.1. We are generally satisfied with the FRA and with the proposed approach to managing fluvial flood risk across the scheme, subject to clarification on the points outlined below.	The Applicant notes that the Environment Agency is generally satisfied with the flood risk assessment and the proposed approach to managing fluvial flood risk subject to clarification of further points which are responded to below.
RR-066.26	6.2 The FRA confirms that a compensatory flood storage scheme is required to compensate for the loss of floodplain storage at the proposed River Tud crossing. As highlighted at paragraph 13.4.13 of ES Chapter 13, the Applicant has previously provided information to us to demonstrate that the flood storage area indicated in drawing HE551489-GTY-ELS-000-DR-LX-30012 from document 6.8 Environmental Masterplan, has the potential to directly compensate on a volume-for-volume and level-for-level basis to prevent a loss of floodplain storage.	
RR-066.27	6.3 However, the submitted FRA does not currently include clear confirmation that appropriate flood storage compensation can be delivered. Further information, possibly as an addendum to the FRA, should be provided as part of the DCO application to demonstrate that the required volumes have been assessed and can be appropriately provided.	As agreed with the Environment Agency, the Applicant will provide further evidence illustrating how the flood compensation storage area could fit into the landscape to demonstrate that the flood storage compensation for the River Tud crossing can be delivered. The ExA will be kept informed of outcome of this exercise during the DCO Examination process, and the Applicant expects to be in a position to issue an update or further information at Deadline 3. The outcome will also be record in the Statement of Common Ground with the Environment Agency. If required, appropriate updates will be made to the DCO application documents and submitted to the ExA.
RR-066.28	6.4 FRA paragraph 7.1.2, in respect of the River Tud compensatory storage scheme, states that: "The proposal will be further reviewed at detailed design, where it will be appropriately contoured and sensitively tied into the landscape following the provision of updated topographic survey". The Environment Agency would wish to review and agree that detail. It is not currently clear which mechanism will be used to enable us to review and approve the detailed design. This should be confirmed. It would not be appropriate for this matter to be agreed as part of a Flood Risk Activity Permit.	The Environment Agency will be a named consultee under dDCO (APP-017) Requirement 4 'Environmental Management Plan' and will be able to review and comment on the detailed design of the flood compensatory storage area under RD9 of Table 3.1: Record of Environmental Actions and Commitments in the Environmental Management Plan (APP-143).
RR-066.29	6.5 The potential requirement for flood compensatory storage on the Oak Farm tributary is discussed at paragraph 7.2.3 of the FRA. This paragraph states: "it is proposed that no flood compensatory storage is provided. This has been agreed, in principle, with Norfolk County Council subject to the provision of more detail of the flood risk impacts within this assessment". It is not clear whether the provision of more detail is already contained within this assessment or is to be added. As above, the mechanism for reaching the final agreement on this issue needs to be defined. If flood compensatory storage is not provided, flood risk to an area of arable land will increase. For that scenario, it should be confirmed that any landowner affected is accepting of the increased risk.	Consultation is ongoing and further information is to be provided to Norfolk County Council with regards to the potential requirement for flood compensatory storage on the Oak Farm tributary. As stated in RR-037.61, ES Chapter 13 (APP-052) and the Flood Risk Assessment (APP-124 and APP-125) the Applicant recognises that the agreement regarding the requirement for floodplain compensation storage is subject to further information being provided. This is also reflected by the DCO boundary still including land for the provision of potential flood storage compensation for works on the watercourse at Oak Farm; i.e. reflecting our recognition flood storage compensation may still be required. The Applicant is engaging with landowner about the potential need to use their land for floodplain compensation. The final flood compensation need will be determined in consultation with Norfolk County Council as part of the detailed design development in support of applications for the required land drainage consents. The Environment Agency will be a named consultee under dDCO (APP-017) Requirement 4 'Environmental Management Plan' and as part of the process under Requirement 4 an action will be added to Table 3.1: Record of Environmental Actions and Commitments in the Environmental Management Plan (APP-143) to enable the Environment Agency to review and comment on the final proposals at Oak Farm tributary.
RR-066.30	6.6 Regarding the possible need for compensatory flood storage on the Hockering watercourse, paragraph 7.3.2 of the FRA states that: "A detailed topographic survey is currently being undertaken, therefore the estimated volume of floodplain storage displaced will be reviewed at detailed design". As above, the mechanism for reviewing and agreeing the final design needs to be defined.	The Environment Agency will be a named consultee under dDCO (APP-017) Requirement 4 'Environmental Management Plan'. Under Requirement 4 the Environment Agency will be consulted to ensure a suitable action is added to Table 3.1: Record of Environmental Actions and Commitments in the Environmental Management Plan (APP-143) to require appropriate review and comment on the revised estimate of floodplain storage volume displaced based on the detailed design.
RR-066.31	6.7 Paragraph 7.3.1 of the FRA notes that there will be a small displacement of water on the Hockering watercourse, calculated to be 27m ³ . The paragraph states: "Due to the poor quality of LiDAR within this area and the fact that cross-sections are mainly based on interpolation, an uncertainty allowance of 20% has been included in the estimate". As stated at ES paragraph 13.9.36, we agree that no compensatory storage would be required for a loss in floodplain storage of 27m ³ . However, the Applicant should confirm that the 20% uncertainty allowance is a sufficient worst case scenario, and that there is no risk that a detailed topographic survey would change the amount of water displaced sufficiently to result in a compensatory storage scheme becoming required.	Further evidence will be provided to support the proposed design and to confirm the requirement for flood compensation storage. The ExA will be kept informed of outcome of this exercise during the DCO Examination process, and the Applicant expects to be in a position to issue an update or further information at Deadline 3. The outcome will also be record in the Statement of Common Ground with the Environment Agency. If required, appropriate updates will be made to the DCO application documents and submitted to the ExA.
RR-066.32	6.8 In respect of surface water and ecology, paragraph	Open areas and areas of dense shading occur along the River Tud at a catchment

Reference	Relevant Representation	Highways England Response
	13.8.28 of the ES considers the potential impact of the River Tud crossing on the watercourse. Although shading is considered in respect of its potential effects on channel stability, structural damage and increasing sediment, the potential impact of the new 30m wide bridge deck on Water Framework Directive (WFD) Biological quality elements does not appear to have been assessed.	scale and this provides the river with a greater degree of biodiversity than if all areas along the Tud were open. ES Appendix 8.4 Appendix 8.4 – River Tud Corridor Aquatic Invertebrate Survey (APP-099) states “It is considered that any proposed works in and around the River Tud will have little impact on the invertebrate species recorded as long as mitigatory measures are taken to maintain river low rates and prevent possible sedimentation build up during works that may effect surface run-off or disturb the integrity of the river’s bankside.” Shading from the proposed crossing will therefore have no effect on the invertebrate assemblage associated with the River Tud. In addition, the length of the River Tud area at the point of the crossing is shaded by trees. The Applicant is working with the Environment Agency to provide further assessment information on the macrophyte cover and marginal vegetation associated with the river at this point, to determine what compensatory measures, if any, would be required for loss of riparian vegetation in this area of the Tud due to shading. The ExA will be kept informed of outcome of this exercise during the DCO Examination process, and the Applicant expects to be in a position to issue an update or further information at Deadline 3. The outcome will also be record in the Statement of Common Ground with the Environment Agency. If required, appropriate updates will be made to the DCO application documents and submitted to the ExA.
RR-066.33	6.9 Shading of the River Tud at this location may have profound impacts on the aquatic, marginal and bankside vegetation assemblage and consequently create a ‘dead zone’ where shading is densest. If vegetation is shaded out there will be a permanent loss of habitat for invertebrate species, and subsequently fish and mammal species as well. For some fish species dense shade is a barrier to migration. It should be demonstrated that the impact of shading has been assessed both alone, and in combination with the existing crossing which will be retained and with other relevant projects.	The River Tud has a number of areas that are both shaded and open, with a diversity of woodland and grassland habitats along its banks. The length of the crossing will not produce a tunnel effect so will not create a “dead zone” or a dispersal barrier for fish, therefore does not have an impact alone or in-combination. A water body with a variety of open and shaded areas creates variation in microclimatic conditions that is of benefit to different species.
RR-066.34	6.10 Drawing HE551489-GTY-ELS-000-DR-LX-30012 (from document 6.8 Environmental Masterplan), identifies an area for potential enhancement measures in the vicinity of the River Tud crossing. There must be confidence that ecological enhancements, which are to be detailed at a later stage, will be capable of appropriately compensating and mitigating any adverse effects of the proposals, including those caused through shading. The River Tud is priority Chalk Stream Habitat, which are protected under the Natural Environment and Rural Communities Act 2006 (NERC). The proposed development must also ensure that there is no deterioration in the current WFD status of the River Tud, and must not prevent the waterbody from achieving ‘Good’ status in the future. Further information is required to demonstrate that measures will be provided to mitigate all impacts of the proposed crossing.	The Applicant acknowledges the comment regarding the confidence in the potential enhancement measures in the vicinity of the River Tud crossing to compensate and mitigate against the impacts on aquatic and riparian ecology. As outlined in the Applicant’s response to RR-066.32, further assessment is being undertaken and the ExA will be kept informed of the outcome. This further survey will cover the area of the proposed crossing and other areas of watercourses to be affected by the Scheme and all areas being considered for proposed mitigation. The survey will comprise a river metric survey including a rivers condition assessment, to enable the Biodiversity Metric 2.0 to be used to quantify baseline habitats, habitats lost, restored and created. The survey data and analysis data will also inform the ecological compensation and mitigation measures to be developed during the detailed design stage to achieve no deterioration in the current WFD status of the River Tud and avoid preventing the waterbody achieving ‘Good’ status in the future.
RR-066.35	6.11 Paragraph 13.8.30 of the ES highlights the impacts of the new and extended culverts on the ecology of the Oak Farm and Hockering watercourses. Paragraph 13.9.11 outlines the proposed mitigation and enhancement measures. Further information will be required to fully demonstrate that the detailed measures proposed will provide adequate compensation for the impacts on the specific ecology of the affected watercourses from the permanent loss of riparian habitat.	As outlined in the Applicant’s response to RR-066.32 and RR-066.34, the Applicant is working with the Environment Agency to provide further information to confirm the measures proposed will provide adequate compensation for the impacts on the specific ecology of the affected watercourses from the permanent loss of riparian habitat. As for the ecology of the Oak Farm and Hockering watercourses, the further survey will cover the area of the proposed crossing and other areas of watercourses to be affected by the Scheme and all areas being considered for proposed mitigation. As outlined in the Applicant’s response to RR-066.32, the ExA will be kept updated and, if required, DCO application documents will be updated.
RR-066.36	6.12 In respect of groundwater resources and quality, we would comment that in Table 13-1 Criteria for Estimating the Importance of Water Environment Attributes, the ‘high’ category should include principal and secondary aquifers supporting all drinking water supplies (public and private). In Table 13-2 Estimating the Magnitude of an Impact on an Attribute, we note that the ‘major beneficial’ category includes ‘recharge of an aquifer. Artificial recharge to the chalk aquifer must be precluded.	The details provided in Table 13-1 of ES Chapter 13 (APP-052) are provided as set out in the DMRB LA113, however the Applicant agrees with comments that any aquifer providing a local important resource for drinking water supplies, whether principal or secondary, should be considered “high” importance. Table 13-7 highlights that the secondary superficial aquifers are assigned “high” importance due to private water supplies (for drinking water purposes). The Applicant accepts the comments that artificial recharge to the Chalk aquifer must be precluded and confirms that the Scheme does not include artificial recharge directly to the Chalk aquifer.
RR-066.37	6.13 Paragraph 13.5.2 considers groundwater levels. We would suggest that the February/March 2021 levels are likely to be representative of maxima.	Groundwater level information collected over this period will be used in any further hydrogeological impact assessments during the detailed design stage and for determination of any dewatering requirements. Full details of the groundwater level information used for the environmental impact assessment is provided in ES Appendix 13.4 Groundwater Assessment (APP-129). This is based on groundwater level monitoring collected as part of a ground investigation undertaken between March 2020 and August 2020.
RR-066.38	6.14 With reference to paragraph 13.5.5, the temporary source protection zones for the new public water supply abstraction at East Tuddenham are available online.	A temporary source protection zone for the new public water supply abstraction at East Tuddenham is available online. The extents of the potential SPZ1 used in the assessments, as presented in ES Figure 13.7 (APP-079), extends beyond the temporary source protection zone and therefore provides a conservative approach to protection of the public water supply abstraction.
RR-066.39	6.15 Paragraph 13.8.15 refers to the use of directional drilling for utilities crossings. Where directional drilling is to be used, the Environment Agency must be consulted prior to any works to agree a method statement. Any such works must not alter the hydraulic continuity or otherwise between strata, must use inert drilling fluids, and should include monitoring and breakout mitigation plans.	The Environment Agency will be a named consultee under dDCO (APP-017) Requirement 4 ‘Environmental Management Plan’. Under Requirement 4, the Environment Agency will be consulted to ensure a suitable action is added to Table 3.1: Record of Environmental Actions and Commitments in the Environmental Management Plan (APP-143) so the Environment Agency are consulted on the method statement directional drilling for utilities crossings.
RR-066.40	6.16 With reference to paragraph 13.8.16; the Environment	The Environment Agency will be a named consultee under dDCO (APP-017)

Reference	Relevant Representation	Highways England Response
	Agency would like to be consulted on the methodology for any groundworks with the potential to disrupt vertical hydraulic gradients.	Requirement 4 'Environmental Management Plan'. Under Requirement 4, the Environment Agency will be consulted to ensure a suitable action is added to Table 3.1: Record of Environmental Actions and Commitments in the Environmental Management Plan (APP-143) so the Environment Agency are consulted on the methodology for any groundworks with the potential to disrupt vertical hydraulic gradients. The potential impacts of groundworks, including their potential to disrupt vertical hydraulic gradients are considered in ES Appendix 13.4 Groundwater Assessment (APP-129). Furthermore, a supplementary ground investigation is to focus on collection of additional information to inform groundworks and detailed design. Hydrogeological impact assessments will therefore be updated at the detailed design stage.
RR-066.41	6.17 The potential for impacts from spillages on shallow groundwater during construction should be included in Table 13.8. We note that this potential impact is included in Table 13.9 which considers potential effects during the operation of the proposed scheme.	The Applicant accepts that it is not clear that spillages from shallow groundwater during construction have been considered in Table 13.8 of ES Chapter 13, but it is considered and is combined with "earthworks within the saturated aquifer, including excavations, ground improvement, utilities, pilings, and cuttings" on page 72. The potential impacts from spillages on shallow groundwater are discussed in paragraph 13.9.19 and considered in ES Appendix 13.4 Groundwater Assessment (APP-129).
RR-066.42	6.18 In respect of the Drainage Strategy Report (Appendix 13.2), and paragraph 6.8.5, we would comment that no hazardous substances can be permitted to enter groundwater irrespective of the dilution potential.	The HEWRAT assessment referred to in paragraph 6.8.5 of ES Appendix 13.2 Drainage Strategy Report considers routine runoff only, using copper and zinc as indicative soluble substances, which are classed as non-hazardous substances. Hazardous substances are considered likely to result from a catastrophic spill, the risk of which is considered in the spillage assessment (see ES Appendix 13.3 Water quality assessment (APP-128)).
RR-066.43	6.19 We are pleased to note that filter drains will not be employed over areas where groundwater is within 1 m of the ground surface or within SPZ1. We request that drainage basins should also be excluded from these settings.	The ES Appendix 13.2 Drainage Strategy Report (APP-126 and APP-127) highlights that infiltration basins have been discounted because of poor ground conditions and other constraints on discharging to ground. The Scheme would utilise drainage detention basins discharging to outfall to nearby watercourses. There are no planned drainage basins within an SPZ2 or SPZ1, specifically, the temporary SPZs for the East Tuddenham abstraction.
RR-066.44	6.20 We look forward to being consulted on Piling Works Risk Assessment (and those for other below-ground structures) in terms of obstruction to groundwater flow, water quality and the preclusion of contaminant mobilisation.	The piling works risk assessment will incorporate baseline groundwater monitoring from the 2020 and 2021 ground investigation.
RR-066.45	6.21 We also look forward to seeing the Preliminary Risk Assessment for GWDTE (Groundwater Dependent Terrestrial Ecosystems) and groundwater abstractions, and any subsequent Hydrogeological Impact Assessments for sites in proximity to underground works, along with water features surveys for drainage at cuttings.	The preliminary risk assessment for GWDTE and additional information on the hydrogeological impact assessment relating to below ground structures is contained within ES Appendix 13.4 Groundwater Assessment (APP-129). The impact assessment will be updated during detailed design phase, once the findings of a supplementary ground investigation are available. Water features surveys will also be undertaken at this stage, and the findings will be shared with the Environment Agency.
RR-066.46	6.22 Overall, we are generally satisfied with the proposals and information outlined in the Drainage Strategy Report, but as indicated we will need to review and confirm that further assessments and the detailed proposals for both the construction and operational stages are acceptable. As highlighted above with regards to the draft DCO, the Environment Agency should therefore be a named consultee in respect of Requirement 8 (Surface and foul water drainage system), and, for matters relevant to our remit, Requirement 4 (Environmental Management Plan).	The Environment Agency will be a named consultee in respect of dDCO (APP-017) Requirements 4 'Environmental Management Plan' and 8 'Surface and foul water drainage'.
RR-066.47	6.23 In respect of surface water quality, we are satisfied with the consideration of potential issues and with the general principles of the proposed mitigation measures for construction and operation. As mentioned, we would want to review the detailed proposals.	The Environment Agency will be a named consultee in respect of dDCO (APP-017) Requirements 4 'Environmental Management Plan' and 8 'Surface and foul water drainage'. In this role the Environment Agency will be able to review Annex B.7 Water monitoring and management plan of the Environmental Management Plan (APP-143). Under Requirement 4 the Environment Agency will be consulted to ensure a suitable action is added to Table 3.1: Record of Environmental Actions and Commitments in the Environmental Management Plan (APP-143) so suitable consultation is undertaken on the detailed drainage design under RD10.
RR-066.48	6.24 With regards to water quality and WFD, chapter 13 includes reference to no impact on the 'overall WFD status of the waterbodies'. There should be no deterioration in the status of any of the quality elements; it should be made clear that this has also been considered and is also the case.	The Water Framework Directive assessment is provided in ES Chapter 13 Water and Road Drainage Environment (APP-052). It states that there will be not be any significant impacts caused to the water environment from the Scheme when the mitigation measures identified in the chapter are in place. The status of the ecological and chemical quality elements were considered in the assessment. Construction and operational activities affecting the Tud and indirectly the Wensum (DS Norwich) and Yare (Tiffey to Wensum) water bodies are considered to cause no deterioration in the status of any of the quality elements and should not prevent future attainment of WFD water body targets. Mitigation and enhancement measures are set out in the Record of Environmental Actions and Commitments which forms Table 3.1 in the Environmental Management Plan (APP-143). Delivery of these commitments, including consultation with the Environment Agency, will be secured through dDCO (APP-017) Requirements 4 'Environmental Management Plan' and 8 'Surface and foul water drainage'.
RR-066.49	6.25 We have reviewed the Water Quality Assessment (Appendix 13.3). We support the proposed approach to identify and put in place mitigation measures to ensure that sediment and other pollutants will not impact on the water quality of receiving watercourses. We look forward to reviewing the detail.	Mitigation and enhancement measures are set out in the Record of Environmental Actions and Commitments which forms Table 3.1 in the Environmental Management Plan (APP-143). Delivery of these commitments, including consultation with the Environment Agency, will be secured through dDCO (APP-017) Requirements 4 'Environmental Management Plan' and 8 'Surface and foul water drainage'.
RR-066.50	7.0 Document 7.4 Environmental Management Plan 7.1 With reference to paragraph 1.1.6, we note that the following documents are to be prepared to mitigate potential adverse effects upon surface waters and groundwater during construction: • a water monitoring and management plan • a	Please see the response to RR66.7; the dDCO (APP-017) has been amended accordingly.

Reference	Relevant Representation	Highways England Response
	temporary surface water drainage strategy 7.2 As highlighted above, the Environment Agency should be included as a named consultee in respect of Requirement 4, to enable us to review and comment on relevant documents.	
RR-066.51	7.3 Other plans that we would also wish to review include the Landscape and ecology management plan, Soil management plan, Materials management plan, Site waste management plan, Biosecurity management plan and Invasive non-native species management plan (if prepared as a separate document).	These documents have been listed as annex B management plans within the outline Environmental Management Plan (EMP) (APP-143) to be produced by the Principal Contractor and included in the second iteration of the EMP prior to construction. The Applicant will continue to consult with the Environment Agency as the detailed design of the Scheme continues to develop and on the production of these listed documents.
RR-066.52	7.4 We have reviewed Section 3 and Table 3.1: Record of Environmental Actions and Commitments (REAC). We have the following comments at this time:	The Applicant has responded to the comments below.
RR-066.53	7.5 BD4 & RD1 – we note the reference to the use of construction best practice in relation to pollution prevention and water management. As highlighted, the Environment Agency should be consulted on the water monitoring plans and temporary surface water drainage strategy.	Delivery of these commitments will be secured through dDCO (APP-017) Requirements 4 'Environmental Management Plan' and 8 'Surface and foul water drainage'. See responses to RR-066.6, RR-066.7, RR-066.10 and RR-066.11 confirming the Environment Agency will be named as a consultee in respect of Requirement 4 Environmental Management Plan and Requirement 8 Surface and foul water drainage system.
RR-066.54	7.6 RD2 & RD9 – In addition to the above, specifically in respect of the proposed compensatory flood storage area upstream of the River Tud Crossing, it should be noted that the Environment Agency should review and approve the detailed design. This should be progressed as part of the DCO process and not through an Environmental Permit.	See responses to RR-066.6, RR-066.7, RR-066.10 and RR-066.11 confirming the Environment Agency will be named as a consultee in respect of Requirement 4 Environmental Management Plan and Requirement 8 Surface and foul water drainage system. As part of the process under Requirement 4, actions RD2 and RD9 would be reviewed in Table 3.1: Record of Environmental Actions and Commitments, when developing the second iteration of the Environmental Management Plan (APP-143), to allow the Environment Agency an opportunity to review the detailed design for the proposed compensatory flood storage area upstream of the River Tud Crossing before submission with a permit application.
RR-066.55	7.7 RD3 – we note that the Environment Agency is to be consulted on construction method statements and risk assessments. We should also be consulted on piling design.	The Environment Agency will be a named consultee in respect of dDCO (APP-017) Requirements 4 'Environmental Management Plan'. Under Requirement 4, the Environment Agency will be consulted to amend Action RD3 in Table 3.1 in the second iteration of the Environmental Management Plan (APP-143) to reflect this expectation.
RR-066.56	7.8 RD5 (and Table 4.1) – dewatering can only be undertaken without a licence at the rates quoted in the tables if the dewatering works for the whole scheme will last for a period of 6 consecutive months or less. If dewatering will occur over a longer time frame, the maximum rate at which dewatering can be undertaken without an abstraction licence is 20 m3/d.	The Environment Agency will be a named consultee in respect of dDCO (APP-017) Requirements 4 'Environmental Management Plan'. Under Requirement 4, the Environment Agency will be consulted to ensure Table 4.1 and Action RD5 in Table 3.1 in the Environmental Management Plan (APP-143) correctly reflect this commitment.
RR-066.57	7.9 RD10 – we would like to see the groundwater and surface water monitoring proposal and an assessment of the areas where groundwater is judged to be less than 1m below the drainage system.	The Applicant will submit the monitoring plan to the Environment Agency for comment at detailed design stage. This will include plans showing areas where groundwater is judged to be less than 1m below the drainage system, based on supplementary ground investigations, and an assessment of the impacts. This will be provided within the Annex B.7 Water monitoring and management plan of the Environmental Management Plan (APP-143). The Environment Agency will be a named consultee in respect of dDCO (APP-017) Requirement 4 'Environmental Management Plan'.
RR-066.58	7.10 The EMP does not currently appear to consider how catastrophic spills affecting the surface water drainage systems will be dealt with, or how any directional drilling activities will be managed. These issues should be addressed.	The Environment Agency will be a named consultee in respect of dDCO (APP-017) Requirement 4 'Environmental Management Plan'. Under Requirement 4 the Applicant will consult with the Environment Agency to ensure the Environmental Management Plan (APP-143) is appropriately updated to include how catastrophic spills and direct drilling activities will be managed.
RR-066.59	7.11 Regarding Table 4.1 – it should be noted that the Environment Permitting (England and Wales) Regulations from 2007 onwards replaced the permitting system in the Pollution Prevention and Control Act. It should also be noted that the consenting authority in the case of certain mobile plant permits such as concrete crushers is the local authority and therefore they should be listed along with the Environment Agency	The Applicant confirms this is an error and will update Table 4.1 in the second iteration of the Environmental Management Plan (APP-143), in consultation with the Environment Agency.

RR-067 BROWN & CO ON BEHALF OF FOOD ENTERPRISE PARK

Reference	Relevant Representation	Highways England Response
RR-067.1	Respondent: Food Enterprise Park (FEP) – James Alston as named party if required FEP are owners and developers of land North of Church Lane, Easton where this an existing LDO for current and future development. FEP has significant concerns over the lack of access provision within the Scheme for the A47 dualling.	The reason for not providing a connection to Blind Lane is set out within Section 9.3 of the Scheme Design Report, Rev.1 (AS-009). During the 2020 statutory consultation the initial design concept proposed the Norwich Road junction with a side road connection to Blind Lane; see drawing on page 10 of Consultation Report Annex J - Section 47 Consultation Materials (APP-034). However, statutory consultation feedback raised concerns about the provision of a link to Blind Lane in light of Local Development Order (LDO) requiring the closure of Blind Lane and the provision of a link for the benefit of the private developers of the Greater Norwich Food Enterprise Zone (FEZ). Therefore the Applicant reviewed the legal position and determined there is no existing or contingent requirement that the LDO requires the Greater Norwich FEZ site to be accessed directly from the A47 given the approved alternative route along Church Lane. The analysis is set out in Section 9.3 of the Scheme Design Report, Rev.1, (AS-009) and the removal of Blind Lane post statutory consultation is reported in Table 4.12 (item no. 12) of the Consultation Report (APP-024). Part of the need case for the Scheme is to increase capacity and reduce journey times to support economic and housing growth, such as at Easton. However, though a direct
RR-067.2	The present arrangement is for traffic to exit the new route A47 at the grade separated junction (GSJ) and proceed along the side road to Easton before doubling back down Church Lane to the FEP access. From the GSJ to FEP is 2.3km and will involve bringing all traffic past Easton Church to then cross the flow of traffic at the Easton junction and then head west on Church Road. This will put the FEP traffic on the same route at the HTF farm traffic and the other 300+ users of the commercial space at Honingham Thorpe. It is inevitable that traffic from the East will try and bypass the double back and save circa 2.8km of journey by leaving the A47 at Longwater and taking the road through Easton, where	

Reference	Relevant Representation	Highways England Response
	they can turn left onto Church Lane and not have to cross the traffic.	access to the A47 may offer benefits, such as reduced traffic on Church Lane, this would be the same in the baseline scenario without the Scheme due to the closure of Blind Lane by the LDO for the Greater Norwich FEZ. Therefore, it is the responsibility of the local highway authority, Norfolk County Council, to manage these impacts on the local road networks from private developments.
RR-067.3	It is noted that under the terms of the LDO for the FEP phase 1, Blind Lane is required to be closed once certain thresholds relating to developed area and employed persons are reached. Blind Lane is currently easing some of the traffic flow in the area by taking traffic from the west approaching A47 traffic and Taverham Road. Its closure will exacerbate the problem detailed above. Discussions at an early stage of the A47 project inception included designs for a spur off the southern part of the GSJ direct into the FEP, then an access was shown off the Honingham spur and now nothing is provided.	The FEZ developer was invited to contribute funds to the Scheme to provide a private direct connection to the FEZ, but as no offer was received before design was fixed for the DCO assessments so the Blind Lane connection remained removed from the Scheme design. However, the Applicant recognises that the developer of the FEZ site may wish to obtain consent to create their own connection to the Scheme in the future. Therefore, Scheme's traffic modelling has taken this into account at the Norwich Road junction to provide capacity for the FEZ vehicle movements. The design of the Honingham roundabout to Norwich Road junction side road would allow for a third party to create a new highway connection. This commitment is presented in Section 9.3 of the Scheme Design Report, Rev.1 (AS-009).
RR-067.4	It is the opinion of the FEP that the design for the A47 scheme should allow for such an access as an integral part of the design, rather than allowing it to be a 'bolt on' later. Designing in an access at an early stage will ensure that it is fit for purpose and could mean that the potential problem with gradient change to the Honingham spur is avoided. The development of the FEP, along with the development of housing around Easton is part of the justification for the A47 project. The design, as submitted will result in those enabling factors becoming even greater hinderances on the local highways network. An access close to the southern part of the GSJ would remove traffic from Easton, reduce journey time, reduce traffic on Church Lane and take traffic away from Easton Church.	The Applicant notes that the promoters of the FEZ have now lodged a planning application with the Local Planning Authority, Broadland District Council (Application No.: 20211335) for the provision of a private access to the proposed scheme.
RR-067.5	Provision of an access point for the FEP could also enable the farm traffic for HTF serving Ringland Estate to be kept away from the highways network and Easton, without allowing Blind Lane to remain open to the public as a potential rat run. The respondent requests that the Inspection seeks further consideration on these proposals.	

RR-068 GIL MURRAY

Reference	Relevant Representation	Highways England Response
RR-068.1	I object to the proposed scheme for these reasons: A. The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working and the shift towards Internet-based meetings need to be assessed against the supposed need for "increased capacity".	Please see Common Response B
RR-068.2	B. When the Northern Distributor Road (NDR) was first proposed it was as a circular road around Norwich (with the Southern Bypass). Permission for this was refused because the Wensum valley is a wildlife site of European importance. The NDR was then redesigned as a distributor road and the traffic modelling claimed that the traffic would go from the NDR to the A47 via Postwick, not to the west of Norwich. Immediately the NDR was opened this proved to be wrong and the Norwich Western Link was proposed, despite this route having already been refused. We need a satisfactory explanation why the traffic modelling was wrong last time before we can believe it this time.	This is a matter to be addressed by the local highway authority (Norfolk County Council).
RR-068.3	C. The application for this scheme and traffic modelling assume that the Norwich Western link is already built, when in fact that route has previously been refused. To comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the environmental statement should start from the current situation now as the environmental baseline.	Please see Common Response C
RR-068.4	D. The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposals, and needs to be fully examined at the examination.	Please see Common Response D
RR-068.5	E. When the NDR was proposed it was said that this would reduce traffic in the north of Norwich and free up space for more bus priority schemes. This has not been done. These should be done before more car schemes are proposed.	This is a matter to be addressed by the local highway authority (Norfolk County Council).
RR-068.6	F. The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-068.7	G. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas	Please see Common Response H

Reference	Relevant Representation	Highways England Response
	emissions”.	
RR-068.8	H. Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at [redacted]). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006	Please see Common Response I

RR-069 HOCKERING PARISH COUNCIL

Reference	Relevant Representation	Highways England Response
RR-069.1	TO CONGRATULATE HIGHWAYS ENGLAND UPON THEIR WORK TO DATE ESPECIALLY THEIR ATTENTION TO OUR PREVIOUS MATTISHALL LANE CONCERNS.	The Applicant acknowledges the positive feedback.
RR-069.2	2. TO SEEK REASSURANCE ON POSSIBLE CONTAMINATION TO THE RIVER TUD.	ES Chapter 13 Road Drainage and the Water Environment (APP-052) assesses impacts on surface water quality and aquatic environments from increased pollutants in routine runoff and from accidental spillages. The Scheme is not expected to give rise to significant adverse residual effects during the construction or operational phases with the adoption of mitigation discussed in Section 13.9 of ES Chapter 13. The mitigation measures will be either embedded in the design or implemented through the Environmental Management Plan, which will be secured through dDCO Requirement 4 'Environmental Management Plan' (APP-017).
RR-069.3	3. TO SEEK FURTHER GUIDANCE ON IMPROVED LIGHTING PROPOSALS FOR THE DEVELOPMENT ONCE COMPLETE.	A Lighting Assessment (APP-095) was undertaken as part of the EIA. Whilst lighting is required with respect to health and safety regulations, the lighting proposed will be positioned sympathetically to minimise light spill and disturbance for sensitive receptors. As detailed in the Environmental Management Plan (APP-143), during construction of the Scheme, works lighting shall be directional, at the minimum luminosity necessary and use low energy consumption fittings. All proposed operational mitigation will be designed to minimise light spill onto residential properties and habitats which support commuting and foraging bats. Where lighting columns back onto residential properties and/or sensitive receptors, backlight shields or similar mitigation will be required to mitigate significant effects. Lighting at the junction will be designed with backlight shields and LED bulbs to reduce light spill onto habitats.

RR-070 JAMES BROWN

Reference	Relevant Representation	Highways England Response
RR-070.1	I am a resident of Hockering. I expect my representation to cover the following points. I intend to comment positively on the provision for cycle lanes although I will examine the proposal carefully to see how it joins up with provision for cyclists at the Norwich end. I will examine carefully the provisions for footpaths and will comment positively or negatively on provision. I am concerned about the potential loss of footpaths along a section of the River Tud.	The Scheme would provide new walking, cycling and horse-riding facilities, improve accessibility for users in the local area and provide the opportunity to choose active travel modes (e.g. walking and cycling); further detail is available in Section 4.14 'Walking, Cycling and Horse-riding (WCH) Assessment' of the Case for the Scheme (APP-140). Though public right of way Hockering FP7, along Gypsy Lane Hockering, will be severed, access to the other footpaths along the River Tud will be retained through provision of walker and cyclist provision through the proposed Mattishall Lane Link Road. The additional east - west WCH facilities will provide an opportunity for walking and cycling commuting and travel into Norwich and will complement the walking and cycling improvements to be provided along Dereham Road in Easton and at the A47 junction to the east of Easton, (the Showground junction), as part of consented residential development in Easton.
RR-070.2	I am concerned about the impact on wildlife in woods and marshes along the River Tud and I hope to see that the final plan, including the layout of junctions, recognises the exceptional wildlife value of these habitats.	Please see Common Response F
RR-070.3	I will comment very critically if there is any deviation from the stated intention to not to increase traffic in the village of Hockering.	Chapter 4 'Transport Assessment' of the Case for the Scheme (APP-140), especially Figure 4.18 'AADTs in Scheme area – base and core scenario', shows that forecast traffic flows (annual average daily traffic) will reduce along the 'The Street' in Hockering, if the Scheme is built for both the 2025 and 2040 Do Something future scenarios.
RR-070.4	I hope to see that the scheme will include improvement of the junctions at North Tuddenham, which are currently dangerous and thus have the potential to adversely traffic flow on the new dualled section of the A47	The Scheme will deliver its objective to improve safety and operational issues. The existing single carriageway A47 has 41 direct connections from existing side roads, farm, field and property accesses between North Tuddenham and Easton. In order to meet the objective of creating a more free-flowing and safe A47 there will be no direct connections to the dualled A47 in the Scheme. Access will be solely via the proposed junctions. This is presented within Section 5 of the Scheme Design Report, Rev.1 (AS-009). In total, over a 60-year timeframe the Scheme's improvement will save a total of 291 accidents and 47 KSIs (killed or seriously injured).

RR-071 JAMIE OSBORN

Reference	Relevant Representation	Highways England Response
RR-071.1	Councillor Jamie Osborn, Green Party I am a Norwich City councillor and Norfolk County councillor. This submission is made independently as my personal submission, and is separate to the Green Party submission, already made. I object to the scheme for the following reasons: A. In combination with the Norwich Western link (NWL) road, the scheme would increase capacity, traffic growth and emissions contrary to national policies for climate change, air quality and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-071.2	B. The impact of the Covid 19 pandemic on travel patterns and road capacity need has not been assessed.	Please see Common Response B
RR-071.3	C. The application, Environmental Impact Assessment, and traffic modelling baselines all assume the NWL is already built. To give an accurate assessment of the impact of the schemes, each of these should start from the current situation which is that no NWL, nor A47NTE exists.	Please see Common Response G
RR-071.4	D. The traffic modelling needs to start from the current situation and sensitivity test all options that include either an NWL or an A47NTE.	Please see Common Response C
RR-071.5	E. The NWL study area overlaps with the scheme area. The implications for the A47NTE from the loss of 30% of AADT vehicle kilometers, a proxy for traffic levels and carbon emissions, from the NWL models between the 2019 Option Selection Report ([redacted]) and the 2021 Outline Business Case ([redacted]) needs to be fully assessed.	Please see Common Response E
RR-071.6	F. The scheme fragments and displaces nature and wildlife habitats, wet grazing meadows, protected species (notably bats).	Please see Common Response F
RR-071.7	G. A nationally significant breeding colony of barbastelle bats, a European protected species, has been identified by NCC as potentially qualifying for SSSI or SAC status ([redacted], PDF page 85). Full assessment of the in-combination impacts of A47NTE and NWL on this colony is required.	Please see Common Response I
RR-071.8	H. In-combination, and cumulative impacts, for biodiversity, ecology, and air quality with at least six other road infrastructure schemes near to Norwich and East Norfolk need full assessment.	Please see Common Response G
RR-071.9	I. Carbon emissions need to be cumulatively assessed *both* locally within the Norwich area (in combination effects with the six other possible schemes identified above), and nationally with up to 100 other schemes planned by Government, including under RIS2.	Please see Common Response G
RR-071.10	J. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the UK Tyndall Centre, the NPPF 148 planning requirement to "radical reductions of greenhouse gas emissions", and the NCC Environmental Policy. J. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the UK Tyndall Centre, the NPPF 148 planning requirement to "radical reductions of greenhouse gas emissions", and the NCC Environmental Policy.	Please see Common Response H

RR-072 JEAN BISHOP

Reference	Relevant Representation	Highways England Response
RR-072.1	I am opposed to the proposed scheme as I feel it will have a disastrous impact on the very sensitive Wensum Valley, causing fragmentation, loss or displacement of diminishing wildlife habitats. Also causing urbanization of precious mature countryside.	Please see Common Response F
RR-072.2	It does not comply with current national policy of reducing carbon emissions at a time when it is vital to do so, the road will increase emissions.	Please see Common Response H
RR-072.3	This should be calculated in the light of COVID where many people have been working from home and with meetings online vastly reducing car journeys and consequently carbon emissions.	Please see Common Response B
RR-072.4	National policies require a modal shift towards more walking, cycling, and public transport.	Please see Common Response A

RR-073 MAIR BAIN

Reference	Relevant Representation	Highways England Response
RR-073.1	I object to this scheme because... Road traffic numbers must reduce if the UK is to meet legally binding carbon emissions targets. This scheme will increase capacity and increase emissions. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-073.2	The impact of COVID-19 on travel demand has not been assessed and taken into account with this scheme. It is based on pre-pandemic and pre-climate emergency data and plans.	Please see Common Response B
RR-073.3	The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside. This will hinder the UK's nature recovery targets set to act on the biodiversity crisis.	Please see Common Response F
RR-073.4	It is illogical to be using public money on increasing capacity for a form of transport that must be reduced if the UK is to meet climate targets. The electric vehicle revolution will not happen fast enough and the resources and energy required for EVs and highways are higher with greater carbon and ecological impact than mass transit and active travel transport.	<p>The Scheme is identified as required to manage traffic and road safety impacts as part of the Department of Transport (DfT) published the Road Investment Strategy 2 (RIS2) and to be developed by Highways England in the period 2020-2025. The need case for this Scheme is discussed in the Case for the Scheme (APP-140).</p> <p>The need case for the Scheme is more than improving capacity and economic growth. This section of the A47 also has a poor safety record, with the A47 ranked 2nd nationally for fatalities on A roads and the accident severity ratio is above average. During the period 2014 to 2018 a total of 2 fatal, 15 serious and 76 slight accidents have been recorded along a 11km length of the existing A47 from North Tuddenham to Easton.</p> <p>The Scheme will improve safety and operational issues by upgrading to dual carriageway and providing grade separated junctions at the Wood Lane junction and Norwich Road junction. In total, over a 60-year timeframe the Scheme's improvement will save a total of 291 accidents and 47 KSIs (killed or seriously injured).</p> <p>Section 4.14 'Walking, Cycling and Horse-riding (WCH) Assessment' of the Case for the Scheme (APP-140) also demonstrates how the Scheme would provide new WCH facilities, improve accessibility for users in the local area and provide the opportunity to choose active travel modes (e.g. walking, cycling).</p>

RR-074 BROWN & CO ON BEHALF OF MR NEIL ALSTON

Reference	Relevant Representation	Highways England Response
RR-074.1	Respondent: Mr Neil Alston Property: Land at East Tuddenham The total Property owned by the Respondent extends to approximately 518ha (1230 acres) of what is primarily productive arable land, interspersed with areas of woodland and lowland grass. Approximately 105 ha (260 acres), representing 20% of the holding, is located to the North of the existing A47. The single carriageway nature of the A47 at the dividing point and the availability of Berry Hall Lane and Church Lane ensure the Property retains a sense of connection. This is an important factor for the efficient operation of the agricultural enterprises carried out on the Property. The closure of Church Lane and Berry Hall Lane, without alternative provision for access, will result in the Property being severed. This will have a detrimental impact on the nature and cohesion of the Property and will significantly impact the efficacy of the farming operations carried out thereon. The Respondent accepts the need to close Church Lane, despite it being the closest link point between the two parts of the Property. It had been hoped, and understood to be the case from early designs, that Berry Hall Lane would remain open. This would have allowed agricultural traffic, which has always used this access route without challenge, to effectively passage between the north and south blocks. The Respondent has been informed that Berry Hall Lane must be closed to avoid 'rat running' from the Wood Lane junction south to Wymondham. This is apparently the belief of the local parish councils. To date, no empirical evidence has been provided to back up this assertion and in the absence of such data the closure of Berry Hall Lane appears to be without justification.	<p>The Applicant acknowledges the concern and notes that discussions with the Interested Party's representative have taken place.</p> <p>Berrys Lane has been a topic of much discussion, during Scheme development, between Parish Councils, the Local Liaison Group (Norwich County Council and Parish Councils) and South of the A47 taskforce (led by George Freeman MP).</p> <p>At statutory consultation, the initial design maintained a direct connection across the A47 between Berrys Lane, in the south, and the B1535 Wood Lane, in the north; see drawings on page 9 of Consultation Report Annex J - Section 47 Consultation Materials (APP-034). However, during statutory consultation, feedback raised concerns about increased traffic using Berrys Lane as a shorter route from Norwich Road junction to reach Mattishall Road and communities to the south.</p> <p>In response to these concerns various design options and traffic modelling scenarios were undertaken to assess the impact of the north – south traffic movements running from the Barnham Broom corridor in the south to Weston Longville in the north. These were discussed extensively at the Local Liaison Group and South of the A47 taskforce, plus with residents and landowners around Berrys Lane. As a result of this engagement, to mitigate the north – south movement on local villages and through traffic in Honingham the design was amended to close Berrys Lane to through traffic directly to/from the A47 and will be only for local access from the south. A walking, cycling and horse-riding connection to Dereham Road, Honingham, and to the north via Restricted Byway 1. This change is reported in Table 4.12 (item no. 11) of the Consultation Report (APP-024) and sections 4.2 and 5.9 of the Scheme Design Report, Rev.1, (AS-009).</p> <p>The Applicant notes that the local highway authority (Norfolk County Council) were involved in this process throughout, undertook independent traffic modelling and support the closure of Berrys Lane.</p> <p>The Applicant's response to RR-074.2 covers the impact to the efficacy of the farming operations.</p>
RR-074.2	The Respondent will suffer actual interference with the use and enjoyment of his Property. Proposals have been made by the Respondent to Highways England to retain Berry Hall Lane as a private means of access, with gates/bollards or some other form of traffic flow control. This would enable the issue of rat running to be addressed but allow the Respondent to operate the north and south blocks more efficiently and cohesively. In the absence of Berry Hall Lane as an access route, all farm traffic will need to follow one of two routes. Route 1 goes west through East Tuddenham to the Mattishall Lane link road and then back east along the old A47, taking 6km to do what used	<p>The practicalities of such a proposal were discussed and the Applicant challenged how this would be policed to avoid misuse.</p> <p>The Interested Party outlined the following process would take place for each trip:</p> <ol style="list-style-type: none"> 1. Vehicle would drive up 2. Driver would safely exit the vehicle (10 seconds) 3. Driver would unlock the gate (30 seconds) 4. Driver would enter the vehicle (10 seconds) 5. Driver would drive through gate (20 seconds) 6. Driver would safely exit the vehicle (10 seconds) 7. Driver would lock the gate (30 seconds) 8. Driver would enter the vehicle (10 seconds)

Reference	Relevant Representation	Highways England Response
	<p>to take 1.6km and involving taking machinery through East Tuddenham. Route 2 heads east to the Honingham Church roundabout, doubles back along the old A47 to the Wood Lane Grade Separated Junction (GSJ), navigates that and then comes out on the north side of Wood Lane. Taking an extra 3km of journey compared to using Berry Hall Lane. The proposals sever the Property, significantly impact the efficacy of running a farming business on the Property, put a significant number of agricultural vehicles on the highways network rather than keeping them localised, and pushes traffic through East Tuddenham. It has been suggested that Berry Hall Lane is not fit for purpose because of its width, but it, like so many other Norfolk roads, has served the agricultural industry well over the years and should be allowed to continue to do so, for the benefit of the surrounding highways network as well as the Respondent. It is requested that the Inspector consider a proposal to maintain a private agricultural right of way along Berry Hall Lane with enhancement of the proposed footpath link to the Dereham road link, to that of a 4m wide hard surfaced roadway with gates/bollards.</p>	<p>9. Driver would proceed</p> <p>An estimate on time durations for the outlined process provides an approximate time of 2 minutes per iteration. The Applicant highlighted the high risk of this process failing, and a gated route being left open which would lead to misuse.</p> <p>The Applicant has provided the Interested Party with a supplementary drawing identifying the proposed access routes to the Northern Ringland Block from Honingham Thorpe Farm and indicative journey times both for existing and proposed routes. This demonstrates that the journey time was approximately the same with the proposals put forward by the Interested Party. This exercise did not account for the time taken for the existing route to safely cross the A47 carriageway from Berrys Lane to Wood Lane or traffic congestion.</p> <p>The existing route outlined by the Interested Party is approximately 5.7km long. The alternative route as a result of the Scheme approximately 7.8km.</p> <p>If a constant speed of 30mph is assumed, this equates to journey times of 7 minutes 5 seconds (for the 5.7km existing route) and 9 minutes 42 seconds (for the 7.8km new route). Taking into account the process outlined by the Interested Party for the retention of Berrys Lane and provision of a secure gate, which they would open and lock each time taking 2 minutes, use of this alternative proposal would equate to a total approximate time of 9 minutes 5 seconds.</p> <p>Furthermore the Interested Party's request would require the provision of an access route over land which belongs to a third party (Berry Hall Estate) and contains its Listed Buildings. In response to statutory consultation feedback, the Applicant has been working with the Berry Hall Estate landowner to minimise the impact and overall landtake of the Scheme on the Berry Hall Estate.</p> <p>The Applicant also notes correspondence received on 02 July 2020 from the Interested Party included a map outlining access routes which stated that the primary operational route was via Blind Lane to Taverham Road.</p> <p>Therefore, the Applicant has engaged with the Interested Party and confirmed it would not include a secure gate or bollard access in this location as part of the Scheme.</p> <p>The Applicant notes that further to previous discussions held on this matter the promoters of the FEZ and owners of Honingham Thorpe Farm (HTF) have now lodged a planning application (27th July 2021) with the Local Planning Authority, Broadland District Council, (Application No.: 20211335) for the provision of a private access to the Scheme along the route of the existing Blind Lane access.</p> <p>The Applicant will continue to engage on this matter through the course of the DCO Examination in light of the submitted planning application.</p>

RR-075 NATIONAL GRID GAS PLC

Reference	Relevant Representation	Highways England Response
RR-075.1	<p>Dear Sir/Madam REPRESENTATION BY NATIONAL GRID GAS PLC ("NGG") TO THE A47 NORTH TUDDENHAM TO EASTON ("THE PROJECT") NGG wishes to make a relevant representation to the Project DCO in order to protect its position in relation to infrastructure and land which is within or near the proposed Order limits. NGG's rights to retain its apparatus in situ and rights of access to inspect, maintain, renew and repair such apparatus located within or near the Order limits should always be maintained and access to inspect and maintain such apparatus must not be restricted. The documentation and plans submitted for the above proposed scheme are being reviewed in relation to impacts on NGG's existing apparatus and land interests located within this area, and NGG may require protective provisions to be included within the DCO to ensure that its interests are adequately protected and to ensure compliance with relevant safety standards. The NGG project team are liaising with the Promoter in this regard and have been throughout the whole process thus far.</p> <p>NGG assets which have been identified as being within or within close proximity to the proposed Order limits are: HIGH PRESSURE GAS PIPELINE: Feeder 3 – Felthorpe to Hardingham NGG will continue to review the application documents in liaison with the applicant to adequately protect NGG's retained apparatus and to ensure that NGG will be able to deliver the infrastructure associated with the DCO if required. NGG will advise the Examining Authority of any issues in this regard as the examination progresses. I hope the above information is useful. If you require any further information, please do not hesitate to contact me. Yours sincerely Spencer Jefferies Town Planner, Land and Acquisitions.</p>	<p>The Applicant acknowledges National Grid Gas Plc's comments.</p> <p>The Applicant also confirms they are working closely with National Grid Gas Plc's engineers responsible for the diversion of the existing gas pipeline, including engaging in regular teleconference calls to agree the approach and manage risks associated with the diversion works.</p>

RR-076 NORFOLK CONSTABULARY

Reference	Relevant Representation	Highways England Response
RR-076.1	<p>I am the Traffic Management Officer for Norfolk Constabulary and in this respect I am keen to ensure that the roads of Norfolk are made as safe as possible for all road users. This includes improved road safety, reduction in road collisions and casualties on the road network.</p>	<p>The Scheme will deliver its objective to improve safety and operational issues.</p> <p>The A47 is currently ranked 2nd nationally for fatalities on A roads and the accident severity ratio is above average. During the period 2014 to 2018 a total of 2 fatal, 15 serious and 76 slight accidents have been recorded along a 11km length of the existing A47 from North Tuddenham to Easton.</p> <p>The Scheme will deliver an upgrade with a dual carriageway and providing grade separated junctions at the Wood Lane junction and Norwich Road junction. In total,</p>

Reference	Relevant Representation	Highways England Response
		over a 60-year timeframe the Scheme's improvement will save a total of 291 accidents and 47 KSIs (killed or seriously injured).
RR-076.2	Also, increased driver/traveller journey time reliability and reduce driver stress and fatigue levels.	Chapter 4 'Transport Assessment' of the Case for the Scheme (APP-140) explores impacts on journey times due to changes in traffic associated with the Scheme. The assessment demonstrates a significant reduction in road traffic congestion, and thereby in driver stress and fatigue levels, due to journey times in the 2040 do something scenario being less than in the 2015 base year. The results of the modelling assessment show that the Scheme improves the overall operation of the network as well as improving A47 peak hour journey times (approximately 35% to 54% depending on direction and time period).
RR-076.3	This particular stretch of road has a poor safety record and I would look to support this application to increase the safety aspects on this part of the Norfolk road network.	See above response to RR-076.1.

RR-077 PINSENT MASONS ON BEHALF OF NORFOLK COUNTY COUNCIL AS PROMOTER OF NORWICH WESTERN LINK

Reference	Relevant Representation	Highways England Response
RR-077.1	<p>This representation is submitted for Norfolk County Council in its capacity as the local highway authority promoting the proposed Norwich Western Link ("NWL scheme"), which is intended to connect to Highways England's ("HE") A47 North Tuddenham to Easton scheme ("A47 scheme") at the improved Wood Lane junction. A separate representation is submitted by Norfolk County Council in its wider capacity as a 'host' local authority under s.43 Planning Act 2008, commenting on the A47 scheme from its perspective as Highway Authority, Minerals and Waste Planning Authority, Lead Local Flood Authority and in having Public Health responsibilities.</p> <p>As promoter of the NWL scheme, Norfolk County Council ("NCC") is fully supportive of the A47 scheme and welcomes HE's inclusion in the DCO application documentation of provision linking the NWL scheme with the proposed A47 ("the NWL spur"). NCC seeks clarification of HE's position on:</p> <ol style="list-style-type: none"> 1. "Optional cycle track" – Work No.26a The A47 scheme includes provision for a cycle track between the realigned Wood Lane and Hall Farm Underpass, shown on the Rights of Way and Access ("RoWA") Plans as looping around the NWL spur. In discussion with NCC, HE indicated this arrangement would not be provided if the NWL scheme starts construction in the same period as the A47 scheme. NCC seeks assurance from HE that a new permanent non-motorised user ("NMU") facility is not required at this location as part of the NWL scheme. 	<p>The Applicant confirms that a new permanent non-motorised user facility is not required at this location.</p> <p>Please see the Applicant's response to RR-037.5.</p>
RR-077.2	<ol style="list-style-type: none"> 2. Delivery of NWL spur NCC seeks clarification of HE's intention to construct the NWL spur. HE's Statement of Reasons (paragraph 4.16.4) anticipates delivery of the A47 scheme before the NWL scheme, and indicates that although the NWL spur is expressed (in the DCO) to be "optional", HE would construct it in anticipation of the NWL scheme, to minimise future disruption to the highway network. However, the Scheme Design Report (paragraph 9.2.7) states that the NWL spur "would only be created if the NWL obtained planning consent prior to the [A47] Scheme commencing the main construction works." NCC seeks HE's commitment to greater flexibility in collaborating to deliver both schemes. 	<p>The Applicant is willing to commit to work with NCC to ensure that the most appropriate solution is found to the delivery of the NWL spur so as to avoid potential disruption to the respective works.</p>
RR-077.3	<p>The NWL spur is not identified in the RoWA Plans as "new/improved/alterd highway", notwithstanding its identification as Work No.98 in the Works Plans, reflecting DCO Schedule 1 and the intention presented in the Classification of Roads Plans and DCO Schedule 3, Part 1A, where it is identified as an 'A' road. NCC suggests amendment of the RoWA Plans to resolve inconsistency and clarify HE's intentions.</p>	<p>The Applicant does not propose to dedicate the Norwich Western (NWL) Link arm as a public highway. The Scheme has been designed to facilitate a link from the Wood Lane junction northern roundabout to the NWL, but it will be for Norfolk County Council to dedicate this link as part of the NWL scheme, if and when it is delivered.</p> <p>The Classification of Roads Plans and DCO Schedule 3, Part 1A will be updated accordingly and issued at either Deadline 2 or 3.</p>
RR-077.4	<ol style="list-style-type: none"> 3. NMU provision on Dereham Road. Noting HE's proposed NMU provision on/around Dereham Road, NCC would welcome opportunities for collaboration with HE to ensure this element of the A47 scheme can be further developed to provide suitable NMU routes. 	<p>The Applicant is willing to collaborate with NCC to explore how this element of the Scheme can be further developed.</p>
RR-077.5	<ol style="list-style-type: none"> 4. Delay to NWL delivery. NCC has been working with HE to identify appropriate arrangements for local communities (in particular Weston Longville) should delivery of the NWL scheme be delayed. NCC would welcome the opportunity to settle the approach in agreement with HE, and to commit to a mutually acceptable solution. 	<p>See response to RR 037.12.</p>

RR-078 ORSTED HORNSEA PROJECT THREE UK

Reference	Relevant Representation	Highways England Response
RR-078.1	<p>This relevant representation is made by Orsted Hornsea Project Three (UK) Limited ("Hornsea Three") the named undertaker on the Development Consent Order (DCO) for the Hornsea Three Offshore Wind Farm Order 2020 (the "Hornsea Three Order"). The proposed Order limits and Order land for the A47 Tuddenham DCO overlap with the Order limits and Order land as defined in the Hornsea Three Order. Hornsea Three engaged with Highways England in relation to the possible interactions and impacts of the A47 Tuddenham DCO on Hornsea Three during the Examination of Hornsea Three and prior to the submission of the A47 Tuddenham DCO Application. Hornsea Three has subsequently reviewed the Highways England A47 Tuddenham DCO Application which has been accepted by PINS. This letter forms the initial representation to the proposal. The A47 North Tuddenham to Easton Dualling DCO (the "A47 Tuddenham DCO") will interact with the Hornsea Three Order in two main ways:</p> <p>a. Overlap of works areas where Highways England had identified potential material storage areas and needs to create the new A47 mainline, utilities diversions and new route for walkers, cyclists and horse riders with the Hornsea Three Order onshore export cable corridor;</p> <p>and b. Loss of access for Hornsea Three for both construction and operation from Church Lane, north of the A47, when the Easton roundabout is removed.</p>	<p>The Applicant confirms its commitment to support Orsted to minimise the risks to the delivery of both schemes and maximise opportunities to minimise impacts and disturbance. The Applicant's position is stated within section 9.4 of the Scheme Design Report, Rev.1 (AS-009), along with a summary of measures already undertaken by the Applicant to avoid prohibiting or delaying the construction and/or operation of Hornsea Three or result in Hornsea Three being in breach of the Hornsea Three Order.</p>
RR-078.2	<p>What has been provided by Highways England The A47 Tuddenham DCO includes development consent for works relating to the Hornsea Three Order. Works No. 94 grants consent for the Hornsea Three cables and Works No. 99 grants consent for the temporary haul road to construct the Hornsea Three cables. Requirement 13 of the A47 Tuddenham DCO requires Highways England to obtain Hornsea Three's written approval prior to commencing Works No. 94 and all works must be carried out in accordance with Requirements 10, 17, 18 and 22 in Schedule 1 Part 3 of the Hornsea Three Order. The A47 Tuddenham DCO also includes compulsory acquisition powers to acquire new rights over land and impose restrictions relating to the installation of the Hornsea Three cables and rights to access to install and maintain the Hornsea Three cables. It is helpful that the powers in the A47 Tuddenham DCO can be transferred to Hornsea Three for the purposes of undertaking Works No. 94 and Works No 99. However, it is noted that there is currently no obligation upon Highways England to transfer the powers to Hornsea Three or any obligation on Highways England to cooperate and facilitate the installation of the Hornsea Three cables and the temporary haul road. Hornsea Three is the holder of a generation licence under the Electricity Act 1989 and a statutory undertaker for the purposes of s127 of the Planning Act 2008.</p>	<p>The Applicant recognises the need for co-operation with Orsted Hornsea Three UK (Orsted) and fully intends to ensure the installation of the Hornsea Three cables can be facilitated.</p> <p>Both parties are open to entering into a co-operation agreement to facilitate co-existence and discussions are ongoing.</p>
RR-078.3	<p>Hornsea Three has the benefit of a number of Option Agreements over land within the proposed Order limits for the A47 Tuddenham DCO. Hornsea Three note that there are generic protective provisions for Electricity Act 1989 licence holders in the A47 Tuddenham DCO but as currently drafted these only apply to existing apparatus and would not therefore apply to the construction of the Hornsea Three cables. Issues to be resolved Hornsea Three considers that the two schemes can co-exist and therefore does not have an in-principle objection to the A47 Tuddenham DCO.</p>	<p>The Applicant notes Orsted does not have an in-principle objection to the Scheme and is content to include bespoke protective provisions for the benefit of the Hornsea Three cables.</p>
RR-078.4	<p>However, as Hornsea Three is a consented nationally significant infrastructure project, it is crucial that the A47 Tuddenham DCO does not prohibit or delay the construction and/or operation of Hornsea Three or result in Hornsea Three being in breach of the Hornsea Three Order. Hornsea Three has identified a number of issues that need to be resolved so as to ensure that no serious detriment is caused to Hornsea Three. A summary of the issues, and the measures that Hornsea Three requires to resolve them, is set out below.</p>	<p>The Applicant confirms its commitment to support and regularly engage with Orsted to minimise the risks to the delivery of both schemes and maximise opportunities to minimise impacts on the environmental and disturbance to local residents and users of the local road networks. The Applicant's position is stated within section 9.4 of the Scheme Design Report, Rev.1 (AS-009), along with a summary of measures already undertaken by the Applicant to avoid prohibiting or delaying the construction and/or operation of Hornsea Three or result in Hornsea Three being in breach of the Hornsea Three Order.</p>
RR-078.5	<p>Technical issues:</p> <ul style="list-style-type: none"> • Highways England to provide confirmation that the replacement access track will be suitably designed to allow the maximum design of Hornsea Three's construction vehicles to utilise the access. Specifically, Hornsea Three requires it's abnormal load requirements to be facilitated, including any necessary approvals from the highways authority to be secured by Highways England on behalf of Hornsea Three. 	<p>The Applicant's position is stated within section 9.4 of the Scheme Design Report, Rev.1 (AS-009).</p> <p>The Applicant is not responsible for the construction of a replacement asset, as no existing access route is being removed by the proposed Scheme. Instead the Applicant has included a 10m corridor for the provision of an access track, to be constructed by the Orsted Hornsea Three UK construction team, parallel and north of the cycle track between Taverham Road and Church Lane, Easton. This includes provision of New Rights for a long-term maintenance easement, as stated within Section 9.4.5 of the Scheme Design Report, Rev.1 (AS-009). The Applicant will construct and maintain the access to the realigned Taverham Road as part of the provision of permanent access to an agricultural field and a new cycle track.</p> <p>The Applicant has undertaken vehicle swept path analysis to ensure that the Hornsea Three delivery vehicles, including abnormal load requirements, can safely access and exit the proposed access point off the realigned Taverham Road from and to the A47 dual carriageway via Norwich Road junction. This information was provided to the Orsted Hornsea Three UK team in both drawing and model formats.</p> <p>The Applicant will support Orsted to acquire the necessary approvals from Highways</p>

Reference	Relevant Representation	Highways England Response
		England and engaging with the local highway authority (Norfolk County Council) to manage interaction of project needs. However, responsibility for acquiring the necessary approvals from the relevant highway authorities must remain with Orsted Hornsea Project Three UK as the ultimate holder responsible for discharging their consent.
RR-078.6	<ul style="list-style-type: none"> Highways England to provide confirmation that the new dumbbell roundabout will be suitably designed and aligned to allow the maximum design of Hornsea Three's construction vehicles to utilise the roundabout. 	The Applicant has provided the Orsted project team with two drawings, on 7 July 2021, and a further digital design model, on 19 July 2021, demonstrating that the required design vehicle can be accommodated within the proposed design for the delivery routes required. The Applicant notes that as this vehicle is oversized, suitable mitigation measures would need to be provided by Orsted to ensure the safety of road users.
RR-078.7	Highways England to provide confirmation of the construction activities that it is proposing to undertake and any permanent operational apparatus to be installed within the area of overlapping Order limits so it can be understood whether such activities will have an impact on the construction, operation or maintenance of Hornsea Three.	Confirmation of construction activities and detailed design of permanent operational apparatus to be installed within the area of overlapping Hornsea Project Three's DCO limits will be developed during the Scheme detailed design stage. The Applicant is working with Hornsea Project Three to establish a collaborative working agreed and confirms they will share detailed drawings and provide details of their construction activities to establish a working interface, during the construction and operational phases, between Hornsea Three and the Scheme.
RR-078.8	Highways England to provide sufficient information to Hornsea Three to establish whether the A47 Tuddenham DCO will prevent or restrict Hornsea Three from complying with Hornsea Three's Taverham Highways Intervention Scheme (HIS) (as required pursuant to Requirement 18 (Construction Traffic Management Plan) of the Hornsea Three Order). Highways England to provide confirmation that it will work with Hornsea Three to agree any changes which might be required to the HIS with the local highways authority (Norfolk County Council).	The Applicant will also work with Hornsea Project Three and Norfolk County Council to plan and manage construction traffic movements to minimise the risks of disruption make sure suitable site access is made available for both parties; see response to RR-078.5 as an example.
RR-078.9	<ul style="list-style-type: none"> Highways England to provide sufficient information to Hornsea Three to establish whether the A47 Tuddenham DCO will have any impacts on the Hornsea Three construction traffic routes. In particular, Hornsea Three would like to understand whether any of its vehicle movements may need to be re-routed and if this will align with previous commitments made to other relevant key stakeholders. 	
RR-078.10	<p>Legal issues:</p> <ul style="list-style-type: none"> Highways England to provide confirmation that it will procure (either by agreement or compulsory acquisition) adequate permanent access rights for Hornsea Three to the Hornsea Three cable corridor for operational purposes. As mentioned above, whilst compulsory acquisition powers have been included in the A47 Tuddenham DCO there is no obligation on Highways England to exercise the powers or transfer the powers to Hornsea Three. 	The Applicant is continuing to liaise with Orsted regarding the provision of access rights.
RR-078.11	<ul style="list-style-type: none"> Highways England to provide confirmation that the replacement access provided by Highways England will remain in situ until the completion of the construction of Hornsea Three (which is likely to be after the opening of the new road). This includes ensuring that the temporary use powers are of a sufficient duration and including a positive obligation on Highways England to keep the access in place and maintained to a suitable standard. 	The Applicant is not responsible for the construction of a replacement asset, as no existing access route is being removed by the Scheme. Instead the Applicant has included a 10m corridor for the provision of an access track, to be constructed by the Orsted Hornsea Three UK construction team, parallel and north of the cycle track between Taverham Road and Church Lane, Easton. This includes provision of New Rights for a long-term maintenance easement, as stated within Section 9.4.5 of the Scheme Design Report, Rev.1 (AS-009). The Applicant will construct and maintain the access off the realigned Taverham Road as part of the provision of permanent access to an agricultural field and a new cycle track.
RR-078.12	With regard to the A47 Tuddenham DCO Hornsea Three reserves the right to make further representations as the examination progresses but proposes the following additions/amendments to the A47 DCO on a preliminary basis: a. The rights and restrictions in Schedule 5 (Land in which only new rights etc. may be acquired) need to be amended so as to align with the rights in the Hornsea Three Order (including rights to "use" and rights for landscaping) and need to refer to the correct Works No.	The Applicant is considering this change and may propose further changes to the dDCO at the next deadline.
RR-078.13	b. A provision is included to state that if compliance with the A47 DCO prevents the undertaker from complying with any article or requirement in the Hornsea Three Order then the undertaker shall not be in breach of the Hornsea Three Order and it shall be a defence to an offence under s161 of the Planning Act 2008 to prove that the undertaker was not able to comply as a result of the A47 DCO (and vice versa).	The dDCO (APP-017) has been updated to include this provision in Article 3 (disapplication of legislative provisions).
RR-078.14	c. Hornsea Three require protective provisions to be included on the face of the A47 DCO. The parties propose to discuss and agree protective provisions and Hornsea Three will endeavour to submit draft protective provisions by the first deadline.	The Applicant notes the need for protective provisions and will await a first draft.
RR-078.15	Hornsea Three will continue to work with Highways England to facilitate agreement between the parties to ensure both projects can co-exist. Both parties are open to entering into a co-operation agreement to facilitate co-existence. This agreement will include the ongoing engagement with affected landowners. Hornsea Three looks forward to further engagement with Highways England on these and any other matters that may arise	The Applicant recognises the need for co-operation with Orsted and is also committed to ensuring both projects can co-exist. The Applicant confirms both parties are open to entering into a co-operation agreement to facilitate co-existence and discussions are ongoing.

RR-079 PUBLIC HEALTH ENGLAND

Reference	Relevant Representation	Highways England Response
RR-079.1	<p>Thank you for your consultation regarding the above development. Public Health England (PHE) welcomes the opportunity to comment on your proposals at this stage of the project. The modelling reported in the application documents predict a slight deterioration in air quality (in terms of nitrogen dioxide) at 25 of the 49 modelled human receptor locations, once the proposed scheme is operational. However, it is also predicted that concentrations will remain beneath relevant air quality objectives at all modelled human receptor locations with the remaining 24 showing a slight improvement. Nevertheless, reducing public exposures to non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards has potential public health benefits. We support approaches which minimise or mitigate public exposure to non-threshold air pollutants, address inequalities (in exposure), and maximise co-benefits (such as physical exercise) and encourage their consideration during development design, environmental and health impact assessment, and development consent. PHE have no additional comments to make at this stage and can confirm that we have chosen NOT to register an interest with the Planning Inspectorate on this occasion. Please do not hesitate to contact us if you have any questions or concerns</p>	The Applicant welcomes the feedback from Public Health England.

RR-080 STEVE HALE

Reference	Relevant Representation	Highways England Response
RR-080.1	I object to the proposed scheme for these reasons: A. The case for the scheme (at 3.5.1) says that it will increase capacity which means that it will increase traffic growth in Norwich area. This does not comply with national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-080.2	B. The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for "increased capacity".	Please see Common Response B
RR-080.3	C. The application and traffic modelling assume that the Norwich Western link is already built. To comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the environmental statement should start from the current situation now as the environmental baseline.	Please see Common Response C
RR-080.4	D. The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposals, and needs to be fully examined at the examination.	Please see Common Response D
RR-080.5	E. The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-080.6	F. The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside.	Please see Common Response F
RR-080.7	G. In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	Please see Common Response G
RR-080.8	H. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-080.9	I. Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such	Please see Common Response I

Reference	Relevant Representation	Highways England Response
	(see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at [redacted]). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006.	

RR-081 DAVID PETT ON BEHALF OF STOP WENSUM LINK

Reference	Relevant Representation	Highways England Response
RR-081.1	<p>Submissions in relation to the proposed construction of A47 North Tuddenham to Easton ('Proposed development') I am a solicitor and a member of the steering committee of the Stop Wensum Link ('SWL') action group. I make for and on behalf of SWL the following submissions. The Proposed Scheme, together with at least six other infrastructure schemes planned (1) /approved (2) within Norfolk, needs to be evaluated to measure the likely impact of cumulative CO2 emission levels in the context of relevant climate change commitments and obligations: these include the Norfolk County Council Environment Policy, and UK national (3) and international Climate Change obligations.</p> <p>Footnotes</p> <p>1 A47 Blofield, A47 Tuddenham, A47 Thickthorn, Long Stratton By-Pass, Norwich Western Link, A47 Gt Yarmouth Junction Improvements at Vauxhall and Gapton</p> <p>2 Gt Yarmouth third river crossing</p> <p>3 Climate Change Act 2008 (2050 Target Amendment) Order 2019: the UK parliament passed legislation which replaced a previous target of an 80% reduction in GHG emissions by 2050 with a more ambitious target to reduce the UK's net emissions to zero by 2050 – the so called "Net Zero" target</p>	Please see Common Response G
RR-081.2	The Norwich Western Link (NWL) is the only road scheme referenced in the Cumulative Effects Assessment (APP-054), and only for noise, vibration and air quality.	Please see Common Response G
RR-081.3	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 impose a general duty to consider cumulative impacts and climate change. Furthermore the carbon emission projections of Proposed Scheme need to be assessed as part of the large number of road schemes forming part of the RIS2 Scheme.	Please see Common Response C
RR-081.4	<p>The proposed Scheme will undoubtedly have an impact on the environment and biodiversity (4).</p> <p>Footnotes</p> <p>4 Graded as 'Large Adverse'</p>	Please see Common Response F
RR-081.5	In determining the level of impact as well as the design and implementation of appropriate mitigation and compensatory measures, it is our submission that baseline assessment should not be confined to this and the NWL schemes only, but should also encompass the other major infrastructure projects that are proposed to take place within Norfolk.	Please see Common Response G
RR-081.6	There is evidence currently before Norfolk County Council, for instance, which shows an interdependency of barbastelle bat colonies within the County that could if not adequately addressed lead to a population reduction of this highly protected species.	Please see Common Response I
RR-081.7	There is also linked impacts in relation to the ecological condition of the River Wensum SAC given the works proposed in and around the River Tud.	<p>Effects on the ecology of the River Wensum Special Area of Conservation (SAC) have been considered in ES Chapter 8 Biodiversity (APP-047) and the Report to Inform Habitats Regulations Assessment (APP-139).</p> <p>No works are to take place within the River Wensum SAC, so no direct impacts are anticipated. Any negative impacts to the SACs are likely to be through indirect pathways. The Habitats Regulations Screening Assessment (HRA) for the Scheme assessed the impacts on the River Wensum SAC (APP-139). The HRA screening report determined that, without mitigation, there will be no Likely Significant Effects on any of the qualifying features of the River Wensum SAC. This was primarily down to the distance the site is away from the works (1.6km overland, 7.3km downstream), thereby any pollution would be highly dissolved or dispersed before reaching the site the impacts would be negligible.</p>
RR-081.8	The traffic and economic modelling relied upon is based on data, assumptions and projections that pre date the Covid 19 pandemic. It our submission that the impact of the pandemic has lead to high levels of home-working, a shift towards Internet-based meetings, and strong reductions of traffic on the roads. It is likely that future traffic growth, time savings and economic benefits have been over-estimated and a larger scheme design than is necessary.	Please see Common Response B
RR-081.9	It will be our wish to expand upon the following submissions and to interrogate within the context of these submissions the evidence adduced in support of the Proposed Scheme.	The Applicant acknowledges Mr Petts' comment.

RR-082 TRANSPORT ACTION NETWORK

Reference	Relevant Representation	Highways England Response
RR-082.1	Transport Action Network wishes to register an OBJECTION to the proposed scheme on the following grounds: 1. Climate change and increased traffic	Please see Common Response A
RR-082.2	2. Cumulative effect of this scheme with other proposed road schemes	Please see Common Response G
RR-082.3	3. Noise	Noise mitigation in the form of noise barriers are incorporated within the design of the Scheme, along with a noise-reducing road surface to be applied to the whole length of the new dual carriageway. The Applicant has assessed the impacts from and mitigation for noise and vibration impacts by the Scheme in ES Chapter 11 Noise and Vibration (APP-050). At the operational stage there will be a number of significant residual traffic noise effects, both adverse and beneficial, amongst the 1,877 noise sensitive receptors considered. With regard to Noise Important Areas, a significant beneficial effect is predicted at NIA 5200. The remaining NIA (5201, 5202 and 6287) are not predicted to experience any significant effects (beneficial or adverse) due to the Scheme. Compliance with the National Networks National Planning Policy, especially Paragraph 5.195 with regards significant adverse effects on health and quality of life from noise by the Scheme, is discussed in Section 7.4 of the Case for the Scheme (APP-140). It is concluded that the Scheme demonstrates it meets the aims of this NPS paragraph.
RR-082.4	4. Air quality	ES Chapter 5 Air Quality (APP-044) presents the air quality assessment and concludes there would be no significant effects on air quality at human and ecological receptors as a result of the Scheme.
RR-082.5	5. Biodiversity and habitats	Please see Common Response F
RR-082.6	6. Landscape	The impacts of the Scheme on the landscape and visual receptors are assessed in ES Chapter 7 Landscape and Visual Effects (APP-046). The landscape and visual screening mitigation planting proposed in Chapter 7 is illustrated in the Environmental Masterplan, Rev.1 (AS-007). The assessment concludes that the Scheme would not result in an overall significant residual effect on landscape and visual amenity.

RR-083 VATTENFALL WIND POWER LTD

Reference	Relevant Representation	Highways England Response
RR-083.1	Vattenfall Wind Power Limited (VWPL) welcomes the chance to respond to Highways England's (HE) A47 North Tuddenham to Easton application. VWPL is currently developing the Norfolk Vanguard and Norfolk Boreas offshore windfarm projects. Each project has been subject to a separate DCO examination and both are currently awaiting the outcome of separate determination processes, expected toward the end of 2021. This response reflects the position of both projects (collectively referred to as the Norfolk Projects). The Norfolk Projects rely on the A47 corridor for the transport of materials and personnel to the landfall, onshore cable route, onshore substations and National Grid extension works. Construction is anticipated to commence in 2022 for Norfolk Vanguard. The most intense construction activity is forecast to occur between 2022 and the end of 2023, during this period, the project's A47 traffic demand would peak at 693 daily movements of which 312 would be HGVs. Construction is anticipated to commence in 2023 for Norfolk Boreas (Scenario 2 - should Norfolk Vanguard not proceed) or 2027 (Scenario 1 - should Norfolk Vanguard proceed). The most intense construction activity is forecast to occur between 2023 (or 2026 for Scenario 1) and the end of 2024 (or 2027 for Scenario 1), during this period, the project's A47 traffic demand would peak at 691 (or 181 for Scenario 1) daily movements, of which 291 (or 70 for Scenario 1) would be HGVs. The North Tuddenham to Easton scheme has a construction duration of 23 months, which (assuming construction commencement 2022/23) has the potential for cumulative impacts with the Norfolk Projects associated with HE's proposed temporary traffic management proposals and construction traffic demand.	The Norfolk Vanguard and Vattenfall Norfolk Boreas have been considered in the ES Chapter 15 Cumulative Effects Assessment (APP-054).
RR-083.2	VWPL has regularly engaged with HE during the development of the Norfolk Projects culminating with agreement on the approach to managing cumulative impacts as follows: "To manage potential cumulative traffic impacts, it has been agreed with HE that the management of the potential cumulative impacts can be addressed in the final submitted Traffic Management Plan (post consent) when there is greater certainty with regard to RIS scheme construction traffic data. VWPL commits to engage with HE to establish opportunities to co-ordinate activities and avoid significant impacts resulting from cumulative peak traffic is captured in the OCoCP (document reference 8.1) through the development of a Communication Plan." VWPL would expect this regular engagement to continue with HE throughout the development and implementation lifecycle of the A47 North Tuddenham to Easton scheme, and be secured within the respective parties' communication plans.	The Applicant confirms it is engaging with VWPL and intends to manage potential cumulative traffic impacts in the Traffic Management Plan, to be approved through Requirement 10 of the dDCO (APP-017). The Outline Traffic Management Plan (APP-144), submitted with the DCO application to the Planning Inspectorate, includes provisional measures to manage cumulative traffic impacts with Vattenfall's schemes. The Applicant is committed to regular engagement with VWPL throughout the development and implementation lifecycle of the Scheme to co-ordinate activities and avoid significant impacts resulting from cumulative peak traffic.
RR-083.3	VWPL has reviewed the application documents and draw attention to the following specific matters: 6.1 Environmental	The Applicant welcomes the feedback on Statement Chapter 15 Cumulative Effects Assessment (APP-054) and confirms it is engaging with VWPL to co-ordinate the

Reference	Relevant Representation	Highways England Response
	Statement Chapter 15 – Cumulative Effects Assessment (APP- 054) Section 15.5 identifies The Norfolk Projects and contains an assessment of cumulative effects. With regard to traffic and transport and the assessment concludes: “Due to the temporary nature of the construction impacts and implementation of traffic management for both the Proposed Scheme and different projects, the potential cumulative effects identified on traffic and transport are not considered to be significant.” VWPL agrees with this statement in principle but would suggest that the implementation of communication plans that maximise opportunities to co-ordinate roadworks and manage peak construction traffic demand be committed to. No other potential cumulative impacts are identified, which aligns with VWPL’s assessments.	management of construction traffic by their schemes. The Applicant supports the proposal to ensure their respective communication plans seek to maximise opportunities to co-ordinate roadworks and manage peak construction traffic demand.
RR-083.4	<p>7.5 Outline Traffic Management Plan (APP – 144) The Outline Traffic Management Plan identifies that “Full carriageway closures will be used during the duration of the project from early works up to completion”. This could potentially lead to significant delays to the A47 corridor, which could be exacerbated by the Norfolk Projects’ construction traffic.</p> <p>In addition, the requirement for full overnight closures are identified (between 20:00 – 06:00) the majority of which would be carried out during the period from July 2024 to November 2024. Whilst it is noted that the majority of closures fall outside of the peak traffic demand for the Norfolk Projects, and the timings would only affect early arrivals to site, nevertheless, there is the potential for disruption to construction traffic associated with the Norfolk Projects being diverted off the A47, potentially inducing delays of over an hour in journey time.</p> <p>There is also the need to consider additional management processes to ensure diverted construction traffic does not utilise inappropriate alternative local routes. However, VWPL consider that any potential cumulative impacts between the A47 North Tuddenham to Easton scheme and the Norfolk Projects would be mitigated by regular engagement and alignment of the respective traffic management plans. VWPL seek formal engagement with HE to gain a better understanding of the A47 North Tuddenham to Easton roadworks proposals and to jointly formulate traffic management plans to minimise disruption to the travelling public, local communities and the respective project’s construction programmes. VWPL would seek to capture an agreed position on these items through a Statement of Common Ground.</p>	<p>The Applicant confirms it is engaging with VWPL to manage potential cumulative traffic impacts through measures that will be recorded in the Scheme’s Traffic Management Plan, to be approved through Requirement 10 of the dDCO (APP-017).</p> <p>Section 2 of the Outline Traffic Management Plan (APP-144) already includes the following provisional mitigations measures to manage the risks identified by VWPL:</p> <ul style="list-style-type: none"> • Advance warning and sensitivity around peak times. • Closure clash avoidance – not having closures on alternative routes that are not subject to diversions. • Liaison with roadspace team to ensure appropriate/approved diversion routes are utilised. • Project communications team to liaise with both parties. <p>The Applicant has already agreed with VWPL a Statement of Common Ground (SoCG) for the Norfolk Vanguard DCO application and are willing to include these issues as additional to that SoCG.</p>

RR-084 VICTORIA RANCE

Reference	Relevant Representation	Highways England Response
RR-084.1	I object to the proposed scheme for these reasons: A. The case for the scheme (at 3.5.1) says that it will increase capacity which means that it will increase traffic growth in Norwich area. This does not comply with national policies for climate change and modal shift towards walking, cycling and public transport.	Please see Common Response A
RR-084.2	B. The traffic and economic modelling uses data, assumptions and projections from before the Covid 19 pandemic. Recent and future levels of home-working, the shift towards Internet-based meetings, and strong reductions of traffic on the roads due to COVID impacts need to be assessed against the supposed need for “increased capacity”.	Please see Common Response B
RR-084.3	C. The application and traffic modelling assume that the Norwich Western link is already built. To comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the environmental statement should start from the current situation now as the environmental baseline.	Please see Common Response C
RR-084.4	D. The A47 dualling links with the Norwich Western link. The application does not fully explore the relationships between the two road proposals, and needs to be fully examined at the examination.	Please see Common Response D
RR-084.5	E. The traffic modelling is based on the NATS 2015 (baseline year 2015) model. Recent modelling by Norfolk County Council based on the newer NATS 2019 (baseline year 2019) model reports substantially lower (c. -30%) vehicle kilometres within the scheme area. The discrepancies need to be examined, and the models fully reconciled.	Please see Common Response E
RR-084.6	F. The scheme involves fragmentation, loss or displacement of diminishing wildlife habitats such as wet grazing meadows and protected species, notably bats and the urbanisation of mature countryside.	Please see Common Response F

Reference	Relevant Representation	Highways England Response
RR-084.7	G. In-combination, and cumulative impacts, for biodiversity, ecology, air quality and carbon emissions have not been assessed with at least six other road infrastructure schemes near to Norwich and East Norfolk. Carbon emissions need to be cumulatively assessed both locally within this area, and nationally with up to 100 other schemes planned. The recent judgement of Pearce v Secretary of State BEIS [2021] demonstrates that the Courts accept the importance of cumulative environmental impact assessment.	Please see Common Response G
RR-084.8	H. Carbon emissions should be tested against inter/national legislation and guidance including the Paris agreement, the legally binding target under the Climate Change Act 2008 to meet net-zero carbon emissions by 2050, the UK Sixth Carbon Budget (6CB), science-based carbon budgets from the Tyndall Centre, NPPF 148 which requires the planning system contribute to "radical reductions of greenhouse gas emissions".	Please see Common Response H
RR-084.9	I. Norfolk County Council has identified that the area north of the scheme has a nationally significant breeding barbastelle colony of bats, recently found, which although not yet afforded SSSI or SAC status would otherwise qualify as such (see: page 85 in NCC submission to PINS on the A47/A11 Thickthorn Junction, June 3rd, at [redacted]). The in-combination, and cumulative impacts, of the A47 dualling with the Norwich Western link road on this European protected species should be assessed under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006.	Please see Common Response I

RR-085 CHRIS CURSON (T J CURSON & PARTNERS)

Reference	Relevant Representation	Highways England Response
RR-085.1	<p>I am the farming tenant at the [REDACTED] where I breed and raise beef cattle. I have a herd of between 24-26 breeding cattle which graze the land at Berry Hall, plus approx. up to 80 store cattle per year being fattened at [REDACTED]. They graze on the meadows and the calves are fattened in the dairy shed, we currently do not have enough room on our own holding for these cattle and if we were to lose the grazing and shed space at [REDACTED] this would effect our business greatly and we would have to either sell these cattle or find alternative pastures which are very hard to come by in this area. I grow grain on the arable fields for feed, fertilised by the cows' manure. I keep silage in the silage compound north of the dairy shed. Lorry access to the farm is down the drive from the A47. The cattle use the drive across to Berry's Lane to reach the meadows, plus Berry's Lane to get south of the river and they use the field behind Merrywood House to reach the meadow beyond.</p> <p>From what I can understand of the current proposal my business at Berry will be ruined if the road construction goes ahead as now planned. Most of the arable fields will be taken and the drainage destroyed. The drives will be blocked off and the dairy shed will be stuck between two construction compounds. Most of the Merrywood field will be taken as well.</p> <p>I may not be able to attend the Open Floor Hearing on 12 August due to the possibility of harvest continuing. However I would like to ask, has my farming business been taken into account, and what does the applicant propose to do about it? Have they considered any alternatives to needing these compounds and the Merrywood field?</p>	<p>The Applicant can confirm that the dairy shed itself and Mr Curson's ability to access the dairy shed and along Berrys Lane will not be affected during construction or operation of the Scheme. Lorry access to the farm is still available from Berrys Lane. In the longer term, closure of Berrys Lane to through traffic would improve safety for moving cattle across or along Berrys Lane. Only the direct access off the A47 to the north of Berrys Hall is proposed for closure.</p> <p>The Applicant notes the need to cross the field north of Merrywood House to access the field east of Merrywood House. The Applicant is unable to avoid works within the field north of Merrywood House due to the need to divert statutory utility services, especially a National Grid Gas high pressure gas pipeline, and to create a new bridleway between Dereham Road and Berrys Lane. However, though the Applicant originally proposed to use this field for a construction compound, following consultation feedback this is no longer proposed. The Applicant will engage with Mr Curson to understand his access needs and seek to manage the works to maintain a safe access route when required.</p> <p>With regards the arable fields either side of the dairy shed, only the field west of the shed is required for the construction compound, while the land to the north and east is for construction work area needs. The Applicant will engage with Mr Curson to enable continued storage of silage compound north of the dairy shed and to compensate for the need to temporarily import replacement feed from that lost due to the temporary use of the arable land.</p> <p>Post construction, the land will be returned to arable use, with existing land drainage reinstated.</p>

RR-086 DR IAIN ROBINSON

Reference	Relevant Representation	Highways England Response
RR-086.1	<p>Relationship between the NWL and the A47 scheme A47 North Tuddenham to Easton Examination</p> <p>I am a landowner who owns woodland on the route of the proposed Norwich Western Link, and a member of the Wensum Woodlanders and Stop Wensum Link campaign groups.</p> <p>I have seen and write in support of the arguments presented by Dr. Andrew Boswell in his recent letter to you on this subject.</p> <p>I feel that the following issues need to be looked at as part of the examination process:</p> <p>Cumulative Impacts on Biodiversity</p> <p>Dr Boswell refers to the recently discovered nationally significant super-colony of Barbastelle bats in the Weston-Ringland Woods area impacted by the NWL. The Barbastelle bat commutes long distances, foraging over a wide area, and the southernmost ranges of the super-colony would potentially be impacted by the A47NTE scheme. Recent</p>	Please see Common Response I

Reference	Relevant Representation	Highways England Response
	surveys (2019 & 2020) carried out by Wild Wings Ecology and WSP (on behalf of the council) confirm the scale and significance of this population, but the details of their 2021 survey datasets are yet to be published. The cumulative impacts of these road schemes on this rare and heavily protected species must be subject to close inspection. A full and complete baseline of surveys from both projects must inform this examination.	
RR-086.2	The A47NTE scheme (Scheme) will significantly impact the River Tud which flows into the nearby River Wensum Special Area of Conservation (SAC). The impact of this in combination with the impacts of the NWL project on the Wensum SAC must be fully considered in order to guarantee informed decision making.	Report to Inform Habitats Regulations Assessment (APP-139) assesses the effects on the ecology of the River Wensum Special Area of Conservation (SAC). No works are to take place within the River Wensum and, without mitigation, there will be no likely significant indirect effects on any of the qualifying features of the River Wensum SAC. This was primarily down to the distance the site is away from the works (1.6km overland, 7.3km downstream), thereby any pollution would be highly dissolved or dispersed before reaching the site the impacts would be negligible. Please also see the response to RR-053.2 for how the Applicant has assessed and will mitigate the risk of effects on the water environment, soils and ecological habitats from works in, over or adjacent to the River Tud.
RR-086.3	Cumulative Impacts on Climate Change I wish to highlight Dr Boswell's expert assertions on this subject regarding the adequacy of the baseline assessment, the assessment of the individual impacts of each scheme and their combined impact in relation to carbon emissions. These arguments and the evidence underpinning them need to be given the weight they clearly warrant. The schemes including the NWL need to be considered as a whole and not in isolation. A failure to include such an assessment as part of the Examination would inevitably result in the production of misleading and unreliable data.	Please see Common Response G
RR-086.4	Similar considerations regarding the cumulative impacts on air quality and noise should also, in our submission, be thoroughly scrutinized.	Please see Common Response G

RR-087 LISA J TOMLIN

Reference	Relevant Representation	Highways England Response
RR-087.1	See copy of submission after this table.	<p>The Applicant can confirm that Ms Tomlin's access via both the back and front drives to Berrys Lane will not be affected during construction or operation of the Scheme. Access for refuse and emergency service vehicles to Berry Hall, including via the back drive, will also be maintained at all times. It is only the direct access from the A47 to the north of Berry Hall which is proposed for closure.</p> <p>With regards concerns about the proximity of construction activities, the Applicant only proposes to use the agricultural field north-west of Berry Hall for a construction compound, so it will be screened from Berry Hall properties by the existing woodland. The field north of Berry Hall and the back drive is only identified for a construction work area and associated access to complete the construction works.</p> <p>ES Chapter 5 Air Quality (APP-044) and ES Chapter 11 Noise and Vibration (APP-050) assesses the risk from construction of the Scheme with regards risks from noise, vibrations, air quality and dust emission. Measures to minimise impacts during construction (e.g. dust, vehicle emissions) would be delivered through dDCO (APP-017) Requirement 4 'Environmental Management Plan', which requires the second iteration version to be approved by the Secretary of State following consultation with the relevant planning authority. This plan includes Annex B.3 'Construction Noise and Dust Management Plan' to manage the risks to control emissions of dust and noise during construction. No significant effects are predicted at the Berry Hall properties; ES Figures 11.9 to 11.28 in APP-075 and APP-076 show no significant construction noise impacts during day time or night time, with mitigation in place. Where possible the Contractor would also seek to keep construction activity as far away from the properties as possible to further minimise disturbance risks.</p> <p>Construction traffic to and from the work area would be predominantly directly off the A47 to the north, but the DCO boundary provides the ability for the Applicant's Contractor to share access with the back drive connection to Berrys Lane, when needed (e.g. to cross Berrys Lane or complete drainage works parallel to Berrys Lane).</p> <p>ES Chapter 6 Cultural Heritage (APP-045) confirms no direct impact on the listed buildings at Berry Hall, including the associated wall, and the construction work area would keep construction traffic away from sensitive areas.</p> <p>The construction workforce will not be permitted near the Berry Hall properties to avoid disturbance and safety concerns to the residents.</p> <p>The Applicant will also engage further with the residents of the properties at Berry Hall to understand their concerns and identify specific measures to cater for any special needs, as indicated by the Ms Tomlin. Action G7 in the Environmental Management Plan (APP-143) confirms the commitment to engage with local residents to provide prior notification of and manage concerns about periods of disruption; delivery of this commitment will be secured through dDCO Requirement 4 'Environmental Management Plan' (APP-017).</p> <p>Finally, with regards consideration of alternative options, this is discussed in Section 2 of the Case for the Scheme (APP-140).</p>

I live at [REDACTED]. It's a brick and flint cottage that is attached at the end of a well-preserved crinkle crinkle wall of which both are part of the overall listed building status. I have rented the cottage for 5 years and it had been my hope when I moved back to Norfolk to be closer to family that Wisteria would be the cottage to put down roots and remain at for many years, the proposals for the expansion of the A47 and the effects of the construction works will have if the fields close to my home are used for construction compounds is of extreme worry for me.

[REDACTED], these compounds will not only have significant effect on the environment but also my health and home. [REDACTED] are like myself deeply concerned as to how I will cope with these compounds and the likely health relapses they will cause. For example: I have to use the back drive when returning due as due to [REDACTED] as I cannot turn into my drive from the front drive of Berry Hall. The Dustbin Lorry can only use the back drive and I would not be physically able to move my dustbins to another location for collection given my mobility, those delivering in larger vans to my cottage and [REDACTED] can also only use the back drive and I have to do much of my shopping by home delivery [REDACTED].

What happens if there is a fire at [REDACTED], Tanglewood or Wisteria a Fire Engine would need access from the back drive. Ambulances also need access from the back drive and I need to have the assurance that paramedics can reach me in an emergency [REDACTED].

The noise, dust, vibrations and disturbance 24/7 so close to my home and garden would be extremely triggering [REDACTED], I would effectively become a prisoner in my own home and feel very unsafe from the many construction workers and strangers so close to my home. [REDACTED]

[REDACTED] these compounds and construction works will exacerbate this to potentially risk levels.

Being outside in my garden is extremely key for my health and wellbeing the noise, activity and dust etc from these compounds will severely restrict this.

I would also be losing the safe walking areas for my [REDACTED] who I'm utterly [REDACTED] mean I need to be able to let them safely have a run in the surrounding secure fields that are part of [REDACTED], this is an absolute priority and another reason I moved to the cottage.

There is also a Veterinary issue as one of my [REDACTED] and the constant noise and strangers and her alerting me would be 24/7 for her and likely to put a significant [REDACTED]

The crinkle crinkle wall will also be effected by the vibrations from construction and the heavy traffic causing potential cracks and movement which will in turn will affect the cottage, these will require maintenance and possible emergency repairs and I cannot have people in my home that I don't know [REDACTED], therefore, this is causing yet more distress and concern.

I want to address the meeting on 12th August:

Why have more suitable alternatives not been considered i.e. not so close to people's homes and gardens and if they have why have they been rejected?

What is being proposed for the access issues these compounds and construction works will cause for the Berry Hall Residents, our local services, emergency services access and deliveries?

What is going to be done about the potential damage to the listed wall, how this will effect my listed cottage and what is being done in general to protect all the listed building of the [REDACTED]?

What is being done about the effects of all those that live at [REDACTED]?

What about my [REDACTED] in my cottage?

The Veterinary and safety issues reagrding my [REDACTED]?