

# A12 Chelmsford to A120 widening scheme

TR010060

## 9.52 Applicant's Comments on Others' Responses to ExQ2

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**A12 Chelmsford to A120 widening scheme**  
Development Consent Order 202[ ]

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**Applicant's Comments on Other's Responses to ExQ2**

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<b>Regulation Number</b>	Rule 8(1)(c)(ii)
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# 1 Introduction

- 1.1.1 The Development Consent Order (DCO) application for the A12 Chelmsford to A120 widening scheme (the proposed scheme) was submitted by National Highways to the Secretary of State for Transport via the Planning Inspectorate on 15 August 2022 and accepted for Examination on 12 September 2022.
- 1.1.2 The purpose of this document is to set out the Applicant's comments on the response of others to Examining Authority's Second Round of Written Questions (ExQ2) published on 20 March 2023.
- 1.1.3 An additional response to ExQ2 2.5.15 has been added to address the Examiner's request at CAH2 for an update on the planning applications at Colemans Quarry.

## 2 Applicant's comments on responses to ExQ2

<b>Q2.2.2</b>
<b>Mark East</b>
<b>Examiner's Question</b>
Reference has been made to WHO Guidance by Mr Mark East [AS-039]. Can the Applicant explain the relevance of the WHO guidelines, how they have been considered and what weight the SoS should give to these?
<b>Co-Responder's Response</b>
The WHO Guidance is totally supported by Committee on the Medical Effects of Air Pollutants and the Royal College of Physicians and they are recognised as the experts on the impact of poor air quality on human health. The UK Government recognises their expertise which can be demonstrated through DEFRA's Clean Air Strategy 2019 and the recent introduction of the Environment Act 2021. National Highways appears to rely on the Design Manuals for Roads and Bridges, published in 2019, for their assessments and conclusions. I would respectfully suggest that this manual is out of date as it does not recognise the WHO guidance or contribute in a positive way to meeting DEFRA's Clean Air Strategy 2019. It is my personal view that the WHO guidance should be given 'Significant' weight against the scheme and given the negative health impact brings into question whether this project can realistically be considered as 'Sustainable Development'.
<b>Applicant's Response</b>
The Applicant responded to the Examiner's Question ExQ2 2.2.2 in the Deadline 4 Submission – 9.41 Applicant's Comments on Responses to ExQ2 [REP4-055].

<b>Q2.2.3</b>
<b>Mark East</b>
<b>Examiner's Question</b>
The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 have recently come into force. At the same time, the UK Government also published the Environmental Improvement Plan which includes an interim target. What are the implications of these recent Regulations for the Proposed Development and how should the SoS consider these in their decision making?
<b>Co-Responder's Response</b>
As mentioned in Q2.2.3 parties should recognise DEFRA's Clean Air Strategy published 2019 and the applicant should recognise that the Design Manuals for Roads and Bridges LA 105 is out of date. Legislation introduced through the Environment Act 2021 requires full consideration. The Secretary of State for Transport must recognise that if he was minded to grant the scheme they do so in the full knowledge that the scheme as presented represents a significant health risk to many residents based on reports from their own advisor (COMEAP).
<b>Applicant's Response</b>
<p>The Applicant confirms that the Applicant's response to ExQ2 2.2.3 within the Deadline 4 submission – Applicant's Comments on Responses to ExQ2 [REP4-055], makes no reference to Defra's Clean Air Strategy, published 2019. The air quality assessment reported in Environmental Statement Chapter 6: Air quality [APP-073] was undertaken in accordance with relevant guidance i.e. DMRB LA 105 which is itself in accordance with current legislation and air quality policy (including Defra's Emissions Factors Toolkit v10 (August 2020) which includes the latest fleet projections up to 2030) and the National Networks National Policy Statement.</p> <p>The statement 'Legislation introduced through the Environment Act 2021 requires full consideration' is noted by the Applicant. The Environment Act 2021 facilitated the Government's aims to drive further reductions to air pollutants by establishing a long-term</p>

target for air quality for PM2.5 concentrations. The relevance of the Environment Act 2021 for decision making by the Secretary of State and subsequent Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 in respect of PM2.5 were addressed in the Applicant's response to ExQ2 2.2.3 Applicant's Comments on Responses to ExQ2 [REP4-055].

With regards to health and air quality, the UK Air Quality Standards for particulates (i.e. 40 µg/m<sup>3</sup> and 20 µg/m<sup>3</sup> for PM10 and PM2.5 respectively) are still applicable and have been applied in the Environmental Statement Chapter 6: Air quality assessment [APP-073] for the determination of significant effects. The assessment concluded no significant effects for human health receptors from the proposed scheme.



<b>Q2.2.4</b>
<b>Mark East</b>
<b>Examiner's Question</b>
Have changes to vehicles, mainly the phasing out of petrol/diesel and the increased use of electric vehicles been factored into the assessment presented in ES Chapter 6, Air Quality [APP-073]? If so, what are the predicted effects of these changes and what assumptions have been made with regards to uptake/usage of electric vehicles over the assessment period?
<b>Co-Responder's Response</b>
Modelling and assumptions have been generated on data and trends of past and are thought to be unreliable given the economic forecast for the UK over the next 5 years. As things stand the take up of electric vehicles, other than in limited circumstances, is not viable for many. Any modelling factoring in the benefits of electric vehicles should be rerun taking into account the present economic outlook and likely affordability of such vehicles to the public at large.
<b>Applicant's Response</b>
<p>The Applicant's response to the Examining Authority's original question is presented in ExQ2 2.2.4 within the Deadline 4 submission – Applicant's Comments on Responses to ExQ2 [REP4-055]. The key point raised by the Interested Party is whether the results of the air quality assessment have been based on unreliable assumptions concerning the uptake of electric vehicles (EVs).</p> <p>In response, the Applicant reaffirms its position that the projection of EVs in the Defra Emission Factor Toolkit (EFTv10) do not take into account the ban on sales of new petrol and diesel cars / Light Goods Vehicles by 2030, which was announced in November 2020, as this commitment was made after the fleet composition projections within EFTv10 were produced (i.e. in 2019).</p>

The proportions of electric vehicles in future years within the EFTv10 are therefore likely to be underestimated and the outcomes of the air quality assessment (presented in Environmental Statement Chapter 6: Air quality [APP-073]) are likely to be conservative as a result, as they are based on lower proportions of EVs in the fleet (which have zero exhaust emissions) in future years than is likely to be the case.

**Q2.3.1****Maldon District Council****Examiner's Question**

Can MDC comment on the extent to which the Applicant's response to ExQ1 – 7.0.3 [REP2025] and the results of botanical and species surveys undertaken at Blue Mills (submitted at Deadline 2) [REP2-026 to REP2-029], address the concerns raised in MDC's LIR [REP2-068] regarding potential impacts on the Blue Mills nature reserve?

**Co-Responder's Response**

As set out in the MDC LIR - Impact 1 1 [REP2-068], MDC has been concerned that as presented in the worst-case scenario appraisals, the proposed route of the Cadent Gas Main would cut through the woodland of the Blue Mills Nature Reserve forming a permanent scar on the landscape which would be visible from the public footpath to the east of the Reserve, impacting on the public amenity of this location. In the draft Statement of Common Ground (April 2023) with the Applicant, the Council has accepted that the Applicant's approach to evaluating impact is based on a worst-case scenario due to the absence of the gas pipeline's detailed design and the benefit of all survey work. On this basis, MDC accepts that there is therefore the potential for the eventual scale of impact to be reduced. Furthermore, MDC was concerned in its LIR that the route selected by the Applicant for the Cadent Gas Main diversion is subject to a Woodland Tree Preservation Order and has been recommended by independent ecologists as being worthy of designation as a Local Wildlife Site.

Environmental Impact and Mitigation MDC now acknowledges that REP2-026 to REP2-029 have helped to fill in several gaps previously present in the evidence concerning Blue Mills Nature Reserve.

As set out in REP3-054 p3, MDC welcomes the Applicant's post LIR confirmation of environmental considerations including GEPC.01 (Retain Vegetation), GEPC.03 (Compensation Planting), G EPC.04 (Protection of Main Rivers), G PEC.05 (Aesthetic Value) and GPEC.07 and 08 (Environmental Management Plan). There are some principles which MDC feels the Applicant should consider further and incorporate into the DCO and supporting documentation as necessary, namely: a) For GPEC.04, MDC

considers that this should go further, and the tunnelling techniques should be scrutinised by appropriate ecological specialists to mitigate any ecological impacts possible to riparian species including otters that could otherwise be disturbed by the tunnelling methods due to sensitivities to vibrations and noise through ground disturbances.

b) For GPEC.05 (Aesthetic value - detailed design), MDC consider that where woodland, trees, tree lines and tree belts would be unavoidably lost and could not be replaced due to the easement restrictions imposed by Cadent for the diverted pipeline that replacement vegetation should still be planted as close to the easement impact areas as possible, whilst respecting the Cadent guidance restrictions, to make the scheme compliant with Maldon District Local Development Plan Policy N2; thereby softening the scar across the landscape when it has had time to recover. This should be in addition to the measures already set out in GPEC.05 in respects of using native shrub and hedgerow planting within easements, in line with Cadent Gas guidance.

c) MDC consider that a further GPEC principle should be included by the Applicant that is not currently specified for the gas pipeline (but which exists for the main A12 widening project (i.e., PRO.04 and LSC.13)) under Environmental Protection to cover principles around species and biodiversity.

d) As set out in REP3-054 p.6, MDC is also pleased that the Applicant has identified potential mitigation of possible impacts to otter populations on the River Blackwater and note that the final solutions will be dependent on the final alignment of the gas pipeline diversion; works for which MDC understand are ongoing with Cadent.

### **Botanical Surveys**

It is acknowledged that the Applicant has now established through botanical surveys that part of the woodland at Blue Mills Nature Reserve is 'wet woodland'; a priority habitat of moderate condition and that parts of this is within the coverage of the proposed Local Wildlife Site. It is welcomed that the Applicant has confirmed the Project has now amended its consideration of the wet-woodland component therefore as being of national value in accordance with DMRB LA 108. Furthermore, it is acknowledged that the Applicant has confirmed that the wet woodland and proposed Local Wildlife Site now have the potential to be affected through the loss of a 30m corridor (assuming maximum extent) due to tree and vegetation clearance to construct the diverted Cadent Gas

Main, rather than just the loss of lowland mixed deciduous woodland as assumed in Chapter 9, alongside potential impacts due to changes to hydrology should trenchless techniques not be used and operational effects should water be drawn away from habitats.

MDC strongly support the Applicant's new avoidance of impacts to the wet woodland component of Blue Mills Nature Reserve through the REAC commitments. This is now more consistent with the Tree Preservation Order.

MDC note there is potential to replant along parts of the maximum 30m corridor to reduce the width of the landscape scar in the longer term and note that this will come through as part of detailed design.

MDC note the botanical survey is consistent with the findings of surveys it has commissioned itself since 2021, which led to the Tree Preservation Order (Woodland) and in turn the recommended Local Wildlife Site designation. MDC appreciates the communication by the Applicant of the location of the black poplar to Cadent, as well as the presence of mature oaks and notes they will now be more accurately mapped in the arboricultural survey. MDC feel however that the rarity of these two poplars, being likely to be the only surviving specimens in Essex should not be undervalued by the Project or Applicant and they must be retained to avoid a "major adverse magnitude of impact in accordance with DMRB LA 108" as per Table 9.8 of Chapter 9 (APP-076).

Blue Mills Nature Reserve Local Wildlife Site Designation MDC welcomes the proactive steps the Applicant has since taken in the Project to recognise Blue Mills Nature Reserve's recommended Local Wildlife Site designation, which will mean that the Project effectively treats it as if it had already been formally designated. This position is reflected positively in the latest iteration of the draft Statement of Common Ground between MDC and the Applicant. MDC acknowledges that the Applicant would like to be updated about the process of formal designation. In the draft Statement of Common Ground, clarification has been given that MDC is currently working with the Essex Planning Officers' Association and the new statutory body the Essex Local Nature Partnership to formalise an approach Essex-wide to get all proposed Local Wildlife Sites in Essex designated as quickly as possible. This is not a situation unique to the Maldon District and affects all other Essex authorities where Local Wildlife Site designations have been reviewed.

## **Applicant's Response**

The Applicant welcomes Maldon District Council's acceptance that the approach to evaluating the impact is based on a worst-case scenario due to the absence of the detailed design of the gas pipeline and the benefit of all the survey data available. As noted by Maldon District Council, these points have been reflected in the draft Statement of Common Ground (SOCG) which will be submitted to the Examination at Deadline 6. The Applicant also welcomes that Maldon District Council recognises the potential for the eventual scale of impact to be reduced.

The Applicant notes the Council's concerns over the woodland subject to the Woodland Tree Preservation Order, which has also been recommended for designation as a Local Wildlife Site. As per commitment LV4 of the Register of Environmental Actions and Commitments (REAC) [REP4-023], existing vegetation within the Order Limits including temporary works areas would be retained as far as reasonably practicable. Particular attention would be given to the retention of mature vegetation, including trees subject to tree preservation orders. In addition, commitment LV15 of the REAC [REP4-023] states that the working width for the installation of the gas main diversion would be reduced as far as reasonably practicable through woodland and where the gas main diversion crosses through hedgerow field boundaries. All main river crossing(s) for the gas main diversion would be installed using trenchless techniques, such as horizontal drilling.

## **Environmental Impact and Mitigation**

The Applicant welcomes that responses REP2-026 to REP2-029 have been useful in alleviating concerns with respect to the proposed Blue Mills LWS.

The Applicant recognises that Maldon District Council welcomes Design Principles [REP2-006] GEPC.01, GEPC.03, GEPC.04, GEPC.05, GEPC.08 and GEPC.09, and notes the request for incorporation of further text in relation to GEPC.04. The Applicant does not propose to amend GEPC.04, however can reassure the Council that once further detail on the route of the gas main diversion is available the Applicant will assess the potential for disturbance to otters from vibration and would seek a licence if required. A team of ecologists forms part of the detailed design team for the proposed scheme and continually assesses the

implications of design changes on biodiversity. As the design of the gas main diversion is developed this too will be assessed by ecologists to determine the potential for effects including from noise and vibration. As new data become available following completion of preconstruction surveys (as committed to in BI11 of the REAC [REP4-023]) these survey results would also be assessed against the evolving design to ensure all potential effects have been identified.

As per commitment BI9 of the REAC [REP4-023], buffer zones around sensitive features such as confirmed bat roosts, badger setts, otter holts, water vole burrows, birds' nests and watercourses would be implemented as directed by the Ecological Clerk of Works (ECoW). Appropriate buffers would be implemented around watercourses where suitable, using physical barriers during construction works to protect aquatic species from destruction and disturbance. Where appropriate, professional judgement would be exercised by the ECoW to amend buffer zones to accommodate works, with the option of introducing additional control measures such as a watching brief to ensure risks to habitats and wildlife are appropriately managed. Buffer zones would be suitably demarcated to prevent encroachment of works. To determine the appropriate buffer zone around the potential otter holt, the effects of noise and vibration of tunnelling machinery would need to be assessed.

The Applicant notes the Council's comment with respect to the inclusion of a principle equivalent to PRO.04 within the Design Principles [REP2-006] but specific to the gas main. However, the design principles within Section 1.4 of the Design Principles [REP2-006] relate to the entire scheme, including the gas main, except where this conflicts with the technical design standards listed in paragraphs 1.3.19-1.3.21 [REP2-006], in which case the technical design standards take precedent. However, there are no technical design standards which would override PRO.04 which is therefore applicable to the gas main.

GPEC.03 includes measures comparable to LSC.13 around the use of native planting as appropriate to reflect the distinctive local character. This includes consideration of the species, pattern and distribution of proposed hedgerows, shrubs and trees to reflect the distinctive local character of vegetation within the adjacent landscape.

The Applicant welcomes Maldon District Council's comments with respect to mitigation for otters.

## **Botanical surveys**

The Applicant acknowledges Maldon District Council's comments with respect to the valuation of wet woodland as being of National value and the assessment of potential effects on the wet woodland as well as mitigation measures for hydrological impacts on wet woodland. The Applicant has not made any new REAC commitments in relation to the wet woodland, but is considering the extent to which this might be possible.

The Applicant notes Maldon District Council's comment that the black poplar should not be undervalued. As stated on page 87 of the Deadline 3 Submission - Written Submission of Oral Case for Issue Specific Hearing 1 [REP3-012], the black poplar within the Order Limits has been valued as of National importance due to its status as a potential veteran tree. The Applicant updated the REAC [REP4-023] at Deadline 4 to include commitment BI48 which states 'the arboricultural survey confirmed that the mature black poplar within the Order Limits at Blue Mills nature reserve qualified as a potential veteran tree. The results of the arboricultural survey will be used to inform an appropriate control, whereby a combination of route and construction methodology would be designed to minimise the impacts on the black poplar and other sensitive features in this area.'

## **Proposed Blue Mills Local Wildlife Site Designation**

The Applicant welcomes the comments from Maldon District Council with respect to the assessment of Blue Mills as if it had formally been designated. As noted by Maldon District Council, this has been reflected in the draft SOCG which will be submitted to the examination at Deadline 6.

The Applicant welcomes the information provided by Maldon District Council with respect to the process of formal designation for Local Wildlife Sites within Essex.



<b>Q2.3.2</b>
<b>Natural England</b>
<b>Examiner's Question</b>
Considering the Applicant's responses to ExQ1 - 3.0.9 and 3.0.10 [REP2-025], can NE confirm whether it remains content that the Proposed Development would not result in an LSE on any of the European sites considered in the assessment?
<b>Co-Responder's Response</b>
Based on the applicants response: '...although species recorded on Coleman's Reservoir are the same as some of the qualifying features of Abberton Reservoir SPA and Ramsar, they are unlikely to form part of the SPA and Ramsar populations because there is no evidence that birds from Abberton Reservoir would interchange with a smaller reservoir nearly 10km distant' NE can confirm we remain content with the conclusion of no Likely Significant Effect on any of the European sites considered in the assessment. For any further advice on this consultation please contact the case officer Camilla Davidge and copy to consultations@naturalengland.org.uk.
<b>Applicant's Response</b>
The Applicant welcomes this response from Natural England.

## Q2.5.2

### DWD LLP on behalf of Countryside Zest (Beaulieu Park) LLP

#### Examiner's Question

Countryside Zest made a further submission at REP2-046-001. The response at REP3-009 indicated that there were on-going discussions between the parties. What progress has been made with these?

#### Co-Responder's Response

PLANNING ACT 2008 – RESPONSE TO EXAMINING AUTHORITY QUESTIONS (EXQ2) (DEADLINE 4) RE: A12 WIDENING SCHEME BETWEEN JUNCTIONS 19 (BOREHAM INTERCHANGE) AND 25 (MARKS TEY INTERCHANGE). We act on behalf of Countryside Zest (Beaulieu Park) LLP 'CZ', a joint venture made up of Countryside Partnerships and L&Q, who are the landowner and developer of the Beaulieu Outline Planning Permission (OPP), which was granted in 2014 for 3,600 homes, new roads, schools, neighbourhood centre and business park (ref. 09/01314/EIA). We note that question Q2.5.2 submitted as part of the Examining Authority Questions (ExQ2) has been included for CZ to address and provide a response. This question notes: "Countryside Zest made further submission at REP2-046-001. The response at REP3-009 indicated that there were on-going discussions between the parties. What progress has been made with these?". CZs written submission submitted at REP2-046-001 noted that "While a number of these matters discussed in previous responses to the application have been agreed, there remain a number of areas of disagreement between both parties, CZ and National Highways. Discussions are ongoing in order to come to an agreement on these matters, particularly in regard the Landowner Option Agreement. The areas of disagreement...are summarised as follows: • Green Area 2/15b - cuts through land zoned for employment use, temporary use timing to be agreed with CZ to ensure there is no impact on delivery of employment use, the location of the access to be adjusted to avoid the Railway Station car park land; • Red Area 2/15a – permanent acquisition of this land with the current boundary cannot be granted as it is also required by CZ to deliver strategic cycleway link between train station, the business park and the allotments as well as public open space as shown on the enclosed approved Parameter Plans. Land boundary to be amended in consultation with CZ to ensure there are no conflicts. It is also noted that part of this land is required by Network Rail for the Railway Station car park delivery and there are several existing easements across this land; • Green Area 2/15f – temporary access over the land can be granted for construction but CZ cannot grant permanent rights; • Blue Area 2/15c – land boundary needs to be changed to avoid SuDS basin and other

infrastructure. CZ can offer alternative access for both temporary and permanent access to avoid development infrastructure; and • Blue Area 2/17j – land boundary needs to be changed to avoid development infrastructure. CZ can offer alternative access for both temporary and permanent access to avoid development infrastructure.” In response to the above, National Highways responded as part of Document 9.24 ‘Applicant’s comments at written representations’ at Deadline 3 (March 2023) that the “Applicant notes the information provided by Countryside Zest. Applicant is committed to ongoing discussions with Countryside Zest regarding their concerns and is progressing an agreement to ensure both projects can be delivered as efficiently and effectively as practical”. Following the response from National Highways, CZs comments at REP2-046-001 still stand and should continue to be considered throughout the DCO process. We can confirm that discussions between the two parties are ongoing however, no final agreement has been reached. National Highways informed CZ that they are still awaiting to instruct a legal party who will draft and implement the anticipated landowner agreement that will be taken into consideration as part of the DCO. A comment that CZ would like to re-iterate the point that the current submitted drawings do not take into consideration the comments provided by CZ throughout the examination process. We request that the Examining Inspector confirms whether revised plans will be accepted at this stage of the process. Conclusion In summary, CZ continue to support the principle of the Proposed Development which includes the widening, where necessary, of the A12 between Chelmsford and the A120 from two lanes to three in each direction, as well as ancillary improvements to a number of junctions. While discussions are still continuing between both CZ and National Highways regarding the matters outlined above, CZ maintain an objection to the submitted plans until the revised plans are agreed by both parties under the Landowner Option Agreement.

### **Applicant’s Response**

#### **Plot 2/15b**

The Applicant notes these comments and is liaising with Countryside Zest (CZ) regarding timing of the exercise of temporary powers. The shape of the land to be transferred from CZ to Network Rail for the Railway Station car park land has been adjusted to avoid any clashes between the Applicant’s scheme and the proposed car park.

#### **Plot 2/15a**

The Applicant has received updated plans from CZ which remove any land to be transferred from CZ to Network Rail or Essex County Council that would otherwise overlap with the proposed scheme order limits.

With respect to the strategic cycleway the Applicant has agreed that Network Rail will amend the plan in the planning consent for Beaulieu Park railway station so that there is no overlap between the Order land required for the proposed scheme and the land required for Beaulieu Park Planning Consent (ref. 09/01314/EIA).

Regarding the Beaulieu Park Station Overspill Car Park, the clashes between building footprints and plot 2/15a have been removed and the Applicant will continue to liaise with Network Rail on programme.

**Regarding any existing easements on the land:**

The Applicant is aware of the existing easements located in and around 2/15a and is working with the Interested Parties to divert or relocate these assets. There is an access route to the new Anglian Water Pumping Station and a foul pipe located on this plot which the Applicant is aware of and is in dialogue with the respective parties. The Applicant will facilitate access to for these statutory undertakers to their assets throughout the scheme.

**Plot 2/15f**

The Applicant is not seeking permanent rights over this plot.

**Plot 2/15c**

The Applicant will use CZ's proposed alternative access routes in order to avoid the development infrastructure if the required alternative rights are granted to it by CZ.

### **Plot 2/17j**

The Applicant will use CZ's proposed alternative access routes in order to avoid the development infrastructure, if the required alternative rights are granted to it. It is noted that this plot is under the ownership of Network Rail.

In conclusion, all parties (Network Rail, CZ and NH) are working together at this interface. The Applicant is preparing Heads of Terms for a side agreement for access to avoid clashes on the car parking facility and the development infrastructure attenuation ponds.

On plots 2/14a and 2/14b discussions between the District Valuer and CZ have been productive and compensation levels have been largely agreed.

**Q2.5.3****Addleshaw Goddard LLP on behalf of Network Rail Infrastructure Limited****Examiner's Question**

Addleshaw Goddard LLP on behalf Network Rail helpfully summarised their client's position [REP3-074]. At the moment, Network Rail are maintaining their objection [REP2-093]. One of their primary concerns relates to the siting of the Paynes Lane footbridge and, in particular, the height and width of this. The ExA viewed the proposed siting in their Accompanied Site Inspection ("ASI"). Where have these discussions reached?

**Co-Responder's Response**

Please see Network Rail's response to the questions raised by the ExA in relation to discussions on the siting of the Paynes Lane footbridge. Network Rail (NR) and the promoter are still in regular discussions relating to the NR concerns, including the Paynes Lane footbridge, and a template overbridge agreement has now been approved by the promoter. Meaning the specific details of the agreement can now be negotiated, including maximum/minimum height and width. However, these details are still to be agreed, including confirmation from NRAP (Network Rail Assurance Panel) on issues of interoperability and that NR's initial assessment that the bridge is not 'significant' under the Commission Implementing Regulations (EU) 402/2013 (the Regulations used for risk evaluation and assessment) is correct. NR's initial assessment is on the proviso that other works proposed by the promoter, such as the proposed reprofiling of the railway embankment along plot 2/17g and possibly 2/17m, will not alter any NR assets which is still being analysed. A typical turnaround time for NRAP is around 4 weeks. Therefore (taking into account Easter), NR hope to hear from them by early May. Overhead line electrification experts have also been contacted to provide detail on the technical perspective of the proposed clearance for the Paynes Lane footbridge to the overhead electrical cables and nearest new OLE gantry as part of the Beaulieu station works. Their response is awaited and also anticipated by early May.

### **Applicant's Response**

The Applicant welcomes these comments and the progression of the various interfaces with Network Rail.

With regards to the siting of Paynes Lane footbridge the Applicant is of the view the bridge span sits outside the standard exclusion zones required by NR but will await formal feedback from the NR.

**Q2.5.4****Chelmsford City Council****Examiner's Question**

Discussions on the Paynes Lane footbridge have been taking place with other bodies. Please confirm where these have been reached.

**Co-Responder's Response**

Chelmsford City Council maintains its position (objection to the bridge design/setting) as set out in its Local Impact Report dated February 2023 (REP2-106). As noted in the draft Statement of Common Ground (Deadline 4 submission), National Highways and Chelmsford City Council met on 8th March 2023 to discuss design concerns in relation to Paynes Lane footbridge. A further meeting was held on 3rd April 2023. The matter remains under discussion, and it was agreed that National Highways will consider Chelmsford City Council's concerns. National Highways will provide an update to Chelmsford City Council and the Examining Authority in the next version of the Statement of Common Ground (Deadline 6).

**Applicant's Response**

The Applicant continues to work closely with the Interested Party to finalise a bridge design/setting that the Interested Party can support. To showcase the evolution of Paynes Lane design and the Applicants commitment to further engagement, it has produced a Technical Note for the Interested Party which details the design considerations, options assessed and visuals including 3D models.

A further update will be provided at deadline 6 in the next version of the Statement of Common Ground.



**Q2.5.5****Essex County Council****Examiner's Question**

As outlined at the CAH1 meeting and also in their subsequent submission, Essex County Council as landowner is reserving their position whilst further discussions took place. It is to be hoped that an agreement is reached, is this the case yet?

**Co-Responder's Response**

The Valuation Office Agency have now been in contact with the council's agents, and discussions are progressing. We are optimistic that that agreement will be reached on the land acquisition elements in due course.

**Applicant's Response**

The Applicant sent further communication to the agents for Essex County Council on 21 March 2023 to progress acquisition by agreement.

Responses received on 23 March 2023 and 14 April 2023 confirmed information had been reviewed and suggested dates for a meeting.

A meeting is arranged for 03 May 2023 to progress acquisition by agreement.

Discussions are ongoing and both parties are optimistic that agreement on the land acquisition elements will be reached.

**Q2.5.7****Mary Lindsay and John Lindsay****Examiner's Question**

A similar position exists with Mr and Mrs Lindsay. They spoke at the CAH1 [REP3-045]. The ExA visited their property during the ASI and it is hoped that the negotiations can progress speedily once Mr and Mrs Lindsay have instructed a surveyor. At the present time, is this objection still outstanding?

**Co-Responder's Response**

Response We are grateful to the ExA for making time in its busy schedule to visit on 2nd March enabling us to demonstrate the severe impact on our lives that the construction works will have as well as the widened A12, both in the house and garden. The care and attention to detail that the panel members demonstrated was very much appreciated. On 15th March we had a site meeting at with representatives of National Highways including Andy Goodwin and Tom Scott from the engineering team, Clare Fleming the Stakeholder & Communications Manager and Ange Shields, Senior Property Advisor. We showed them the impact of the construction works and the widened A12, both in the house and around our boundary. We urged the engineers to take all steps to mitigate the extreme and adverse effects that we will experience. We also discussed with Ange Shields the possibility of applying for discretionary purchase and it is apparent that this is not a straightforward option. We have specific requirements in that we have a collection of classic cars that we currently house securely in our many garages. On the basis of a recent valuation, we have looked in the surrounding areas for properties that match what we have here and, having viewed several, it is quite clear that there is nothing comparable on the market. Furthermore, we are daunted by the procedures and likely costs that we would incur, with no guarantee that we would be successful. Discretionary Purchase actually raises the prospect of yet more uncertainty and lengthy negotiations. Having been threatened by this scheme for many years, its re-emergence in 2017 has been a constant source of anxiety, significantly affecting our quality of life and health, and we have no wish to further exacerbate the stress. On balance therefore, we believe that it will probably be preferable for us to stay put and endure the construction works and resulting road intrusion. We therefore urge the ExA to insist that National Highways put significant mitigation measures in place. These should include relocating the proposed haul road much further away from our boundary, moving and screening the laydown area immediately opposite our cottage and providing triple glazing for our windows.

## Applicant's Response

The Applicant acknowledges the comments made by the Interested Party. The Applicant found the site visit on the 15 March beneficial as it provided another opportunity to explain the mitigation measures that would be implemented, which were previously explained in RR-103 of 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002].

The site meeting on the 15 March also enabled a face-to-face meeting and the exchange of contact details between the Interested Party and one of the Applicant's Senior Property Advisors, meaning that should the Interested Party have any questions or issues with the discretionary purchase process, contact can be made directly to ensure there is no delay.

Previously, the Applicant met with the Interested Party on 28 July 2022 and 24 August 2022 at the property to discuss the proposed works. On 24 August 2022, the Applicant showed the Interested Party the route of the proposed pond access, explaining that the track would be used as a haul route during construction.

While these haul roads shown as Works No. T39 and T45 on sheet 14 of the Temporary Works Plans [AS-004] are in close proximity to the Interested Party's property, measures would be implemented to mitigate the effect of this as far as practicable these measures are set out in section 1.4 -1.8 of the Haul Road Management Plan [REP4-061].

The haul road to the south of the Interested Party's property would be used by road going vehicles (not site going Articulated Dumper Trucks) and construction traffic would access this from the B1023 from either direction. Access would either be managed by a traffic light system, with priority to road traffic, or with traffic marshals.

The below extract is taken from section 5.3 of the Outline Construction Traffic Management Plan (OCTMP) [REP4-033], which details how the road access from the haul road to the B1023 will be managed to mitigate dust, dirt, and debris issues.

5.3.1 Where construction traffic will join the Strategic Road Network or Local Road Network, the Principal Contractor will ensure that the road surface has regular cleaning maintenance. Procedures will be developed to ensure that roads are inspected and that measures are in place to allow a rapid response to any reported mud/debris on the carriageway. Measures may include the following:

- Wheel washes at key egress points;
- High pressure jet-vac sweepers;
- Jet washes at appropriate egress points;
- Manned attendance at appropriate egress points or plant crossings of public carriageways;
- Surfacing of approaches to egress points/plant crossings to allow vehicles to shed mud ahead of the public highway and to enable sweepers to keep the approach clean.

The Applicant believes that the haul road would have minimal impact on the congestion on the B1023 as the majority of traffic in both directions off the public highway would be left turn in only.

The laydown area is for the structural components for the widening of Park Bridge which is in close proximity to the laydown area. The location of the laydown area is adjacent to the proposed position of the crane that would lift the structural components into place. It is therefore not possible to move the laydown area from its current proposed position. When the detailed design of the laydown is developed, several considerations will be made including the positioning of topsoil bunds, cabins and low-level lighting to maximise the screening of the compound and minimise noise and light pollution.

The laydown area would generally be used during normal day time working hours. Occasionally, limited night-time work is anticipated for activities associated with installing the bridge beams and parapets to Park Bridge, and installation of traffic management on the B1023. At certain times 24/7 security may be present at the laydown area.

The Applicant has added more information in the First Iteration Environmental Management Plan Appendix C: Construction Compound Management Plan [REP4-025] at Deadline 4 which includes a standard layout of a laydown area as they would typically be planned on the proposed scheme, this is to give the interested party a visual aid of the mitigation measures that would be implemented at the Park Bridge Laydown. This typical layout can be found in section C.4.1.

Prior to construction, a framework will be drawn up to determine if residents of any properties meet the criteria for noise insulation or temporary re-housing. This is commitment NV1 within the Register of Environmental Actions and Commitments that is contained within Appendix A of the First Iteration Environmental Management Plan [REP4-023]. However, the use of noise insulation or temporary re-housing would be a last resort, with measures first considered to reduce the noise at source. Possible measures to reduce the noise are the use of alternative methods of piling to vibratory and hammer piling and undertaking the noisiest works at the start of the night shift.

The existing concrete road surface on the A12 Kelvedon bypass is proposed to be resurfaced with a low noise surface. It should be noted that this is planned to be a conventional low noise surface and not the surface with enhanced noise reducing properties. The predicted reduction in noise between traffic travelling over a concrete surface to a low noise surface is 7 dB(A). A conventional low noise surface is deemed 'embedded mitigation' (paragraph 12.10.10 in Chapter 12: Noise and vibration, of the Environmental Statement [APP-079]) and not 'additional mitigation' (paragraph 12.10.16). This is why the area around Kelvedon is not indicated with a red line on Figure 12.4 of the Environmental Statement [APP-231], as this figure only shows the additional mitigation.

At the Compulsory Acquisition Hearing 2 - Session 1 on the 27<sup>th</sup> of April 2023 the Interested Party raised concerns about the hedgerow on the boundary on their property.

The Applicant's Response to Relevant Representations RR-103-008 [REP1-002] states the Applicant will endeavour to avoid any interference with the hedgerow as it offers visual screening to the property. From an engineering perspective, it appears unlikely that the hedge would need to be disturbed. The Applicant will review the developing detailed design, with the intent, if possible of, maintaining the hedgerow.

<b>Q2.5.8</b>
<b>Anglian Water Services</b>
<b>Examiner's Question</b>
Concerning Special Category Land, the Applicant reported that progress was being made with the discussions with the various Councils. It is to be hoped that sufficient progress is made before the next group of hearings at the end of April so that this does not need to become an issue for consideration at the hearings. Please update.
<b>Co-Responder's Response</b>
Anglian Water can confirm that discussions with National Highways regarding the matter of replacement land are agreed and this is reflected in the updated draft Statement of Common Ground. The draft SoCG between Anglian Water and National Highways sets out that this matter is agreed. National Highways has made provisions within the draft DCO for replacement land to be provided (due to Whetmead Nature reserve being considered public open space) for plot number 9/10d. Anglian Water has agreed to Plot 9/1q being included in the Order, as identified in TR010060 (7.9 Replacement Land Statement) to ensure that it links with the replacement land identified for Witham Town Council (91/a) including for reasons to enable connectivity for nature conservation. Anglian Water has liaised with Witham Town Council to verify that the replacement land proposed is satisfactory.
<b>Applicant's Response</b>
The Applicant acknowledges the Interested Party comments and can confirm that Replacement Land parcel has been agreed with Anglian Water as per draft Statement of common Ground [REP4-048] paragraph 3 of section 3.1 of the document.
<b>Braintree District Council</b>
<b>Co-Responder's Response</b>
Braintree District Council have an interest in 2 areas of Special Category Land (listed below) which are offered by NH as replacement land for expropriation of open spaces to the west of the A12 at Witham. Replacement land has been discussed with

NH intensively and BDC have a good understanding of the issues in regard to future design, access and maintenance. Acceptance of the proposals are currently being considered at director level for sign off. We will update our SoCG with NH with any progress pertaining Special Category Land. Land to the rear of Maldon Road: 8/33g Land south of Colchester Road: 10/1B (and neighbouring parcels) Link to Special Category Land:  
<https://infrastructure.planninginspectorate.gov.uk/wpcontent/ipc/uploads/projects/TR010060/TR010060-0003592.5%20Special%20Category%20Land%20Plans.pdf>

### **Applicant's Response**

The Applicant acknowledges and thanks the interested Party comments and will keep meetings and working with the Interested Party to reach an agreement on Replacement as soon as possible.

### **Essex County Council**

### **Co-Responder's Response**

ECC has not had any further engagement with National Highways (NH) on Special Category Land since the February / March hearings.

### **Applicant's Response**

The Applicant continues to have meetings with all parties relating to Special Category land. It is the understanding of the Applicant that ECC are content with the proposed replacement land and expects to be able to confirm this formally through the SoCG being prepared with ECC.

Since identifying the need for replacement land the Applicant has had meetings with various departments within ECC, has discussed replacement land in the SoCG meetings and held a joint meeting with the departments within ECC understood to be interested in replacement land on 23 August 2022.



ECC also attended a joint meeting facilitated by the Applicant relating to the future potential for the replacement land proposed for Braintree District Council, Witham Town Council and ECC on 4 January 2023.

### **Witham Town Council**

#### **Co-Responder's Response**

Witham Town Council are continuing to have regular contact with National Highways regarding special category land. Discussions are ongoing and progressing in a positive manner.

#### **Applicant's Response**

The Applicant acknowledges and agrees with the interested party comments. Recently the Applicant started a targeted consultation and intends on the 30 of May to submit a Change Application to the Examining Authority where one of the changes is to provide replacement land to Witham Town Council in accordance with meetings held in March and April 2023.

It is believed that, if the change application is accepted. and approved that Witham Town Council would agree with the replacement land provided by the Applicant.

## Q2.5.12

### National Farmers Union

#### Examiner's Question

The NFU appeared at the CAH1 and whilst not an Affected Person, it was clear that they would represent a number of affected landowners. They have subsequently provided confirmation to this effect. They asked for the notice period in Article 40 to be extended to 28 days and it is acknowledged that this has been accepted as confirmed in REP3-014 at reference 22. There remains the issue [REP3- 071] of land ownership and returning the land even though environmental mitigation is required. The Applicant has responded (at para 24, [REP3 –014]). Can an appropriate legal mechanism be agreed which will adequately protect the Applicant?

#### Co-Responder's Response

National Highways have advised that acquiring land on a permanent basis for environmental mitigation is a long-standing practice. The NFU strongly feels that where a landowner would prefer for the land in question to be returned, then this should be facilitated by implementing an environmental management agreement. It has been explained in [REP3 –014] that the Applicant's only remedy would be to seek to enforce the agreement through the civil courts, whereas the implication for the Applicant would result in a breach of the DCO and a potential criminal sanction. The question raised is regarding legal mechanisms that can be agreed that would adequately protect the applicant. The NFU feels that the environmental management agreement itself would become the legal mechanism that would protect the applicant. The NFU would expect that the drafting of the agreement would reserve the right for National Highways to monitor that the obligations under the agreement are being carried out, and in the event of non-compliance the applicant would have the right to enter upon the land and carry out the maintenance themselves to ensure that they were able to meet their obligations under the DCO.

#### Applicant's Response

The Applicant repeats its response set out in REP2-051-004 [9.24 Applicant's Comments on Written Representations - REP3-009] shown below:

Land required for embedded and essential mitigation must be acquired by the Applicant on a permanent freehold basis so that the Applicant is able to ensure the effectiveness of the mitigation in the long-term. Control over the land is required permanently to enable the mitigation provided to be managed, maintained and monitored. National Highways' long-standing practice has been to acquire the land used for essential mitigation rather than to offer back the land required subject to a positive covenant to maintain the land in a certain condition/to a set standard via a management agreement as proposed in the representation. This is because any disposal of essential mitigation would expose the Applicant to a breach of the made DCO and to potential criminal sanction if the landowner failed to maintain the mitigation. In such circumstances, National Highways' only remedy would be to seek to enforce the management agreement against the landowners in the civil courts, whilst facing criminal liability itself. National Highways is not able to accept such an 'imbalance of consequence' whereby it would face greater liability than the actual party in breach.

<b>Q2.5.13</b>
<b>CMS LLP on behalf of Legal and General Investment Management Ltd</b>
<b>Examiner's Question</b>
They had been due to speak at CAH1 but notified in advance that this would not be the case. Their solicitors reported [REP3-048] that progress had been made so please provide an update?
<b>Co-Responder's Response</b>
As outlined in L&G's submission to the Examination dated 28 February 2023 [REP3-048], L&G and the Promoter have been actively engaged in negotiations regarding how the Promoter's acquisition proposals can be managed outside the DCO process in order to minimise the impact on L&G's tenants and its operations on the Estate. The parties have made good progress towards reaching agreement and L&G considers that the substantive terms are agreed in principle. However, L&G is still awaiting the Promoter's final comments on the draft Heads of Terms and is unable to progress the agreement further until these are received. L&G will continue to participate in the Examination and reserves the right to make further submissions and objections in respect of the DCO scheme should final agreement not be reached with the Promoter.
<b>Applicant's Response</b>
The Parties have agreed an approach to manage the phased use of car park spaces and to minimise any disruption to tenants.
The Applicant continues to consult with tenants on the Eastways Estate.
Heads of Terms are being discussed and are substantially agreed subject to some minor amendments. The Applicant expects to reach agreement before the end of the examination period.

**Q2.5.14**

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**Royal London UK Real Estate Fund and Edmundson Electrical Limited – Part 1****Examiner's Question**

This objection was outlined at CAH1 and the ExA spent some time during the ASI inspecting the site and also looking at the possible alternative routes which had been suggested. It is noted that a subsequent meeting between the parties was to take place on site on 08 March 2023 to discuss security and commercial impacts. Please can the parties update the ExA on these discussions.

**Co-Responder's Response****1. INTRODUCTION**

1.1. This submission is made by Pinsent Masons LLP on behalf of its clients Royal London UK Real Estate Fund (Royal London) and Edmundson Electrical Limited (EEL). This submission is made in response to Q2.5.14 of the Examining Authority's written questions and requests for information (ExQ2), issued on 20 March 2023. It provides the Examining Authority with an update on the current status, from Royal London's and EEL's perspective, of discussions between Royal London / EEL and National Highways (the Applicant) as promoter of the A12 to A120 Widening Scheme (the Scheme). It also seeks to highlight some continuing issues with the Scheme. Our clients have already made several submissions to the examination, which the Examining Authority will be aware of. For ease of reference, those submissions are as follows:

- a. Royal London: relevant representation [RR-032] and written representation [REP2- 100];
- b. EEL: relevant representation [RR-030] and written representation [REP2-099]; and

c. Joint submission of Royal London and EEL: written submissions of oral representations made at hearings [REP3-077].

## 2. RESPONSE TO EXQ2 – UPDATE ON DISCUSSIONS WITH THE APPLICANT

2.1. As noted by the Examining Authority, a site visit took place on 8 March 2023 between representatives of Royal London, EEL and the Applicant. Prior to that site visit, a meeting took place on 21 February 2023. No further meetings or discussions have since taken place with the Applicant.

2.2. During the site visit, Royal London and EEL reiterated the key operational concerns that they continue to have with the Applicant's proposals, in particular the suitability of the access route through EEL's site. Royal London and EEL would like to draw the Examining Authority's attention to the following points arising from the site visit:

### **Applicant's Response**

The Applicant notes the Interested Party's comments.

## Royal London UK Real Estate Fund and Edmundson Electrical Limited – Part 2

### Co-Responder's Response

#### Alternatives

2.3. Royal London and EEL re-stated their view presented in previous submissions that the Applicant's consideration of alternatives has not been fully or adequately justified. Despite raising this issue on numerous occasions, Royal London and EEL are yet to receive any evidence from the Applicant that the proposed access route is the only suitable option available. The alternatives proposed by Royal London and EEL are illustrated most clearly in the written representations ([REP2-100 and REP2-099]).

### Applicant's Response

The Applicant notes the Interested Party's comments and has provided justification within previous responses. The Applicant's position has been summarised in 9.41 Applicant's Comments on Responses to ExQ2 [REP4-055].

#### Consideration of alternatives

For clarity the Applicant has summarised the alternatives that have been raised by the interested party. The below references can be found in Plate 5 of [REP2-099].

#### IP's Alternative Ref 1:

The Applicant has had further discussion with Cadent Gas Limited about the access through Cadent's Above Ground Installation (AGI) and have been informed that they have identified that the existing access to the Above Ground Installation does have high-pressure pipework traversing under it at shallow depths in multiple locations. There is also shallow ducting for electrical cables and

flow and return water piping. In its current state, access is only suitable for light vehicular access through the AGI for sporadic maintenance purposes only, therefore making Ref 1 an unsuitable route.

**IP's Alternative Ref 2:**

This would involve removing a bund located to the north of the EEL site on land owned by HSBC. The Applicant has discounted this option due to the environmental impacts from removing the trees and vegetation on the bund and the transportation impacts. HGV movements would be required to remove the material from the earth bund off site and then to import materials to form a temporary roadway with an associated impact on the local roads in the estate. These transport activities would need to be repeated in reverse to reinstate the bund once the work is completed. The Applicant believes this would generate significantly more vehicle movements along Winsford Way impacting on local occupiers in the vicinity of the proposed works.

**IP's Alternative Ref 3:**

The Applicant has investigated access from the A12 mainline and the findings are:

- The Edmundson Electrical (EEL) site is in close proximity to the junction 19 northbound off-slip road, where there is existing traffic signage within the northbound verge approximately 50m to the approach of the start of the off-slip road.
- To install temporary traffic management to enable safe access and egress from the A12 mainline to the EEL site, the Applicant would need to install an entry point access at least 500m prior to the EEL site, on the A12 mainline. The reason for this is to mitigate against accidental incursion from road users as there is a heightened risk that the entry access point could be mistaken for the junction 19 northbound off-slip road. Additionally, the existing lanes on the A12 mainline would need to be reduced to narrow lanes (Lane 1 down to 3.25m and Lane 2 down to 2.75m), with a speed reduction to no greater than 50 mph.



- To allow safe egress of works vehicles the egress point would be required to be extended up the junction 19 northbound off-slip road. To enable this, the off-slip road would have to be reduced to a single lane to provide a safe egress point for the workforce. This would reduce the capacity of the junction which already suffers with congestion during both the AM and PM peak traffic hours.
- Due to the limited cross section available on the A12, the Applicant would need to harden the verge to enable an access road to the EEL site. This would be approximately 1km long and would require the importing of construction materials and removal of the existing safety barrier and signage.
- All road markings would need to be adjusted on the A12 mainline.
- Removal of existing drainage would need to be considered and a temporary system installed.
- A temporary barrier system would need to be installed as the existing permanent assets would need to be removed, including the safety barrier.

Due to the above reasons, the Applicant does not deem access and egress from the A12 mainline to the utility diversion site as a reasonable or proportionate option.

The Applicant has investigated the other feasible access to the gas main installation.

**IP's Alternative Ref 4:**

The Applicant proposes to use this area for the diversionary works.

## **Security**

The security and parking concerns raised by the Interested Party were discussed at the meeting, in particular the working times of the business and the requirement to have three rigid delivery trucks parked in front of the palisade fence and locked at 15:00-16:00 on the proposed access way to the gas main site, located to the north of EEL. The Applicant believes that a pragmatic solution can be found for these issues, which could involve the installation of additional gates in the palisade fence, additional security measures and/or temporary alternative parking for one of the lorries. The Applicant will continue to work closely with the Interested Party to find a mutually acceptable solution.

The Applicant's view is that the route selected is the least disruptive and this position has not changed.

**Royal London UK Real Estate Fund and Edmundson Electrical Limited – Part 3****Co-Responder's Response**

'Ref 1' – Cadent Compound

2.4. There were discussions during the site visit in relation to the potential for using the neighbouring Cadent compound as an alternative access route. This is 'Ref 1' as referred to in the written representations and the post hearings submission [REP3-077]. The Applicant re-stated its previous position that this route would not be feasible due to health and safety / operational concerns.

2.5. Royal London and EEL remain dissatisfied with the Applicant's position on this alternative route. The Applicant affirms that it is not possible, but the proposal relates to Cadent's land and it is understood that it is Cadent who are undertaking the design and will be undertaking the relevant works i.e. the diversion of a high-pressure gas pipeline, Work No.U2.

2.6. On that basis and as raised at the hearing on 1 March 2023, Royal London and EEL would like to hear directly from Cadent to understand what their view on this proposed alternative is. Royal London and EEL note that Cadent is an interested party in the examination and has set out its objections in several representations. This relates to the various diversions proposed under the Scheme and in respect of the protection of its existing network ([RR-031] and REP2-042]). Royal London and EEL note that at the hearing on 1 March 2023, the Applicant responded to a query from the Examining Authority by stating that that Cadent had objected but not in relation to this part of the Scheme. We do not believe that is correct as Cadent's objection and representations are not specific to any part of the Scheme so it cannot be said that they have not objected to this part of the works.

**Applicant's Response**

The Applicant notes the Interested Parties comments. Refer to response provided in part 2 of 2.5.14 in this document.

Cadent's representations on the Order have no bearing on the works proposed at Springfield. the Applicant is working closely with Cadent. Indeed it is Cadent that has requested the access across EEL's yard, for the reasons clearly set out above and previously.

## Royal London UK Real Estate Fund and Edmundson Electrical Limited – Part 4

### Co-Responder's Response

2.7. As a related point, Royal London and EEL also note that Cadent is undertaking “detailed design of the Diversion routes and will be able to provide an update to the Examining Authority once the detailed design has been finalised” (paragraph 3.2 of [REP2-042]). It is suggested by the Applicant in respect of “the gas diversion” that “prior to the end of the examination” the detailed design will have progressed to inform the final alignment and construction methodology, and this will be shared with “directly affected parties” [REP3- 012] – Royal London and EEL would like confirmation that this relates to the gas diversion they are affected by.

2.8. Royal London and EEL have previously queried [REP3-077] why the new pipe could not go straight across and link up to the existing pipework to the north of the current proposals, which would negate any need for access through the EEL site. The Applicant responded to this point during Compulsory Acquisition Hearing 1 and in [REP3-014] by stating that the diversion needs to be made to “one side or the other” of the existing pipeline, as provided for in the Works Plans and the limits of deviation under the dDCO, and this is subject to detailed design.

2.9. However Royal London and EEL had understood that it would not be possible to divert to the north of the existing pipeline because of the presence of a stream in that location. This appears to contradict what was stated by the Applicant in the hearing and in the post-hearing submission. If it cannot go to the north for technical reasons, it is unclear why the full extent of the Order limits is still provided for by the Applicant. Royal London and EEL request clarity on this point from the Applicant.

2.10. More generally, the optioneering undertaken which resulted in the route shown on the Works Plans Utility Diversions (sheet 1, [AS-003]) has been requested from the Applicant. Consequently, Royal London and EEL would like to know the latest on the progress of this detailed design and be kept updated on any developments. In addition, please note Royal London and EEL's proposed requirement in relation to the diversion works (see ‘New Requirement 3’ as set out in paragraphs 3.7 and 3.8 of [REP3-077]).

## Applicant's Response

### 2.7:

The Applicant would update the Interested Party on the detailed design of the gas main diversion noted as Work U2 on Sheet 1 of 21 of the Utility Diversions [AS-003], once this becomes available.

### 2.8/2.9:

It is unfeasible to install the gas main "straight across" the road as this is the current alignment of the existing gas main. Therefore, it is not possible to install a new gas main on top of or immediately adjacent to a live high-pressure gas main. It is necessary to retain this critical infrastructure (600mm diameter high pressure gas main) operational and insitu, whilst an alternative pipeline is constructed alongside the existing, then connections are made from the new to the existing to make the diverted route.

### 2.10:

The Applicant has previously responded to the Interested Party with regards to the proposed installation of Work No. U2 in RR-032-003 Deadline 1 Submission - Applicant's Response to Relevant Representations - Rev 2 [REP1-002].

As stated above, the Applicant will update the Interested Party on the detailed design once this becomes available.

The Applicant has previously indicated that it sees no justification in the suggested requirements proposed by EEL and Royal London.

## Royal London UK Real Estate Fund and Edmundson Electrical Limited – Part 5

### Co-Responder's Response

'Ref 2' - Trilux

2.11. This alternative option was not considered in significant detail during the site visit. Royal London and EEL note the Applicant's justification for discounting this option in its Written Submission of Oral case for Compulsory Acquisition Hearing [REP3-014]. This submission indicates that it is not suitable due to the route running on top of the existing gas main, plus the powerlines and watercourse in the vicinity. However, Royal London and EEL remain unconvinced and request technical analysis to substantiate the Applicant's position. 'Ref 3' – Directly from the A12

2.12. Another key area of discussion at the site visit related to this alternative option. The Applicant has suggested previously that this would not be possible for various reasons, each of which is considered and responded to below:

a. the "level differences" between the works area and the A12 northbound carriageway would require a substantial temporary works area to construct a safe access – Royal London and EEL reject this assertion. It was demonstrated on the site visit that the carriageway and the proposed works area are effectively level. In addition, Royal London and EEL consider that the topography does not prevent a direct access from the A12. Clearly a works area would be required to construct the access, but Royal London and EEL do not think this would be disproportionate in size or cost.

b. there would be transport impacts from the access works in a busy area. The Applicant has not provided any data or evidence in terms of numbers of HGVs and potential consequential effects or how the transport impacts compare to the current proposal through the EEL site. Royal London and EEL would welcome seeing that information.

c. for safe access and egress, temporary traffic management would be required on the A12 mainline carriageway and J19 northbound exit slip-road –

(i) Royal London and EEL acknowledge that appropriate management will need to be put in place to ensure that this access can be used safely. However, there are clear practical measures which could be implemented to reduce the impact on the A12 and the Applicant confirmed that it would discuss with its traffic team about potential impacts on Junction 19 for this alternative. No further information has been provided and is requested from the Applicant.

(ii) Separately, Royal London and EEL contest the suggestion that there necessarily would be impacts on the slip-road. It was demonstrated during the site visit that access to the relevant work site directly from the A12 could be provided before the slip-road.

2.13. Royal London and EEL are of the view that the site visit re-iterated that 'Ref 3' is a viable option and consider that the Applicant must consider it in more detail.

### **Applicant's Response**

The Applicant has discounted this option due to the environmental impacts from removing the trees and vegetation on the bund and the transportation impacts. HGV movements would be required to remove the material from the earth bund off site and then to import materials to form a temporary roadway with an associated impact on the local roads in the estate. The transport activities would need to be repeated in reverse to reinstate the bund once the work is completed. The Applicant's position has not changed on this route.

The Applicant has responded to access from the A12 in part 2 of 2.5.14 in this document.



## **Royal London UK Real Estate Fund and Edmundson Electrical Limited – Part 6**

### **Co-Responder's Response**

2.14. To summarise on alternatives, Royal London and EEL consider that each of the three options referred to above may be viable. Royal London and EEL request that the Applicant responds to the position on each alternative and provides any technical information to support their position.

### **Applicant's Response**

The Applicant has provided justification to this in their comments in part 2 of 2.5.14 in this document. The Applicant does not believe there is a better alternative to that in the application and indeed believes the proposal to take access from EEL's car parking areas is the safest and least disruptive of the options put forward by EEL and Royal London and has the least environmental impacts.

**Royal London UK Real Estate Fund and Edmundson Electrical Limited – Part 7****Co-Responder's Response**

Issue with the current proposed route

Existence of run-off tank (or similar)

2.15. During the site visit the location of a run-off tank (believed to be for petrol or oil) beneath the Applicant's proposed access route was raised. A plan showing the location of this tank is included at Appendix 1. Please see link:

<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010060/TR010060-002247-Royal%20London%20UK%20Real%20Estate%20Fund%20and%20Edmundson%20Electrical%20Limited%20-%20Responses%20to%20ExQ2.pdf>

2.16. Royal London and EEL consider that it will be necessary to investigate this further as there are likely to be weight restrictions in this area preventing the Applicant and Cadent using the access for the purposes required and the issue does not appear to have been considered previously. Royal London and EEL are of the view that investigative work should be undertaken by them at the Applicant's cost to determine the position. Royal London and EEL have raised this with the Applicant but wanted to draw it to the attention of the Examining Authority. Impact on EEL

2.17. EEL notes the reference in the Applicant's Written Submission of Oral Case for Compulsory Acquisition Hearing [REP3-014] to the impact on EEL expected to be "minimal as the order limits have been designed not to encroach on any of the parking bays". EEL reiterated at the site meeting that the impact on parking is not the principal issue on this point and the fact that the parking bays are not affected does not result in a minimal impact to the operation of EEL's business. It is difficult to quantify the commercial impact at the moment given the lack of detailed information provided by the Applicant in terms of quantity, size, frequency, duration of vehicles accessing this route, [REP1-002].

2.18. EEL notes that the Applicant indicates that it is waiting for EEL to provide a 'commercial impact assessment'. EEL is not at the moment able to provide this commercial impact assessment given the lack of information provided as outlined above but considers that the impact is likely to be significant and continue after the works have been completed (customers and trade going elsewhere as a result of traffic and access difficulties and delays). EEL requests further details from the Applicant in terms of quantity and size of movements proposed over the access such that it can complete an assessment.

### **Applicant's Response**

The Applicant acknowledges the plan provided by the Interested Party.

Prior to the commencement of works, the Applicant would undertake investigatory works, which would confirm the location and depth of the runoff tank. A temporary works assessment would then be undertaken to ensure vehicles associated with the construction of Work U2 as noted on Sheet 1 of 21 Utility Diversions [AS-003] could traverse over the runoff tank. If required, temporary protection measures over the runoff tank would be implemented in accordance with a temporary works design. This approach is standard practice with all buried services.

The Applicant [has asked EEL and Royal London for] the types of vehicles used by the Interested Party that may currently traverse over the runoff tank for consideration in the temporary works assessment.

The Applicant has confirmed in previous responses, including the site meeting, it is expected that there would be no more than 20 vehicles movements per day.

## Royal London UK Real Estate Fund and Edmundson Electrical Limited - Part 8

### Co-Responder's Response

#### 3. CONCLUSION

3.1. Royal London and EEL believe that the site visit was helpful in demonstrating the key operational concerns with the Applicant's proposals and that there are three feasible alternatives to the proposed access route. These routes need to be considered further by the Applicant. Royal London and EEL re-iterate that, at present, their view is that the impact from the Scheme on their relevant land interests, which derives from the selection of the access route, is not justified. In addition, Royal London and EEL request that the Applicant covers the costs of investigating the impact from the run-off tank on the suitability of the proposed access route and that the Applicant and Cadent provide further details of the frequency, duration, quantity and size of vehicles proposed over the access such that it can complete a commercial assessment of the impact.

### Applicant's Response

The Applicant has justified the requirement of access through the Interested Party's land and reiterates that the Applicant believes this to be the least impactful route. This reasoning has been summarised in part 2 of 2.5.14 of this document.

As detailed in part 7 of 2.5.14 of this document, the Applicant would undertake any required investigatory work. This is standard practice for all buried services or obstructions that could be affected by a construction area or access route.

Frequency of vehicles has been provided by the Applicant and once the detailed design has been developed, the further information requested, would be provided.

<b>Q2.5.15</b>
<b>The Examining Authority</b>
<b>Examiner's Question</b>
<p>The issue of the Borrow Pits received some attention at CAH1 and in particular the consideration of the position relating to the Coleman Farm Quarry. The response to one of the original objections was made at REP1-002 and a Supplementary Technical Note explained the position further [REP1-011]. The position concerning the Colemans Quarry needs to be better explained since its need for backfilling is uncertain (see APP-069, ES Chap 2 at 2.686; and RR027-15 and RR027-19). The difference would be significant as this involves a significant amount of material (although figures of 600,000 and 650,000 are separately given). Please can the Applicant give an explanation as to why Colemans Quarry needs this backfill; how likely is it that this will be required; and when will the position become clearer?</p>
<b>Co-Responder's Response</b>
<p>Can the applicant provide clarification to the statement made on EXQ2 where the mention of the applications was yet to be determined, and provide an update on the Matters under discussion on the SoCG?</p>
<b>Applicant's Response</b>
<p>During the Compulsory Acquisition Hearing 2 the applicant was asked to clarify why the response to Examining Question 2 2.5.15 [PD-009] on the update to the Colemans Quarry planning applications had no detail as the applications have been approved.</p> <p>At the time of writing and submitting the response to question 2.5.15 the Local Authority Website had not been updated to reflect the status of the application from the end of January (approved awaiting S.106 agreement). The minutes from the Committee meeting were uploaded to the ECC website on 20th April 2023. The status of the application remains the same (Resolution made/ Awaiting legal agreement).</p>

To confirm the status of the applications:

- ESS/98/21/BTE: permission to change the approved restoration concepts and management plans; and the establishment of an inert materials recycling facility, in advance of the A12 road widening infrastructural project. Status: Resolved to be granted subject to S.106 - for increase on HGV, re-phasing and inert materials recycling facility in advance of the A12 scheme.
- ESS/51/21/BTE: permission for the inclusion of additional water lagoons on site; and a temporary increase in HGV movements to enable accelerated progression of proposed western extension restoration scheme to return the land to formation level in advance of the A12 road widening and improvement national infrastructure project. Status: Resolved to be granted subject to S.106
- ESS/36/21/BTE: Proposed western extension to the current site using existing approved facilities (site access, plant site, mineral processing plant and other ancillary facilities); including for the diversion of the Burghey Brook; with restoration to arable land using imported inert restoration materials, and on-site materials in advance of the A12 road widening and improvement national infrastructure project. Status: Resolved to be granted subject to S.106

The Applicant does not believe any of the permissions have yet been issued.

There is also an application being prepared for the relocation of the on-site processing plant, Ready Mix Concrete plant and ancillary facilities. A Screening Opinion was submitted for this application (ESS/45/22/BTE/SO) which determined that the proposed application requires Environmental Impact Assessment.

Current discussions with Brice Aggregates Limited suggest that a planning application for this development is expected to be submitted by the end of May 2023. Pre-application activities such as a public consultation event and survey work have been carried out.

Regarding the Statement of Common Ground [REP4-41] with Brice Aggregates Limited the relatively high number of “amber” issues under discussion is due to the Brice family wanting further clarity on detailed design and more technical wording included. A design update meeting was held with the Brice family on 21st March 2023, where design experts gave an update on progress for drainage, ecology and access. Once the technical wording has been provided, the Applicant is hopeful some of these issues should be able to be moved to “agreed” by deadline 6 submission of the SoCG.

<b>Q2.11.3</b>
<b>Historic England</b>
<b>Examiner's Question</b>
The representation from HE [REP2-060] counters the assessment made by the Applicant on the significance of the scheduled monument at Appleford Farm, Rivenhall End. HE considers that the proposed construction works would result in a substantial change in the context of the monument. Can the Applicant re-appraise the impact on the monument as suggested by HE at their paragraph 5.3.8? Can further mitigation be provided in order to reduce the level of harm to the designated heritage asset?
<b>Co-Responder's Response</b>
We note the applicant's response to our Written Representation in REP30092 and the re-appraisal of the impact on the monument. We disagree with the conclusion by the applicant, in terms of the impact on the scheduled monument. In our view the significance of effect with professional judgement would be moderate, rather than slight, adverse. We do not believe additional on-site mitigation is possible at this location to reduce the level of harm to the designated heritage asset that we have identified. At a meeting with the applicant on 16 March 2023, we suggested that off-site mitigation is investigated to offset the harm that we have identified. We would like to see a commitment to this from the applicant.
<b>Applicant's Response</b>
<p>The Applicant notes the Interested Party's response and reiterates that we do not consider the significance of residual effect on the setting of the Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End to be moderate adverse, but slight adverse (slight harm).</p> <p>The Applicant's reappraisal of the construction and operation of the proposed scheme on the setting of the scheduled monument, presented in REP3-092 and in the Applicant's Written Submission of Oral Case for Issue Specific Hearing 3 [Applicant Reference TR010060/EXAM/9.53] submitted at deadline 5, followed Historic England's methodology for the assessment of setting in GPA3 The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning (Historic England, 2017). The Applicant is</p>



unclear as to why Historic England does not agree with this assessment and invites Historic England to provide a detailed assessment following their own methodology to flush out points of contention, which can then be discussed further.

The Applicant has provided for mitigation within the Order Limits in the vicinity of the Neolithic long mortuary enclosure scheduled monument in the form of landscaping to reduce visual impact and a road surface with better noise reducing properties than a conventional low noise road surface. The Applicant is confident that, as it matures, the proposed landscape planting would help to integrate the proposed scheme into the landscape. The predicted change in traffic noise would not be perceptible in the context of the existing setting of the Neolithic long mortuary enclosure. Together, these two forms of proposed mitigation would reduce the effect of the presence of the proposed scheme on the setting of the Neolithic long mortuary enclosure.

The Applicant is pleased to see that Historic England acknowledges that additional on-site mitigation (which the Applicant understands to mean mitigation within the Order Limits in the vicinity of the Neolithic long mortuary enclosure) to reduce the level of harm to the setting of the scheduled monument is not possible.

While Historic England has suggested “off-site mitigation”(which the Applicant understands to mean measures to be provided outside the Order Limits and within or immediately surrounding the Scheduled Monument), the Applicant considers that such measures are not appropriate for the following reasons.

- 1) The Applicant has not identified a significant adverse effect on setting and Historic England has not explained its position.
- 2) Even if a significant adverse effect had been predicted the Applicant has not identified mitigation measures over and above those already committed to within the Order Limits that would further avoid or reduce the effects of the proposed scheme on the setting of the Scheduled Ancient Monument. There is no requirement under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 for all likely significant effects to be mitigated, though where mitigation is proposed, it should be described in the Environmental Statement.

- 3) As explained in the NNNPS paragraph 5.132, the Secretary of State needs to weigh any harmful impact on the significance of a designated heritage asset against the public benefit of development.
- 4) The Applicant cannot provide mitigation outside the Order Limits through the DCO process on land over which it has no control.

The guidance on mitigation is set out in the National Policy Statement for National Networks (NPSNN) (Department for Transport, 2014), the National Planning Policy Framework (NPPF) (MHCLG, 2021), and the guidance on Environmental Impact Assessment in the Design Manual for Roads and Bridges (DMRB) LA104 (Department for Transport, 2020).

The mitigation hierarchy in these documents requires proposed developments firstly to avoid adverse effects as far as possible or, secondly, to mitigate adequately any harmful effects, where they cannot be avoided. Compensatory measures are only considered as a last resort where harm cannot be avoided and mitigation is not possible.

DMRB LA 104 paragraph 3.24 notes that there are two main forms of mitigation which should be reported in the environmental statement for National Highways schemes:

- 1) Embedded Mitigation: project design principles adopted to avoid or prevent adverse environmental effects; and
- 2) Essential Mitigation: measures required to reduce and if possible offset likely significant adverse environmental effects, in support of the reported significance of effects in the environmental assessment.

The key element of 'Essential Mitigation' is that, in accordance with Regulation 14(2)(c) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, it is designed to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment. The Applicant's assessment finds that there are slight adverse, not significant,

effects of scheme construction and operation on the scheduled monument. As the scheduled monument lies outside the Order Limits, the Applicant does not have powers to undertake mitigation at that site. The Applicant would also need to be persuaded that there would be a significant residual adverse effect of the proposed scheme on the scheduled monument before considering further scope for off-site mitigation.

In summary, the Applicant has presented a detailed assessment of the setting of the monument in line with the Historic England guidance contained in GPA3 in the Applicant's Comments on Written Representations [REP3-009] at Deadline 3, specifically in the response to REP2-060-006, and also in the Applicant's Written Submission of Oral Case for Issue Specific Hearing 3 [Applicant Reference TR010060/EXAM/9.53] submitted at deadline 5. These responses set out in detail the Applicant's assessment of the value of the scheduled monument and its setting, and how assessment of the slight harm to the scheduled monument was arrived at. The Applicant is content that this assessment is robust and that further mitigation is not required. The scheduled monument is outside the Order Limits, so the Applicant does not have control over other land even if additional mitigation had been identified off-site to further offset harm to its setting. The Applicant is happy to continue discussions but is yet to accept that it would be appropriate to provide mitigation off-site. The Applicant is, however, noting that this can only be achieved where the mitigation is justified.

<b>Q2.11.4</b>
<b>Historic England</b>
<b>Examiner's Question</b>
HE has also raised concerns as to the other scheduled monument along the proposed A12 route, being the Medieval moat at Marks Tey Hall. They have suggested an updated assessment taking into account their comments, but the Applicant has responded from page 190 of REP3-009. Can HE comment on this? Again, is it possible for the Applicant to provide additional mitigation which might ease the concerns of HE?
<b>Co-Responder's Response</b>
We note the applicant's response to our Written Representation in REP30092. We disagree with the conclusion by the applicant, in terms of the impact on the scheduled monument. In our view the significance of effect with professional judgement would be moderate, rather than slight, adverse. We do not believe additional on-site mitigation is possible at this location to reduce the level of harm to the designated heritage asset that we have identified. At a meeting with the applicant on 16 March 2023, we suggested that off-site mitigation is investigated to offset the harm that we have identified. We would like to see a commitment to this from the applicant.
<b>Applicant's Response</b>
The Applicant notes the Interested Party's response and reiterates that it does not consider the significance of residual effect on the setting of the Medieval moated site at Marks Tey Hall to be moderate adverse, but slight adverse (slight harm).
The Applicant's reappraisal of the construction and operation of the proposed scheme on the setting of the scheduled monument, presented in 9.24 Applicant's Comments on Written Representation REP3-098 and in the Applicant's Written Submission of Oral for Issue Specific Hearing 3 [Applicant Reference TR010060/EXAM/9.53, response reference 7.6] submitted at deadline 5, followed Historic England's methodology for the assessment of setting in GPA3 The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning (Historic England, 2017). The Applicant is unclear as to why Historic England does not agree with this

assessment and invites Historic England to provide a detailed assessment following their own methodology to flush out points of contention, which can then be discussed further.

The Applicant has provided for mitigation within the Order Limits in the vicinity of the Medieval moated site scheduled monument in the form of woodland planting, a noise bund and a road surface with better noise reducing properties than a conventional low noise road surface. The visual impacts would be further reduced by the retention of screening planting outside the Order Limits. The Applicant is confident that, as it matures, the proposed landscape planting would help to integrate the proposed scheme into the landscape. The predicted change in traffic noise would not be perceptible in the context of the existing setting of the Medieval moated site. Taken together the above proposed mitigation measures would reduce the effect of the presence of the proposed scheme on the setting of the Medieval moated site.

The Applicant is pleased to see that Historic England acknowledges that additional on-site mitigation (which the Applicant understands to mean mitigation within the Order Limits in the vicinity of the Medieval moated site) is not possible to reduce the level of harm to the setting of the scheduled monument.

While Historic England has suggested “off-site mitigation” (which the Applicant understands to mean measures to be provided outside the Order Limits and within or immediately surrounding the scheduled monument), the Applicant considers that such measures are not appropriate for the following reasons:

- 1) The Applicant has not identified a significant adverse effect on setting and Historic England has not explained its position,
- 2) Even if a significant adverse effect had been predicted the Applicant has not identified mitigation measures over and above those already committed to within the Order Limits that would further avoid or reduce the effects of the proposed scheme on the setting of the scheduled ancient monument. There is no requirement under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 for all likely significant effects to be mitigated, though where mitigation is proposed, it should be described in the Environmental Statement.

- 3) As explained in the NNNPS paragraph 5.132, the Secretary of State needs to weigh any harmful impact on the significance of a designated heritage asset against the public benefit of development.
- 4) The Applicant cannot provide mitigation outside the Order Limits through the DCO process on land over which it has no control.

The guidance on mitigation is set out in the National Policy Statement for National Networks (NPSNN) (Department for Transport, 2014), the National Planning Policy Framework (NPPF) (MHCLG, 2021), and the guidance on Environmental Impact Assessment in the Design Manual for Roads and Bridges (DMRB) LA104 (Department for Transport, 2020).

The mitigation hierarchy in these documents requires proposed developments firstly to avoid adverse effects as far as possible or, secondly, to mitigate adequately any harmful effects, where they cannot be avoided. Compensatory measures are only considered as a last resort where harm cannot be avoided, and mitigation is not possible.

DMRB LA 04 paragraph 3.24 notes that there are two main forms of mitigation which should be reported in the environmental statement for National Highways schemes:

- 1) Embedded Mitigation: project design principles adopted to avoid or prevent adverse environmental effects; and
- 2) Essential Mitigation: measures required to reduce and if possible offset likely significant adverse environmental effects, in support of the reported significance of effects in the environmental assessment.

The key element of 'Essential Mitigation' is that, in accordance with Regulation 14(2)(c) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, it is designed to avoid, prevent, or reduce and, if possible, offset likely significant adverse effects on the environment. The Applicant's assessment finds that there are slight adverse, not significant, effects of scheme construction and operation on the scheduled monument. As the scheduled monument lies outside the Order Limits, the Applicant does not have powers to undertake mitigation at that site. The Applicant would also need to be persuaded that there would be a significant residual adverse effect of the proposed scheme on the scheduled monument before considering further scope for off-site mitigation.

In summary, the Applicant has presented a detailed assessment of the setting of the monument in line with the Historic England guidance contained in GPA3 in the 9.24 Applicant's Comments on Written Representations [REP3-009] at Deadline 3, specifically in the response to Written Representations (WR) and summaries REP2-060-007 and also in the Applicant's Written Submission of Oral for Issue Specific Hearing 3 [Applicant Reference TR010060/EXAM/9.53, response reference 7.6] submitted at deadline 5. These responses set out in detail the Applicant's assessment of the value of the scheduled monument and its setting, and how assessment of the slight harm to the scheduled monument was arrived at. The Applicant is content that this assessment is robust, and that further mitigation is not required. The scheduled monument is outside the Order Limits, so the Applicant does not have control over other land even if additional mitigation had been identified off-site to further offset harm to its setting. The Applicant is happy to continue discussions but is yet to accept that it would be appropriate to provide mitigation off-site. The Applicant is, however, keen to explore this issue further and would be happy to move forward and reach agreement, noting that this can only be achieved where the mitigation is justified.

<b>Q2.11.5</b>
<b>Historic England</b>
<b>Examiner's Question</b>
It is noted that a number of heritage assets (reference is made to 4 Grade I and 20 Grade II* listed buildings) might be affected by groundwater conditions. The Applicant proposes further assessment should be carried out as soon as possible and provided for the Examination. Can HE comment on the Applicant's response to its Written Representation [REP3-009] on this point?
<b>Co-Responder's Response</b>
We note the applicant's response to our Written Representation in REP30092. We note that a detailed risk assessment, and where necessary a condition survey for any buildings identified at risk of differential settlement, will be carried out during the detailed design phase. Where risks of settlement were then found to be realistic, asset protection measures, as specified in the condition survey, would be carried out prior to relevant works commencing. We are satisfied the proposed approach is appropriate.
<b>Applicant's Response</b>
The Applicant welcomes Historic England's acceptance of the proposed approach to this matter and will continue to consult with them as necessary.



<b>Q2.11.7</b>
<b>Maldon District Council</b>
<b>Examiner's Question</b>
Maldon District Council expressed a concern at the ISH1 over the impact on the Grade 1 Listed church of St Nicholas. The Applicant has stated at para 84, REP3-012 that the impact on the church would be neutral. Does the Council have any further comment on this?
<b>Co-Responder's Response</b>
<p>The Applicant's conclusion that 'neutral impact' on the church would result from the Project was based on: 'construction traffic [for the gas pipeline diversion] would not use Little Braxted Lane, and operational traffic would be infrequent and compliant with the existing access restrictions, an effect of neutral significance was assessed for the listed buildings in Little Braxted, including Grade I listed St Nicholas Church, at construction and operation of the proposed scheme.' MDC raised concerns at ISH1 following an incident in October 2022 detailed in para 6.13.6, MDC LIR [REP2-068], when an 18 Tonne vehicle, commissioned by the Applicant to carry out pre-construction works via the proposed gas pipeline 'maintenance track' within the Project's Order Limits, accidentally accessed Little Braxted Lane from Junction 22 Coleman's Bridge and crossed the 'weak bridge' with a 3 Tonne limit and accessed the 'maintenance track' opposite the Grade 1 Listed church of St Nicholas. Whilst driver error is blamed by the Applicant for the contravention of width restrictions and weight limits in the October 2022 incident, it did nevertheless happen and demonstrates it could happen again, which is in direct contradiction of the Applicant's reference in para 84, REP3-012 that: 'there would be no impact on the heritage assets in the vicinity of Little Braxted Lane from vehicles going to and from the gas main.' It is also accepted by MDC that this is not the first time that oversized and overweight HGVs and heavily laden LGVs have accessed Little Braxted Lane to access or exit the SRN at Junction 22 Colemans Bridge. These matters combined, lead MDC to conclude that the Outline Construction Traffic Management Plan (OCTMP) [REP2-003] and its Appendix B [REP2-004] Permitted and Excluded Routes for Construction Vehicles, is still not sufficient and additional design measures and/or signage is needed to avoid any negative impacts on heritage assets in Little Braxted, especially the Grade 1 Listed church of St Nicholas. MDC notes and welcomes at para 84, REP3-012 the Applicant's recognition of the matter: Little Braxted Lane post construction, in the Statement of Common Ground with Essex County Council [REP2-01 8] ref 2.56 states 'National Highways will proactively work with Essex Highways to design Little</p>

Braxted Lane in a manner that deters HGV's and oversize vehicles from travelling southwards from the A12 beyond the access to Colemans quarry, whilst recognising that this will remain an Essex Highways asset' In addition, MDC seek the Applicant's commitment to work with ECC to redesign the other end of Little Braxted Lane/Witham Road on the LRN at the junction with Old School Lane and St Nicholas Cottage, within the parish of Little Braxted. This should occur to deter HGV's and oversize vehicles travelling along Little Braxted Lane from Great Totham parish onwards to Little Braxted and the Grade 1 Church of St Nicholas to access the A12 at Junction 22, Colemans Bridge, or to maintain the gas main diversion from the 'gas main diversion access track' opposite St Nicholas Church, Little Braxted. MDC would therefore agree the impact on the Grade 1 Church of St Nicholas can be considered neutral, but only if the additional mitigation in the two paragraphs above, is contained in the Development Consent Order and implemented.

### **Applicant's Response**

The Applicant can confirm that it will continue to work proactively with Essex Highways, as per REP2-018 (Deadline 2 Submission - 8.12 Statement of Common Ground with Essex County Council) reference 2.56, to design Little Braxted Lane in a manner that deters HGVs and oversize vehicles from travelling southwards from the A12 beyond the access to Colemans Farm Quarry, whilst recognising that this would remain an Essex Highways asset. This might include a series of design elements such as highway geometry and cross section, signage and road markings, and street furniture, including advance signage.

Regarding a commitment for the Applicant to work with ECC to redesign the other end of Little Braxted Lane/Witham Road at the junction with Old School Lane, at St Nicholas Cottage, within the parish of Little Braxted, this route is an excluded route for construction vehicles as shown on Sheets 9 and 10 of the Deadline 2 Submission - 7.7 Outline Construction Traffic Management Plan (OCTMP) Appendix B: Permitted and excluded routes for construction vehicles [REP2-004]. Requirement 9 of the dDCO states that no part of the authorised development is to commence until a traffic management plan for the construction of the authorised development, substantially in accordance with the outline construction traffic management plan, has been submitted to and approved in writing by the Secretary of State following consultation with the local highway authority. This mitigation is already secured by requirement 9 and therefore the Applicant does not believe it is necessary to investigate design changes at this end of Little Braxted.

The Applicant has discussed how construction vehicles would access the gas main diversion works within the response to Maldon District Council's Local Impact Report [9.34 Applicant's Comments on Maldon District Council's Local Impact Report - REP3-018], section 6.7 to 6.7.7.

The Applicant therefore maintains its conclusion that with the implementation of the excluded route as described above, the impact on the Grade I Church of St Nicholas can be considered neutral.

<b>Q2.11.8</b>
<b>Messing-cum-Inworth Parish Council (Mcl PC) and Messing and Inworth Action Group (MIAG) – Part 1</b>
<b>Examiner's Question</b>
Concerns were raised in relation to the impacts on the Messing village Conservation Area. The Applicant responded to these at para 88, REP3-012. Does the Council wish to make any further representation concerning the Conservation Area?
<b>Co-Responder's Response</b>
<p>Messing-cum-Inworth Parish Council (Mcl PC) and Messing and Inworth Action Group (MIAG) Written responses to Examining Authority Questions 2;</p> <p>Conservation Area</p> <p>In response to the ExQ2 question raised as further commentary, the two groups, whose interests are totally aligned in this matter, respond as follows; National Highways have responded at Para 88 REP3-012. This is not a response and is a re-run of incorrect statements already made; 1. NH have paid no attention to the Conservation Area at the heart of Messing;</p> <p>2. This is manifestly so as NH expert statements are incorrect as they cite the properties concerned as being 'near' the road. After the ASI the ExA will know that many of these buildings are on the road, and in fact are less than one brick width to the 'tarmac' highway';</p>
<b>Applicant's Response</b>
The Applicant notes the Interested Party's comments and responded in the Deadline 3 submission - Written Submission of Oral Case for Issue Specific Hearing 1 [REP3-012], reference 88. To reiterate, it is not the case that the Messing conservation area has

not been considered. The Messing conservation area lies over 1.5km from the Order Limits for the proposed scheme and outside the 1km study area used to assess the impact of the proposed scheme on setting of heritage assets in the Environmental Statement, as explained in Paragraph 7.7.3 of Chapter 7: Cultural Heritage [APP-074]. The village will not be affected directly by the construction of the proposed scheme and future traffic flows on the A12. The proposed scheme is predicted to result in an increase of traffic to approximately two vehicles per minute in the busiest peak from less than one vehicle per minute on Harborough Hall Road and The Street, which are relatively narrow streets through Messing with houses close to the carriageway, due to changes in traffic flow on the local highway network to the new A12 junctions (see the Transport Assessment Appendix C [APP-256]). However, these changes in traffic flow are not expected to affect significantly the Messing conservation area and settings of the listed buildings. Further information on the impact of the significant increase in traffic noise for 71 receptors in Messing on the setting of the conservation area and associated listed buildings is provided below in response to part 3 of 2.11.8 in this document and in relation to vibration in response to part 4 of 2.11.8 in this document.

## **Messing-cum-Inworth Parish Council (Mcl PC) and Messing and Inworth Action Group (MIAG) – Part 2**

### **Co-Responder's Response**

3. These same NH experts admitted, much to the distress of their legal advisors, that of the 123 'SOAEL' definition severely affected houses on this entire plan for the A12/A120 widening, 71 are in Messing. This encompasses all properties in the Conservation Area and many outside the conservation area.

### **Applicant's Response**

The fact that Messing is within a conservation area is of no relevance to whether it is or is not included within the study area for Chapter 12: Noise and vibration [APP-079]. Guidance within DMRB LA 111 has been followed when defining the study area for the noise and vibration assessment. This operational study area is defined as:

1. the area within 600m of new road links or road links physically changed or bypassed by the proposed scheme, and
2. the area within 50m of other road links with potential to experience a short term change in noise of more than 1.0dB(A) as a result of the proposed scheme.

The area within the first category above would be included within a noise model, whereas areas within the second category would typically be assessed using spreadsheet calculations. Given the potential impacts within Messing, it was decided to include the village within the area covered by more detailed modelling, as defined by the first category above. The extent of the operational noise study area is shown on Figure 12.1: Noise study areas, noise important areas and noise monitoring location [APP-228], where an area of 600m is clearly shown around the village of Messing.

Two types of significant adverse effect from operational noise are identified within Chapter 12: Noise and vibration [APP-079]. These are:

1. Where there is an increase in noise of 3 dB(A) or more and the absolute noise level is below the Significant Observed Adverse Effect Level (SOAEL).
2. Where there is an increase in noise of 1 dB(A) or more and the absolute noise level is at or above the SOAEL.

Of the identified 71 significant adverse effects within Messing, none of these receptors is predicted to experience an absolute noise level above the SOAEL for either day or night-time periods (type 2 above). These adverse effects are all the first type identified above and this is stated within paragraph 12.11.47 of Chapter 12: Noise and vibration [APP-079].

The Applicant notes that the assessment within Chapter 12: Noise and vibration [APP-079] does not use the word 'severe' when describing the impact from the increase in noise. In the terminology used within DMRB LA 111, the magnitude of these increases in noise are either Moderate (between 3 and 5 dB(A) at 16 of the dwellings) or Major (above 5 dB(A) at 55 of the dwellings).

As explained in DMRB and the Environmental Statement, Chapter 7 Heritage, paragraph 7.7.1, the study area for the assessment of the impacts of the proposed scheme setting includes heritage resources potentially affected by noise. The Applicant's assessment is developed below in the response to part 3 below.

### **Messing-cum-Inworth Parish Council (Mcl PC) and Messing and Inworth Action Group (MIAG) – Part 3**

#### **Co-Responder's Response**

4. NH knew nothing of the Conservation Area. Their reliance on a spurious 'buffer zone' of 1.6km allows them to escape the consequences of their fatally flawed plan for Junction 24;

5. Mcl PC and MIAG do not accept the demarcation of the buffer zone. Mcl PC and MIAG cite the Parish records of the curtilage of village properties both within the 1.6km 'buffer' and outside it;

6. NH have made no attempt to respect and address the historic nature of the Conservation Area, and the buildings and monuments within it. This includes the Village War Memorial (on the roadside), the village church wall – an ancient and dangerously exposed structure to HGV and LGV swept path difficulties – ignored by NH, and to the many other ancient and historic sites in Messing.

#### **Applicant's Response**

The Applicant has responded to this issue in the Deadline 4 submission – Applicant's Comments on Information received at Deadline 3 – Rev 1 [REP4-057], sub-questions REP3-064-001 and REP3-066-001.

Each environmental topic has defined a study area based on DMRB standards, topic specific guidance, and the application of professional judgement. Study areas are defined in the 'Study area' section of each environmental topic chapter in the Environmental Statement and have been subject to consultation through the environmental scoping process (which the Planning Inspectorate undertook and included prescribed bodies listed under Schedule 1 of The Infrastructure Planning (Applications:

Prescribed Forms and Procedure) Regulations 2009), and statutory consultation process. The study area for the heritage assessment is provided in the Environmental Statement, Chapter 7 Heritage, Section 7.7 [APP-074].

There would be no physical operational or construction impacts within the Conservation Area or affecting any of the historic buildings within Messing, given that the village lies some distance from the proposed works.

The proposed scheme is predicted to result in an increase of traffic to approximately two vehicles per minute at the busiest peak from less than one vehicle per minute on Harborough Hall Road and The Street (see the Transport Assessment Appendix C [APP-256]). These are large percentage increases on a low base, which still results in relatively low traffic flows. The increase in traffic would result in a significant adverse noise effect for 71 receptors in Messing, as reported above and in Chapter 12: Noise and vibration [APP-079]. These noise increases reflect not only the increased traffic, but also the close proximity of receptors to the noise source. The increase in noise levels would potentially affect the Messing Conservation Area and settings of the following historic listed buildings along The Street and Harborough Hall Road:

- Grade II\* Listed Church of All Saints (Messing)
- Grade II The Old Vicarage
- Grade II Listed Old School House
- Grade II Listed 1, The Street
- Grade II Listed 2, The Street
- Grade II Listed The Store Adjoining Tenement and Avenue House
- Grade II Listed Bodgers
- Grade II Listed Olde Crown Inn
- Grade II Listed The Old Vicarage
- Grade II Listed The Picoite
- Grade II Listed Yew Tree Cottage



- Grade II Listed Bell House
- Grade II Listed Forge House

The impact on the built heritage from the predicted noise increases within their settings and within the Conservation Area is assessed on how the noise would affect the four built heritage values of each heritage asset, not the effect on the occupants. These values are the aesthetic, historic, evidential or communal interest of the built heritage. The noise impact on the heritage values of the built heritage is assessed as follows.

**Historic value:** The increases in traffic noise through the village would not harm the historic value of the route through the village or its fundamental historic use.

**Evidential value:** The increases in traffic noise through the village would not affect the archaeological information contained in the physical presence and construction techniques of the individual historic buildings or the Conservation Area.

**Communal value:** The increases in traffic noise through the village would not directly affect the communal value of individual historic buildings or the Conservation Area, which is based on their prominence adjacent to an historic traffic route through the village.

**Aesthetic value:** The increases in traffic noise through the village would impact the tranquil aspect which contributes to the aesthetic value of the individual historic buildings and the Conservation Area. However, the village and individual buildings are already subject to noise impacts from traffic. Due to the existing noise levels from traffic in the village along this route, the predicted significant noise impacts would have a negligible impact on the tranquillity aspect of the settings of the individual historic buildings and the Conservation Area.

In summary, the increases in traffic noise through Messing would have no or negligible impacts on the aesthetic, historic, evidential or communal interest of the individual historic buildings or the Conservation Area. For this reason, the increase of traffic up to approximately two vehicles per minute at the busiest peak and associated significant increase in traffic noise for 71 receptors in Messing would not have a significant effect on the Messing conservation area and setting of listed buildings.

The Applicant has previously responded on swept path analysis in the Deadline 3 submission – Applicant's Comments on Information received at Deadline 2 [REP3-015], sub-question REP2-083-006.

#### **Messing-cum-Inworth Parish Council (Mcl PC) and Messing and Inworth Action Group (MIAG) – Part 4**

##### **Co-Responder's Response**

NH have cited that the figures used for SOAEL are for noise not vibration. NH cite that no assessment was done for vibration as the Conservation Area is 'outside' their fictitious buffer. However, in contradiction, NH also cite that vibration was 'assessed and found not to be significant'. They either did, or did not, make appropriate assessments. And having assessed many properties within the Conservation area as being severely affected for noise, NH's stance to advise that noise assessments were carried out but vibration was not is asinine and indefensible.

Neither Mcl PC nor MIAG are aware of any published findings and strenuously affirm that if these were done, vibration damage and potential increases in vibration damage would be found to be likely;

7. Mcl PC and MIAG demand that NH publish these results, if they exist, and make clear who carried out this study, with and what terms of reference.

##### **Applicant's Response**

A '1.6km buffer zone' has no relevance within the assessment of impacts from noise and vibration. The study area for noise and vibration is defined in accordance with DMRB LA 111: Noise and Vibration, where no reference is made to a 1.6km buffer zone (see the part 2 of 2.11.4 above). The Applicant has followed the instructions within DMRB LA 111 for defining the study area for noise and vibration, and this is described within Section 12.7 of Chapter 12: Noise and vibration [APP-079]. The fact that Messing is within a conservation does not influence whether it is or is not included within the study area for Chapter 12: Noise and vibration [APP-079]. The extent of the operational noise study area is shown on Figure 12.1: Noise study areas, noise important areas and noise monitoring location [APP-228], where an area of 600m is clearly shown around the village of Messing.

A SOAEL for human response from construction vibration is defined as a Peak Particle Velocity (PPV) of 1.0 mm/s within Table 12.8 of Chapter 12: Noise and vibration [APP-079]. This level could also be applicable to human response from vibration generated by a passing vehicle. The concept of SOAEL is only applicable to human receptors, and so no value is assigned to a building. Guideline levels for potential building damage from vibration are provided within various British Standards and are summarised within paragraphs 4.4.12 and 4.4.13 of Appendix 12.2: Noise assessment methodology, of the Environmental Statement [APP-148].

The Applicant confirms that no assessment of the impacts from operational vibration has been undertaken within Chapter 12: Noise and vibration [APP-079]. As is explained in paragraph 12.3.6 of Chapter 12: Noise and vibration [APP-079], operational vibration has been scoped out of the assessment as instructed by DMRB LA 111 in paragraph 1.4, where it states "*Operational vibration is scoped out of the assessment methodology as a maintained road surface will be free of irregularities as part of project design and under general maintenance, so operational vibration will not have the potential to lead to significant adverse effects.*"

The responses to date by the Applicant on likely impacts from operational vibration have been based upon professional judgement by acoustic, highway and traffic engineers. Traffic travelling through Messing is predicted to increase with the proposed scheme and this will include some increase in Heavy Goods Vehicle (HGV) movements. The increase in HGV movements through Messing is likely to be from those in the weight range 7.5t to 18t. Such vehicles will already be seen in the village, in part to provide deliveries to homes and businesses within Messing. The roads in the village are not being altered, meaning vehicles are unlikely to be travelling at any greater speed through the village than they do at present. It is unlikely that building damage would be caused by the passage of vehicles in this weight range in Messing, as these vehicles will be moving at relatively low speed. Other factors that influence the generation or transmission of vibration are any imperfections within the surface, the distance from the passing

vehicles to the buildings, and the ground type. None of these are changing as part of the proposed scheme. It is therefore not anticipated that the additional HGV movements would cause any more building damage that what may arise from those vehicles currently travelling through Messing.

<b>Q2.13.4</b>
<b>Essex County Council</b>
<b>Examiner's Question</b>
ECC raised a number of access concerns in their LIR at paragraph 8.3 REP2-055. The Applicant has provided a detailed response [REP3-021] and also in section 108 of REP3-012 and ECC is asked for an updated position in the context of the proposed public routes for walkers, cyclists and horse riders
<b>Co-Responder's Response</b>
<p>For ease of reference the council has commented against each of the points made in section 108 of REP3-012 (shown in italics below). If the Examining Authority has further specific queries on which a response from ECC would be helpful please advise. Generally the council considers that National Highways have made some improvements to the provision for WCH users, but not all proposals are yet in accordance with relevant standards and guidance. Responses to Written Questions relating to Wood End Bridge have already been given [REP2-025]. ECC response: The council is content with this. In respect of design structures safeguarding access for equestrians, the Applicant has taken a forward outlook of 120 years. ECC response: The council is content with this. Where connecting routes are bridleways the Applicant has reflected that and provided a design for all bridleway users. An example is the Paynes Lane bridge. Bridges crossing the A12 with no bridleway connection are not yet bridleways but are nonetheless all futureproofed for equestrian use (with a higher parapet) with the exception of the Marks Tey replacement bridge. ECC response: The council is content with this. The Applicant recognises the aspiration for many more WCH routes, but the proposals put forward already represent a substantial improvement and are therefore considered a reasonable provision. The Applicant has no power to designate wider routes beyond order limits as bridleway and responsibility for such improvements must remain with the County Council. ECC response: The council agrees that the scheme includes various improvements to the PROW network in several cases has been severed historically by the A12, particularly to the footpaths and for walkers. We ask that National Highways additionally seek to provide improvements for horse riders through dedication of a bridleway over footpaths 30 (Kelvedon) and 19 (Great Braxted), a distance of &lt;600m, and provision of a bridleway bridge (Ashman's Farm footbridge) instead of replacing the current footbridge. This will connect our network of bridleways north to those south of Kelvedon. The scheme already requires that the footpath and footbridge are moved so upgrade to a bridleway is considered reasonable. Whilst it is</p>

appreciated that the Applicant is safeguarding the overbridges for possible future bridleway enhancements, the only tangible benefit within the scheme to horse riders currently is the Paynes Lane overbridge. There are not many obvious benefits that this scheme can offer to horse riders but this is certainly easy and relatively low cost to accommodate. The council as the Order making authority is willing to work closely with the applicant to secure this upgrade. Regarding comments about designation and zig-zag ramps, the Applicant's firm position is that the proposals are compliant with LTN 1/20 and recognises that Essex CC has a differing interpretation of the application of this guidance. The applicant continues to work with Essex CC, and this communication is captured within a matrix which is contained within the emerging statement of common ground [REP2018]. The Applicant considers that macro alignment is appropriate (rather than the micro alignment or minimum radii) and notes the different types of flow structures suggested by Essex CC. The applicant expects to make minor amendments to the minimum radii of these structures within requirement 10 of the DCO. ECC response: LTN1/20 is very clear in its recommendations regarding minimum radii for cyclists. According to Table 5-7, 4m is the minimum actual turning radius that should be provided for cyclists on any cycle route. This applies to any turns on bridge structures (i.e. on the deck and on the approach ramps). NH has not provided evidence to confirm that 4m actual turning radii can be provided on the proposed overbridges – either for the lower flow bridges, where 4m radii could be provided in one direction only, or for the higher flow bridges where 4m radii should be provided in both directions. We are concerned that it may not be possible, within Requirement 10 of the DCO as currently drafted, to provide appropriate turning radii on the WCH overbridges. Gershwin Bridge will be opened as a footbridge, but ready for upgrade to a bridleway if required because the connecting path has become a bridleway. ECC response: The council is content with this response. See Section 4 for further information on the council's position on Gershwin Bridge.

### **Applicant's Response**

The Applicant welcomes Essex County Council's support of the improvements to provisions to walking cycling and horse-riding users proposed by the scheme.

Regarding the dedication of a bridleway over footpaths 92\_30 and 246\_19, the Applicant is proposing to relocate the existing Ashman's Farm footbridge which is not geometrically or structurally appropriate to dedicate as a bridleway bridge as the parapets are not of suitable height for equestrian use. The Applicant is not proposing to construct a new bridge. The existing location and proposed realignment of footpath 92\_30 does not connect to any onward bridleway facilities, and horses could not therefore access the bridge. With regard to general provision for horse-riders, the council is correct to say that there are few obvious benefits. That

said, the Applicant has considered the wider bridleway network and proposed 1.8m high parapets at Paynes Lane, Gershwin Boulevard, Little Braxted Lane, Snivellers Lane and Potts Green overbridges.

Regarding the turning radii at the approach ramps to pedestrian bridges, the Applicant submitted updated Streets, Rights of Way and Access plans at Deadline 4 to include limits of deviation (LoD) for the walking, cycling and horse-riding facilities [REP4-003 and REP4-004]. The purpose of including the LoD on these plans is to clearly indicate that the flexibility that exists in relation to the Works, i.e., constructing the works within the LoD (in accordance with the Order), also exists for the ultimate location of the WCH routes proposed by the A12 scheme. Where the Applicant is seeking to implement requests from Essex County Council, such as the 5m external radius for bridge approaches, the LoD demonstrates that this can be achieved within the Order Limits and that it accords with the preliminary design.

LTN1/20 is hierarchical guidance, and the Applicant recognises the need to strike a balance between the attractiveness of bridges to cyclists regarding their alignment, and the visual intrusion that these bridges may cause. The Applicant maintains the preliminary design accords with the minimum standards contained within this guidance and acknowledges that there is potential to meet higher standards contained within LTN1/20 within the limits of deviation already contained in the order.

The Applicant has submitted a Letter of Intent to ECC regarding improvements to proposed walking, cycling and horse-riding bridges that have developed during detailed design.

These matters are currently in discussion with ECC and the Applicant has proposed that these refinements are secured by way of a new requirement 14 within Schedule 2 of the Draft DCO which has been included as part of Deadline 5.

**Q2.17.2****Maldon District Council****Examiner's Question**

In response to the predicted increase in traffic through Boreham, please confirm which of the traffic mitigation measures proposed by IPs at the ISH [REP3-012] are going to be incorporated in the Proposed Development. For any measures proposed by the IPs not to be incorporated, please detail and justify the reasons for their exclusion.

**Co-Responder's Response**

Whilst this question is not directed at MDC, it is considered to be of such an interest to the Maldon District that it warrants MDC providing the following observations to the Examining Authority.

Traffic originating from the Maldon District arriving at the Maldon Road junction with the Duke of Wellington mini roundabout, to currently access and exit Junctions 20a (to close), forms part of the 'predicted increase in traffic through Boreham'. At the ISH1 and on the ASI to the Duke of Wellington mini roundabout and Duke of Wellington bridge [REP-051], the Applicant said that 'appropriate signage' at the Maldon Road junction with the Duke of Wellington mini roundabout would deter traffic going through Boreham village. MDC concurs with ChCC concerns [REP3-030] as to just how an increase in traffic through Boreham village could be mitigated through traffic mitigation measures.

MDC questions the effectiveness of 'appropriate signage' at the Maldon Road junction with the Duke of Wellington mini roundabout to access the A12 Colchester bound carriageway and Chelmsford bound carriageway. The Applicant assumes in their Transport Assessment [REP-253] that all traffic originating from the Maldon District will turn right at the Maldon Road junction with the Duke of Wellington mini roundabout, cross over the upgraded Duke of Wellington bridge (that will take 2-way traffic) and carry on to the new Junction 21 to effectively 'double-back' on itself to travel southbound.



Appendix G of the Transport Assessment [APP-260] contains technical notes on the Duke of Wellington mini roundabout (referred to as the B1137 The Street I Maldon Road junction). The 2019 model data summaries at tables G1-17 and G1-19 indicate that traffic in the AM peak turns left on to The Street toward junction 20a (453 vs. 151 heading for 20b); in the PM peak the corresponding figures are 392 and 203 for the left and right turns respectively. The overall volumes of traffic and the distribution suggests that traffic from Maldon District was primarily using the Duke of Wellington mini roundabout in 2019, with a majority approaching on Maldon Road turning left rather than right at this junction.

MDC is of the opinion that the only option to ensure traffic turns right at the Maldon Road junction with the Duke of Wellington mini roundabout to access the A12 northbound or southbound, is to physically prevent it turning left, otherwise some of it will not be deterred from doing so; particularly drivers from the Maldon District which have used the junction for many years and know that the Boreham A12 junction can be accessed by simply turning left.

The Applicant states in their ISH1 oral representations [REP-012] (referencing their Transport Assessment [APP-253]) at 5., page 6, first bullet point: "Impact on local roads around Boreham and Hatfield Peverel Traffic on B1137 The Street in Hatfield Peverel is predicted to reduce by up to 50%, as this stretch of road would no longer take the major movement between A12 junction 20a and the B1019 Maldon Road."

MDC remains concerned with the Applicant assuming, through its traffic modelling alone, with the closure of Junction 20a, that all traffic at the Maldon Road junction with the Duke of Wellington mini roundabout (most of which will originate from the Maldon District) will turn right only to the new Junction 21 and will not continue to turn left and join the A12 southbound at Junction 19 via The Street, Hatfield Peverel and through Boreham village. The same assumption is made on the northbound carriageway, that traffic will not leave at Junction 19 to travel through Boreham village and along The Street, Hatfield Peverel, to access the Duke of Wellington mini roundabout for Maldon Road. The Project and the Transport Assessment assume all traffic to access the SRN and leave the LRN at Maldon Road from the Duke of Wellington mini roundabout will use Junction 21, whether travelling southbound or northbound. MDC feel this is overly simplistic and not realistic.

The Applicant stated at the ISH that the traffic flow modelling will take 1-2 minute off journey times if the 'turn right' option to Junction 21 to travel southbound is taken (instead of turning left and travelling along The Street, Hatfield Peverel and via Boreham village to Junction 19 southbound. MDC raised in its Deadline 3 submissions, including comments made at the ASI at the Duke of Wellington mini roundabout [REP3-051], that driver behaviour cannot be determined through traffic forecasting [APP-253, Appendix C] or relied upon to just change with 'appropriate signage' as was suggested by the Applicant.

The Applicant states in their ISH1 oral representations [REP-012] (referencing their Transport Assessment [APP-253]) at 5., page 6, second bullet point: "Impact on local roads around Boreham and Hatfield Peverel Traffic on Church Road in Hatfield Peverel is predicted to decrease, as most traffic from B1019 Maldon Road would be travelling east towards the proposed new junction 21 instead of west towards junction 20a. This makes the route via Church Road less attractive. "

MDC is concerned that driver behaviour cannot be determined through traffic modelling or Applicant predictions alone. Traffic originating from the Maldon District (Point 9 South of Church Road) may well continue to use Church Road, if there is a long queue on the Maldon Road leading up to the Duke of Wellington mini roundabout (assuming turn right only to Junction 21 - see above). If Church Road is used, does the Applicant predict traffic to turn right back up The Street, Hatfield Peverel to the Duke of Wellington mini roundabout to access Junction 21 to travel southbound or northbound or to turn left and continue to Main Road, Boreham and on to Junction 19 southbound via Boreham village?

The Applicant stated in their ISH1 oral representations [REP-012], on page 8, first bullet point (referencing: the impact on local junctions, modelled in more detail to make delays more accurate in Boreham and Hatfield Peverel is summarised in their Transport Assessment, Appendix A [APP-254]): "Duke of Wellington Junction between B1019 Maldon Road and B1137 The Street in Hatfield Peverel. No proposal to change to this junction is included as part of the proposed scheme, but traffic patterns will change at the junction as more traffic from B1019 Maldon Road would turn right to use the new junction 21 to join the A12 southbound, instead of turning left to junction 20a. There would also be a significant reduction in traffic arriving from junction 20a to turn right for the B 1019 Maldon Road. Overall, there is predicted to be a slight improvement in junction performance. However, the B1019 Maldon Road arm is predicted to have an increase in its average queue from 45m to 62m. Detailed queue information is provided in chapter G.1 of Transport Assessment - Appendix G [APP-260])."

MDC has raised concerns in its Deadline 3 submission [REP3-051], Appendix A, regarding the suitability of the Duke of Wellington mini roundabout to accommodate HGVs and LG Vs (12% of traffic - Applicant to MDC via e-mail 15 February 2023) turning right from Maldon Road to Junction 21 and converging with HGVs and LGVs leaving the Duke of Wellington 2- way bridge from the northern arm of Junction 21 over the Duke of Wellington mini roundabout. The Applicant confirms 'traffic patterns will change at the junction as more traffic from B1019 Maldon Road would turn right to use the new junction 21 to join the A12 southbound, instead of turning left to junction 20a. '

MDC is concerned that the Applicant's statement: 'There would also be a significant reduction in traffic arriving from junction 20a to turn right for the B 1019 Maldon Road' is purely assumptive. MDC is concerned that driver behaviour in leaving the SRN at Junction 19 and continuing to utilise The Street Hatfield Peverel, to turn right to Maldon Road is a real possibility. It must be accounted for where traffic that does not arrive along The Street, will arrive at the Duke of Wellington mini roundabout over the Duke of Wellington upgraded 2- way bridge from Junction 21. MDC is concerned that the Applicant's prediction to 'a slight improvement in the junction performance' is too simplistic and therefore misleading and especially in the following sentence the Applicant predicts 'the B1019 Maldon Road arm is predicted to have an increase in its average queue from 45m to 62m. Detailed queue information is provided in chapter G.1 of Transport Assessment - Appendix G [APP-260]).

MDC reiterates from its MDC LIR [REP2-068] that the Applicant's reference to the 'Maldon Road arm' is a residential street, Maldon Road, at the junction to the Duke of Wellington mini roundabout. The 'Maldon Road arm' is not therefore to be interpreted as an 'arm' to a full- size roundabout as such.

### **Applicant's Response**

Regarding mitigation measures to minimise traffic impacts on Boreham, the Applicant's latest position is set out in the Applicant's Response to ISH3 [Applicant Ref: TR010060/EXAM/9.53] submitted at Deadline 5, item 3.1.

Regarding the Interested Party's suggestion physically to prevent traffic from Maldon District turning left at the Duke of Wellington mini roundabout, the Applicant has previously considered this, but ruled it out. This is because traffic would instead use Church

Road or New Road/Remembrance Avenue to access Hatfield Peverel and beyond, significantly increasing traffic on those roads. This assessment is discussed in paragraph 4.3.5 of the Environmental Statement - Appendix 3.2: Maldon Road and Hatfield Peverel Bypass Technical Report [APP-094].

Regarding the Interested Party's comments that the Applicant has made overly simplistic assumptions by assuming that all traffic approaching the Duke of Wellington mini-roundabout would turn right to access the new junction 21, this is not the case. The predictions about traffic routing in the Application were informed by a strategic traffic model, which predicts routes for every trip in the model. This model, including its assumptions on how people decide which route to take, was developed in line with the Department for Transport's national traffic modelling guidance. Further information is provided in the Applicant's response to item 7 in its Written Submission of Oral Case for Issue Specific Hearing 1 [REP3-012].

Regarding whether traffic using Church Road in Hatfield Peverel would then turn right back up The Street to the Duke of Wellington mini-roundabout, this is not predicted to happen based on the Applicant's traffic modelling work. Some traffic from B1019 Maldon Road would use Church Road and then travel via the B1137 Main Road through Boreham to A12 junction 19. However, as stated in response reference 7 in the Applicant's Written Submission of Oral Case for Issue Specific Hearing 1 [REP3-012], this only represents 12% of the traffic travelling from B1019 Maldon Road to Chelmsford or the A12 southbound. As stated in response reference 22 in that document, there would still be an overall reduction in traffic on Church Road because of a reduction in people using Church Road to access A12 junction 20a. Further information on this traffic data is provided in Appendix B to the Applicant's Comments on Essex County Council's Local Impact Report [REP3-021], in the section of the slide deck titled 'Junction 21 and surrounding network'.

Regarding the assessment of the performance of the Duke of Wellington mini-roundabout and the traffic flow predictions used to inform that, once again these traffic flow data were taken from the Applicant's strategic traffic model which was developed in line with national standards, as described above. This is confirmed in section G.1.4 of Transport Assessment - Appendix G [APP-260].

<b>Q2.18.3</b>
<b>Essex County Council</b>
<b>Examiner's Question</b>
In their LIR [REP2-005] ECC referred to several catchments that would not be receiving any treatment prior to discharge. • Please can ECC clarify where these locations are; and • Can the Applicant explain and justify their approach to these locations.
<b>Co-Responder's Response</b>
Please refer to the separate table below. <a href="https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010060/TR010060-002315-Essex%20County%20Council%20-%20Other-%20Responses%20to%20ExQ2%20and%20comments%20on%20other%20matters%20at%20Deadline%204.pdf">https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010060/TR010060-002315-Essex%20County%20Council%20-%20Other-%20Responses%20to%20ExQ2%20and%20comments%20on%20other%20matters%20at%20Deadline%204.pdf</a>
<b>Applicant's Response</b>
<p>The Applicant notes ECC's comments with regards to the catchments that would receive no treatment prior to discharge. Please refer to the Applicant's response provided to sub-question 2.18.3 in the Deadline 4 submission – 9.41 Applicant's Responses to ExQ2 [REP4-055] in which the Applicant has confirmed and justified the approach to all catchment locations that would receive no treatment prior to discharge.</p> <p>In summary, the detailed assessment shown in the Water Quality Assessment Report (Environmental Statement Appendix 14.1 [APP-158]) considers that these catchments do not require treatment. Reasons for a no treatment assessment include that the catchments may be small (in terms of the proposed scheme) with less likelihood of pollutant loading or that there will be sufficient dilution from the receiving watercourse to ensure no likely significant effects.</p> <p>The water quality assessment for the proposed scheme has been undertaken in accordance with the National Highways' (previously Highways England) standards set out in DMRB LA 113: Road Drainage and the Water Environment (RDWE) Revision</p>

1. The results of the assessment are contained within the Water Quality Assessment Report (Environmental Statement Appendix 14.1 [APP-158]). This detailed assessment concluded that no water quality treatment would be required for some proposed scheme catchments and associated outfalls and is further detailed within the Applicant's response provided in the Deadline 4 submission reference included above.

<b>Q2.18.5</b>
<b>Environment Agency</b>
<b>Examiner's Question</b>
<p>From submissions to the Examination, it appears that there is a fundamental difference of opinion between the EA and the Applicant with regards to the proposed use of culverts and the design of the extensions to bridges on the 6 new and extended main river crossings. Can the parties explain if/how they are working towards resolving this? Is it possible that this will remain an outstanding area of disagreement at the close of Examination? In answering this question, we would refer the parties to Paragraph 5.227 of the NNNPS. In any further submissions, it would be helpful to reference this paragraph.</p>
<b>Co-Responder's Response</b>
<p>Submitted via portal APPLICATION BY NATIONAL HIGHWAYS FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE A12 CHELMSFORD TO A120 WIDENING Please find below the response from the Environment Agency to the Examining Authority's written questions and requests for information (ExQ2), issued 20 March 2023 18 Water Environment 18.5 to the Applicant, EA From submissions to the Examination, it appears that there is a fundamental difference of opinion between the EA and the Applicant with regards to the proposed use of culverts and the design of the extensions to bridges on the 6 new and extended main river crossings. Can the parties explain if/how they are working towards resolving this? Is it possible that this will remain an outstanding area of disagreement at the close of Examination? In answering this question, we would refer the parties to Paragraph 5.227 of the NNNPS. In any further submissions, it would be helpful to reference this paragraph. We have worked closely with the Applicant on a range of issues throughout the preapplication period for this scheme. As highlighted in our previous representations, we raised concerns with the nature of the proposed watercourse crossings in our response to the EIA Scoping consultation (Nov 2020), and the Preliminary Environmental Information Report (PEIR) (Aug 2021). We have met with the Applicant to specifically discuss the watercourse crossings on 15/09/21; 22/11/21 and most recently 02/02/23. At this time there are no further meetings proposed. Despite early engagement on this issue, and restating our concerns throughout the pre-application consultation, the proposed design of the watercourse crossings does not appear to have sufficiently considered how a loss of riparian habitat and river habitat connectivity will be avoided. Where culverts are proposed on ordinary watercourses, we've previously raised concerns that there is inadequate provision for mammal passage. The Lead Local Flood Authority, as the</p>

consenting body for those structures, will need to be satisfied that protected species legislation is complied with. But it is the proposed main river crossings that continue to cause us concern, both the two new culverts and the extensions to the existing crossings. In the Applicant's comments on our Written Representation [REP3-009], the Applicant does not propose any revisions to the proposed culverts. The Applicant states that the design of the culverts follows current best practice, and that the new culverts are sized to be larger than recommended by the withdrawn DMRB nature conservation advice. It is also stated that over-sized culverts incorporating mammal ledges may achieve similar results to open span bridges, where these are considered impractical. Whilst well designed culverts may be suitable in some cases for very small streams and drains, we do not believe that they are a suitable or sustainable treatment for main river ecosystems. Culverts have many detrimental impacts not least on the integrity of the whole ecological catchment by interrupting and damaging natural habitat and processes along its length. These Essex main rivers are amongst the most important ecological networks in the county. By confining the main rivers into treatment like drains this project risks severing the main wildlife corridors across Essex and inflicting long term harm on the natural ecosystems. While the Applicant has noted our concerns during the pre-application engagement, they have not implemented the key requests for options such as clear span bridges to be incorporated, in particular at the proposed new crossings of Rivenhall Brook and Domsey Brook. Such structures have clear multiple benefits and have been the focus of our national Culverting Policy which has been in place not only since the formation of the Environment Agency, but also with predecessor organisations. The Applicant has stated [REP3-009] that it would not be possible to incorporate a clear span bridge as an alternative to the proposed Domsey Brook (east) culvert, as a bridge would need to be disproportionately wide to accommodate the existing bank profile. We would highlight that as part of the approved National Highways A47 North Tuddenham to Easton dualling scheme in Norfolk (TR010038), a clear span bridge with a 5m minimum riparian buffer is being provided to cross the River Tud. The River Tud is a relatively small main river, and the bridge formed part of the design for the scheme from an early stage. Main River crossings should always be significantly wider than the width of the water flow channel to allow natural banks and riparian habitat to ensure the delivery of the whole ecosystem approach for the long-term. For the Rivenhall Brook crossing, the Applicant suggests that the clearance under a clear span bridge would be less than with a culvert, negating the benefits of any additional width. For this and the Domsey Brook east crossings in particular, we would welcome a full exploration of alternative options, especially those which include ecologically enhanced features with natural banks and native vegetation on buffer strips on either side of the channel. This is not something that we have previously seen or fully discussed with the Applicant. Whilst raising the invert height of a clear span bridge may require some road level raising, we would expect to see this explored as part of the mitigation hierarchy process. We have previously highlighted the importance of these rivers for eels. We do not agree with the Applicant's statement that "appropriately designed culverts ... would not preclude migratory salmonids and eel passing through these structures" [REP3009]. It is our view that eel would not be able to negotiate the new culverts during periods of high flows, due to the uniformity of the structure causing increased velocities with no natural bank to provide shelter. The Applicant has stated in REP3-009 that the installation of mammal ledges into the two



new culverts (Rivenhall Brook & Domsey Brook east crossing), coupled with their larger size compared to the previous crossings constitutes an overall improvement for mammals. However, the previous crossings will additionally remain in place and there is uncertainty as to whether the mammal ledges will be used in new crossings of this length. Reducing the migration and dispersal of mammals (species such as water vole, badger and otter which are all species whose behaviour is heavily influenced by territorial scent marking) to reliance on a provided artificial ledge is forcing all species of predator and prey to use the same space in times of high flow. For many species if the mammal ledge is not a 100% success the culvert crossings will separate protected species populations up and downstream and could in time prevent the genetic diversity that is needed for long term survival of a viable population. The Applicant has acknowledged the lack of data on mammal ledges use and has proposed monitoring as part of this scheme. We welcome the suggestion and agree that monitoring ledges on the ordinary watercourses could if carefully designed with mammal ecologists have ecological value. However, culverting the main rivers will cause multiple problems and it is not appropriate to risk the integrity of the ecological network of these catchments, which is why we wish to see larger lighter alternative designs of bridges with natural banks and buffer strips of native vegetation incorporated. We have also previously raised concerns about reliance on otter fencing, given the uncertainty over the use of ledges, and the effect of rigid central concrete safety barriers on the ability of any mammals that do enter the road to exit safely. To keep mammals off the road, fencing will require high initial design and installation costs, regular 6 monthly inspections and repairs and replacement over the lifetime of the project. The Applicant has stated that rigid concrete safety barriers are most appropriate for the safety of users. It appears that little if any research has been done on the effects on mammal populations where concrete barriers are in place. An EUPAVE document 'Concrete Safety Barriers: A Safe and Sustainable Choice' (May 2018) is one of the few that mentions wildlife. It acknowledges the impact of such barriers on reducing or preventing wildlife dispersal and the associated severance of wildlife territories and habitats. It goes on to stress the importance of getting appropriate mitigation in place so that species do not have to go over the top of roads. Unfortunately, the river crossings on this project do not currently appear to have been designed following the mitigation hierarchy to primarily avoid detrimental impacts on wildlife and river habitats. Regarding the proposed extensions to the existing Domsey Brook west and Roman River crossings, our Written Representation [REP2-053] outlined some specific concerns for the Applicant to address in respect of the new elements of the crossings. We also highlighted that enhancements to the existing structures should be considered. The retrofitting of mammal ledges is proposed for each crossing, and further enhancement measures are proposed for the Roman River, which are welcomed. However, the Applicant should demonstrate a further assessment of possible improvements to each of the existing structures, with a view to seeking to resolve the existing issues. For the extension to the River Brain bridge, we previously highlighted that the riverbed where the A12 currently crosses the River Brain consists of a wide expanse of concrete which harms ecological connectivity and river processes. The Applicant has stated that it is not possible to remove this concrete sill as it forms part of the structure of the existing bridge [REP3-009]. We believe that there is the potential to incorporate ecological improvements as recommended by the Design Manual for Roads and Bridges to mitigate for

the damaging existing design without removing the concrete sill. There are a number of options to deliver a range of enhancements and allow a preferential summer channel underneath the bridge to encourage safe fish movement up and downstream reducing exposure to predation. We wish to see a feasibility study to explore options to enhance the existing section of river bed. This could include in-channel features including baffles, a series of resting pools, improved vegetation cover and other enhancements to aid safe fish passage. Any proposals will have to consider overall flood risk, but the ecological enhancements could be advised on by the Environment Agency's Fish Pass Panel to help bring about an overall improved ecological outcome at this location. We are generally supportive of the proposed extension to Ashmans Bridge which crosses the River Blackwater but have previously highlighted that opportunities to retain natural banks should be taken where possible to benefit mammals. Innovative design measures should be investigated to deliver the optimum result.

### **Applicant's Response**

The concerns raised by the Environment Agency (EA) regarding the water environment are noted by the Applicant and have been discussed with them through design development pre-DCO application and during the examination period as recorded in the Statement of Common Ground between the parties [REP4-036]. Liaison is ongoing, with the most recent meeting held on 5 May 2023.

Topics discussed during the 5 May meeting included culverts, eel and mammal passage and Biodiversity Net Gain (BNG). Overall, the Environment Agency was supportive of the Applicant's rationale for mitigation proposals for eels and mammals within existing/modified crossings, although further discussions are needed between the parties to progress the matter of new culvert crossings. The Environment Agency referred to the A47 scheme, another National Highways' scheme where they considered that culverts have been introduced successfully.

### **Biodiversity Net Gain (BNG)**

The Environment Agency had stated they would expect the proposed scheme to provide 10% BNG (see SoCG [REP4-036] item B9). This was discussed during the meeting on 5 May and the Applicant stated that there was no requirement for Nationally Significant Infrastructure Projects to achieve this. The Natural England methodology as followed does not distinguish between Main

Rivers and Ordinary Watercourses and ditches. The BNG report [APP-138] sets out the assessment undertaken and indicates an increase in the Rivers and Streams biodiversity unit of 156% (including 0.36% for rivers). Additionally, the Applicant raised a query regarding the consistency of approach in relation to BNG, in particular consideration of BNG on the Lower Thames Crossing scheme which in that case results in a negative River and Streams unit score and has been accepted by the Environment Agency.

### **Loss of riparian habitat and habitat connectivity, and severance of wildlife corridors**

In line with the mitigation hierarchy, as outlined in the Design Manual for Roads and Bridges, the Applicant has sought to avoid impacts where possible. As detailed within Environmental Statement Chapter 3: Assessment of alternatives [APP-070], the refinement of Option 2 for the proposed scheme at PCF Stage 2 (preferred option selection) provided environmental benefits including reducing potential development within the floodplain. By utilising the existing crossing of the River Blackwater (Ashman's Bridge), potential effects from severance of the river from construction of a new structure were avoided.

As also detailed within Chapter 3: Assessment of alternatives [APP-070], value engineering of the refined Option 2 enabled retention of the River Ter Bridge width, avoiding potential effects from widening of the structure.

In accordance with the mitigation hierarchy, the Applicant has also sought to avoid impacts by retaining existing vegetation (including riparian habitat) as far as reasonably practicable and will continue to do so as the detailed design develops. This is committed to in LV4 in the Register of Environmental Actions and Commitments (REAC) [REP4-023] and shown on the Retained and Removed Vegetation Plans [APP-035 and REP4-007]. Where it has not been possible to avoid loss of vegetation, mitigation measures have been proposed. The measures of most relevance to this response are provided below, with full details available in Section 9.10 of Environmental Statement Chapter 9: Biodiversity [APP-076].

To avoid further loss of habitats with importance to wildlife, an Ecological Clerk of Works (ECoW) would be available during the phase of site clearance to assess and advise on retention of habitats (as committed to in BI1 in the REAC [REP4-023]).

While the Applicant acknowledges the potential adverse impacts associated with habitat loss and fragmentation (as stated in paragraph 9.9.5 of Chapter 9: Biodiversity [APP-076]) due to extending existing culverts and culverting of watercourses, the biodiversity assessment concludes that the implementation of standard and embedded mitigation measures would reduce these impacts to not environmentally significant (Section 9.11 of Chapter 9: Biodiversity [APP-076]).

The proposed scheme predicts a 157% net gain of rivers (as presented in Table 9.32 of Chapter 9: Biodiversity [APP-076] and detailed in Appendix 9.14: Biodiversity Net Gain Report [APP-138]). The Applicant acknowledges that this figure incorporates rivers, streams and ditches, with the majority of the score associated with ditches. However, the proposed scheme is still predicting an overall gain for all elements contained within the rivers metric. With respect to the use of the metric for calculating the net gain in rivers and streams, please refer to the Applicant's response to sub-question REP2-053-012 within the Deadline 3 submission 9.24 Applicant's Comments on Written Representations [REP3-009]. In summary, the Applicant has undertaken the biodiversity net gain assessment in accordance with the defined methodology which requires calculations for ditches and rivers to be combined into a single figure (and this remains the case in metric 4.0). The footnote associated with Table 3 in Environment Statement Appendix 9.14: Biodiversity Net Gain Report [APP-138] is to provide transparency, detailing Biodiversity Net Gain scores for each habitat type selected in the River and Streams Metric. The Applicant will be submitting the Rivers and Streams component of the metric as requested by the Environment Agency at Deadline 6.

Landscape planting has been designed to increase connectivity across the landscape and avoid fragmentation of habitats, as well as connecting to existing wildlife corridors (paragraph 9.10.14 of Chapter 9: Biodiversity [APP-076]). In addition, paragraphs 9.10.117 to 9.10.120 of Chapter 9: Biodiversity [APP-076] detail proposed enhancement measures for Boreham Brook, Domsey Brook and Rivenhall Brook and include the implementation of a 10m buffer zone (either through fencing, where practicable, or landscaping (leaving the area to rewild) to allow for a natural riparian zone and habitat creation. Buffer zones of this design can be as effective, if not more so, than planting and would result in an improvement on baseline conditions, where riparian vegetation is largely restricted by agriculture.

Two of the proposed ecology mitigation areas, shown on sheets 1 and 8 of the Environmental Masterplan [APP-086], include water vole habitat in the form of ditch and pond complexes. These have been located in areas with connectivity to existing habitats (the River Brain and ditches near Boreham where water voles were recorded in 2020) and these habitats would be created in advance

of construction. Detailed design of these habitats will incorporate bank profiles and depths of water that would accommodate water vole, providing sufficient depth to escape predators, areas of steep bank in which to burrow and shallow banks on which deep swathes of riparian vegetation could establish as a food source (paragraph 9.11.181 of Chapter 9: Biodiversity [APP-076]). This would increase the areas of riparian habitat available locally.

As stated in paragraph 9.10.74 of Chapter 9: Biodiversity [APP-076], where practicable fragmentation impacts across the wider proposed scheme for otter would be mitigated through the provision of mammal ledges and landscape planting would be designed to guide mammals to these features. The Applicant is producing a figure demonstrating how the proposals for each watercourse crossing would either not change or would provide an improvement with respect to permeability for otters. This figure will be submitted at Deadline 6.

With respect to freshwater fish (including macro-invertebrates and macrophytes), culverts have been designed in line with CIRIA culvert design best practice (Culvert, Screen and Outfall Manual, C786) to minimise the length of newly created culverts and to include natural substrate in culvert beds, thus ensuring no increase in flow velocity. Such mitigation measures are considered to negate any impacts of fragmentation and barriers to the free movement of fish as well as macro-invertebrates and macrophytes (paragraphs 9.11.361 and 9.11.368 of Chapter 9: Biodiversity [APP-076]).

As stated in paragraph 9.11.119 of Chapter 9: Biodiversity [APP-076], while there would be an overall loss of 230m of river through creation of the proposed new alignments, the realigned sections would improve the condition and therefore the river condition score (Appendix 9.14 Biodiversity Net Gain Report [APP-138]) of each of the rivers (those being Domsey Brook, Roman River and Rivenhall Brook) under the Water Framework Directive. Enhancement measures for Boreham Brook, Domsey Brook and Rivenhall are also proposed and are described earlier in this response.

### **Domsey Brook East culvert**

The Applicant is reviewing the design of the A47 for relevance to the current scheme.

## **Rivenhall Brook culverting proposals**

With reference to the Environment Agency's request for full exploration of alternative options, the Applicant refers to responses to ExQ2 2.18.5 and ExQ2 2.18.6 in the Deadline 4 Submission – Applicant's Responses to ExQ2 – Rev 2 [REP4-055]. The Applicant does not consider that there is a justification for a comparative exercise in either law or policy. As a matter of law, a decision maker can choose to have regard to a potential alternative to a scheme where the scheme is identified as having conspicuously harmful effects and where the scheme seeks to overcome such harm by reference to countervailing public interest benefits. Since the Applicant's assessment does not identify any "conspicuously harmful effects" arising from the proposed culverts, no duty arises as a matter of law for the Secretary of State to consider alternative proposals to them.

The only other means by which the Secretary of State could be required to consider alternatives would be if this was required by adopted policy. The Applicant is not aware of any such policy requirement in the NPSNN, the NPPF or the relevant adopted developments.

## **Eel passage**

Enhancements of existing culverts on Roman River, Domsey Brook West, and Brain Bridge include the introduction of sediment substrate along the riverbed to act as natural flow regulation and provide overall channel heterogeneity. In addition, at each of the box culverts the invert would be buried beneath the natural bed of the watercourse to allow the continuation of sediment conveyance and reduce the impact on local flow dynamics (as committed to in RDWE 39 in the REAC [REP4-023]).

While the culverts would be longer, the low gradient would not adversely increase flow velocities above that already experienced through the existing structures (due to REAC commitment RDWE 39, see above). However, juvenile eels migrate along the bed and therefore the condition of the river substrate is of greater importance than flow velocity to early life stages. The proposed habitat improvements through the inclusion of bed material would improve conditions for migration. Placement of bed substrates

within the culvert can lower water velocity, increase depth and provide resting areas for European eels (Newbold et al, 2014 Newbold, L., Karageorgopoulos, P., and Kemp, P. 2014. Corner and sloped culvert baffles improve the upstream passage of adult European eels (*Anguilla anguilla*) Ecological Engineering. 73: 752-759). As upstream migration of juvenile eels and smaller elvers is predominantly along marginal areas associated with the bed, the inclusion of a natural bed substrate would support both the poorer swimming juvenile life stages using the bed boundary layer, and those individuals swimming in bursts in higher flows. As stated in paragraph 9.11.364 of Chapter 9: Biodiversity [APP-076], there would be a negligible level of impact on freshwater fish during operation of the proposed scheme and the significance of effect is neutral (not environmentally significant).

### **Mammal ledges**

Mammal ledges are proposed on four crossings (Rivenhall Brook, Domsey Brook (west), Domsey Brook (east) and Roman River) and would be positioned at least 150mm above the 1% (1 in 100) Annual Exceedance Probability event peak water level with at least 600mm headroom. Ledges would also be at least 500mm wide with ramps to provide access from the bank. These specifications have been designed to ensure there are safe routes of passage, including during a flood event and are consistent with the dimensions presented in the Environment Agency's Policy Regarding Culverts (1999) (paragraph 4.3). As stated in the Applicant's response to REP2-053-004 in the Deadline 3 submission – 9.24 Applicant's Comments on Written Representations [REP3-009], a commitment (BI49) was added to the REAC submitted at Deadline 4 [REP4-023] to undertake post-construction monitoring of the structures with mammal ledges to determine whether the ledges are used by wildlife, including otters, for safe passage under the A12. Data collected would be used to inform the design of river crossings for future National Highways schemes.

Regarding the length of the culverts (particularly for Rivenhall Brook and Domsey Brook (east)), the Applicant acknowledges that empirical data to support or refute the idea culverts are an effective mitigation measure for mammal passage (notably otter and water vole) are not available. The Water Vole Mitigation Handbook suggests that culverts up to 35m are known to be effective. However, while this information is useful, it does not mean by omission that culverts of a different (longer) length are ineffective. A publication from The Otter Consultancy (Blackbridge: Otter Surveys and Mitigation Report, 2017) reports evidence of otters using a 116m long culvert without mammal ledges. This is significantly longer than the longest proposed culvert for the proposed scheme

(Domsey Brook East, 60m), suggesting that the length of culverts being proposed would not pose a barrier to the movement of otter.

The Applicant notes the Environment Agency's comments regarding predators and prey using the same mammal ledge. However, the Applicant does not consider that intermittent use of ledges at times of high water flow would be likely to have a significant effect on prey species. It is also considered the likelihood of otter or badger preying on water vole is low, given that the dominant food source for otter is fish (cyprinids) (Buglione et al., 2020 Buglione, M., et al., 2020. The diet of otters (*Lutra lutra*) on the Agri river system, one of the most important presence sites in Italy: a molecular approach. PeerJ8:e9606 [REDACTED] and badger is earthworms, followed by secondary sources such as cereals and insects (Kruuk and Parish, 1981 Kruuk, H and Parish, T, P. 1981. Feeding Specialization of the European Badger *Meles* in Scotland, *Journal of Animal Ecology*, Vol. 50, No.3, pp. 773-788).

It is considered that the combination of mammal ledges and otter-proof fencing would encourage safe passage of mammals while simultaneously dissuading them from entering the carriageway, and therefore the proposed culverts would not impede movement of mammals across the local landscape. The Applicant acknowledges the Environment Agency's comment 'to keep mammals off the road, fencing will require high initial design and installation costs, regular 6 monthly inspections and repairs and replacement over the lifetime of the project'. The Applicant is considering this request from the Environment Agency and will continue to engage with them on maintenance of otter fencing.

The Applicant notes the Environment Agency's comment 'for many species if the mammal ledge is not a 100% success the culvert crossings will separate protected species populations up and downstream and could in time prevent the genetic diversity that is needed for long term survival of a viable population'. However, the Applicant does not consider that this can be correct, as a level of success below 100% would not necessarily lead to isolation of populations; mixing of populations up and downstream of the crossing would still occur.

It should be understood that the Applicant is following Natural England's Standing Advice for otter and water voles, and this is agreed in 1.17 in the Statement of Common Ground with Natural England [REP4-035]. Furthermore, it is important to note that



Chapter 9: Biodiversity [APP-076] concludes no significant effects on otter (or any other protected or notable species) during either construction or operation of the proposed scheme (Table 9.29 and Table 9.31) and as such there is no requirement for further mitigation beyond what is already proposed.

### **Mitigation hierarchy**

Please refer to text within the subheading 'Loss of riparian habitat and habitat connectivity, and severance of wildlife corridors' above with respect to application of the mitigation hierarchy.

### **Improvements to river crossings**

Enhancements of existing culverts on Roman River, Domsey Brook west, and River Brain Bridge include the following measures:

- Incorporation of gravels to improve sediment substrate of the riverbed and overall channel heterogeneity (commitments RDWE 39 and RDWE 42 in the REAC [REP4-023]. At each of the box culverts, the invert is to be embedded by sediment (0.3m deep).
- Where practicable, in-channel works would be avoided for Main Rivers during freshwater fish spawning and migration periods (October to May inclusive).
- Where sections of watercourses are to be isolated as part of construction work, fluming would be used to protect any fish species present, preventing direct mortality of fish migrating from downstream (BI42 in the REAC [REP4-023]).

- Improved planting along the floodplain and local measures to improve water quality such as planting (RDWE 39, RDWE 40, and RDWE 42 in the REAC [REP4-023]). Vegetation and trees to be used at the entrance and exit of crossing structures (Rivenhall; Domsey Underbridge; Domsey east).

### **River Brain crossing**

The function of baffles is to increase water depth by holding water back in the structure and providing sufficient depth for fish during lower flows, facilitating passage. They may also provide pseudo fish resting refuges during higher flows. There are limited options for the provision of additional vegetation cover directly underneath the structure due to light levels being suboptimal for vegetative growth. However, the entry and exit points are already heavily vegetated.

While resting pools can be considered, the implementation of baffles and resting pools would potentially result in increased flow velocity, which could be problematic in terms of creating additional barriers to fish passage.

Potential enhancements to the existing River Brain crossing were discussed at the meeting of 5 May 2023. As part of the detailed design for the scheme the Applicant would investigate potential opportunities for improvements to this crossing, such as the creation of rock rolls. The Applicant welcomes ongoing engagement with the Environment Agency on this matter.

### **Ashman's Bridge**

The Applicant acknowledges the Environment Agency's comments relating to Ashman's Bridge and will consider opportunities through the detailed design stage to retain natural banks where practicable, as well the application of innovative design measures where appropriate to maximise delivery for biodiversity.