

# A47/A11 Thickthorn Junction

**Scheme Number: TR010037**

## **Volume 9**

### **9.4 Applicant's Response to the Written Representations**

The Infrastructure Planning (Examination Procedure) Rules 2010  
Rule 8(1)(c)

Planning Act 2008

October 2021

Infrastructure Planning

Planning Act 2008

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

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

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**9.4 APPLICANT'S RESPONSE TO THE  
WRITTEN REPRESENTATIONS**

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## CONTENTS

1.	<b>Introduction .....</b>	<b>1</b>
2.	<b>Key Abbreviations.....</b>	<b>1</b>
3.	<b>Brown and Co on behalf of Big Sky Developments .....</b>	<b>2</b>
4.	<b>Climate Emergency Planning and Policy (CEPP).....</b>	<b>3</b>
5.	<b>Historic England.....</b>	<b>5</b>
6.	<b>Brown and Co on behalf of Jason Graver.....</b>	<b>6</b>
7.	<b>Birketts LLP on behalf of Mr and Mrs Thompson .....</b>	<b>6</b>
8.	<b>National Grid Electricity Transmission PLC .....</b>	<b>9</b>
9.	<b>Addleshaw Goddard LLP on behalf of Network Rail Infrastructure Limited .....</b>	<b>9</b>
10.	<b>Norfolk County Council .....</b>	<b>10</b>
11.	<b>Richard Hawker .....</b>	<b>15</b>
12.	<b>The Woodland Trust .....</b>	<b>17</b>

## **1. INTRODUCTION**

- The Development Consent Order (DCO) application for the A47/A11 Thickthorn Junction scheme was submitted on 31 March 2021 and accepted for examination on 28 April 2021.
- The purpose of this document is to set out Highways England's (the Applicant) responses to the Written Representations submitted to the Examining Authority at Deadline 1, on 13 October 2021.

## **2. KEY ABBREVIATIONS**

- The following common abbreviations have been used in the Applicant's submissions to the Examination:
  - dDCO = draft Development Consent Order
  - DMRB = Design Manual for Roads and Bridges
  - ES = Environmental Statement
  - ExA = Examining Authority
  - NPSNN = National Policy Statement for National Networks 2014
  - NWL = Norwich Western Link
  - the Scheme = the A47/A11 Thickthorn Junction

### 3. BROWN AND CO ON BEHALF OF BIG SKY DEVELOPMENTS

- The below Written Representation submitted at Deadline 1 by Brown and Co on behalf of Big Sky Developments (see below link) has been examined and the responses to the questions and concerns raised are provided in the table below.

[REDACTED]

Comment	Applicant's Response
<p>1.. Agreement</p> <p>Agreement has been reached in principal to meet the cost of the commuted sum.</p>	<p>The Applicant has agreed in principal to mitigate the loss of the football pitch, which was secured as part of the Cringleford residential development, but can no longer be delivered as a result of the Scheme.</p>
<p>2.. Noise</p> <p>Whilst desktop studies have been undertaken to assess the impact of the scheme on the site, the landowner is concerned the impact is likely to be greater, with increased noise interference from south of the A47 than is suggested. We are assured the Applicant will continue to engage in discussions about noise and the impact on the site.</p>	<p>The Applicant confirms it will continue to engage with the landowner.</p>
<p>3.. Compound</p> <p>The triangular compound reference 7/7c will occupy land designed for three houses and will affect the ones immediately north, as services and accesses cannot be completed, and the phase of the development cannot be completed. Our understanding is that timescales will coincide badly:</p> <p>i. A47 Thickthorn Scheme timing</p> <p>Works from Early 2023 to December 2024, if there are no delays.</p> <p>ii. St Giles Park development timing. G e a p t m g</p> <p>Phases 14 and 16 works from early 2023 - to be completed by Autumn 2024, with the development completed and contractors off site by the end of 2024. There was mention that the site would be used for welfare facilities rather than for the construction compound and material storage area referred to in the general arrangement plan.</p> <p>The contractor or the Applicant may indicate they require storage facilities on this site, but there is a significant area on land which is expected to be under the Applicant's control on the southern side of A47, shown on Plan 6 the PCF Environmental Masterplan.</p>	<p>Plot 7/7c is required for a site compound, welfare facility, parking and some storage. The Applicant will be able to confirm the exact area required once the detailed design has been prepared and will try to minimise the temporary land take in this area. However, the extent of land shown on the land plans is the land that is required to ensure the Scheme can be delivered at this stage of the design process.</p> <p>The Applicant is under a legal obligation to provide welfare facilities and this is the only area where these can be provided, whilst complying with the Construction (Design and Management) Regulations 2015.</p>
<p>4.. Welfare facilities</p> <p>If the site (plot 7/7/c) is to be used for welfare facilities with portaloos and an office or welfare base, the site does not need to be 1.7 acres or so.</p> <p>This use could be accommodated along the hard surfacing of Cantley Lane, a closed off road used only for public access. Alternatively, the site could be restricted to the south of the overhead UKPN overhead pylon line which is reserved for public open space after completion.</p> <p>it would not prevent construction, and interference will be time limited. If the Applicant can persuade their contractors, or they can be pressurised to omit this area of onflict or time limit their occupation, we request that a deadline is set for removal of the compound from the land so the landowners can provide guarantees to buyers.</p>	<p>Please see the response to point 3 above.</p>
<p>5.. Site Compound</p> <p>If the site is to be used for a construction compound the impact is greater. We remain concerned about the proximity of works and the impact of the compound on new adjacent residential properties, but this is much more severe if houses cannot be built at all.</p> <p>We are concerned about the planned exit from site by Autumn 2024 as the Thickthorn works are also designed to complete then. The owners will be prevented from selling in advance and from building through the period proposed through 2023 and 2024.</p> <p>This produces problems of breach of contract, penalties, and preliminaries.</p>	<p>Please see the response to point 3 above.</p> <p>Impacts on the development can be dealt with through the compensation code.</p>

#### 4. CLIMATE EMERGENCY PLANNING AND POLICY (CEPP)

- The following Deadline1 submission documents from Climate Emergency Planning and Policy (CEPP) (see below link) has been examined and the responses to the questions and concerns raised are provided in the table below: [REDACTED]

- Written Representation Appendix E
- Written Representation Appendix F
- Written Representation Appendix G

Comment	Applicant's Response
<p>N_C-1: The Environmental Statement does not comply with the requirements of the NPS NN and the EIA Regs. The absence of cumulative, and short, medium and long-term, impact assessment of carbon emissions renders the Environmental Statement inadequate under the EIA Regs, and CEPP respectfully request that the ExA consider this under EIA Reg 20</p>	<p>This has previously been addressed in Common Responses G and H within the Applicant's response to the Relevant Representations (RRs) (REP1-004)</p>
<p>N_C-2: The applicant has not complied with the NPS NN, EIA Regs, DMRB LA 103 as the Environmental Statement provides no cumulative assessment of carbon emissions.</p>	<p>This has previously been addressed in Common Responses G and H within the Applicant's response to the Relevant Representations (RRs) (REP1-004)</p>
<p>N_C-3: The applicant has not complied with the EIA Regs and the guidance, nor with the NPS NN invocation of the EIA Regs, in only attempting to assess the scheme itself, and only providing a national assessment against national whole economy GHG targets (ie: no local and regional assessments have been attempted).</p>	<p>This has previously been addressed in Common Responses G and H within the Applicant's response to the Relevant Representations (RRs) (REP1-004)</p>
<p>N_C-4: Local cumulative carbon assessment cannot currently be done because no rational choice of study area has been made which would enable it to be calculated coherently across different schemes. By definition, coherent cumulative assessment requires a common and standard study which enables all relevant schemes in the local area to be assessed against the same baseline area. The applicant, and also Norfolk County Council, have not chosen a standard study area across the relevant local schemes.</p>	<p>This has previously been addressed in Common Responses G and H within the Applicant's response to the Relevant Representations (RRs) (REP1-004)</p>
<p>N_C-5: Carbon assessment requires a study area that reflects the specific characteristics of carbon. Appropriating a "study area" used for air quality assessment to carbon assessment ignores the differences in the fundamental physical science and impacts between air pollutants and carbon emissions. As the affected road network (ARN) derived for air quality is different across each scheme, cumulative carbon assessment across schemes in the area as part of compliance with the EIA Regs is precluded.</p>	<p>The study area assessed for the Scheme is in accordance with paragraphs 3.8 and 3.9 of DMRB guidance <i>LA 114 Climate</i>.          Greenhouse gas (GHG) emissions are then compared with national carbon budgets in part because it is not possible to attribute a specific local emission of carbon to effects on a local receptor.</p>
<p>N_C-6: The applicant has not complied with DMRB LA 104 by not considering road projects (locally, regionally and nationally) which are confirmed for delivery over a similar timeframe for cumulative carbon effects.</p>	<p>This has previously been addressed in Common Responses G and H within the Applicant's response to the Relevant Representations (RRs) (REP1-004)</p>
<p>N_C-7: The applicant has not provided any assessment of national cumulative carbon emission impacts for the scheme despite the requirement for cumulative assessment across Highway's England networks under section 5.3(c) of the Highways England licence, and the requirement for national cumulative assessment in the EIA Regs guidance, and the NPS NN which requires compliance with the EIA Regs.</p>	<p>This has previously been addressed in Common Responses G and H within the Applicant's response to the Relevant Representations (RRs) (REP1-004)</p>
<p>N_C-8: No assessment of the scheme has been made against the period 2038-20494 when the UK is required legally to achieve net-zero and over-all eliminate all carbon emissions. Significant additional emissions from road use in Norfolk are inherent in each year of this period from the applicant's data. Further additional emissions would accrue from cumulative assessment with other local schemes, which the applicant has not carried out. Together these have an, as yet not fully assessed, material impact on the ability of Government to meet its carbon reduction targets.</p>	<p>Please see previous response to GC 4.7 within the Applicant's Response to the Examining Authority's First Written Questions (ExQ1). The UK carbon budgets are the only measures against which to assess emissions and, as highlighted within the response to GC 4.7, an assessment has been made against each relevant carbon budget.          The carbon figures reported within ES Chapter 14: Climate (<b>APP-051</b>) are conservative as the end user carbon assessment does not account for the ban of new petrol and diesel cars beyond 2030. GC 4.7 within the Applicant's Response to the Examining Authority's First Written Questions (ExQ1) also describes measures set out in Highways England's Net Zero</p>

Comment	Applicant's Response
	Plan and DfT's Transport Decarbonisation Plan that will help ensure that road infrastructure accords with the national net zero target.
<p>N_C-9: No assessment of the scheme has been made against the 35-year period 2050-2084, post the 2050 net-zero target. Irrespective of UK legislative dates, scientists are clear that a net-negative world, with massive extraction of CO2 is required urgently (ie actually before 2050). Yet significant additional emissions from road use in Norfolk are inherent in each year of the 2050-2084 period in the Environmental Statement making the scheme net-positive. Further additional net-positive emissions would accrue from cumulative assessment with other local schemes, which the applicant has not carried out. Together these have an, as yet not fully assessed, material impact on the ability of the UK to its obligations under the global endeavour to stabilise global heating at 1.5oC enshrined in the Paris agreement.</p>	Please see to previous response to GC 4.7 within the Applicant's Response to the Examining Authority's First Written Questions (ExQ1)
<p>N_C-10: The lack of transparent information and data about the traffic models on which operational carbon emissions are based does not allow any independent review and scrutiny of the high-level figures published in the Environmental Statement. The applicant is in contravention of the terms of the Aarhus Convention.</p>	<p>The development of the traffic model scenarios used in the assessment are described in Chapter 4 'Transport Assessment' of the Case for the Scheme (<b>APP-125</b>), submitted with the original DCO by the Applicant on 31 March 2021.</p> <p>This document has been available for independent review and scrutiny since the DCO application was published on 16 April 2021 and accepted for examination on 28 April 2021.</p>
<p>N_C-11: NB: This non-compliance applies directly to the A47NTE6 scheme, and indirectly to the A47THI scheme. The applicant has ignored PINS advice in the EIA Scoping opinion on the A47NTE scheme to do cumulative assessment with the Norwich Western link road (NWL) on the A47NTE schemes. It applies indirectly on the A47THI scheme as local cumulative carbon assessment of the A47THI should include both the A47NTE and NWL schemes.</p>	This has previously been addressed in Common Responses C, D and G within the Applicant's response to the Relevant Representations (RRs) (REP1-004)
<p>N_C-12: In a recent DCO applications the SoS is requiring cumulative carbon assessment in line with the NPS NN and EIA Regs. This implies that the Environmental Statement for the scheme, which has no cumulative carbon assessment, is inadequate under the EIA Regs, and the ExA should consider this under EIA Reg 20.</p>	This has previously been addressed in Common Responses G and H within the Applicant's response to the Relevant Representations (RRs) (REP1-004)
<p>N_C-13: NB: This non-compliance applies directly to the A47NTE scheme, and indirectly to the A47THI scheme. PINS requested that cumulative environmental assessment is done for A47NTE including the NWL, but traffic modelling for the two schemes uses different base years, and there is a major loss of traffic from one model which remains unexplained. The applicant must provide new traffic modelling that allows cumulative environmental assessment, which is consistent between both schemes, and corrects errors. It applies indirectly on the A47THI scheme as local cumulative carbon assessment of the A47THI should include both the A47NTE and NWL schemes.</p>	This has previously been addressed in Common Response E within the Applicant's response to the Relevant Representations (RRs) (REP1-004)
<p>N_C-14: Even before cumulative carbon emissions are considered, the applicant's carbon assessment does not reduce operational carbon emissions (from vehicle use) over the 60-year appraisal period, as is required to comply with the government's Transport Decarbonisation Plan (TDP7) for ambitious quantifiable carbon reductions in transport at the local level. It shows an addition of 136,725 tCO2e over the already very high baseline of over 53,000,000 tCO2e over the study area. In the critical 4th carbon budget that spans half of this decade in which United Nations have said we must halve emissions, an additional 29,706 tCO2e will be emitted from construction and operation of the scheme. Such additional carbon emissions without any mitigation plan are not acceptable in the Climate Emergency.</p>	Please see to previous response to GC 4.7 within the Applicant's Response to the Examining Authority's First Written Questions (ExQ1).
<p>N_C-15: (reworded for A47THI) The applicant has not provided the traded and non-traded operational emissions, and should make the 60-year appraisal and the TAG GHG workbook available to the Examination.</p>	Traded and non-traded emissions are categories used within the European Union Emissions Trading Scheme (EU ETS). There is no need to specifically report traded and non-traded emissions within NPSNN or DMRB guidance <i>LA 114 Climate</i> .
<p>N_C-16: CEPP do not accept that only comparing carbon emissions from the scheme against carbon budgets for the entire UK economy is a credible assessment method. It makes no sense from a scientific perspective where reference data for comparison should always carefully chosen. It is a deliberate tactic to "loose the signal in the noise", and it is antithetical to good science. Further, it does not comply with the EIA Regs guidance for local, regional and national assessment, against known local, regional and national carbon targets, as invoked by the NPS NN. The Environmental Statement is narrow, inadequate, and noncompliant in ignoring the wider scope of the EIA Regs.</p>	This has previously been addressed in Common Responses G and H within the Applicant's response to the Relevant Representations (RRs) (REP1-004)
<p>N_C-17: Additional new local transport emissions are introduced by the scheme in the BBSNN area. Between 2025 to 2027, these would add between 2.6% (scheme alone) and 25.9% (scheme in cumulation with other schemes) new</p>	This has previously been addressed in Common Response H within the Applicant's response to the Relevant Representations (RRs) (REP1-004)

Comment	Applicant's Response
<p>emission sources when compared against the 2019 transport emissions for the area, as reported by BEIS, as a baseline. When assessed against the opening year 2025 using the 4th carbon budget as the baseline, the equivalent figures are very similar at 2.3% and 23.1%. By not considering or assessing these impacts, the applicant does not comply with the EIA Regs guidance to take relevant greenhouse gas reduction targets at the national, regional, and local levels into account. These additional emissions also fall in the period leading up to the UK international commitment, via its NDC under the Paris Agreement, to reduce emissions by 68% by 2030 (relative to 1990 levels). Additional local emissions of this magnitude, with no evident mitigation strategy, will impact national efforts, and therefore create a serious risk against the UK delivering on its NDC commitment by 2030. Accumulated with other schemes in the local area, and nationally, this risk cannot be ignored, but has not been addressed in the Environmental Statement.</p>	
<p>N_C-18: Even without cumulative effects, the applicant's figure for carbon emitted from the scheme and in the wider road network (ARN) is approximately 5 times the entire carbon budget from BBSNN (Broadland, Breckland, South Norfolk and Norwich, a larger area) area for the period from 2033 to the net-zero date 2050 using science-based carbon budgets from the Tyndall Centre. For the period, after 2050, the corresponding applicant's figure is approximately 100 times greater than the available science-based carbon budget, and infinitely greater than the Government and CCC's implied budget for the post net-zero era. The applicant has provided no indication of how these additional carbon emissions would be mitigated. This has a clear material impact on the ability of the UK to contribute to the global endeavour to stabilise global heating at 1.5oC, and it does not comply with the UK obligations under the Paris Agreement.</p>	<p>This has previously been addressed in Common Response H within the Applicant's response to the Relevant Representations (RRs) (REP1-004)</p>

## 5. HISTORIC ENGLAND

- The below Written Representation from Historic England has been reviewed and the Applicant welcomes the feedback provided by Historic England.
- [REDACTED]

Comment	Applicant's Response
<p>Historic England is satisfied with the baseline information considered in the Cultural Heritage Chapter of the ES and with the assessment methodology employed. We are also broadly in agreement with the conclusion drawn in the ES with regard to the potential impacts on designated heritage assets.</p>	<p>No response required from the Applicant.</p>
<p>Historic England considered that the proposed scheme would have an adverse impact on the 'Two tumuli in Big Wood' scheduled monument through permanent change to its landscape setting. We consider that this change would result in harm to the significance of this designated heritage asset. Historic England considers that with the proposed mitigation measures in place, the harm to the significance of the 'Two tumuli in Big Wood' scheduled monument would be at a moderate level of 'less that substantial harm' in terms of the National Policy Statement for National Networks.</p>	<p>No response required from the Applicant.</p>
<p>Historic England considers it likely that, with appropriate mitigation measures in place, including the proposed heritage interpretation and archaeological knowledge gain, the wider public benefits of the proposed scheme can be weighed favourably against the moderate level of less that substantial harm to the significance of the 'Two tumuli in Big Wood' scheduled monument which would arise from the proposed scheme.</p>	<p>No response required from the Applicant.</p>
<p>In the event that that the development is consented, we would be concerned to ensure that the historic environment is adequately and appropriately considered, and that the DCO is appropriately worded to ensure appropriate mitigation would be delivered.</p>	<p>Cultural heritage mitigation measures are detailed in items CH1 to CH8 in Table 3-1 (REAC) of the EMP (<b>APP-128</b>). These are secured via Requirement 4 of the dDCO.</p>



## 6. BROWN AND CO ON BEHALF OF JASON GRAVER

- This below submission from Brown and Co on behalf of Jason Graver has been examined and the Applicant's responses the points raised are detailed in the table.



Comment	Applicant's Response
<p>Boundary</p> <ul style="list-style-type: none"> <li>The roadway between Cantley Lane South and the attenuation lagoon will be owned by Jason Graver.</li> <li>There will be a replacement for the green metal mesh fencing as a highway boundary fence on the north side of the access roadway as far as the lagoon.</li> <li>Highways England will provide a post and rail fence on the south side of the roadway with gates on both entrances.</li> <li>Highways England will provide replacement gates of the same specification at the site of the new farm entrance to replace the existing gate posts and gates</li> </ul>	<p>This has previously been addressed within the Applicant's response to the Relevant Representations (RR 038.1) (REP1-004).</p>
<p>Landscaping</p> <p>A hedge will be planted on Mr Graver's retained land south of the post and rail fence.</p>	<p>This has previously been addressed within the Applicant's response to the Relevant Representations (RR 038.2) (REP1-004).</p>
<p>Lagoon Works</p> <p>The landowner will be advised about the phasing for the lagoon works and the drainage connection so the disturbance to the fishing can be managed. In the interim losses will be payable.</p>	<p>This has previously been addressed within the Applicant's response to the Relevant Representations (RR 038.3) (REP1-004).</p>
<p>The holiday cottage</p> <p>The landowner will be advised about the phasing for the watercourse realignment works so the disturbance to the holiday lettings can be managed. In the interim losses will be payable.</p>	<p>This has previously been addressed within the Applicant's response to the Relevant Representations (RR 038.4) (REP1-004). Any claims for compensation against the Applicant will be dealt with in accordance with the Compensation Code.</p>
<p>New farm Access</p> <p>The new farm access fences will be agreed on site.</p>	<p>This has previously been addressed within the Applicant's response to the Relevant Representations (RR 038.5 and RR 038.6) (REP1-004).</p>

## 7. BIRKETTS LLP ON BEHALF OF MR AND MRS THOMPSON

- This below submission from Birketts LLP on behalf of Mr and Mrs Thompson has been examined and the Applicant's responses the points raised are detailed in the table.



Comment	Applicant's Response
<p>Transport Highways Impact</p> <p>3.1 The DCO Plans lack sufficient detail to understand its impacts and the surrounding area in terms of amenity</p> <p>3.2.1 The extent of the new access is insufficient to allow access and egress for tanker deliveries of oil. The Thompsons have proposed an extended access. This is shown indicatively on the plan attached at Appendix 1 and marked "Proposed Extended Access". We request that the Works Plans and Access Plans are updated accordingly.</p> <p>3.2.2 It is unclear whether the hedge along the northern line of the new access will be affected/removed as a result of the works. The Thompsons require certainty that this will be retained as part of the detailed design for the new access for biodiversity and as a boundary feature of the garden.</p> <p>3.2.3 The current proposals require removal of the hedge along the southern boundary where it adjoins the Scheme. The Thompsons require certainty in the form of Requirements in the DCO or amended plans requiring reinstatement of the hedge and/or alternative boundary treatments to ensure their property is screened.</p> <p>3.2.4 The design lacks any detail in terms of material and finish. The Thompsons require certainty in the form of Requirements in the DCO to secure approval of the detailed design or revised drawings and plans showing the detailed design.</p> <p>3.3 The engineering drawings do not contain details of any noise mitigation or screening measures to protect the amenity of nearby residential properties from</p>	<p>3.1 The impacts on amenity have been assessed in Chapters 7, 11 and 12 of the Environmental Statement (<b>APP-044, APP-048 &amp; APP-049</b>)</p> <p>3.2.1 The Applicant intends to ensure the new access is suitable and is in discussions with the landowner. However the area shown on the plan at Appendix 1 is already part of the existing access track and the Applicant does not intend to stop up this part of the access track. The new access will be created between C12 and C11 (which is also where B1 is situated), and at this point it will tie into the existing track and continue until B9 where it will be stopped up.</p> <p>3.2.2 The hedgerow to the east of the new Cantley Lane Link Road is shown as being retained on Sheet 2 of the Environmental Masterplan (<b>APP-123</b>)</p> <p>3.2.3 Please see the Applicant's response to RR-034.2</p> <p>3.2.4 The detailed design will be prepared post consent in accordance with the preliminary scheme design shown on the engineering drawings and sections pursuant to requirement 3 of the dDCO (<b>APP-017</b>).</p> <p>3.3 This has been previously addressed within the Applicant's response to the Relevant Representations (RR-009.3). In addition, all noise mitigation measures identified from the environmental</p>

Comment	Applicant's Response
<p>highway users on the link road. The Thompsons require certainty in the form of Requirements in the DCO to include these measures as part of the detailed design or revised drawings and plans showing the detailed design. In addition The Thompsons are in discussion with Highways.</p> <p>3.4 The Thompsons are concerned about the speed of traffic approaching the link road. They request that the Scheme is amended so as to relocate Point H on Sheet 3 of the Traffic Regulations Plans to a point south of the Railway Bridge. This would involve extending the Order Limits on the plan from the point marked G south to the other side of the bridge.</p>	<p>assessment are contained in items N1 to N5 in Table 3-1 (REAC) of the EMP (<b>APP-128</b>). These are secured via Requirement 4 of the dDCO.</p> <p>3.4 Please see the Applicant's response to RR-034.1</p>
<p>Impact on wildlife and biodiversity</p> <p>4.1 The scheme adjoins the hedges number H1 and H2 on the Hedgerow Plans. In addition the proposed new access will adjoin an existing hedge along a boundary which is not shown on the hedgerow plan.</p> <p>4.2 The Thompsons are concerned about the loss of historic hedgerows and habitats for wildlife and which to see these retained where possible.</p>	<p>This has been previously addressed within the Applicant's response to the Relevant Representations (Common Response F). In addition, all Biodiversity mitigation measures identified from the environmental assessment are contained in items B1 to B16 in Table 3-1 (REAC) of the EMP (<b>APP-128</b>). These are secured via Requirement 4 of the dDCO (<b>APP-017</b>).</p>
<p>Permanent and temporary acquisition of land</p> <p>5.1 The areas of land to be acquired permanently and temporarily are shown on the Land Plans. The Thompsons currently access over parcels 3/3d, 3/6d and 3/3h. the existing highways forms parcel 3*6c.</p> <p>5.2 Once the various areas of land are acquired The Thompsons will have no rights of access to the highway. Suitable rights of access need to be granted by Highways England to the Thompsons and access to [redacted] to be maintained during the construction period.</p> <p>5.3 Parcel 3/3h is to be acquired temporarily. Once returned to the Trust there will be no direct access to the land acquired by Highways England and the adjoining highway, it is therefore essential that where land is returned to the Trust it is subject to appropriate rights of way and easements for services in favour of the [redacted].</p> <p>5.4 From discussions with Highways England it is understood that part of Parcel 3/3d which is to be acquired permanently, including the new access to the [redacted], will likely be handed back to the Trust. Again it is therefore essential that any land returned to the Trust is subject to appropriate rights of way and easements.</p> <p>5.5 The Scheme will result in a realignment to the south east into parcel 3/7a. The highway where it adjoins the existing access to will be stopped up. From discussions with Highways England it is possible that some or all of this land will be returned to the land owners. This will result in an area of land being returned to the owner of the land opposite based on the legal presumption of ownership to the centre line of the highway. This land would then be bound by highway and land owned by the Trust and would result in an unmaintained area of land. The affected area is shown indicatively on the plan attached at Appendix 2 and marked "land between property and highway" by a blue broken line.</p> <p>5.6 Also shown on the plan at Appendix 2 is an area of land edged red. Highways England have indicated that all or some of this land will be returned to the Trust along with the land shown coloured pink on the plan attached at Appendix 3 and marked "Proposed land to be transferred". If returned this land would be bounded by the new link road.</p> <p>5.7 The Thompsons wish to ensure that all of the land marked by a blue broken line and so much of the land edged red on the plan at Appendix 2 as is necessary for mitigation measures is retained by Highways England and dedicated as highway. As detailed at 6.1 below the Thompsons wish to ensure appropriate noise mitigation and light barriers are installed in this area to reduce the impact of the Scheme.</p> <p>5.8 The Thompsons are in discussions with Highways England and the Trust to secure the various rights and easements and agree a transfer of land to them following completion of the new link road to ensure that they have adequate control over land . The proposed land to be transferred is shown coloured pink, blue and green on the plan at Appendix 3 and edged red (but excluded the blue area and so far as the same is not required as part of the highway as detailed at 7.6 above) on the plan at Appendix 2 to them. If these areas are handed back to the original landowners it will result in areas of unmaintained land over which only a right of way would exist. This would prevent the erection and maintenance of suitable fencing and boundary features protecting amenities. An appropriate legal agreement needs to be in place before the DCO is made and the Thompsons wish to maintain a holding objection to the Scheme until this has been completed.</p>	<p>5.2 Article 17(2) ensures that the existing private means of access cannot be stopped up unless and until the substitute access has been provided. The Applicant has confirmed to the landowner that they will have 24/7 access to their property during the construction period.</p> <p>5.3 Parcel 3/3h is coloured blue on the land plans, which means the Applicant is seeking to acquire new rights over this plot of land. This plot is listed in Schedule 5 of the dDCO (<b>APP-017</b>) and column (2) includes the right to pass and repass with or without plant and vehicles, including access to highways as a purpose for which rights may be acquired.</p> <p>5.4 Article 17(2) ensures any private means of access is replaced before stopped up and as part of this provision the appropriate rights will be granted to the beneficiary of the private means of access. The Applicant is negotiating a side agreement with the landowner to deal with the provision of appropriate access rights.</p> <p>5.7 At this stage of the design process, the Applicant can confirm that this land is required to deliver the Scheme. Once the detailed design has been prepared, the Applicant will be able to determine whether any land is surplus to requirements and or can be returned to landowners once construction is completed.</p> <p>5.8 The Applicant is progressing negotiations with the landowner and will keep the ExA updated.</p>
<p>Certain DCO provisions</p> <p>6.1 As stated at 7 above the current plans do not contain sufficient detail to verify what mitigation measures will be included as part of the Scheme to protect the amenity of nearby residential properties. The Thompsons require certainty in</p>	<p>This has been previously addressed within the Applicant's response to the Relevant Representations (RR-009.3). In addition, all noise mitigation measures identified from the environmental assessment are contained in items N1 to N5 in Table 3-1 (REAC) of the EMP (<b>APP-128</b>). These are secured via Requirement 4 of</p>

Comment	Applicant's Response
<p>the form of an amendment to Requirement 3 to require:            6.1.1 The provision and retention of noise mitigation measures.</p>	<p>the dDCO.</p>
<p>6.1.2 The provision and retention of light barriers at the junction of [redacted] adjoining the [redacted]</p>	<p>This has previously been addressed within the Applicant's response to the Relevant Representations (RR 034.7) (REP1-004).</p>
<p>6.1.3 A restriction on street lighting within 400 metres of any residential property without express permission.to make it clear that the detailed designs should include measures to reduce noise and light from the Scheme and that these should be retained in perpetuity.</p>	<p>No street lighting is proposed on Cantley Lane South or the Cantley Lane Link Road. The closest proposed new lighting is approximately 360m from The Sycamores, in the cutting for the proposed A11-A47 Connector Road, on the other side of the existing A11. The cutting is approximately 7.5 m below existing ground level at this point. A detailed plan of the proposed scheme lighting can be found in Appendix 7.7 Lighting Impact Assessment Report (APP-086).</p> <p>As secured in clause G2 of the Environmental Management Plan REAC (APP – 123) the lighting design will be managed to minimize light spillage at sensitive lighting 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 spillage onto habitats which support commuting and foraging bats. During construction of the Scheme, works lighting shall be directional, at the minimum luminosity necessary and use low energy consumption fittings.</p> <p>Please see the Applicant's response to the Relevant Representations (RR 036.4) (REP1-004) regarding the provision of noise mitigation.</p>
<p>6.1.4 The provision of appropriate boundary treatments to protect the amenity of adjoining residential properties.</p>	<p>Boundary treatments in the form of new fencing and hedgerows are shown on the Environmental Masterplan (<b>APP-123</b>)</p>
<p>6.2 The Thompsons are concerned about the impact of the Scheme on the amenity of residential properties in the area during construction. The Thompsons require certainty in the form of an amendment to Requirement 4 to secure the following:            6.2.1 A condition which restricts construction work and construction traffic carrying out works to the link road in the vicinity of [redacted] between the hours of 7pm and 7am Monday to Friday, 7am to 1pm on Saturdays and no working on Sundays/Bank holidays.</p>	<p>The construction hours are restricted to 07:00 to 19:00 on weekdays and 07:00 to 19:00 on Saturdays and shall be minimised as far as practicable unless works outside these hours are unavoidable. The Contractor must consult with the local authority before carrying out works outside these times and agree appropriate methods of mitigation. This is set out at G1 of the REAC (Table 3-1) in the Environmental Management Plan (<b>APP-128</b>) and compliance is secured by requirement 4 in the dDCO (APP-017).</p>
<p>6.2.2 A condition which requires noise mitigation measures to be agreed and retained during the construction period.</p>	<p>Proposed noise mitigation measures are set out in N1 to N5 of the REAC (Table 3-1) in the Environmental Management Plan (<b>APP-128</b>) and compliance is secured by requirement 4 in the dDCO (<b>APP-017</b>).</p>
<p>6.2.3 Provisions to control construction traffic, debris, dust noise, health and safety, access, waste and air quality to include the provision of temporary boundary treatments to mitigate the impact on adjoining residential properties during the construction period.</p>	<p>Proposed construction mitigation measures are set out in the REAC (Table 3-1) in the Environmental Management Plan (<b>APP-128</b>) and compliance is secured by requirement 4 in the dDCO (<b>APP-017</b>). G5 specifically deals with visual impacts during construction works.</p> <p>Construction traffic will be managed by the Traffic Management Plan, which must be approved pursuant to requirement 10 of the dDCO (<b>APP-017</b>).</p>
<p>6.3 Traffic management provisions should apply to all works carried out near residential properties to ensure construction vehicles do not adversely affect the amenity of those properties and to ensure access is maintained to those property at all times.</p>	<p>Construction traffic will be managed by the Traffic Management Plan, which must be approved pursuant to requirement 10 of the dDCO (<b>APP-017</b>). The outline Traffic Management Plan was submitted as part of the application (<b>APP-129</b>).</p>
<p>6.4 In line with the request at 3.4, Part 3 of Schedule 3 needs to be amended to enable the relocation of Point H on Sheet 3 of the Traffic Regulation Plans, drawing number HE551492-GTY-LSI-000-DR-CH-35003 to a point south of the Railway Bridge.</p>	<p>Please see the Applicant's response to RR-034.1 9 (REP1-004).</p>

## 8. NATIONAL GRID ELECTRICITY TRANSMISSION PLC

- The below Written Representation by National Grid has been reviewed and the Applicant's response to the key issues raised has been presented in the following table.

[Redacted]

Comment	Applicant's Response
<p>Further to NGET's relevant representations which were received by the ExA on 2 July 2021, NGET welcomes the inclusion of protective provisions for its benefit in the dDCO. NGET is liaising with the Promoter regarding the protective provisions and intends that these be secured by way of a side agreement. NGET is confident that agreement will be reached and will update the ExA in due course.</p>	<p>The Applicant is continuing to negotiate with NGET and is also confident an agreement will be reached before the close of the Examination.</p>

## 9. ADDLESHAW GODDARD LLP ON BEHALF OF NETWORK RAIL INFRASTRUCTURE LIMITED

- The below Written Representation by Addleshaw Goddard LLP on behalf of Network Rail Infrastructure Limited has been reviewed and the Applicant's response to the key issues raised has been presented in the following table.

[Redacted]

Comment	Applicant's Response
<p>As stated in document RR-008, NR objects to the making of the A47/A11 Thickthorn Junction Development Consent Order 202[X] (Order) on the ground that the proposed works may interfere with the safe and efficient operation of the railway.</p> <p>NR has carried out a detailed assessment of the Land Plans and Book of Reference submitted with the Promoter's application for the DCO Scheme and notes that the following plots forming part of the DCO Scheme include or are adjacent to NR-owned land and which therefore may give rise to impacts on NR's railway infrastructure:</p> <ul style="list-style-type: none"> <li>7/5g (to be permanently acquired)</li> <li>7/5h (to be permanently acquired)</li> <li>7/5i (to be permanently acquired)</li> <li>7/5j (to be permanently acquired)</li> <li>7/6b (to be used temporarily)</li> <li>7/6c (to be used temporarily)</li> <li>7/12a (to be used temporarily - although we understand from discussions with the Promoter that this plot may be subsequently removed from the DCO scheme)</li> </ul> <p>In order for NR to be in a position to withdraw its objection to the making of the Order, it will require the following matters to be concluded and secured to its satisfaction:</p> <ol style="list-style-type: none"> <li>the inclusion in the draft Order of NR's standard protective provisions to address the potential impacts arising as a result of the DCO Scheme on the safe and efficient operation of the railway;</li> <li>the completion of a framework agreement entered into between NR and the Promoter to make further provision for their respective interests so far as the design, construction and operation of the DCO Scheme interfaces with NR's operational railway (including NR's review and prior approval of the design proposals for the parts of the DCO scheme which interface with the railway at detailed design and construction stages); and</li> <li>the completion of a form of asset protection agreement to govern the construction of the parts of the DCO Scheme which are located on or adjacent to operational railway land.</li> </ol> <p>NR is progressing discussions with the Promoter and its legal representatives with regards to the agreement of these matters and setting these out in an agreed draft Statement of Common Ground which shall be submitted as soon as possible in due course.</p>	<p>The Applicant is continuing discussions with NRIL and will keep the ExA updated on progress.</p>

## 10. NORFOLK COUNTY COUNCIL

- The below Written Representation by Norfolk County Council has been reviewed and the Applicant's response to the key issues raised has been presented in the following table.



Comment	Applicant's Response
<p>While the County Council supports the principle of upgrading the existing A47/A11 Thickthorn Junction, 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.</p> <p>The most significant item of concern relates to unresolved issues around the county council taking on responsibilities for assets including significant new infrastructure comprising a link from the B1172, across the A11 trunk road and Norwich-Cambridge railway line, to Cantley Lane south and the proposed classification of this new link as a B class road.</p>	<p>Please see the Applicant's response to the Norfolk County Council's Local Impact Report submitted at Deadline 2</p>
<p>Highways Impacts</p> <p>The Development Consent Order (DCO) document 7.1 Case for the Scheme, sets out projected changes to traffic patterns of the A47/A11 Thickthorn Junction scheme. There does not appear to be anything within the case that would lead to the local highway authority having any concerns over the proposed scheme. Therefore, the county council is recommending no objection.</p> <p>Based on the assessment, it appears that the predicted traffic growth will make the A11 approach from Norwich the worst performing arm in the future in terms of capacity and delay. This appears to be exacerbated by the enhanced throughput of the junction which gives rise to additional traffic on this approach. The county council would want to discuss this issue in more detail with Highways England to see if anything could be done at this location as part of the scheme to minimise this effect.</p>	<p>The Applicant welcomes the County Council's recommendation that there be no objections to the Scheme in relation to highways impacts.</p> <p>Please see the Applicant's response to the Norfolk County Council Local Impact Report submitted at Deadline 2 in relation to the traffic assessment.</p>
<p>De trunking</p> <p>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.</p> <p>The county council would expect to receive a commuted sum, agreed with Highways England, for future maintenance of transferred assets. The county council does not support classification of the new link from Cantley Lane South to the B1172 as a B class road. Cantley Lane South is currently effectively a single lane track with passing bays along it, predominantly used by northbound traffic. Classifying the road as a B road is likely to indicate to traffic that this is a through route and encourage further traffic, which would not be appropriate.</p> <p>We would want to have further discussions with Highways England on the classification of this link and on the detail of the destinations signed along it from the B1172 Hethersett Road.</p>	<p>Please see the Applicant's response to the Norfolk County Council Local Impact Report submitted at Deadline 2.</p> <p>The comment regarding the classification of the Cantley Lane Link Road has previously been addressed within the Applicant's response to the Relevant Representations (RR 001.1) (REP1-004)</p> <p>The Applicant welcomes the opportunity to discuss the signing strategy with Norfolk County Council as the detailed design is developed.</p>
<p>Socio – economic issues</p> <p>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.</p> <p>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.</p> <p>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.</p>	<p>A key objective of the Scheme is to reduce congestion related delay, improve journey time reliability and increase the overall capacity of the A47. This will help contribute to sustainable economic growth by supporting regional housing and economic growth in Norwich and the surrounding areas. Section 4.13 'Walking, Cycling and Horse-riding (WCH) Assessment' of the 7.1 Case for the Scheme (<b>APP-125</b>) 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> <p>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.</p> <p>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 (<b>APP-125</b>). The Applicant is grateful to Norfolk County Council for welcoming these positive benefits.</p>

Comment	Applicant's Response
<p>Environmental Issues</p> <p>Air Quality - The county council supports improvements to air quality and would want to see continued monitoring including in operation of the scheme following construction.</p> <p>Arboriculture - 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 February 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.</p> <p>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 x 5 category A, x 7 category B trees and x 1 category B tree group designated for removal that should be retained should any design changes allow. In addition, 27 tree groups and two woodlands will require partial removal. These include B grade tree groups G9, G10, G11, G13, G14, G21, G22, G23, G27, G38, G88, G89 and B grade woodland W2.</p> <p>It should be noted that B category trees might only have been downgraded from category A due to an observed impaired condition. They are still of significance and should be retained where possible or compensated adequately for if removal is unavoidable (as recommended in BS5837:2012).</p> <p>W2 has been described within 6.3 Environmental Statement - Appendix 8.1 Botanical Survey Report as 'a priority habitat and potentially ancient woodland (present since at least 1840).' However, this was not observed within the AIA (potentially because the Ancient Woodland Inventory only records ancient woodlands of over two hectares in size). This needs clarification as it could affect the scheme's design, mitigation and/or compensation due to the national significance of such habitats; explained in further detail below.</p> <p>With regards to the x 5 category A trees with veteran and/or over-mature/ancient characteristics to be removed (situated within the new Cantley Lane Link Road section of the development), T14 has a stem diameter at breast height of over two metres which is quite exceptional. These trees are open-grown individuals, likely remnants of historic parkland or wood pasture. They have high arboricultural, landscape, conservation and cultural values.</p> <p><i>Ancient Woodland</i> - Highways England should give consideration to wood pasture identified as ancient in planning decisions in the same way as other ancient woodland.</p> <p>'Wooded continuously' does not mean there's been a continuous tree cover across the whole site. Not all trees in the woodland have to be old. Open space, both temporary and permanent, is an important component of ancient woodlands.</p> <p><i>Ancient and veteran trees</i> - 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).</p> <p>It is understood that this development is seeking a Development Consent Order to prove its 'wholly exceptional' status, but it must:</p> <ol style="list-style-type: none"> <li>1. Avoid impacts</li> <li>2. Reduce (mitigate) impacts</li> <li>3. Compensate as a last resort.</li> </ol> <p>In response to an earlier consultation (noted in document 5.2 Consultation Report Annex M: Table Evidencing Regard had to Statutory Consultation Responses), the Forestry Commission noted the loss of the veteran trees and suggested the felled timber should be moved to adjacent shared green space where 'the material can decay by natural processes and continue to provide natural deadwood habitat'. This prescription provides a degree of mitigation to the overall impact and is supported.</p> <p><i>Threats to remaining trees</i> - The AIA has identified that a site compound is shown within the RPA of A grade trees T16, T18, T19, T20, G20, T21, T23, T25; and B grade trees T17, T24 and G26. Should this location not be subject to change, these trees will be under threat from damage such as compaction and pollution. The AIA gives guidance and methodology to avoid and reduce these impacts. Threats to the health of remaining trees have also been identified with regards to construction of fence lines, change of soil levels, installing utilities and close proximity working.</p> <p><i>AIA Update</i> - 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:</p> <ul style="list-style-type: none"> <li>• Tree Constraints Plan</li> </ul>	<p>Please see the Applicant's response to the Norfolk County Council Local Impact Report (LIR) submitted at Deadline 2.</p>

Comment	Applicant's Response
<ul style="list-style-type: none"> <li>• Tree Protection Plan</li> <li>• Arboricultural Method Statement</li> <li>• Timetable for Implementation of Tree Protection Works.</li> </ul> <p>Environmental Masterplan - The Environmental Masterplan details replanting proposals in a clear visual format but without species detail or quantification. It is not clear at this stage, how planting design has been calculated to ensure adequate replacements for losses incurred will be achieved. This requires 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, based on a calculation of habitat loss and demonstrating net gain.</p> <p>Landscape – Comments made from a landscape perspective to be reviewed.</p> <p>Biodiversity - Environmental Statement - Chapter 8: Biodiversity: There are several inconsistencies in that Chapter 8 does not accurately reflect the conclusions and/or mitigation recommendations made within the ecological reports, and the mitigation measures proposed are not always specific to the predicated impacts (or proven to be effective). Equally there are also inconsistencies between Chapter 8 and the Record of Environmental Actions and Commitments (REAC). Further details (examples) are provided although it is not exhaustive.</p> <p>Materials and Waste - 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. Norfolk County Council, in its capacity as the Mineral Planning Authority, considers that if the scheme is required to follow the strategy outlined in the Mineral Impact Assessment this will effectively address mineral safeguarding issues relating to resource sterilisation.</p> <p>Noise and Vibration - 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.</p> <p>Population and Human Health - The county council welcomes discussions with Highways England about options for construction. The works have the potential for significant impacts, not just to the operation of the trunk road, but also over a wider area of the local transport network. The council accepts that such works will cause some impacts and wishes to work with highways England on how these best be mitigated.</p> <p>Climate - 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. There is the potential for biodiversity and landscape to provide mitigation factors, although these would need to be significant, above baseline net gain requirements.</p>	
<p>Road Drainage and the Water Environment</p> <p>The Lead Local Flood Authority (LLFA) team has been in on-going consultation with Highways England between September 2020 and March 2021. The LLFA acknowledge there are some remaining comments which require addressing, and some on-going activities relate to requests for clarification or further information comments from the LLFA during 2021.</p> <p>Cantley Lane South Culvert</p> <p>Page 36 of 43 The LLFA acknowledge the 600mm freeboard requirements in the new Cantley Lane South Culvert were not possible due to the environmental and ecological considerations. This resulted in a reduction to the minimum freeboard through the culvert to 0.428m during the 100-year plus 65% climate change event.</p> <p>Cantley Stream Floodplain</p> <p>The LLFA acknowledge there will be significant improvements to the floodplain extents and the level of flood risk posed due to the new Cantley Lane South Culvert (Figure 8-4 in the Flood Risk Assessment (FRA)). However, the LLFA also observe some variation in the floodplain within agricultural land and water compatible areas (Figures 8-5 and 8-6 in the FRA). It appears from the information presented that the existing water level in these locations could increase by up to 15mm along with minor variation in the location marginally. This could be influenced by the sensitivity of the hydraulic model to the ground model used. Even so, it would be prudent for the developer to liaise with the</p>	<p>Please see the Applicant's response to the Norfolk County Council Local Impact Report (LIR) submitted at Deadline 2</p>

Comment	Applicant's Response
<p>affected landowners to confirm they are aware and accept this potential change to their properties.</p> <p>The FRA should provide detail on the maintenance plan for the mitigation measures proposed by the scheme. No information is provided regarding the inspection frequency, monitoring measures or structure ownership and operational responsibility. The LLFA would expect this information to be included in the FRA. It is noted that the drainage strategy provides some high-level information about who will have maintenance responsibility for the drainage assets on the different sections of road.</p> <p><b>Intwood Road Property</b></p> <p>The potential impacts and the implications of the flood risk at the property on Intwood Road varies between the FRA and the ES. The FRA reports an 8mm increase while the ES chapter 13 reports 15mm. While the increase in water level is small, both documents report that further survey at the property is required to fully determine the impact of this change in water level. The LLFA would expect to review the future survey results, the updated impact assessment for this property and any mitigation proposed, should it be necessary.</p> <p><b>Groundwater Further Survey</b></p> <p>There is the remaining supplementary groundwater investigation that is yet to be undertaken due to the unknown water levels in the chalk aquifer. The LLFA would expect to review these results and, if required, any further mitigation measures proposed to address any further groundwater flood risks identified by this study.</p> <p><b>Drainage Strategy Summary</b></p> <p>A summary of the proposed drainage catchments is provided in section 8.3 of the FRA. However, no information relating the pre and post development runoff rates, volume of attenuation required and information relating to infiltration testing is provided. The drainage strategy does not provide a summary of pre and post development runoff rates, a summary of the volume of attenuation required and proposed or information relating to infiltration testing. This should be provided in Page 37 of 43 the FRA to ensure that the assessment is joined up with the drainage design presented in the drainage strategy.</p> <p><b>Construction Phase Mitigation</b></p> <p>The construction phase mitigation measures presented in the FRA are "high level generic" approaches and do not relate specifically to the phased construction of the junction improvements. There is no explanation of what the proposed temporary drainage works will include or where the different temporary features will be located. It is indicated in the FRA that elements of the scheme "must be constructed in a phased manner to avoid additional flood risk". However, there is no further information about the phasing of either the temporary or permanent drainage works or information about how this relates to the construction phasing of the proposed scheme. Further information is expected by the LLFA to demonstrate that flood risk will not be increased elsewhere in the relevant catchments during the construction phase.</p> <p>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 the construction of 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 presented. 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><b>Drainage Strategy</b></p> <p>The drainage strategy confirms that not all existing drainage assets (such as soakaways and commercial fishponds) have been identified and investigated. Further work is ongoing to identify and survey these and other assets. The LLFA seeks reassurance that this work will be undertaken, and the subsequent assessment reported and discussed with the LLFA.</p> <p>The drainage strategy has been developed in accordance with the Design Manual for Roads and Bridges (DMRB) guidance. However, there appears to be no consideration or review of the LLFA's design expectations or the alignment of these with the DMRB guidance. The LLFA's design expectations that apply to all schemes are presented in the LLFA's developer guidance. The LLFA notes the drainage strategy does not refer to the LLFA's Developer Guidance. This is supported by the developer's reported use of the FSR approach rather than the more relevant and updated FEH approach within the MicroDrainage calculations to design the piped network. The FEH data includes more recent rainfall records and improved accuracy in the hydrological assessment. The LLFA seeks assurances that testing of the proposed drainage network using the FEH rainfall approach is undertaken to confirm that the network is appropriately sized.</p> <p>In section 5.2.22 of the drainage strategy, an impermeable factor 26% is used for soft surfaces, inferring that the majority of surface water is able to infiltrate</p>	



Comment	Applicant's Response
<p>into Page 38 of 43 the ground, while for hard surfaces a 100% impermeable factor is used. However, later in section 5.4.4 infiltration was dismissed as infiltration testing was unsuccessful. These two approaches oppose each other, based on the information provided. Further assessment is required to address this conflict. It is possible that the soft surface impermeable factor would need to be revised upwards and that a review of the implications is necessary to ensure that there is no increased risk of flooding.</p> <p>There is no obvious discussion on the infiltration potential of the ground prior to reporting on the potential discharge options in section 5. Therefore, it is not possible to understand the context and evidence base that the selection of the discharge locations was founded upon.</p> <p>The drainage strategy provides a summary of post development runoff rates and attenuation volumes for the post development scenario. However, the equivalent information is not available for the pre-development situation. Both sets of information should be provided for each discreet drainage catchment to enable a suitable comparison.</p> <p>The drainage strategy does not provide information relating to infiltration testing that has been reported to have been undertaken. The LLFA would expect relevant information and results to be reported in both the drainage strategy and FRA to support the proposed drainage design.</p> <p>A ground investigation is mentioned within section 5. However, again, no information or evidence is provided to support the statements made. There is a limited mention of the groundwater levels, although no further information or evidence is provided. It would be reasonable for relevant information from the ground investigation to be provided in the drainage strategy to support the design decisions.</p> <p>In the land to the west of the diverge of the A11 with the link road the use of a pipe and piped storage rather than a ditch is proposed. The LLFA requests that further evidence to justify the selection of a pipe and tanked storage through this woodland area is provided.</p> <p>In relation to the residual risks associated with the proposed pumping station, further information is being sought by the developer to determine the normal operation design storm criteria and failure provision, which may include additional emergency storage provision to mitigate flooding on the carriageway. Once this is determined, it is likely to require the assessment of the potential exceedance flow paths due to asset failure or design exceedance. This would identify where the water would flow and the impacts on the highway infrastructure likely to occur. The LLFA note that the emergency storage for the pumping station is being considered. Should this be necessary, the LLFA would require further information that identifies the design capacity of this storage.</p> <p>The LLFA considers there to be an issue regarding the requirements section for surface and foul water drainage. The LLFA would like the draft DCO to be updated to recognise the right organisations by naming them rather than the planning authority (which does not normally have involvement in these aspects).</p> <p>Please see the proposed wording below.</p> <p>Requirements Surface and foul water drainage</p> <p>8.—(1) No part of the authorised development is to commence until for that part written details of the surface water drainage system, reflecting the drainage strategy and the mitigation measures set out in the REAC including means of pollution control, have been submitted to and approved in writing by the Secretary of State following consultation by the undertaker with Norfolk County Council as Lead Local Flood Authority on matters related to its function as statutory consultee.</p> <p>(2) No part of the authorised development is to commence until for that part written details of the foul drainage system, reflecting the drainage strategy and the mitigation measures set out in the REAC including means of pollution control, have been submitted to and approved in writing by the Secretary of State following consultation by the undertaker with Anglian Water on matters related to its function.</p> <p>(3) The surface water drainage system must be constructed in accordance with the approved details, unless otherwise agreed in writing by the Secretary of State following consultation by the undertaker with the Norfolk County Council as Lead Local Flood Authority on matters related to its function as statutory consultee, provided that the Secretary of State is satisfied that any amendments to the approved details would not give rise to any materially new or materially different environmental effects in comparison with those reported in the environmental statement.</p> <p>(4) The foul water drainage system must be constructed in accordance with the approved details, unless otherwise agreed in writing by the Secretary of State following consultation by the undertaker with Anglian Water on matters related to its function, provided that the Secretary of State is satisfied that any amendments to the approved details would not give rise to any materially new or materially different environmental effects in comparison with those reported in the environmental statement.</p>	

Comment	Applicant's Response
<p>It is noted that there is no mention of the ordinary watercourse consenting process. Therefore, the LLFA would like to include the proposed wording below into the DCO:</p> <p>Works in a watercourse(s) x.—</p> <p>(1) No stage of the works involving the crossing, diversion, alteration, replacement and installation of new structures of any designated main river or ordinary watercourse may commence until a scheme and programme for any Page 40 of 43 such permanent or temporary crossing, diversion, alteration, replacement and installation of new structure in that stage has been submitted to and, approved by the Secretary of State in consultation with Norfolk County Council, the Environment Agency, relevant drainage authorities and Natural England.</p> <p>(2) The designated main river or ordinary watercourse must be crossed, diverted, alteration, replacement and installation of new permanent or temporary structures in accordance with the approved scheme and programme.</p> <p>(3) Unless otherwise permitted under paragraph (x.1), throughout the period of construction of the works, all ditches, watercourses, field drainage systems and culverts must be maintained such that the flow of water is not impaired or the drainage onto and from adjoining land rendered less effective.</p> <p>Furthermore, we note that there is no mention of the need to involve the LLFA in relation to the review of the temporary surface water drainage plan as part of the EMP. This needs to be addressed. We request that this be added as a requirement, maybe as a part 3 to 8 for the temporary works.</p>	
<p>Public Health - The county council makes the following general comments in respect of its role as having public health responsibilities:</p> <ul style="list-style-type: none"> <li>• Welcome reductions in driver stress for both general well-being and accident reduction potential</li> <li>• Residents currently or likely to be affected by noise, vibration and potential increased pollution are screened for impact and potential mitigating action.</li> </ul>	<p>No comment is required from the Applicant.</p>
<p>Discharge of requirements - There are ongoing discussions with the applicant and the district councils affected by this scheme as to how best the discharge of requirements should be undertaken. One option might be that there is a single "lead" Authority discharging the requirements. An alternative option would be that each local authority discharge those Requirements within their respective area / statutory remit. It is understood that the applicant is prepared to fund the above "discharging" work given the significant resource implication.</p>	<p>The Applicant is prepared to discuss this issue with the County Council.</p>
<p>In summary the County Council supports the principle of upgrading the existing A47/A11 Thickthorn Junction subject to the implementation of appropriate highway, historic environment, and surface water conditions / requirements being resolved through the DCO process.</p>	<p>The Applicant welcomes the County Council's support of the Scheme and will continue to engage with the County Council on any outstanding issues.</p>

## 11. RICHARD HAWKER

- The below Written Representation by Richard Hawker has been reviewed and the Applicant's response to the key issues raised has been presented in the following table.



Comment	Applicant's Response
<p>General</p> <p>I cannot find any part of this application with which I agree. The government's policy is to encourage modal shift to more sustainable modes of transport, such as foot/cycle or public transport. This scheme does nothing to aid such travel; its aim is clearly to make travel by car swifter, so it must surely be contrary to that policy. The government is committed to reducing carbon emissions dramatically; this scheme will inevitably increase them, certainly in the medium to short-term.</p>	<p>This has been previously addressed within the Applicant's response to the Relevant Representations (REP1-004), Common Responses A and G.</p>
<p>Air quality.</p> <p>The WHO has recently reduced considerably its recommendations for maximum pollution of air regarding PM2.5 and NOx. Petrol and diesel-driven vehicles will be in use for a many years to come, even if take-up of electric vehicles increases substantially. The traffic assessment reckons that the building of the scheme will</p>	<p>This has been previously addressed within the Applicant's response to the Relevant Representations (RR-021).</p>

Comment	Applicant's Response
<p>result in an increase in vehicle use in the two peak hours of around 9% by 2025, and 15% by 2040. I can see no assessment of the contribution to air quality of the different classes of vehicle; it is difficult to predict the uptake of electric vehicles and those with less-polluting engines, but it is unlikely that substantial numbers of the heaviest, most polluting vehicles will have been converted to electric by 2040, and certainly not by 2025. Therefore air quality is likely to deteriorate, certainly below the new guidelines of the WHO, due to this scheme. I have not seen any suggestion in the scheme for how poor air quality can be mitigated-for, nor can I imagine any system that could achieve this.</p>	
<p>Biodiversity and Ecological conservation.</p> <p>Any such scheme will inevitably involve destruction of natural habitat, and there is huge concern over the diversion of the Cantley Stream. The scheme effectively enlarges the area taken by the junction by the building of the Cantley Road link; it is known that all such roads are likely to cross natural routes used by birds and animals, which will inevitably suffer.</p>	<p>This has been previously addressed within the Applicant's response to the Relevant Representations (REP1-004), in particular Common Responses F, G and I.</p>
<p>Climate change.</p> <p>The adverse effect on climate change is addressed by renowned expert Dr Andrew Boswell elsewhere.</p>	<p>The Applicant has addressed any commonly raised representations in its response to the Relevant Representations (REP1-004), in particular Common Response H.</p>
<p>Development Consent order.</p> <p>This may, as HE states, conform with the requirement of the relevant planning act, but I do not see why it needs to have so much repetition and why it is arranged in such a confusing way, with numerous sections and sub-sections, with similar numbers. It is extremely difficult to find things one wants. For instance, who would imagine that the 'Book of reference' lists compulsory purchase orders ?</p>	<p>The Application, and in particular the dDCO (<b>APP-017</b>), has been prepared in line with Government Guidance and Advice Notes. The dDCO is in a standard form, based on the model provisions and the guidance provided in Advice Note 13.</p>
<p>Landscape and visual effects.</p> <p>As far as I can see, the design of the WCH bridge and the overbridge for the Cantley Road link has not been presented. It is difficult to make a comment other than ANY new bridge will have a significant effect on the landscape, surely detrimental. The road bridge will be a huge invasion into the area. The vegetation, trees and shrubs which have grown around the area since the southern bypass was built has softened the appearance of the road, the pedestrian bridge, and, to a large extent, the roadways themselves. Much of this will, it seems, have to be destroyed, and replaced with plants which will take a long time to grow. Two mature trees are to be removed to allow the Cantley Road link. This should be avoided.</p>	<p>The final designs for the WCH bridge and the Cantley Road link overbridge will be completed during the detailed design process, albeit this will be in accordance with the preliminary scheme design shown on the engineering drawings (<b>APP-010</b>) submitted with the Application. The preliminary design was used for the environmental impact assessment and considers a worst case in terms of scale and massing.</p> <p>Detailed design is secured via Requirement 3 of the dDCO and the final design is approved by the Secretary of State, in consultation with the relevant local planning authority.</p>
<p>Noise and vibration.</p> <p>The Cringleford residential extension is being built very close to the road (admittedly the location of this estate is not the responsibility of HE). The proposed A11N – A47E underpass will require significant widening of the A47, putting traffic which is accelerating and climbing out of the underpass, so in the noisiest possible situation, next to a main residential area. The detail claims that there will be no increase in noise for this area. This needs to be checked again; the increase in nearness of the slip road and its increased length must surely increase noise here.</p>	<p>This has been previously addressed within the Applicant's response to the Relevant Representations (RR-009.3). In addition, all noise mitigation measures identified from the environmental assessment are contained in items N1 to N5 in Table 3-1 (REAC) of the EMP (<b>APP-128</b>). These are secured via Requirement 4 of the dDCO.</p>
<p>People and communities.</p> <p>There is an unnecessary increase in pathway length of the new foot/cycle bridge across the A47. It would not be necessary if the underpass were not built, or made shorter.</p>	<p>The proposed bridge and its ramped approaches have been designed in accordance with CD 143 'Designing for Walking, Cycling and Horse Riding' and CD 353 Design criteria for footbridges. The design adopts a maximum gradient of 5% to facilitate those with mobility aids, which has determined the length of the approaches.</p>
<p>Scope of Environmental Impact Assessment.</p> <p>The baseline traffic data is from 2015, six years out of date. The NATS 2019 is available, so there is no justification for this not having been used. In various places, change has been assessed as that resulting from enacting the 'do something' scenario (which includes this scheme, plus the other road schemes in the area, i.e. A47 North Tuddenham to Easton, Blofield to North Burlingham, and the Norwich Western Link), compared with 'do minimum' (which is 'do something', less this scheme). The 'do something' should also be compared with a 'do nothing at all' scenario to fully assess the cumulative effect of all that is being proposed.</p>	<p>This has been previously addressed within the Applicant's response to the Relevant Representations (REP1-004), Common Responses C, E and G.</p>
<p>Transportation and traffic.</p> <p>Comments above, under Scope of Environmental Impact Assessment are relevant for this topic also. It is disappointing that with all the resources at their disposal, the Applicant has not offered a clear flow diagram of the junction, showing turning counts. I can find no turning count data anywhere. The lack of proper origin-and-destination details do not allow analysis of the true 'desire line' of vehicles, and possible assessment of promoting other routes which would avoid this apparently-congested junction. The two largest, most expensive and potentially-destructive roads are the Cantley Road link, and the A11 – A47</p>	<p>As outlined in the Case for the Scheme Chapter 4 (<b>APP-125</b>) implementation of the Scheme will improve the capacity of the Thickthorn Junction by allowing free flowing traffic movements between the A11 eastbound and A47 northbound approach arms. Analysis of the existing situation base year traffic model (2015) showed that the A11 eastbound and B1172 approach arms are over capacity (Table 4.5).</p> <p>The results of the modelling assessment show that the Scheme</p>

Comment	Applicant's Response
<p>underpass. I cannot find any justification in the text for the Cantley Road link. Access to Cantley Road could be retained from the new slip road proposed. The underpass is proposed because of hold-ups caused by excess traffic on the roundabout. Little attempt has been made to provide a way of reducing the numbers of vehicles entering the roundabout (apart from the segregated LH turn sliproad A47W to A11S. Lack of turning counts make analysis difficult; how many vehicles entering the roundabout from A47 in the west are actually heading for the Park and Ride or B1172? Could these be re-routed via a new slip road off the A47W, north of the junction, taking some pressure off the roundabout? Ideas such as this do not appear to have been considered. In a consultation, I suggested this, but I can find no reference to this in the documentation, and I received no response from HE at the time.</p>	<p>improves the overall operation of the network as well as improving A47 and A11 peak hour journey times (by up to approximately 35% depending on direction and time period). The Scheme therefore provides additional capacity to the highway network, improves travel times and supports housing and economic growth across the region.</p> <p>The Case for the Scheme Chapter 2 outlines the options considered for the connectivity of Cantley Lane South, and details the justification of the proposed solution. Please see Annex M: Table Evidencing Regard had to Statutory Consultation Responses (<b>APP-036</b>) for the Applicant's response to comments received during consultation.</p>

## 12. THE WOODLAND TRUST

- The below Written Representation by The Woodland Trust has been reviewed and the Applicant's response to the key issues raised has been presented in the following table.



Comment	Applicant's Response
<p><b>Veteran trees</b></p> <p>Natural England's standing advice on veteran trees states that they <i>"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... 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."</i></p> <p>The proposed scheme will result in the loss of two veteran oak trees recorded as T13 and T14 within the Arboricultural Impact Assessment Report [APP-085], alongside likely detrimental impact to a number of other veteran trees adjacent to the scheme boundary. Therefore, the Trust would like to lodge an objection to this development.</p>	<p>This has been previously addressed within the Applicant's response to the Relevant Representations (RR-027.1). In addition, all arboricultural mitigation measures identified from the environmental assessment are contained in item LV2 in Table 3-1 (REAC) of the EMP (<b>APP-128</b>) secured via Requirement 4 of the dDCO.</p>
<p><b>National planning policy and guidance</b></p> <p>The National Planning Policy Framework, paragraph 180 states: <i>"When determining planning applications, local planning authorities should apply the following principles: c) 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<sup>63</sup> and a suitable compensation strategy exists;"</i></p> <p>Paragraph 5.32 of the National Policy Statement for National Networks states: <i>"The Secretary of State should not grant development consent for any development that would result in the loss or deterioration of irreplaceable habitats including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the national need for and benefits of the development, in that location, clearly outweigh the loss. Aged or veteran trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. Where such trees would be affected by development proposals, the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons for this."</i></p> <p>Natural England's Standing Advice for protecting veteran trees is as follows: <i>"A buffer zone around an ancient or veteran tree should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5m from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter."</i></p>	<p>The Applicant has set out how the Scheme complies with the relevant national policy statements in the Case for the Scheme (<b>APP-125</b>) and the National Policy Statement for National Networks Accordance Tables (<b>APP-126</b>). It is acknowledged that the loss of the two veteran trees would be a significant adverse residual effect as they are irreplaceable but there will be beneficial effects from: a net gain of more biodiverse grasslands with the introduction of species-rich and marshy, wet grassland; riparian planting along Cantley Stream increasing beneficial habitat for aquatic invertebrates. It is considered that the benefits of the Scheme in that location outweigh the loss.</p>
<p><b>Impact of proposals</b></p> <p>The following scheme will result in the direct loss of two veteran oak trees (T13 and T14), as well as the removal of several other mature trees of considerable size and/or displaying veteran features. In addition, the scheme will likely result in significant impact to the following trees:</p> <ul style="list-style-type: none"> <li>T1 is within close proximity to the proposed road infrastructure and will likely be subject to root damage during construction. The RPA of T1 has also been capped at 15 metres, so does not fully account for the root spread of the veteran tree.</li> </ul>	<p>This has been previously addressed within the Applicant's response to the Relevant Representations (RR-027.1). In addition, all arboricultural mitigation measures identified from the environmental assessment are contained in item LV2 and B10 in Table 3-1 (REAC) of the EMP (<b>APP-128</b>) secured via Requirement 4 of the dDCO.</p> <p>In addition, the Multi Agency Geographic Information for the Countryside (MAGIC) website, which is managed by Natural England (and the Forestry Commission is a partner organisation), does not</p>

Comment	Applicant's Response
<ul style="list-style-type: none"> <li>• T2 is also within close proximity to the proposed road infrastructure, which could result in root damage during construction.</li> <li>• T5 and T6 will be subject to root encroachment during construction of the proposed road, which could result in root damage. The RPA of T5 has also been capped at 15 metres, so does not fully account for the root spread of the veteran tree.</li> </ul> <p>It is essential that no trees displaying ancient/veteran characteristics are lost as part of the development. Any loss of veteran trees would be highly deleterious to the wider environment of veteran trees within close proximity, which may harbour rare and important species.</p> <p>We also note that Cantley Wood (grid reference: TG18290488) is referred to as potentially unmapped ancient woodland within the Botanical Survey Report [APP-087]. Natural England's opinion on the antiquity of this site should be sought, to ensure ancient woodland is appropriately considered as part of the Examination Process.</p>	<p>show Cantley Wood (referenced as W2 in the Arboricultural Impact Assessment) as being ancient woodland.</p>
<p>In summary, the Woodland Trust requests that all veteran trees are retained and afforded a Root Protection Area (RPA) in line with Natural England's Standing Advice, and further investigation into the potential ancient woodland status of Cantley Wood is explored.</p> <p>The Trust will remain opposed to the proposed project unless the scheme is revised to address our concerns. We consider the scheme is currently in direct contravention of national planning policy due to the loss and damage to irreplaceable habitats.</p>	<p>As set out above, the Applicant considers that the Scheme is in accordance with national planning policy and appropriate mitigation has been included within the Scheme to address effects.</p>