A428 Black Cat to Caxton Gibbet improvements

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9.22 Applicant's Comments on Local Impact Reports

Planning Act 2008

Rule 8 (1)(i)

Infrastructure Planning (Examination Procedure) Rules 2010

October 2021

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A428 Black Cat to Caxton Gibbet improvements

Development Consent Order 202[ ]

9.22 Applicant's Comments on Local Impact Reports

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Author	A428 Black Cat to Caxton Gibbet improvements Project Team, National Highways

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Table of contents

Table of Tables

1 Introduction

1.1.1 The Development Consent Order (DCO) application for the A428 Black Cat to Caxton Gibbet improvements scheme (the Scheme) was submitted by Highways England to the Secretary of State for Transport via the Planning Inspectorate on 26 February 2021 and accepted for Examination on 23 March 2021.

1.1.2 The purpose of this document is to set out the Applicant's comments on the Local Impact Reports (LIRs) received from the Scheme host authorities:

a. Bedford Borough Council (BBC).

b. Cambridgeshire County Council, Huntingdonshire District Council, South Cambridgeshire District Council (CCC/HDC/SCDC).

c. Central Bedfordshire Council (CBC).

1.1.3 The LIRs were published on the Planning Inspectorate website on 10 September 2021.

2 Applicant's Comments on the Bedford Borough Council Local Impact Report

Table 2-1 – Applicant's Comments on the Bedford Borough Council Local Impact Report (REP2-002)

Reference Number	Local Impact Report/Applicant Comment
REP2-002a	**A. Highways and Transportation** Strategic Highway Impact Bedford Borough Council (BBC) believes the scheme to be a vital component of the strategic road network and one which will alleviate the poor performance of the current route. The scheme will provide an essential link which will enhance opportunities for economic growth and housing delivery, and improve conditions for local communities. The proposed scheme will reduce travel time between Bedford (and all points west) and Cambridge and will thus support the potential for economic growth, and the ambitions of the Ox- Cam Arc. The Council considers that strategic connectivity between Oxford/Milton Keynes and Bedford to Cambridge will be improved. The demise of the concept of the Oxford Cambridge Expressway means that alternative solutions to improve east-west connectivity will be required, particularly west of the M1. However the Council is pleased to see the continuing commitment to the A428 Black Cat to Caxton Gibbet Improvement, which was originally considered part of the Expressway, for the reasons mentioned above. The proposed scheme is supported by the Borough Council as a means to reduce significant congestion and delay at the Black Cat roundabout, and to improve conditions for local residents, particularly those in villages west of the A1 where 'rat running' is a factor. The scheme will also bring safety improvements to all road users by closing multiple direct accesses to the A1 and replacing them with a dedicated access road, and by improving the access to Kelpie Marina. Bedford Borough Council has supported improvements to this stretch of highway for many years. As the former highway authority, Bedfordshire County Council worked with adjacent local authorities to press for local improvements between Bedford and Cambridge. The former County Council fully supported delivery of the Great Barford Bypass, opened in 2006, and the Borough Council supported the more recent improvements to the Black Cat roundabout junction which were completed in 2015. It was noted at the time that both these recent improvements, while welcomed, provided only a temporary solution at the Black Cat roundabout.

Reference Number	Local Impact Report/Applicant Comment
Applicant Comment	The Applicant welcomes the support of Bedford Borough Council for the Scheme.
REP2-002b	Impact on Local Communities From a highway perspective, the impact of the scheme on local communities is expected to be positive overall. At the moment, local communities in Wyboston, Chawston, Roxton, Little Barford and Great Barford are adversely affected by traffic conditions on the A1 and A428. Residents are exposed to disturbance from increased numbers of vehicles using local roads if there are delays on the trunk roads. Closure of direct access points to the west of the A1 in Wyboston, and improved access onto the new junction at Black Cat will encourage traffic to stay on the main line and not divert through local communities. Users of Kelpie Marina will have a safe access point from Roxton village rather than an entry to / exit from the fast running lane of the A1. The new link road connecting to Roxton Road will replace all direct access onto the A1 in west Wyboston. Properties to the east of the A1 in Wyboston will have their direct A1 access replaced by a link road which connects to the new three tier junction at Black Cat. In these cases, the safety benefits of the new arrangements are considered to offset the disbenefits of additional journey length and time. The scheme is not expected to alter community severance issues which may be considered to be present in Wyboston. It is likely that speeds on the A1 through Wyboston will increase which could deter pedestrian and cycle movements between the two sides of the village. The impact of noise and pollution on local communities are covered elsewhere in this report.
Applicant Comment	The Applicant welcomes Bedford Borough Council's statement on the positive impacts of the Scheme on local communities due to the traffic relief that the Scheme will provide. The Council's comment regarding traffic speeds on the A1 at Wyboston is noted. The speed limit on the A1 will remain at 60mph. Forecast traffic speeds on the A1 do not materially change between the Without and With Scheme scenarios, with a very modest increase in the With Scheme scenario between Black Cat Roundabout and Wyboston Interchange.

Reference Number	Local Impact Report/Applicant Comment
REP2-002c	Impact on local highways We expect the impact of the scheme on the local highway network to be mixed. The longer term benefits are reduced rat running through the villages west of the A1, and on the C44 through Great Barford. However, the potential disadvantages include likely traffic increases on some local roads around Wyboston, Chawston, Little Barford, and Great Barford particularly through the construction phase. We welcome the opportunity to keep construction traffic monitoring under review throughout the construction period. We also note that some local junctions along the A421 in Bedford will experience increased traffic on some arms which in some cases will lead to additional delay. At some of these junctions with the A421, not all local junction arms have been tested and so the impact of the scheme remains unclear. The Council notes that without some form of mitigation in these locations, opportunities for future growth could potentially be constrained. Pre and post opening monitoring will be an important element of understanding the impact of the new road on the local highway network. In addition, the Council will gain possession of a new link road to the west of Wyboston, a new bridge at Roxton Road, and new access points onto the Black Cat junction to replace direct accesses onto the A1, all of which will be added to the Council's asset list.
Applicant Comment	As outlined by Bedford Borough Council, the Scheme delivers substantial long-term benefits to the local area including decongesting various urban roads in the nearby towns and villages which currently experience regular and recurring traffic congestion. The Applicant has undertaken junction modelling for assessment of all the Scheme junctions, which have all been predicted to operate satisfactorily and within capacity in the design year 2040. Additionally, the Applicant has undertaken junction modelling of a number of junctions in the wider network and, overall these junctions have been predicted to have positive impacts. Due to re-routeings of traffic from a number of less suitable roads, the performance of some junction approach arms will be marginally adversely affected where this results in increases in traffic. . However, this is to be expected for any highways scheme of this scale and nature. As noted above and in the Case for the Scheme **[APP-240]**, the Scheme delivers substantial benefits and overall will unlock opportunities for future growth across Bedford Borough Council's administrative area. The Applicant is in discussions with Bedford Borough Council in relation to a mechanism for the handover of local roads and de-trunked assets which are to be maintained by Bedford Borough Council as assets of the local highway authority.

<table>
<tr><th>Reference Number</th><th>Local Impact Report/Applicant Comment</th></tr>
<tr><td>REP2-002d</td><td><u>Impact of detrunking</u>

Detrunking will transfer the Great Ouse viaduct at St Neots which will increase the length of highway in the Borough and add to the asset list. This is a significant structure which is currently maintained and managed by National Highways but will pass to BBC. The Council notes that traffic flows on the detrunked sections of highway are expected to be at similar levels in 2040 to those currently observed. This means that the sections of detrunked highway will be among the busiest and most heavily trafficked in the Borough which brings additional liability to the Council.</td></tr>
<tr><td>Applicant Comment</td><td>As explained above, the Applicant is in discussions with Bedford Borough Council in relation to a mechanism for the handover of local roads and de-trunked assets which are to be maintained by Bedford Borough Council as assets of the local highway authority. This will include matters relating to the timing and condition of assets to be de-trunked.

With reference to traffic flows, the Traffic Forecasting Report [APP-253], Appendix C of the Combined Modelling and Appraisal Report, presents traffic flow volumes on the A428 by identified sections, as presented in Table 6-6. Section C A428, West of Barford Road (Wyboston to Barford Road Junction) and D A428, East of Barford Road (Barford Road Junction to Cambridge Road Junction). Base year flows are presented in Table 6-7 and 2040 With and Without Scheme scenarios are presented in Table 6-9. The table below summaries values presented and compares 2040 flows with 2015 base year flows.

<table>
<tr><th>Section</th><th>Description</th><th>Direction</th><th>2015</th><th>2040 With-Scheme</th><th>% diff from 2015</th><th>2040 Without-Scheme</th><th>% diff from 2015</th></tr>
<tr><td rowspan="3">C</td><td rowspan="3">A428, West of Barford Road</td><td>EB</td><td>14,400</td><td>13,900</td><td>-3%</td><td>18,100</td><td>26%</td></tr>
<tr><td>WB</td><td>14,700</td><td>12,600</td><td>-14%</td><td>18,200</td><td>24%</td></tr>
<tr><td>Two-Way</td><td>29,100</td><td>25,600</td><td>-12%</td><td>36,300</td><td>25%</td></tr>
<tr><td rowspan="3">D</td><td rowspan="3">A428, East of Barford Road</td><td>EB</td><td>9,200</td><td>9,300</td><td>1%</td><td>16,100</td><td>75%</td></tr>
<tr><td>WB</td><td>9,700</td><td>9,900</td><td>2%</td><td>17,000</td><td>75%</td></tr>
<tr><td>Two-Way</td><td>18,900</td><td>19,200</td><td>2%</td><td>33,100</td><td>75%</td></tr>
</table>
</td></tr>
</table>

Reference Number	Local Impact Report/Applicant Comment
	In the 2040 With Scheme scenario a -12% and +2% difference in two-way traffic compared to the 2015 base year are forecast for sections C and D respectively. In the 2040 Without Scheme scenario (presented in Table 6-9), these two sections of the A428 are forecast to have +25% and +75%. Therefore, the Scheme is forecast to provide relief in 2040 on these two sections of the A428 compared with the Without Scheme scenario.
REP2-002e	Impact on non motorised users (NMUs) The Council expects the impact of the scheme on NMUs (walkers, cyclists, equestrians, bus / coach users) to be mixed. Positive impacts include rationalisation of the Public Rights of Way (PROW) network in the vicinity of the scheme and improved safety for pedestrians in Wyboston by the provision of new link roads. However, it is likely that traffic speeds will increase on the A1 through Wyboston which could deter pedestrians from moving within the settlement. At the new Roxton Road overbridge, the impact on equestrians is less defined. It is not yet clear what facilities will be provided for cyclists who wish to use the circulatory section of the Black Cat junction. Similarly, the downgrading of the A428 across the River Great Ouse at St Neots may encourage cyclists to use this route, and it is not yet clear if any additional facilities will be installed which would make the route less challenging for cyclists. While immediate mitigation has been included in the scheme, the Council looks forward to further conversations about the use of designated funds to enhance the offer to NMUs. For bus / coach users, the current facilities for pick up/set down on the A1 are acknowledged to be below standard. Relocating these facilities in locations which encourage use will help to make them safer.
Applicant Comment	The Applicant welcomes the Council's acknowledgement that NMU provision within the Scheme will improve safety for pedestrians in Wyboston. As explained above, the existing speed limit on the A1 will be maintained, and forecast traffic speeds do not materially change between the Without and With Scheme scenarios. The Applicant notes the Council's comment regarding the Roxton Road overbridge. Other than the redesignation of School Lane as a bridleway, no specific facilities have been included for equestrians as the Scheme does not impact any bridleways in the area and surveys showed that there was little usage of Roxton Road or Bedford Road by

Reference Number	Local Impact Report/Applicant Comment
	equestrians. However, the facilities that are provided could be redesignated by Bedford Borough Council in the future if wider improvements to the bridleway network in the area were carried out. Facilities for cyclists on the Black Cat junction circulatory have not been proposed by the Applicant as it is not considered safe to encourage the use of the Black Cat junction by non-motorised users. Instead a new shared footway/cycleway provision has been included in the Scheme from School Lane to The Lane via the Kelpie Marina access track, Bedford Road, Roxton Road and the new Roxton Road link. The Applicant notes the Council's comments regarding designated funds, albeit these discussions are being held outside of (and are therefore not relevant to) the application for development consent. The Applicant notes the Council's comments regarding the relocated facilities for buses and coaches as shown on Sheet 1 of the General Arrangement drawings **[APP-011]**.
REP2-002f	**B. Minerals and Waste** Relevant Local Planning Policy Bedford Borough, Central Bedfordshire and Luton Council Minerals and Waste Local Plan: Strategic Sites and Policies (Adopted January 2014) Policy MSP 9 Borrow Pits will be permitted where they meet the following criteria: • The site is required to supply minerals to specific major construction works; • The site is well related geographically to the project it is intended to supply; • The borrow pit will serve the related project only, and will not provide material for the wider market or be retained beyond the life of the project it serves; • The borrow pit will bring about the removal of mineral and/or waste traffic movements from the public highway and/or from passing local communities; • The borrow pit will be restored within a similar timescale as the project to which it relates, and restoration can be achieved to an approved scheme in the event that it is only partly worked;

Reference Number	Local Impact Report/Applicant Comment
	• Waste materials will only be imported from the project itself unless required to achieve beneficial restoration as set out in an approved scheme; • There is an overall environmental benefit as a result of the proposal and appropriate mitigation measures will be put in place to minimise any adverse environmental impacts'. Paragraph 6.32 also states that there are benefits and disbenefits associated with the sourcing of aggregate from a borrow pit particularly as operators are often not normally associated with minerals matters and may require greater guidance from local authorities to ensure that the site is operated to an acceptable standard. There is an overall scheme requirement of 1.435Mt of aggregate of which 800,000 tonnes will need to be imported to the site. This is despite sourcing approximately 500,000m3 of material from borrow pits which would save a total of approximately 125,000 HGV movements on the local highway network. There would also be a saving by using the resultant void space for inert waste arisings from the project which would save further HGV movements. The principal of providing borrow pits to support the supply of materials for this project is accepted. However, there is a lack of information on how the borrow pits will be worked because the Environmental Statement does not disaggregate and report the environmental conditions and effects of the borrow pits separately as a discreet element of the overall development. Therefore, it is difficult to highlight local impacts apart from in general terms. There are significant volumes of concrete and asphalt required at different stages of the project and it is unclear how much is planned to be manufactured on site or delivered direct from local infrastructure. On site manufacturing will require sufficient areas for stockpiling materials and these can have environmental impacts if not properly managed at the proposed compounds. It is not clear whether there is sufficient capacity in the local area to deliver the volumes required at specific times. These can have local impacts, if required outside of normal working hours especially as the proposed requirements allow such a long list of exemptions to normal working hours. The restoration for both borrow pits in Bedford Borough is to agriculture at original ground levels unless otherwise agreed with the relevant landowner. This does raise a degree of uncertainty which makes assessing the local impact challenging. The existing Agricultural Land Classification (ALC) classification for the soils at these sites are Grade 1. Whilst mineral sites can successfully be restored to agriculture, these are normally to lower grade soils. It will extremely challenging to restore soils to a Grade 1 classification and the proposals are not clear whether this is the goal or it is proposed to restore to a lower grade. Again, this makes it difficult to assess the impact. The precise methodology for stripping, storing and replacing of soils will be critical to the classification achieved as will the management of these in the aftercare period.

Reference Number	Local Impact Report/Applicant Comment
Applicant Comment	The Applicant welcomes Bedford Borough Council's in principle acceptance of the need to include borrow pits within the Scheme. The Applicant has submitted "Borrow Pits Excavation and Restoration Report" **[TR010044/EXAM/9.24]** at Deadline 3 to address Bedford Borough Council's concerns that there is insufficient information to assess local impacts as a result of the inclusion of the borrow pits. In relation to restoration of the borrow pits, Natural England's Technical Information Note TIN049 (2012) entitled, Agricultural Land Classification, protecting the best and most versatile agricultural land states: *"Consultations with Natural England are required on all applications for mineral working or waste disposal if the proposed afteruse is for agriculture or where the loss of best and most versatile agricultural land agricultural land will be 20 ha or more. Non-agricultural afteruse, for example for nature conservation or amenity, can be acceptable even on better quality land if soil resources are conserved and the long term potential of best and most versatile land is safeguarded by careful land restoration and aftercare*". The Applicant is committed to restoring the borrow pits to a condition that would be suitable for agriculture. All topsoil and subsoils from the areas of the borrow pits will be stripped, stored in landscaped bunds and re-used for restoration. The ALC grade on restoration is not a material factor for the borrow-pits, as ALC is a system used primarily for assessing how the development proposals affect agriculture. Chapter 9, Geology and soils **[APP-078]** of the Environmental Statement has considered and reported upon this matter. Annex E: Soil Handling and Management Plan in the First Iteration Environmental Management Plan **[APP-234]** outlines the measures that would be implemented to strip, store and reinstate agricultural soils to ensure the existing depths, profiles and characteristics of these resources are maintained and protected. The restoration of the borrow-pits is secured through Requirements 6 and 12 of the draft Development Consent Order (dDCO) **[REP1-003]**, which states that the landscaping scheme and the detailed design of the Scheme must accord with the principles of the Environmental Masterplan **[APP-091]**. Requirements 3 and 4 of the dDCO [REP1-003] also secure the Second and Third Iteration Environmental Management Plan, which must be produced substantially in accordance with the First Iteration Environmental Management Plan **[APP-234]**. The plans and programme for asphalt and concrete batching for the Scheme are being developed and will be finalised at detailed design stage.

Reference Number	Local Impact Report/Applicant Comment
REP2-002g	**C. Ecology** Although the A428 Black Cat to Caxton Gibbet Road Improvement Scheme is only in Bedfordshire for quite a short distance, it is an area with several features of importance for biodiversity. The Development Consent Order (DCO) boundary in Bedford Borough crosses the River Great Ouse, which is a Local Wildlife Site, but does not include any other statutory or non-statutory wildlife sites. Veteran trees are avoided by the Scheme. The applicant has completed a suitable range of up-to-date ecological surveys which are based on evidence from the Bedfordshire & Luton Biodiversity Recording and Monitoring Centre and preapplication discussions. There are Phase 1 maps for the whole of the DCO area with suitable habitats surveyed in more detail for a range of notable species or wildlife assemblages. These surveys include invertebrates, reptiles, Great-crested Newts, breeding and wintering birds along with specific surveys for Barn Owl, Red Kite and Hobby, bats and Badgers. In a few places safe access to survey was not possible or permission was not granted, however, these are fairly rare across the scheme. **Description** The A428 Black Cat to Caxton Gibbet Road Improvement Scheme cross areas of countryside with wildlife value and several significant wildlife commuting and/or foraging corridors including the River Great Ouse and numerous hedgerow, some of which link Priority Habitats on either side of the DCO limits. The main ecological features within the Borough are: • Black Cat Quarry: The restoration scheme for the Quarry will dramatically change this area from the existing working quarry. This makes assessing the future impact of the road scheme more difficult. The Biodiversity Net Gain calculations for the road scheme have not included the changes to occur as part of the Quarry restoration which is a reasonable approach. At present, a number of protected species were found within the quarry area, this includes, breeding birds (Little Ringed Plover, Sand Martin and possibly Hobby), some invertebrate interest, Common Lizards and a badger sett in a spoil heap. Suitable measures for protecting these during construction will be needed, however, as the road is on a viaduct across approximately half of this area connectivity across the road should remain once it was operational. • River Great Ouse: The river is an important habitat in itself as well as a main commuting and foraging route which is crossed by the scheme. It is one of the main points where bats cross the route and the bankside habitats were also used by badgers. Otters are also known to use the area, although no evidence of a holt was recorded. The road crosses the river on a viaduct which is a continuation of the structure used to cross the Black Cat Quarry area. There are no piers in the river and during normal river flow some bank would be

Reference Number	Local Impact Report/Applicant Comment
	available on both sides of the river under the viaduct. This would allow species like badgers and otters to pass easily. There would be a break in the bankside vegetation as a result of the deep shade cast by the road. Overall, it is unlikely to provide a significant barrier to movement along the river corridor. • East Coast Mainline Railway: This is in Central Bedfordshire but is not far from the Bedford Borough boundary. The habitats along the sides of the railway line are of significance for some species, particularly reptiles, and it also provides a corridor for wildlife movement. Measures to protect wildlife during construction will be required. • Woodlands around and including St John's Wood County Wildlife Site (CWS): This area crosses the border between Bedford Borough and Central Bedfordshire and contains most of the potential ecological issues. This eastern agricultural area of Bedfordshire has previously been recognised for its farmland bird assemblages and for raptors. The surveys for this scheme confirmed this and highlighted the presence of Barn Owls (two of the three occupied nest sites were in Bedfordshire, along with five of the seven active roost sites, including one very close to the road), Red Kite, Hobby and other farmland birds. The hedgerows to the north of St John's Wood were also highlighted as key commuting and foraging routes for both badgers and bats, including Barbastelle bats. The road scheme would sever these corridors. • Arable farmland: Once the proposed road scheme crosses the River Ouse and heads east it crosses an area of the Borough dominated by arable farming. The surveys highlighted the presence of breeding farmland birds, including many Skylarks, along with a good network of hedgerows, some of which were valuable for dead wood invertebrates. Areas of farmland would be permanently lost along with many of the hedgerows. Although some hedgerow planting is proposed there will be a net loss in this habitat type along with the loss of hedgerow connectivity along much of the route. **Mitigation** The surveys identified that the A428 Black Cat to Caxton Gibbet Road Improvement Scheme would have impacts on several notable species or wildlife assemblages within Bedford Borough. The following mitigation measures have been identified for these: • Barn Owl, Red Kit and Hobby: The road scheme includes woodland planting along the embankments in sections where barn owl foraging, roosting and nesting were observed within the DCO limits or close to it. The planting is designed to try and reduce road casualties, particularly for barn owls. It is important to note that this would only become effective once the landscaping has matured and so early planting is encouraged

Reference Number	Local Impact Report/Applicant Comment
	where possible. Additional measures while the planting matures may be needed in key areas. The installation of new barn owl nest boxes is also included. Ongoing monitoring of Red Kite and Hobby nesting activity will be needed to avoid disturbance to these species. The creation of additional nest for both is included. • Breeding birds: There will be a loss of breeding habitats during construction and, for farmland birds, during the operational phases of the Scheme. Additional woodland, hedgerow and grassland planting included within the landscaping proposals would provide habitats for some species but not all. • Bats: The scheme does include fencing, hedge planting and a bat tunnel along the line of the most significant hedgerow which links St John's Wood CWS to others in the area. There is some evidence that such features work, however, much more research is needed into the effectiveness of bat mitigation in road schemes generally. Monitoring the success of the bat tunnel will be vital for this scheme and for future bat mitigation elsewhere. Some information about monitoring is included in the first iteration of the Biodiversity Management Plan with more details expected in the second iteration. It is worth highlighting that the proposed bat tunnel would potentially provide only one connection across the road, whereas currently a number of hedgerows connect the woodlands in this area. Replacement bat roosts are included. • Badgers: The bat tunnel would also provide a safe crossing point for mammals including badgers. Hedgerows in the St John's Wood area are also important commuting routes for this species as well. The entrances to the tunnel are fenced with a mammal entry point in the corner. I would recommend that this hole is slightly taller than the dimensions included on the current structure diagram. A Natural England licence will be required for some works and suitable measures to protect badgers during construction will be needed across the Scheme in Bedford Borough. • **Great-crested Newts**: The Scheme currently plans to use the District Level Licensing Scheme which is operational in Bedfordshire to provide suitable mitigation for this species. No Great Crested Newt ponds within the Borough would be lost and additional waterbodies are proposed. • Reptiles: Common Lizards were found in and around the Black Cat Quarry, suitable measures during construction will needed to protect this species. • Habitats: Table 8-9 of the Environmental Statement shows the distribution of habitats before and after the proposed scheme, including the mitigation proposals. It is for the whole scheme and not broken down into local authority areas. This makes analysis of the impacts on each habitat within a local authority's area difficult. It seems likely that Bedford Borough would see a net gain in woodland and grassland and a net loss

Reference Number	Local Impact Report/Applicant Comment
	in hedgerows and cultivated land, which reflects the pattern over the scheme as a whole. There are few wildflower rich grasslands in this area and so the creation of this habitat would be welcomed. • Non-native Invasive Species: Several non-native invasive species were found to be within the DCO limits. Suitable measures to prevent the spread of these, particularly during construction will be needed.
Applicant Comment	The Applicant notes the comments from Bedford Borough Council recognising the benefits of early engagement in the design process enabling avoidance of features of biodiversity value and embedding mitigation into the Scheme especially in relation to landscape and drainage. This helps to explain the biodiversity net gain.
REP2-002h	**D. Archaeology** Chapter 6 of the Environmental Statement (DCO document TR010044-000240-TR010044_A428_Black_Cat_to_Caxton_Gibbet_Improvements_6- 1_Environmental_Statement_Chapter_6) has been produced by Highways England and refers to the Cultural Heritage assessments that have been undertaken in advance of the submission of the DCO. The Bedford Borough Historic Environment Team (Archaeology) were consulted by Highways England regarding the preparation of the archaeological sections of the ES. The Council is satisfied that the archaeological evaluation work undertaken provides sufficient baseline information to assess the likely impacts of the proposal on underlying archaeological remains. Whilst the assessment on setting impacts on a number of scheduled monuments still lacks a holistic approach taking into account not just visual impacts but also for example those potentially caused by increased noise or vibrations (as well as any short term impacts from borrow pits) the Council is satisfied that in no example will the harm be above a 'less than substantial' level. Within Bedford Borough the archaeological evaluation identified a number of sites containing buried archaeological remains of varying significance. These predominantly comprise settlement sites of Iron Age and Romano-British date of varying size and complexity with accompanying field systems. Inhumation burials are expected from at least one of these sites. A further site comprised two as yet undated kilns in close proximity to an early medieval ditch and an area of post-medieval quarrying. In addition to the information from the evaluation recent excavations at the Black Cat Quarry site have demonstrated the potential for isolated early prehistoric remains on the river terrace gravels that are

Reference Number	Local Impact Report/Applicant Comment
	difficult to identify through evaluation due to their dispersed nature. As such there can be considered some potential for as yet unknown remains of this date to survive in these areas. Regarding Brook Cottages, whilst it is noted that discussions on the future of this building are ongoing, the council is in agreement with the recommendation by Highways England that a Level 3 Building Recording (Understanding Historic Buildings, Historic England 2016) should be undertaken ahead of any work to the structure. In summary the Council considers that there will be significant impacts to buried archaeological remains within the A428 Black Cat to Caxton Gibbet site. This includes sites identified as part of the pre-DCO evaluation and to any previously unrecorded remains which may be identified during the construction process. The Council is in the process of agreeing a finalised Archaeological Mitigation Strategy (informed by the Councils Archaeological Design Brief) with Highways England in order to inform a programme of investigation of these sites in accordance with Site Specific Written Schemes of Investigation for each site.
Applicant Comment	The Applicant notes the comments from Bedford Borough Council and welcomes the Council's agreement that the archaeological evaluation work is sufficient to assess likely impacts of the Scheme on archaeological remains.. With reference to the assessment on setting impacts, a holistic approach has been taken in section 6.9 of Chapter 6, Cultural Heritage of the ES **[APP-075]**. In particular, paragraph 6.7.4 identifies that road traffic noise and lighting have been considered when assessing impacts caused by changes to the setting of heritage assets. In addition, further information on setting impacts has been provided in the Technical Note *Historic England and Bedford Borough Council Clarification Note* **[AS-010]**. The Applicant welcomes Bedford Borough Council's agreement that heritage harm as a result of the Scheme will be less than substantial for scheduled monuments. An updated Archaeological Mitigation Strategy has been submitted by the Applicant at Deadline 3 **[TR010044/EXAM/9.23]**. National Highways will continue to liaise with Bedford Borough Council in relation to the future of Brook Cottages, but welcomes the Council's agreement that a Level 3 Building Recording is appropriate before any works to the structure of Brook Cottages commences. This is secured in Requirement 16 of the dDCO.

Reference Number	Local Impact Report/Applicant Comment
REP2-002i	**E. Conservation and Heritage** From a conservation perspective, the most significant impact flowing from the development is the proposed demolition of Brook Cottages, a grade II listed building (list entry no.: 1,311,862). Its total loss would result in 'substantial harm' to its significance. However, as the building has not been subject to a detailed building survey or associated method statement, assertions made in the application that dismantling and rebuilding Brook Cottages would also result in substantial harm are presently unfounded. The Conservation Officer has advised that until such a survey is provided, the specific level of harm to the designated heritage asset cannot be ascertained, and there is no clear and convincing justification set out within the application that total loss or 'substantial harm' is necessary to deliver the public benefits (which, in NPPF/NPSNN terms, should be acceptable in 'exceptional' circumstances). This information is required before a decision-maker can take into account the impact of the proposal, and the decision-maker should be confident relevant alternatives avoiding substantial harm have been considered by the applicant. The Council have advised that the first step should have been, and should be, to subject the building to a detailed building survey before considering relevant alternatives. On a related note, there are also concerns regarding the lack of information about Brook Cottages' potential relocation to the Museum of East Anglian Life - this appears to be the only alternative to total loss. The Conservation Officer believes that should relocation be feasible, other locations would need to be explored, including its relocation within close proximity to its present position and retaining its residential use; which may, subject to details, be more appropriate in terms of preserving more elements of its significance. Furthermore, Requirement 16 proposes resolving these issues post determination, but there is concern that the fate of the listed building is a matter which should be resolved as part of the application. Regarding the impact on the setting of listed buildings and conservation areas, the Council are in agreement that the scheme would result in a minor level of less than substantial harm to the character and appearance of Roxton Conservation Area. Following a further document sent on 11/08/2021 from the applicant via email entitled 'Further clarification of effects on designated assets', the Conservation Officer agrees that there is unlikely to be an impact on the significance of the Parish Church of Saint Mary Magdalen.
Applicant Comment	The Applicant welcomes Bedford Borough Council's agreement that the Scheme's impact on the setting of listed buildings and conservation areas in the Borough would result in less than substantial harm.

Reference Number	Local Impact Report/Applicant Comment
	The assessment of the significance of Brook Cottages is based on two visual inspections undertaken in 2018 and 2021. The results of these are presented in the Brook Cottages Heritage Appraisal **[APP-178]** and the Brook Cottages Technical Note **[AS-009]** submitted at Deadline 2. As Bedford Borough Council is aware, it has not been possible for the Applicant to undertake the detailed building survey of Brook Cottages. Part of Brook Cottages is currently occupied for residential use, and despite requests by the Applicant the landowner's permission to undertake the detailed survey, which includes intrusive works, has not been obtained. The Applicant continues to engage with the landowner to seek permission to undertake further surveys of Brook Cottages, but it is unlikely that the extent of survey requested by Bedford Borough Council and Historic England can be undertaken until the existing occupier at Brook Cottages has been relocated and the Applicant has acquired the property. In these circumstances, it is appropriate for the Applicant to assess the potential impact of the loss of Brook Cottages as a worst-case basis, therefore amounting to substantial harm. Assessing the loss of a designated heritage asset as amounting to substantial harm has been agreed with Historic England and Bedford Borough Council. The mitigation proposed for Brook Cottages (as presented in the Archaeological Mitigation Strategy **[APP-238]** and secured by Requirement 16 of the dDCO **[REP1-003]**) is for a Level 3 building recording survey. The information gained during this survey will not mitigate the total loss of the building; therefore, the substantial harm remains. Notwithstanding this, given that the Scheme requires the removal of Brook Cottages, the Applicant continues to explore opportunities for Brook Cottages' relocation in the event that this is feasible. Appendix E of the Case for the Scheme **[APP-240]** presents the Applicant's assessment of the potential loss of significance as a result of the relocation of Brook Cottages to a nearby location. The Applicant considers that the physical works required to bring the building into a viable residential use would cause a loss of significance which would result in substantial harm to the designated asset. This includes loss of historic fabric associated with the dismantling of the building and modifications required to conform with current Building Regulations. Should Brook Cottages be re-located to a museum, the extent of loss is likely to be reduced as it will not be required to meet current building standards. However, the Applicant considers that the extent of loss of historic fabric would still result in substantial harm. To the extent that it is not feasible to relocate Brook Cottages (or that substantial harm would occur as a result of the relocation in any event), substantial harm will be necessary to deliver the benefits of the Scheme as explained in the Black Cat Junction Design Options **[APP-247]** and the Case for the Scheme **[APP-240]**.

Reference Number	Local Impact Report/Applicant Comment
	The approach taken by the Applicant is considered to be a pragmatic and reasonable response where it is not possible to undertake the detailed survey in advance of determination of the development consent application. Irrespective of whether the removal of Brook Cottages will amount to less than substantial harm or substantial harm, the Applicant's case is that Scheme will deliver substantial public benefits which outweighs the loss of Brook Cottages as explained in the Case for the Scheme **[APP-240]**.
REP2-002j	**F. Noise and dust** The proposed development includes the siting and use of borrow pits in the surrounding area as material extraction points for the construction. These borrow pits are in proximity to existing residents and have the potential for causing a significant impact through the emission of dust and noise. Sufficient information on the level of impact and therefore the required level of mitigation is still outstanding and, as such the positioning of the pits themselves are still not assured. Further information is required and discussions are ongoing at this stage. Considering this, at this time the Council have not been able to fully assess the local impact of the proposed development on nearby neighbours specifically in relation to these pits. Assessments of the noise emission from the use of the development once it is in place have been made and I am in agreement with the methodology used for noise modelling of traffic use of the roads proposed.
Applicant Comment	The Applicant has prepared further information in relation to the borrow pits, which includes reference to (but is not limited to) the environmental assessment, excavation methodology, restoration of the borrow pits and the amount of soil to be removed from each borrow pit. This information is reported in the "Borrow Pits Excavation and Restoration Report" **[TR010044/EXAM/9.24]**, which the Applicant has submitted to the Examination at Deadline 3. The Applicant's response to RR-025d **[REP1-021]** submitted at Deadline 1 further describes the dust management measures that would be implemented during construction of the borrow pits. The Applicant welcomes the agreement to the methodology adopted for the operational traffic noise assessment. The Applicants response to RR-008ax **[REP1-021]** submitted at Deadline 1 provides further details on the assessment of the potential construction noise impacts of the borrow pits.

3 Applicant's Comments on the Cambridgeshire County Council, Huntingdonshire District Council and South Cambridgeshire District Council Local Impact Report

Table 3-1 – Applicant's Comments on the Cambridgeshire County Council, Huntingdonshire District Council and South Cambridgeshire District Council Local Impact Report (REP2-003)

Reference Number	Local Impact Report/Applicant Response
REP2-003a	7.2. Impact of theA428 Black Cat to Caxton Gibbet scheme on local traffic 7.2.1. Highways England (HE) have developed a bespoke traffic Model which is based on the South East Regional Transport Model (SERTM). The validation of the model is set out in the Local Model Validation Report (LMVR) (APP-252). The LMVR for the stage 3 Model indicates that the model validates well against DMRB Guidance. 7.2.2. HE provided Cambridgeshire County Council (CCC) with a cordon from the stage 3 model that covered the whole of Cambridgeshire, this was provided in February 2020. CCC undertook an independent Review of the Stage 3 model as supplied. There were a number of issues raised during this process but adequate Information was provided to CCC to enable confirmation that the 2015 Base Year and the 2025 and 2040 future years are suitable for use in the assessment of the strategic impacts of the scheme.
Applicant Response	The Applicant welcomes CCC's acceptance of the LMVR and confirmation that the Base Year and future year models are suitable for assessing the strategic impacts of the Scheme.
REP2-003b	Local Impacts 7.2.3. In order to understand the operation of the local road network, CCC looked in detail at the SERTM. This highlighted a number of areas that needed further investigation, including: • St Neots • Toseland

Reference Number	Local Impact Report/Applicant Response
	• Yelling • Eltisley • Cambourne • Dry Drayton • Madingley • Coton 7.2.4. CCC has considered the impact of the scheme in these locations in the 2040 future year. The impact of the scheme on these areas are set out below: <u>St Neots</u> 7.2.5 The modelling indicates that the Great North Road arm of the Wyboston Roundabout shows increases in traffic in both directions in the AM and PM peak periods. This increase is due to traffic rerouting in St Neots away from the town centre and on to Great North Road to access either the A1 or the old A428. CCC have raised this issue with NH and requested additional analysis through modelling be undertaken to assess whether the adjacent junctions on Great North Road between Nelson Road and the Wyboston Junction can accommodate the predicted level of additional traffic as this impact is directly related to the scheme. To date this information has not been provided which means CCC are not able to confirm the impact of the scheme on the local road network at this location. 7.2.6. Due to rerouting as a result of the scheme the amount of traffic using the B1428 Town Bridge shows a significant reduction in traffic as do other roads in the town centre as traffic reroutes from roads in the town centre to use the old A428 for east-west movements. This impact is welcomed and is as expected. However, the impact of the scheme in this location will need to be monitored after construction to ensure that the expected rerouting occurs. 7.2.7. The B1428 Cambridge Road also shows an increase of approximately 200 vehicles in both peak hours due to the rerouting of traffic to access both the old and new A428 at the new Cambridge Road junction. CCC needs confirmation that the junctions on the B1428 Cambridge Road from Station Road to the existing junction with the A428 can accommodate

<table>
<tr><th>Reference Number</th><th>Local Impact Report/Applicant Response</th></tr>
<tr><td></td><td>the predicted level of additional traffic. To date this information has not been provided and therefore CCC is not able to confirm the impact of the scheme on the local road network at this location.</td></tr>
<tr><td>Applicant Response</td><td>The Applicant acknowledges that the modelling shows an increase in flows along B1428 Great North Road and B1428 Cambridge Road within St Neots. However, in the Local Impact Report as well as in 7.2.6 above, the Councils acknowledge that this is an effect of traffic re-routing within St Neots to access the wider road network via the Wyboston and Cambridge Road junctions and that it is linked with a predicted significant reduction in traffic using the B1428 Town Bridge and other roads in the town centre. The Councils have welcomed this reduction.

On opening of the Scheme, the removal of through traffic from the existing A428 would benefit local traffic which would seek optimal routes through the local area. The increase in flows on B1428 Great North Road south of St Neots is due to traffic re-routing to the existing A428 given that congestion at the junctions with the existing A428 would reduce with the Scheme. It should also be noted that traffic on the other selected roads in St Neots will reduce by at least 10%. This is illustrated in the table below.

2040 2-Way AADT Comparison – St Neots

<table>
<tr><th>Road</th><th>Location</th><th>2040 Without Scheme</th><th>2040 With Scheme</th><th>Difference</th><th>Difference%</th></tr>
<tr><td>B1041 Mill Lane</td><td>Little Paxton, at river crossing</td><td>12221</td><td>10585</td><td>-1635</td><td>-13%</td></tr>
<tr><td>B1043 Huntingdon Road</td><td>North of Priory Hill Rd</td><td>11174</td><td>7767</td><td>-3407</td><td>-30%</td></tr>
<tr><td>B1428 Cambridge Road</td><td>At railway bridge</td><td>12392</td><td>13714</td><td>1323</td><td>11%</td></tr>
</table>
</td></tr>
</table>

Reference Number	Local Impact Report/Applicant Response

B1046 Potton Road	At bridge over railway	5934	3761	-2173	-37%
B1043 Barford Road	North of the old A428	14672	16076	1404	10%
B1428 Great North Road	North of old A428	16425	20328	3903	24%
Bushmead Road	At bridge over A1	7566	6501	-1066	-14%
Duloe Road	At A1 bridge	1924	1128	-796	-41%
B1048 Crosshall Road	East of Great North Rd	6698	6030	-668	-10%
Great North Road	South of A1 slip roads	6367	5799	-568	-9%
B1428 St Neots Road	Town bridge over River Great Ouse	15754	13812	-1942	-12%
Total		**111127**	**105501**	**-5626**	**-5%**

The Scheme will result in overall traffic flow reductions in St Neots. Further details relating to the forecast flows in St Neots is presented in Chapters 5 and 12 of Consultation Report - Appendix W - Response to traffic queries raised by the Joint Response from the Cambridgeshire & Peterborough Local Authorities [APP-069].

Therefore, whilst drivers on sections of B1428 Great North Road and B1428 Cambridge Road may experience an increase in congestion, others who currently experience busier conditions on other roads will see a reduction in congestion. Further, any effects on individual arms in individual

Reference Number	Local Impact Report/Applicant Response
	locations needs to be seen against widespread improvements across the network arising from the new route absorbing traffic which would otherwise be causing further delays in future years. In the circumstances, it is neither necessary nor proportionate for the Applicant to carry out further, more detailed modelling to assess a potential deterioration in traffic conditions on selective approach arms of a number of specific individual junctions (e.g.the junctions on B1428 Cambridge Road from Station Road to the existing junction) with the A428) within the urban road network of a town, where the overall impact of the Scheme on the town is beneficial, and where the increase in traffic flows concerned is acknowledged to be the effect of local reassignment of traffic away from less suitable routes within the town centre. The applicant will monitor and manage the strategic road network but does not intend to monitor the impacts of the Scheme on the local road network as this would be the responsibility of the LHA.
REP2-003c	<u>Toseland</u> 7.2.8. The scheme is shown to significantly reduce traffic through the village in all time periods as traffic reroutes to use the old A428 as congestion is removed. This impact is welcomed and is as expected however, the impact of the scheme in this location will need to be monitored to ensure that the expected rerouting occurs.
Applicant Response	The Applicant will review scheme benefits as part of the Post Operational Evaluation (POPE). Monitoring is focused on the Strategic road network. Monitoring and evaluation of the impacts on the local road network is not considered part of the A428 scheme evaluation.
REP2-003d	<u>Yelling</u> 7.2.9. The scheme is shown to significantly reduce traffic through the village as traffic reroutes to use the old A428 as congestion is removed. This impact is welcomed and is as expected however, the impact of the scheme in this location will need to be monitored after construction to ensure that the expected rerouting occurs.

Reference Number	Local Impact Report/Applicant Response
Applicant Response	The Applicant will review scheme benefits as part of the Post Operational Evaluation (POPE). Monitoring is focused on the Strategic road network. Monitoring and evaluation of the impacts on the local road network is not considered part of the A428 scheme evaluation.
REP2-003e	Eltisley 7.2.10. The model indicates that the scheme removes significant volume of traffic from the village. This impact is welcomed and is as expected however, the impact of the scheme in this location will need to be monitored after construction to ensure that the expected rerouting occurs.
Applicant Response	The Applicant will review scheme benefits as part of the Post Operational Evaluation (POPE). Monitoring is focused on the Strategic road network. Monitoring and evaluation of the impacts on the local road network is not considered part of the A428 scheme evaluation.
REP2-003f	Cambourne 7.2.11. The model shows increases in traffic on the A1198 south of the A428 and on School Lane both of these will need to be monitored as the School Lane impact in particular is not something that would be expected as a result of the scheme.
Applicant Response	With regards to the A1198 south of the A428, the strategic model forecasts 20,250 and 22,650 annual average daily traffic (AADT) for the 2040 Without Scheme and With Scheme scenarios respectively (presented in Section 6 of the Traffic Forecasting Report [APP-253]). This represents a 12% increase in the With Scheme scenario. Following a review of the model around School Lane, the Applicant will provide detailed analysis of predicted flows on School Lane in the form of a technical note that will be submitted at Deadline 4.

Reference Number	Local Impact Report/Applicant Response
REP2-003g	Dry Drayton 7.2.12. The model indicates that the scheme adds approximately 70 vehicles to Scotland Road. This is not something that would be expected and therefore, the impact of the scheme in this location will need to be monitored and mitigated if it is shown to be happening in the real world as this rerouting shouldn't really be occurring as a result of the scheme.
Applicant Response	There are increases in traffic volumes on the routes through Dry Drayton and Madingley in the forecast years 2025 and 2040 (without the Scheme) due to the impacts of the A14 Cambridge to Huntingdon scheme, (completed and open to traffic in May 2020) and the resultant change in network connectivity. The development at Northstowe also contributes to additional traffic on these routes in future years. Although the Scheme does result in some further increase in traffic in 2025 and 2040, these increases are relatively modest and compared to the without Scheme scenario, only accounts for around 7% of the change from 2015 to 2040 on The Avenue in the AM peak period. Since the Scheme is not expected to lead to a significant increases in traffic through Dry Drayton or Madingley, the Applicant does not propose to implement mitigation measures at these locations. A detailed analysis of the predicted traffic flows through Dry Drayton and Madingley is presented in an Assessment of Traffic Flows at Dry Drayton and Madingley [TR010044/EXAM/9.43], submitted at Deadline 3.
REP2-003h	Madingley 7.2.13. The model indicates that the scheme adds approx. 170 vehicles to The High Street. This is not something that would be expected and therefore, the impact of the scheme in this location will need to be monitored and mitigated if it is shown to be happening in the real world as this rerouting shouldn't really be occurring as a result of the scheme.
Applicant Response	Refer to response provided for REP2-003g above.

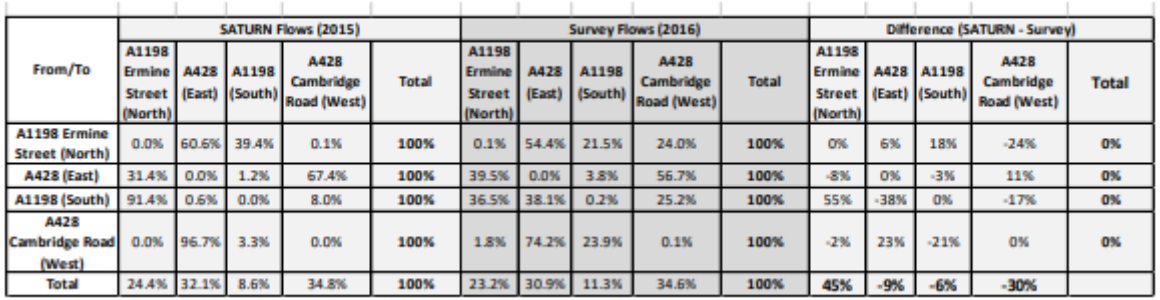
Reference Number	Local Impact Report/Applicant Response
REP2-003i	Coton 7.2.14. The model indicates that very little traffic uses M11 J13 to access the M11 but instead traffic is using Cambridge Road and Brook Lane to access the M11 at Junction 12. Investigation of the model indicates that this is due to congestion on the mainline M11 in the base year model which is magnified in the future years. 7.2.15. CCC have undertaken an analysis of the available count data at the A1303 Madingley Road/Cambridge Road Junction and confirmed that the model is significantly overestimating the amount of traffic making this movement in the base year and that this is then exacerbated in the future year scenarios. This impact is thought to be as a result of the coding in the model rather than something that is likely to actually happen in the real world. Therefore, the impact of the scheme in this location will need to be monitored and mitigated if it is shown to be happening in the real world as this rerouting shouldn't really be occurring as a result of the scheme. 7.2.16. Where traffic needs to be monitored during construction and afterwards, in the operational phase of the scheme the Councils would welcome engagement and discussion with the Applicant about suitable mitigation if required as a result of the impact of the scheme
Applicant Response	A review of the model in the Coton area has been carried out. This demonstrated that the base year model overstates volumes to some degree with southbound volumes on Grantchester Road in the AM peak being around 219 PCUs (156% of the count data) too high and in the northbound direction around 102 PCUs (72% of the count data) too high in the PM peak. A review of 2015 origins and destinations of this traffic has demonstrated that the majority of modelled traffic passing through Coton is travelling to or from locations in the Cambridge area, with relatively low volumes of longer distance traffic. For northbound traffic, the route through Coton from locations in west Cambridge would generally be quicker given that it is significantly shorter than using the M11 between J12 and J13. A review of the strategic model coding of the M11 J12 southbound off-slip indicates that the capacity at the junction of this link with Grantchester Road is too low and partly explains why more traffic is routed through Coton in the model than was observed in the 2016 and 2019 traffic surveys.

Reference Number	Local Impact Report/Applicant Response
	However, this is not considered to be a serious deficiency of the model as it this affects a single local routeing issue. It should be borne in mind that the model is a strategic traffic model and therefore cannot be expected to replicate flows on local routes particularly where route choice may be finely balanced. This needs to be taken into consideration when interpreting the model results. The 2040 model forecasts show that the volumes through Coton are greater than those in the 2015 models. However, this increase will also be partly due to the coding issue noted at the J12 southbound off-slip as the coded capacity is too low. Some of the increase will also be due to increasing congestion along the A1303 east of the Coton junction. The strategic modelling indicates the Scheme will have a small impact on the route through Coton as there is some transfer from alternative east-west routes to the A428. However, there is very little impact forecast in the evening peak period and increases in the morning peak period are relatively modest. Further details of the analysis of the base and future model forecasts within Coton and the surrounding area are provided in 'Traffic Routeing Impacts at Coton' [REP1-028] that was submitted at Deadline 1. In recognition of the sensitivity of the route through Coton the Applicant will consider implementing a monitoring arrangement to determine whether the traffic flow through Coton increases due to the Scheme. This effect is linked with a lack of traffic capacity at M11 Junction 13 and along the A1303 further into Cambridge. The Applicant is looking at the potential to bring forward a Roads Investment Strategy scheme to resolve this issue through the pipeline of potential schemes being considered for RIS3. The question of drivers rat running through Coton to avoid M11 Junction 13 will be considered as part of the development of that Scheme. It is not part of the remit of this Scheme to provide mitigation at specific locations away from the Scheme itself.
REP2-003j	Local Junction Impacts 7.2.17. HE undertook a number of junction assessments that have been used to assess the operation of key junctions both directly on the scheme and in more removed locations. The

Reference Number	Local Impact Report/Applicant Response
	main scheme junctions are included in the Transport Assessment (APP 241 and APP 242). During consultations with HE CCC requested additional junctions off the main line of the scheme to be assessed, these are included in the Transport Assessment Annex (APP 243). 7.2.18. The junction models were undertaken using a variety of software packages which are agreed as being appropriate for the assessment of the junctions tested. On the whole the junction models are well built however, there are some issues with the inputs, particularly with the geometries for the junctions modelled in ARCADY, and with some of the parameters used in the VISSIM models. These issues have the potential to affect the performance of the junctions, and need to be adequately addressed. 7.2.19. The key issue for CCC with the local junction modelling is that the traffic flows have been taken directly from the Strategic Model without any reference to observed count data. Whilst it is acknowledged that this is an acceptable practice if there is no other alternative, it is not best practice as strategic models are not validated to individual turning movements. HE claim that they have followed best practice due to the major changes being made to several of the junctions (especially those on the scheme) meaning that it was not possible to provide validated base models. This point is not supported by CCC as none of the new junctions in Cambridgeshire are providing for any movements that are not currently possible but are instead separating out local and strategic traffic so in the opinion of CCC it would be beneficial to include validated base models for all junctions using traffic data that is already available from 2015 and 2016 (which matches the base year of the model which is 2015). 7.2.20. As stated above the approach taken by HE in extracting the flows directly from the strategic model is an acceptable methodology if there is no other alternative. However, in order to make this approach acceptable it is important to verify how the turning proportions in the models compare to any available observed count data. This is required to enable a check to be made as to the turn proportions within the strategic model. HE have agreed (as of the 11th August 2021) to provide the data that was used in undertaking this work. This information was received from HE on the 17th August. 7.2.21. CCC have undertaken a review of the information provided in support of both Technical Note 73 and Technical Note 81 (which the Councils understand was submitted at Deadline 1), the result of this review CCC are of the opinion that the turn proportions and magnitude of some turning movements at key junctions both on the scheme and on the local road network in the

Reference Number	Local Impact Report/Applicant Response
	Base Year Saturn model do not accurately represent the observed turning proportions from the available count data. These differences are exacerbated in the future year models and therefore, CCC are of the opinion that the approach followed HE is not appropriate for the assessment of the scheme on the local road network. As set out above, it is difficult to comment on the impacts. 7.2.22. The example below shows the comparison of the Saturn Base Year flows compared to the observed count data as set out in Technical Note 81. **Figure 1: Comparison of Saturn Base Year flows to observed count data** 7.2.23. HE are arguing that this shows that the use of the Saturn model flows in the junction models without any adjustment is acceptable as the flows are within 7% of each other. However, CCC are concerned with the turn proportions of the Saturn Model compared to the Count data, the table below shows this information
Applicant Response	Refer to response under REP2-003k

From/To	SATURN Flows (2015)					Survey Flows (2016)					Difference (SATURN - Survey)				
	A1198 Ermine Street (North)	A428 (East)	A1198 (South)	A428 Cambridge Road (West)	Total	A1198 Ermine Street (North)	A428 (East)	A1198 (South)	A428 Cambridge Road (West)	Total	A1198 Ermine Street (North)	A428 (East)	A1198 (South)	A428 Cambridge Road (West)	Total
A1198 Ermine Street (North)	0	404	263	0	**667**	1	420	166	185	**772**	-1	-16	97	-185	**-105**
A428 (East)	568	0	22	1221	**1811**	724	0	70	1039	**1833**	-156	0	-48	182	**-22**
A1198 (South)	307	2	0	27	**336**	152	159	1	105	**417**	155	-157	-1	-78	**-81**
A428 Cambridge Road (West)	0	744	26	0	**770**	15	611	197	1	**824**	-15	133	-171	-1	**-54**
Total	**875**	**1150**	**310**	**1248**	**3583**	**892**	**1190**	**434**	**1330**	**3846**	**-17**	**-40**	**-124**	**-82**	**-263 (-7%)**

Reference Number	Local Impact Report/Applicant Response
REP2-003k	**Figure 2: Comparison of Saturn Base Year flows to observed count data (percentages)**  7.2.24. From this table it is possible to see that whilst the overall difference in the number of vehicles using the junction may be very small, the turn proportions do not accurately reflect the observed situation with the A1198 southern arms showing very different turn proportions in the model to that seen in the count data.
Applicant Response	While developing the junction models, the junctions were divided into two categories, namely: Junctions which do not exist in the base year, or where there are significant and fundamental changes in layouts due to the scheme (primarily the new junctions being introduced as part of the Scheme, or existing junctions whose layout is being fundamentally altered by the Scheme).. Junctions which do exist in the base year and are not significantly changed by the Scheme (existing junctions indirectly affected by traffic flow changes brought about by the Scheme). For the first category of junctions the fundamental changes in junction layouts meant that a large proportion of the traffic movements would be newly created by the re-routeing of traffic by the Scheme, so the turning proportions for the existing layout have little relevance or impact on the assessment of the proposed layout. For these junctions, therefore there was no alternative to using traffic flows directly from the strategic models for these movements. Traffic flow changes for existing movements that would remain would be complex and relate to wider area rerouting. The Applicant,

From/To	SATURN Flows (2015)					Survey Flows (2016)					Difference (SATURN - Survey)				
	A1198 Ermine Street (North)	A428 (East)	A1198 (South)	A428 Cambridge Road (West)	Total	A1198 Ermine Street (North)	A428 (East)	A1198 (South)	A428 Cambridge Road (West)	Total	A1198 Ermine Street (North)	A428 (East)	A1198 (South)	A428 Cambridge Road (West)	Total
A1198 Ermine Street (North)	0.0%	60.6%	39.4%	0.1%	100%	0.1%	54.4%	21.5%	24.0%	100%	0%	6%	18%	-24%	0%
A428 (East)	31.4%	0.0%	1.2%	67.4%	100%	39.5%	0.0%	3.8%	56.7%	100%	-8%	0%	-3%	11%	0%
A1198 (South)	91.4%	0.6%	0.0%	8.0%	100%	36.5%	38.1%	0.2%	25.2%	100%	55%	-38%	0%	-17%	0%
A428 Cambridge Road (West)	0.0%	96.7%	3.3%	0.0%	100%	1.8%	74.2%	23.9%	0.1%	100%	-2%	23%	-21%	0%	0%
Total	24.4%	32.1%	8.6%	34.8%	100%	23.2%	30.9%	11.3%	34.6%	100%	45%	-9%	-6%	-30%	

Reference Number	Local Impact Report/Applicant Response
	therefore, took the approach to use forecast flows directly from the strategic model to ensure consistency with trip distribution and routings. The second category of junctions was classified into two sub-groups based on strategic model outputs. Junctions which were predicted to have positive impacts due to the scheme were assessed using flow taken directly from the strategic model For these junctions, any differences in modelled and observed turning proportions in the base year, would not make a difference to the conclusions as they are significantly under capacity. The second group of junctions which were predicted to experience adverse or negative impacts were assessed using models calibrated/validated for the base year 2019 through collection of new data and then forecasts based on the traffic growth trend between the base and forecast year model scenarios of the strategic models, This was applied to both with and without scheme scenarios. In the case of junctions where the modelled results show substantial improvements in their capacity as a result of the Scheme, the Applicant maintains that the impact of the Scheme on these junctions will still be beneficial whatever modelling approach is used. It would therefore not be reasonable or proportionate to carry out further, more detailed modelling in order to justify the impact the Scheme has in these locations. Similarly, in the case of junctions where the modelled results show the junction remaining well within capacity once the Scheme opens, the Applicant maintains that this would be the case whatever modelling approach is used. The applicant considers the above method a logical, proportionate and robust approach for assessing the junctions for identifying the impacts of the scheme. It is acknowledged that there are some differences between the SATURN base flows and observed flows for the new 'main' Scheme junctions (Black Cat, Cambridge Road and Caxton Gibbet), although these are relatively low in the context of overall traffic volumes as shown in Technical Note 81, which was shared with CCC on 17 August 2021. Technical Note 81 is a more detailed version of Junction Modelling Technical Note [REP1-030], which the Applicant submitted at Deadline 1. It should be noted that sensitivity testing is being scoped, for agreement with the Local Authorities, to address their concerns regarding direct use of SATURN flows in key locations.

Reference Number	Local Impact Report/Applicant Response
REP2-003l	Construction traffic 7.2.25. A revised version of the strategic model has been used to assess the impact of construction traffic. This has been undertaken using the 2025 future year model as this best reflects the likely timescale for construction of the scheme. 7.2.26. The trips associated with construction traffic has been included in the model by the creation of 2 new use classes specifically for construction traffic one for workers and one for heavy vehicles. The routes that HE have decided should be restricted for construction traffic have had time penalties added to them in the model to prevent use by HGV traffic, although in the information provided for review there is no information as to the nature of the time penalty used nor its effectiveness in preventing construction traffic using undesirable routes. 7.2.27. The other element to the construction impact is that caused by other traffic rerouting due to the construction of the Scheme. In the modelling undertaken to date no restrictions have been placed on this traffic. The methodology used to assess the impact of construction traffic is set out in TN43 which forms appendix 9.1 of the TA (APP 241). This document states that the construction of the scheme has been modelled by introducing the reduced speed limits, the haul road crossings and the construction compound site access junctions. 7.2.28. The Transport Assessment (APP 241) presents the information as 2 way Annual Average Daily Traffic (AADT) flows and this indicates that the impact of the construction of the scheme will be wide spread over the whole county meaning that almost every settlement in the county is affected to some degree by at least one phase of construction with some being impacted by several phases. 7.2.29. CCC are of the opinion that the traffic management of the scheme should be designed in such a way as to cater for all the traffic wishing to use the A428 during construction. Traffic speeds on the A428 were (pre-COVID) significantly lower than the 40mph constraint modelled by HE. This was due to the high levels of congestion on the route, and therefore it is likely that less traffic will route away from the A428 during construction than is predicted by the strategic model. 7.2.30. Nonetheless, if the level of rerouting during construction of the scheme indicated by the model is realised, this would have the potential to create very large impacts over a wide area

Reference Number	Local Impact Report/Applicant Response

and could potentially cause significant problems, especially in places like Toseland and Yelling which are shown to experience significant increases in traffic in some phases of construction. This is an issue due to the nature of the road through these locations which have traffic calming in place to discourage rerouting from the existing A428 and to the fact that there are a number of pinch points along this road that mean that the levels of traffic predicted could not be realistically accommodated especially as the phases of construction when this impact is recorded lasts for more than 12 months.

7.2.31. The key areas impacted by the construction of the scheme vary over the different phases of development. Phase 1 has a very small impact on the road network managed by CCC, but phases 2 , 3 and 4 have much more significant impacts. The table below shows the settlements with the largest impact as a result of each phase of construction.

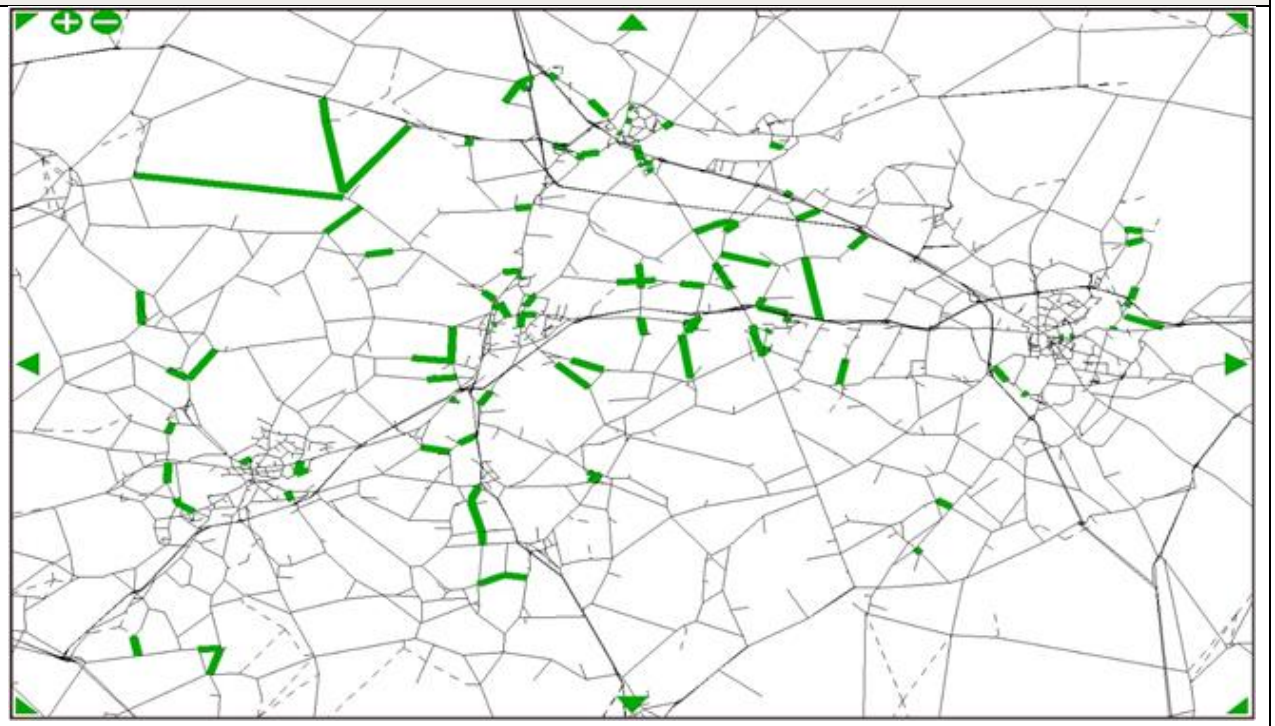
Table 17: Settlements impacted by construction

	Construction Phase (Increase in AADT)		
Settlement	**2**	**3**	**4**
Abbotsley	275	516	602
Broadway, Bourn Airfield	734	977	1004
Cambourne	2447	1627	2306
Caxton	173	535	530
Coton	-382	-458	466
Elsworth	361	516	535
Eltisley	-511	-463	1756
Eynesbury Hardwicke	2178	2420	2515
Gamlingay	531	511	618
Great Gransden	1210	2131	2182
Highfields Caldecote	673	861	901
Knapwell	420	717	718
Little Gransden	684	841	851
Madingley	429	455	455
Toseland	742	1622	1523
Waresley	884	527	498
Yelling	482	1405	1335

7.2.32. From the table above it is possible to see that the model indicates significant increases in traffic during the different phases of construction. The roads through these settlements are on the whole unsuitable for the scale of increases suggested by the modelling.

7.2.33. The Areas of particular concern are those such as Caxton where traffic should be using the A1198 round the village rather than going through it, Toseland and Yelling where traffic

Reference Number	Local Impact Report/Applicant Response
	calming is already in place to control traffic speeds and discourage rerouting away from the existing A428.
Applicant Response	7.2.26 Permitted HGV construction routes were implemented in the model by applying a time penalty (9,999 seconds) on non-permitted links. This penalty was applied to HGV construction traffic only, represented as User Class 7 in the model. The application of time penalties prevents construction HGVs from using non-permitted routes, unless no alternative was available. All other route restrictions (e.g. weight or height restrictions) that were applied to non-construction HGVs were also applied to construction HGVs. The figure below shows the non-permitted links (highlighted green) for the construction HGV during Phase 3.

Reference Number	Local Impact Report/Applicant Response
	

7.2.27 Modelling undertaken by the Applicant has demonstrated that a proportion of traffic would be displaced on to local roads during the construction phase, mainly as a result of the temporary speed reductions on the existing A428.

The modelling therefore is predicated upon the assumption that drivers have perfect knowledge of the road network and traffic conditions (e.g. delays). Traffic is assigned to routes such that all journeys across the network are optimised i.e. minimum cost. Diversionary traffic routes were not subject to any coding adjustments within the SATURN traffic model i.e. no attempt was made to force general traffic to use nominated diversion routes.

Reference Number	Local Impact Report/Applicant Response
	This is considered to be a valid approach on the basis that there can be no certainty that all traffic would keep to the designated routes. The modelling therefore should be considered as representing a 'worst case' assumption since traffic cannot be prohibited from using legal highway routes. However, with high levels of advance communication on Strategic Road Network (SRN) the and measures to ensure the SRN does not suffer increased delays, drivers will be able to reliably plan their journeys and avoid unnecessary diversion. 7.2.33 The traffic modelling has assumed all drivers would have perfect knowledge of all alternative routes including the local network and would be assigned to these routes irrespective of signage and directions of designated diversionary routes.
REP2-003m	7.3. Model Validation Methodology 7.3.0. The Strategic model is suitable for use in the assessment of the strategic impacts of the scheme. The validation of the junction models used in the assessment of both the scheme junctions and the local junctions is not agreed due to the issues set out above relating to the traffic flows used in the models. 7.3.1. The modelling of the construction impacts indicates that the construction of the scheme will have wide ranging impacts on settlements in the County, measures will be needed to minimise and mitigate these projected impacts.
Applicant Response	The Applicant welcomes the acceptance of the strategic model for assessing the strategic impacts of the Scheme but disagrees with the reasoning set out by the joint authorities for non acceptance of the local junction modelling
REP2-003n	8.1. Landscape and Visual Impact Positive impacts *During operation* Reduction in traffic on old A428 8.1.1. The provision of a new and modern A-road to replace the current A428 will improve the quality of the landscape along the old corridor. It is predicted that there would be a significant

Reference Number	Local Impact Report/Applicant Response
	reduction in traffic flow along the de-trunked A428 and a substantial reduction in lorry traffic, which would potentially cause beneficial effects on the landscape character. In some areas, there will be significant improvement to landscape character for the settlements which currently exist along this corridor. Negligible Impact on Settlements 8.1.2. The route of the new A428 moves the heavily trafficked portion of the old A428 further to the north of existing settlements and designated areas along the route of the existing A428. The new location of the proposed route places it in generally open countryside, distant from most settlements or groups of settlement in the area. The route placement will therefore have negligible impact on those sensitive receptors and in that regard is found to be positive. Significant new planting areas 8.1.3. Extensive areas of mitigation planting will be established along the route which will enhance the local and national landscape character, reconnect some areas of fragmented woodland, and provide structure and screening for the route in the long term
Applicant Response	The Applicant notes the positive comments from the Cambridgeshire authorities. The Applicant agrees that the substantial reduction in traffic on the existing A428 will improve the quality of the landscape along the existing road corridor and that the Scheme has been designed to minimize impacts on settlements and sensitive receptors. We welcome the Cambridgeshire authorities view that the extensive areas of mitigation planting will enhance the local and national landscape character. This supports our case that additional planting is not required.
REP2-003o	Negative impacts *During construction* Displacement of land 8.1.4. The construction of a new A-road has a significant land take which is permanent in nature. Large areas of agricultural land will be taken out of use permanently. This will dramatically alter the landscape character of these areas. This has been identified as adverse within the provided reports (Landscape and Visual Impact Assessment [APP-076]) and mitigation is

Reference Number	Local Impact Report/Applicant Response
	proposed by planting to screen, filter and/or provide a setting for the road. The existing A428 is not going to be removed but will be detrunked and returned to the Local Highway Authority for management and maintenance. Ultimately, there is no mitigation for the loss of agricultural land. The existing A428 is not going to be removed but will be detrunked and returned to the Local Highway Authority for management and maintenance.
Applicant Response	The Landscape and Visual Impact Assessment (LVIA) has concluded that there will be significant adverse residual effects in four of the 16 Local Landscape Character Areas (LLCA) identified in Chapter 7, Landscape and Visual Effects [APP-076]. These effects relate in part to the permanent loss of agricultural land. With the exception of LLCA 06: Alington Hill Clay Farmland, the sensitivity of the landscape has been assessed as medium or lower, reflecting the presence or proximity to existing infrastructure and the intensive arable production which is dominant across the study area. Whilst the Scheme will displace some agricultural land, the changes will be localised and the mitigation proposed will introduce substantial areas of new habitat.
REP2-003p	<u>Views, sound, dust and vibrations, of heavy construction plant and materials, major earthworks and temporary traffic management.</u> 8.1.5. During construction there would be major disruption to a large part of the Western Claylands (SCDC), Southeast Claylands (HDC), Great Ouse Clay Valley (BBC) and Biggin Wood Clay Vale (BBC) local character areas, with major earthworks and construction, including haul routes, borrow pits, storage piles, compound areas and the presence of heavy plant. 8.1.6. The scheme would introduce new bridges, embankments, drainage lagoons, cuttings and other landforms, as the route progresses from Caxton Gibbet in Cambridgeshire through Huntingdonshire to the Black Cat Roundabout in Bedfordshire. This would cause permanent and large-scale change to the landscape character of the LCA's and the quality of visual amenity. 8.1.7. Construction traffic would be restricted to existing highways and the scheme footprint. Soil storage areas would be situated at intervals along the scheme alignment as would the presence of borrow pits. These features in addition to construction activity and major

Reference Number	Local Impact Report/Applicant Response
	earthworks for the construction of over bridges and environmental bunds would cause large scale damage to the existing landscape character. 8.1.8. Extensive excavations of four borrow pits along the route are proposed. Two will lie roughly adjacent to the Caxton Gibbet roundabout and two others will lie roughly adjacent to the Black Cat roundabout. The borrow pits will be accompanied by several soil storage areas and earthworks for the construction of over bridges, roundabout interchanges, bridleway bridges and footbridges would cause large scale damage to the character of the previously mentioned local character areas. 8.1.9. There will be large scale removal of vegetation including trees with Tree Protection Order status in both South Cambridgeshire District and Huntingdon District as well as field boundaries, ditch edges, along the River Great Ouse at the crossing, around borrow pits and storage areas. It should also be stated that the route is placed in such a way that it avoids the vast majority of woodland blocks within the vicinity of the route. Loss of vegetation would cause landscape effects during construction and would in most cases be permanent, although proposed planting would help to restore the landscape fabric in the longer term (from circa 15+ years post planting) 8.1.10. Notably, the loss of hedgerows within the project limits has been identified in the Biodiversity Net Gain calculations. Without additional mitigation planting comprising hedgerows and hedgerows with trees, the loss will have a negative impact on wildlife, biodiversity and general landscape character as hedges are a prominent feature of all Clayland character areas. It is considered that this planting could be provided along, for example, to define transitions between woodland and grassland, and to enclose larger areas of grassland, to the edges of the DCO area, and with trees to the tops of embankments.
Applicant Response	In response to 8.1.5, the Landscape and Visual Impact Assessment (LVIA), Chapter 7, Landscape and Visual Effects [APP-076] of the Environmental Statement concludes that there will be large-scale, adverse significant effects during construction to eight of the 16 Local Landscape Character Areas (LLCA) identified. It is important to note that these effects will be temporary and have been assessed separately to the permanent effects of the Scheme in operation, which are referred to in point 8.1.6.

Reference Number	Local Impact Report/Applicant Response
	The Applicant notes the comments of the Cambridgeshire authorities in 8.1.7. The reference to damage to character should be considered in the context of the temporary nature of the effects. Regarding point 8.1.8, the Cambridgeshire authorities have noted that four borrow pits are proposed, but it is important to state that these are located at the two ends of the Scheme at the Black Cat junction and the Caxton Gibbet junction, not along the route. The reference to damage to character should be considered in the context of the temporary nature of the effects. Point 8.1.9 addresses the removal of existing vegetation. The removal of existing vegetation has been minimized through the design process and removal will be localized rather than large scale. It has been designed as far as possible to avoid loss and fragmentation of habitats and to retain important landscape features such as woodland to integrate the Scheme into the landscape. Loss of trees protected by Tree Preservation Orders will be limited to two individual trees and a small section of two tree groups. The area of mitigation planting proposed is substantially greater than the area of vegetation which will be removed to facilitate construction. With reference to Table 8-9 of Chapter 8, Biodiversity of the Environmental Statement [APP-077], there will be a loss of 4.42ha of existing woodland habitat, but a gain of 58ha of new woodland habitat. Point 8.1.10 addresses hedgerows. The Applicant provided revised calculations on the creation and loss of hedgerows as part of the Applicant's responses to the Examining Authority's Written Questions at Deadline 1 [REP1-022]. The response to Question 1.3.3.1 indicated that the Scheme would result in a net increase of approximately 4.3 km. The Applicant agrees that hedgerows are a prominent feature of Clayland character areas. There has been historic decline in this habitat type as fields have been enlarged to accommodate modern agricultural practices. The Scheme includes proposals for planting of approximately 21.1km of new hedgerows to create new field and Scheme boundaries and restore habitat connections. The future maintenance of hedgerows is an important consideration and new hedgerows are proposed where access for maintenance allows.
REP2-003q	*During operation* <u>Removal of Trees and Vegetation</u> 8.1.11. There will be a period of time during the operation of the new A428 when new mitigation landscape planting and other ecological features will not have matured enough to affect the visibility of the scheme within the landscape. During this time the impacts of the road will be

Reference Number	Local Impact Report/Applicant Response
	higher and more significantly adverse. This will generally align with the completion of planting to at least year-15 post planting. It should be noted that failure of planting within the first five years carries a reasonable expectation as time of planting, weather, and maintenance are not always timed suitably, so the time to maturity could extend as much as 20 years if areas of planting have to be replanted within the 5 year establishment period.
Applicant Response	The Landscape and Visual Impact Assessment (LVIA) of the Scheme is set out in Chapter 7, Landscape and Visual Effects of the Environmental Statement [APP-076]. This considers the effects on landscape and views during construction, year 1 of operation and year 15 of operation. The assessment at year 15 of operation has been carried out to consider the effectiveness of planting as mitigation, once it has established. It does not assume that this planting will have reached maturity and so further growth can be expected. This is common practice for LVIA. An Outline Landscape and Ecology Management Plan is contained within Annex L of the First Iteration Environmental Management Plan [APP-234]. This establishes requirements for establishment maintenance and long-term management of planting proposed within the Scheme. Some loss of plants can be expected in any large-scale planting scheme, due to factors including drought, animal browsing and pests and disease. The Outline Landscape and Ecology Management Plan includes requirements for measures such as weed control, irrigation and the replacement of plants which fail to establish at the end of each growing season in the first five years. Section 6.2 of Annex L states that the site will be handed over to the Applicant at the end of the five-year establishment period and will thereafter form part of the wider Strategic Road Network management contracts for the region.
REP2-003r	<u>Displacement of Land</u> 8.1.12. During the operational phase of the new A428, the land used upon which the new roadway and associated infrastructure is built, will permanently be removed from any other use. Most of the compounds, storage areas, borrow pits and other construction phase features will have been reinstated as landscape of some sort, such as agricultural use, drainage and flood control or planting. This is an improvement on the construction phase but still constitutes a permanent and negative loss of landscape currently in use as agricultural land.

Reference Number	Local Impact Report/Applicant Response
Applicant Response	Land not required for the operation of the Scheme or essential mitigation will be restored and returned to its former use. There will be a permanent change to land use within the footprint of the Scheme, including the introduction of 58ha of new woodland and 140.95ha of new grassland habitat, compared to a loss of 267.67ha of cultivated/disturbed land. Reference should be made to Table 8-9 of Chapter 8, Biodiversity of the Environmental Statement [APP-077].
REP2-003s	Increased scale at junctions/lighting 8.1.13. The imposition of large, engineered bridges, roundabouts, embankments, roadways and lighting columns into the rural landscape of the new route alignment will be a dramatic change for the very rural landscape into which it they are being placed, will cause a dramatic change to tranquillity, pattern and scale of the landscape. During the operational phase of the scheme the impact is generally irreversible and at odds with the scale, appearance and cultural aspects of the landscape and adversely affecting historic landscape patterns and visual amenity. All these impacts will likely be reduced as mitigation planting matures, but will not remove it entirely.
Applicant Response	The landscape and visual impact assessment (LVIA) of the Scheme is set out in Chapter 7, Landscape and Visual Effects [APP-076]. The landscape character baseline is described in detail in Appendix 7.3 [APP-181]. This concludes that the landscape across much of the study area is rural in character, but affected by the presence or proximity of existing infrastructure and other human influence. To refer to the landscape as very rural is misleading – there are many human influences. The LVIA concludes that permanent, significant adverse residual landscape effects will be localized. It is acknowledged that there will be a disruption to the pattern of the landscape but the landscape mitigation proposed will reduce the magnitude of effects. The LVIA has concluded that there will be significant adverse residual effects in four of the 16 Local Landscape Character Areas (LLCA) identified in Chapter 7, Landscape and Visual Effects [APP-076].
REP2-003t	Bare Ground 8.1.14. Within the First Iteration Environmental Management Plan (1.10.24), it is stated that some areas of land will be retained as bare ground to allow for natural colonisation of land with local flora. Much of the bare ground is proposed around embankments to the road along

Reference Number	Local Impact Report/Applicant Response
	agricultural landscapes, bare land is only suitable in areas where there is sufficient host material to colonise from. Areas of bare ground may colonise with only adventitious weeds such as nettle, bramble and rosebay willowherb rather than more desirable native/local flora. 8.1.15. Bare ground areas will look barren and unfinished and possibly incongruous for a number of years post completion and may always be more populated with undesirable weeds rather than a complex grass, herb, and/or shrub ecosystem. The colonisations by adventitious weeds, as mentioned above, will bring no advantages in terms of visual amenity or to enhance landscape character. 8.1.16. In places, such as east of St Neots (Sheet 8 and 11 of 16 of the Environmental Master Plan [APP-091]) the bare ground is associated with footpath connections, creating a poor user experience for footpath users, that would be dominated by the fast moving traffic on elevated ground. The bunds and the dominance of the road should be softened by vegetation, such as grassland with trees and hedgerows to define transitions.
Applicant Response	This measure relates specifically to patches within grassland it is not the intention of the Applicant to leave large areas of bare ground. Areas of bare ground are not indicated on the Environmental Masterplan [APP-091]. The areas referred to by the Cambridgeshire authorities appear to relate to temporary land uses where land will be returned to agriculture or tracks. Paragraph 1.10.24 of the Outline Landscape and Ecology Management Plan set out in Annex L of the First Iteration Environmental Management Plan [APP-234] states that "*some areas within proposed grassland will be left bare to colonise naturally.*" Leaving bare ground to colonise naturally has a role to play in creating a broad floral diversity and building in sustainability for the flora overall. By having some small areas of bare ground, the colonising species will complement the seeded areas by contributing different species to the overall flora and adding to visual diversity.
REP2-003u	<u>Suitability of reinstated Borrow Pits</u> 8.1.17. In the South Cambridgeshire District Area, two borrow pits will be used in the vicinity of Caxton Gibbet roundabout to the east and west of the northbound A1198.

Reference Number	Local Impact Report/Applicant Response
	8.1.18. Following reinstatement, the quality of soil, drainage and levels at the borrow pits may not be fit for purpose. Uneven settlement, drainage problems or poor soil structure or quality will cause future agricultural or landscape uses to struggle to establish or fail outright. 8.1.19. Reinstatement will be both return to agriculture as well as landscape mitigations to the edges of the new road/roundabout. Agricultural land will likely return to expected visual maturity within 2-5 years, while any other planted areas will be expected to mature as per any other planting at circa 15-20 years depending on maintenance and the need or lack of replacement planting.
Applicant Response	Four borrow pits are proposed within the Order limits; two adjacent to the Black Cat junction and two adjacent to the Caxton Gibbet junction. The borrow pits will be backfilled and restored to agriculture on completion, as illustrated in the Works Plans [APP-009 and APP-010] and set out in the First Iteration Environmental Management Plan [APP-234]. This sets out the detail of how soils are to be managed. Planting is not proposed in areas identified for borrow pits. Reduced crop yields are a matter for compensation with the affected farmer.
REP2-003v	<u>New highway infrastructure</u> 8.1.20. During operation there will be adverse impacts on landscape character and particularly on visual amenity on all sections of the road that is off the current road layout as it traverses rural, mainly open, agricultural land. It will also diminish the current rural character of the public rights of way in the vicinity. Acoustic fencing and/or bunds, if required, will also have a negative visual impact. All these impacts will be somewhat reduced over time as mitigation planting matures, and begins to fulfil its screening and integrating purposes. It is notable that some portions of the roadway will be formed in cuttings assisting in mitigating views from earlier stages of maturity of the surrounding planting. 8.1.21. The most significant concentration of changes occurs at all the major junction points such as the roundabout and slip road arrangement at Caxton Gibbet, Cambridge Road and Black Cat roundabouts, and major new crossings (such as bridges and viaducts) enabling the new road to cross the River Great Ouse, East Coast Main Line railway, Barford Road, the B1046/Potton Road, Toseland Road and the existing A428 at Eltisley. These will significantly

Reference Number	Local Impact Report/Applicant Response
	alter the local, rural character of the areas at present (except Black Cat). In addition, drainage reservoirs, balancing ponds and other highway drainage features will form uncharacteristic features in the areas. Additional bridges, lighting, gantries and signage would also intensify the presence of the highway infrastructure. 8.1.22. Over time, and as the mitigation planting matures the effects are predicted to decrease to predominantly low and moderate (significant) adverse landscape and visual impact, according to the submitted Landscape and Visual Impact Assessment [APP-076]. However as detailed in this document it is felt that much more can be done to reduce the significance of the landscape and visual effects.
Applicant Response	The Landscape and Visual Impact Assessment (LVIA) of the Scheme is set out in Chapter 7, Landscape and Visual Effects [APP-076]. This acknowledges that there will be residual significant adverse effects on landscape, affecting four of the 16 Local Landscape Character Areas (LLCA), reducing from eight of the LLCAs in year 1 of operation and the views of 30 of the 184 visual receptors identified, reducing from 73 in year 1 of operation. This indicates the effectiveness of the proposed mitigation in reducing effects to not significant. These residual significant effects are predicted to occur generally where the Scheme is remote from existing infrastructure and other human influences and where visual receptors would be located in close proximity. The Applicant considers that additional mitigation would not further reduce the significance of landscape and visual effects and cannot therefore be justified. The Cambridgeshire authorities have not provided comments on where specifically they feel that much more can be done to reduce the significance of the landscape and visual effects and have expressed in REP2-003n that "*extensive areas of mitigation planting will be established along the route which will enhance the local and national landscape character, reconnect some areas of fragmented woodland, and provide structure and screening for the route in the long term*" as being a positive impact of the Scheme.
REP2-003w	<u>Reduction in levels of tranquillity</u> 8.1.23. The proposed new route will diverge from established highways, introducing noise and fast moving traffic into rural areas which previously enjoyed higher levels of tranquillity. This will, overall, have an adverse impact on local landscape character.

Reference Number	Local Impact Report/Applicant Response
Applicant Response	The Landscape and Visual Impact Assessment (LVIA) of the Scheme is set out in Chapter 7, Landscape and Visual Effects of the Environmental Statement [APP-076] and specifically addresses tranquility as one of the perceptual qualities of landscape. Tranquility is relative and varies across the study area, being higher away from existing infrastructure and human influences. The Local Landscape Character Area (LLCA) 06: Alington Hill Clay Farmland is noted in the LVIA for its higher degree of tranquility and is a location where the new route will diverge from existing infrastructure. This is also a remote area of landscape with very little settlement and few public rights of way. Tranquility will be affected by noise and fast moving traffic as noted by the Cambridgeshire authorities. Mitigation is proposed including bunds and substantial blocks of planting to reduce the dominance of the new infrastructure and its appearance in views.
REP2-003x	Missed Opportunities 8.1.24. Long stretches of road side hedgerows should include more individual tree planting to improve canopy cover across the project area, create a more diverse habitat mosaic, and create Hedgerow Regulations 1987 specific hedgerows. 8.1.25. More tree planting should be provided around major settlements to help screen visually intrusive development from the surrounding countryside, specifically around St Neots, in line with the HDC Landscape and Townscape aspirations. 8.1.26. Species mixes within the planting types/mixes should reflect the local planting patterns of the area and allow for climate resilient modifications. 8.1.27. Overall a lack of some very typical species such as *Tillia x europaea* and *Carpinus betulus* are missing from the planting plans and uncharacteristic species have been added such as Populus tremula and Crataegus laevigata. 8.1.28. The Cambridgeshire Green Infrastructure Strategy identifies St Neots as a GI Strategy target area, specifically noting the opportunity to create wet woodland and wet meadow to enhance biodiversity, and the implementation of species rich grasslands to enhance landscape character. It is felt that areas around attenuation lagoons, particularly around the St Neots fringe, do not currently make the most of these opportunities, more information of the proposed plant mixes within the lagoons and proposed ground levels for proposed surrounding woodlands, as well as detailed mixes for wet woodland are required to better

Reference Number	Local Impact Report/Applicant Response
	understand whether or not this is being provided. Additionally, amenity grassland is proposed within the immediate vicinity of the attenuation features, and it is not clear what the rationale is for this, as opposed to species rich grassland or wet meadow which would help to contribute towards the GI strategy.
Applicant Response	The Applicant has presented to the Cambridgeshire authorities and shared draft versions of the Environmental Masterplan and Outline Landscape and Ecology Management Plan since 2018 and prior to submission of the Application. Comments on these drafts received from the Cambridgeshire authorities were considered in finalising the documents. The design principles which underpin the landscape strategy for the Scheme are set out in Annex L of the First Iteration Environmental Management Plan [APP-234]. Appendix A of this document, specifically added prior to submission in response to comments received from the Cambridgeshire authorities, explain the key design considerations in relation to each of the district Landscape Character Areas defined in published studies. The overarching aims of the landscape strategy were to respond to the character of the landscape as it changes along the route. Consideration was given to balancing the need to mitigate significant adverse effects as far as possible with other objectives, such as creating a mosaic of habitats, reinforcing green infrastructure, screening sensitive views and the visual amenity of road users. Regarding point 8.1.24, hedgerows are proposed to restore or connect field boundaries. Trees have been proposed within hedgerows where these are characteristic and where operational constraints allow. In locations east of St. Neots and north of Wintringham the proximity of overhead power lines and watercourses restrict opportunities. East of Toseland Road, for example, trees in hedgerows and scattered trees are more characteristic and have been included to reinforce the landscape pattern. In response to point 8.1.25, the Cambridgeshire authorities note in point 8.1.2 that they anticipate negligible impact on settlements. The Environmental Masterplan [APP-091] illustrates the substantial tree and shrub planting proposed to help integrate and screen the Scheme from the surrounding countryside, specifically around St Neots, in line with the HDC Landscape and Townscape aspirations. The Applicant considers that additional planting would not further reduce the effects reported in Chapter 7, Landscape and Visual Effects of the Environmental Statement [APP-076] and is not justified.

Reference Number	Local Impact Report/Applicant Response
	Regarding point 8.1.26, the indicative species mixes set out within Annex L of the First Iteration Environmental Management Plan reflect the local planting patterns of the area and allow for climate resilient modifications. These species mixes were revised in response to comments received from the Cambridgeshire authorities prior to submission of the Application. Paragraphs 1.10.11 to 1.10.14 specifically address provenance and climate change resilience. Forest Research indicates that increasing forest tree species diversity is an important aspect of increasing our resilience to climate change and to reduce the risk from pests or pathogens. In response to point 8.1.27, the indicative species mixes have been developed with reference to species typical of the area. *Tillia x europaea* and *Carpinus betulus* were recorded in small numbers in the Arboricultural Impact Assessment Report [APP-183] and are included in the indicative species mix for individual trees. Species such as *Populus tremula* and *Crataegus laevigata* are UK native and have been included to broaden the plant pallete to maximise resilience to climate change and pests and diseases in line with best practice. Point 8.1.28 relates to opportunities identified in the Cambridgeshire Green Infrastructure Strategy. The Outline Landscape and Ecology Management Plan in Annex L of the First Iteration Environmental Management Plan [APP-234] explains how green infrastructure has been considered in the landscape design of the Scheme. Reference is also made in Chapter 7, Landscape and Visual Effects [APP-076] and Appendix 7.1 [APP-179], relating specifically back to relevant policy and the Cambridgeshire Green Infrastructure Strategy. The landscape design of the part of the Scheme east of St. Neots has been given particular consideration for Green Infrastructure. It has been designed to integrate with the masterplan for the Wintringham development between the East Coast Mainline and the existing A428 St. Neots bypass, involving detailed engagement with landowners. This includes reinforcing the habitats extending along Hen Brook and Wintringham Brook, connecting with the two proposed linear parks within the Wintringham development. New public rights of way within the Scheme to the east of the route will provide new opportunities for recreational routes through the extensive areas of new habitat. This includes blocks of woodland and species rich and open grassland. There will be further opportunities for the Cambridgeshire authorities to engage in the detailed design of these areas, including species selection in preparation of the Second Iteration Environmental Management Plan.

Reference Number	Local Impact Report/Applicant Response
REP2-003y	8.2. Cultural Heritage Positive impacts *During operation* 8.2.1. There is a significant Public Archaeology and Community Engagement strategy outline in Appendix E of ES 6.12 Archaeological Mitigation Strategy (TR010044/APP/6.12) (APP-238). This is consistent with the County requirements for public engagement and outreach and is expressed in the Joint Authorities' Archaeology Brief (section 7.2). This is supported and, if conducted from the outset of the scheme, will provide a major public benefit and leave a significant heritage legacy in the area. The excavations will produce huge assemblages from which representative items will be displayed and interpreted for public interest, which will also enhance heritage sector tourism opportunities. 8.2.2. The location, survey, recovery and conservation of listed mile markers will occur with local community involvement. Their relocation to an approved and appropriate place along their roads will ensure their continued relevance. 8.2.3. The Archaeology Mitigation Strategy (ES 6.12 – APP-238) indicates the intention to avoid construction impacts to six archaeological areas that occur at the edges of the Orders' Limits (OL) in locations where scheme impacts can be altered to enable the preservation of archaeological remains. While the setting of these non-designated sites would irrevocably be harmed, their survival is considered to outweigh that harm given the case made for the public benefit of the road scheme. 8.2.4. The Archaeological Protection Areas are: • Site 12, Field 56: Iron Age boundary ditch of a site beyond the OL (AMS p.151/228). • Site 16, Field 66: Roman roadside settlement by Cambridge Rd roundabout, St Neots (AMS p.161/228). • Site 21, Field 59: Iron Age and Roman settlement area in Urban and Civic's Wintringham Park development zone (Site 1) and A428's major compound area (AMS p.173/228).

Reference Number	Local Impact Report/Applicant Response
	• Site 25, Field 85: High Hayden Farm. Reduction of spoil heap area to safeguard the remains (AMS p.183/228). • Site 35, Field 96: Roman roadside settlement remains to be saved in an area of the Orders Limits that is no longer needed for construction (AMS p.206/228). • Site 40, Field 99: Borrow Pit 4 will be reduced and fenced off around an Iron Age enclosed settlement in the north east part of this quarry (AMS p.219/228).
Applicant Response	The Applicant notes the positive comments made by the Cambridgeshire authorities.
REP2-003z	Negative impacts *During construction* 8.2.5. According to the National Policy Statement for National Networks (NPSNN) paragraph 5.139, investigation and recording components of archaeological resource or heritage assets prior to their loss is not as valuable as retaining the asset. If the mitigation strategies and areas selected by the Applicant's archaeology team do not change to reflect the requirements of the Joint Authorities' Archaeology Brief, the investigation of sites will not conform to County standards that seek to redress this loss nor with NPSNN policy at 5.140 and 5.142. County standards and research objectives are expressed in all development led archaeology investigation briefs in Cambridgeshire and developers routinely meet these in work led by policies in NPPF, specifically at paragraph 205. The A428 Archaeological Mitigation Strategy provides for the intentional loss of evidence from the finite archaeological resource without record in some parts of the scheme owing to unacceptable proposals for no or low intensity excavation in the AMS (TR010044/APP/6.1 - ES Ch 6 Cultural Heritage 6.8.10 and 6.8.13 c, see also General Methodology 9.2.7)(APP-075 and APP-238). A specific example of proposed evidence loss includes the eastern part of Site 18 in Field 74, where large enclosure ditches are located that define the northern edge of the enclosed form of a substantial Iron Age settlement that is mostly located to the south of the Orders Limit. The unenclosed components of this occupation site occur within the scheme's boundary but are unacceptably omitted from the mitigation response. This will fail to respond to the policies of NPSNN and to the prescribed County standards.

Reference Number	Local Impact Report/Applicant Response
	8.2.6. Other sites that have an insufficient area shown for excavation in the DCO or do not include a sufficient excavation buffer include: • Site 10 Field 53 – Boundary too tight to Iron Age enclosure boundary – l.o.e. does not reach the brook. Nonconformity to brief. • Site 11 Fields 54 and 56 – Large buffer required around the enclosed Iron Age site to allow its external task sites to be located. • Site 13 Field 58 – minor amendment advised to avoid an existing service. • Site 14 Field 59 – This is in Wintringham Park development area for which an area for excavation had been agreed with the developer Urban & Civic. A428 area for excavation does not match CCC excavation area. • Site 18 Field 74 (described above) – Area too short on east side. Omits unenclosed Iron Age evidence. • Site 19 Fields 58 and 62 (straddling Hen Brook) – Area too short on south side. New haul route is showing on General Arrangement Plans for which a mitigation strategy is yet to be devised. • Site 23 Field 80 – Isolated excavation box does not include known site evidence gained from evaluation well, nor buffer it with contemporary evidence to allow interpretation. Focused on a specific feature (here a single prehistoric round house), it contradicts the rationale published in the Archaeological Mitigation Strategy and required by the Joint Authorities' Archaeology Brief to situate the evidence into their landscape context. • Site 24 Fields 83 and 84 – The Iron Age 'string boundary with off-set enclosures will not be adequately investigated in the proposed excavation areas that are tightly focussed on specific features. • Site 28 Field 90 – This Iron Age string boundary with off-set enclosures has a tight excavation boundary that excludes known evidence north of Cambridge Road and other anomalies seen on the geophysical survey. This site area on the west side of St Ives Rd,

Reference Number	Local Impact Report/Applicant Response
	Eltisley, has a relationship with evidence on the east side but the mitigation strategy prevents coherent examination of this archaeological landscape area. • Site 33 Field 94 – The excavation area is insufficiently buffered around an Iron Age enclosure. • Site 34 Fields 94 (east edge) and 95 – The proposed excavation area for Field 95 excludes Roman evidence on the east side, to the south of the Roman road (current line of A428 Cambridge Rd) and parish boundary ditches sharing the alignment. • Sites 36-39 Field 97 Borrow Pit 3 – Discrete areas are marked for excavation around Iron Age enclosures on the west side of Ermine Street (Roman Road) but prevent their hinterland evidence to be addressed. Two areas advised by CCC would enable this and also investigate Roman road side areas and the parish boundary to determine the origins of all the ditches shown on that alignment. 8.2.7. There is a risk of loss of integrity of the archaeological investigation strategy if sites are subject to piecemeal excavation responding to separate aspects of the scheme need – i.e. sites will need to be stripped and excavated as entities in advance of any construction for a haul road, bridge abutment, carriageway, embankment, flood compensation area, soil storage heap or other scheme feature. Appropriate programming is required and should be discussed with and approved by CCC well in advance of the implementation of fieldwork. 8.2.8. Adverse impacts and risk of total loss of non-designated heritage assets at Site 17 Field 70 where proposals to place a Multiple Purpose Construction Area on a geotextile membrane over vulnerable remains relating to the deserted Medieval village of Wintringham and earlier occupation is planned without prior excavation (TR010044/APP/6.12, 11.3.1) (APP-076). Compression studies and modelling have not been undertaken at this or any of the A428 sites so we cannot know if the movements over a membrane to prevent loss of evidence through de-watering of organic contents or through compaction and displacement/distortion of evidence due to compression and subsequent removal of the storage area would preserve or harm archaeological evidence. Proxy evidence has been cited, but this is for areas in north Yorkshire, not the Cambridgeshire clays that have shown to be unforgiving in terms of

Reference Number	Local Impact Report/Applicant Response
	vehicular movement and load. This was often seen during work on the recent A14 construction programme. 8.2.9. Securing experienced and trainee field archaeologists is proving problematic in the UK. Insufficient numbers of trained field workers could seriously affect programme delivery.
Applicant Response	8.2.5 The sampling strategies in the Archaeological Mitigation (AMS) [TR010044/EXAM/9.23] have been updated in Sections 8 and 9 in line with the Joint Authorities' Archaeology Brief, which has now been agreed. The Applicant disputes that the AMS 'provides for the intentional loss of evidence'. Information is provided in the Applicant's comments on the Written Representation [TR010044/EXAM/9.21] from Cambridgeshire County Council/Huntingdonshire District Council/South Cambridgeshire District Council [REP1-046cf]. The Applicant's response regarding Site 18 in Field 74 can also be found in the response to the Written Representation from Cambridgeshire County Council/Huntingdonshire District Council/South Cambridgeshire District Council [REP1-046cf]. It should be noted that the Iron Age remains in Field 74 are not unenclosed. 8.2.6 The Applicant's response to each mitigation site is as follows: • Site 10 Field 53 – The extension of the excavation area is not warranted. Colluvial deposits will be examined but the trenches in this location were largely devoid of archaeological features. A modern gully was located in Trench 271, and an undated pit was recorded in Trench 537. This extended outside of the trench and this area is covered by the mitigation area. With reference to assessment along the brook, Table 5-1 of the AMS [TR010044/EXAM/9.23], and the detail in Appendix D states "Sampling of colluvium and palaeochannel along beck". As the extent of the colluvium would be defined by initial analysis we did not want to be prescriptive about the size of the area. • Site 11 Fields 54 and 56 – Following consultation with CCC on 15 and 29 October 2020 this area was extended and amalgamated. However, the extent of the area proposed by CCC was not agreed. In Field 54, Trenches 43, 256 and 787 on the western and southern side of the area were either blank or contained only furrows. To the east, the north-south arm of Trench 41 contained only furrows, and Trench 257 further east contained an

Reference Number	Local Impact Report/Applicant Response
	undated ditch, which did not warrant inclusion in the mitigation area for this Iron Age site. In Field 56, at the northern end of the area proposed by CCC, Trench 1154 was blank and Trench 1151 contained only a modern material from demolition of a barn. While cropmark evidence is apparent in this area, based on this, the geophysical results and the trenching results, features identified as cropmarks will be covered within the mitigation area. • Site 13 Field 58 – The mitigation area matches the area proposed by CCC on 29 October 2020. It was realigned following a meeting on 11 February 2021. It is not clear why an extension to this area has been requested when it was previously agreed. Trenches further north where the attenuation basin extends were blank. Furthermore, this mitigation area is stated as being 'Agreed' by CCC in the SoCG [TR010044/EXAM/8.6]. • Site 14 Field 59 – This mitigation area was created using shapefiles of the mitigation areas from the Wintringham developer, Urban and Civic. • Site 18 Field 74 (described above) – See Applicant comments on the Written Representation [TR010044/EXAM/9.21] from Cambridgeshire County Council/ Huntingdonshire District Council/ South Cambridgeshire District Council [REP1-046cf]. • Site 19 Fields 58 and 62 (straddling Hen Brook) – There is no justification to extend the excavation to the south to cover the ring ditch. This does not meet the research aims. The feature was shallow (at 0.22m). Its form is recorded on the geophysical survey, and the ditch was sampled during evaluation. It is understood as an Iron Age roundhouse. No further knowledge will be gained from further excavation. It is noted that the haul route requires mitigation. Once construction impacts are understood mitigation measures will be devised, although this is likely to comprise an extension to the area proposed for geoarchaeological sampling along the brook. • Site 23 Field 80 – There is no justification to extend the area as indicated by CCC. The mitigation area is targeted upon features located during evaluation trenching. Fifteen trenches were excavated across this area. While some evidence of a medieval or post-medieval field systems were recorded, only Trench 373 contained remains of Iron Age date. Remaining trenches were empty. No features were identified during the geophysical survey. The mitigation area is not only focused on a single roundhouse – a possible

Reference Number	Local Impact Report/Applicant Response
	cremation pit was also located so this area requires further investigation in this area, as other cremations may be located. There are mechanisms in place should features extend outside of the mitigation area or if other features are located outside of the area. • Site 24 Fields 83 and 84 – There are a number of string settlements recorded on the Scheme, including those in Field 90 and Field 92, as well as a possible string settlement in Field 49. The example in Field 84 only covers a small section of a much larger string settlement which extends to the north and south outside of the Scheme boundary, where a much larger enclosure is indicated on the geophysical survey. Resources are better spent investigating those sites where there is more evidence within the Scheme boundary. The western part of the mitigation area in Field 83 has been extended to accommodate features noted on the X-Y geophysical plot, including a possible enclosure ditch and a possible unenclosed roundhouse, following consultation with CCC. Extending this area to the north and west is not required. Trenches 360, 362 and 694 contained only furrows, and there is no further evidence on the geophysical survey. In Field 84, the area identified is to record and sample the string settlement where it is impacted by road construction. While a feature extends westwards from the string towards F83, this feature will be excavated within both parts of this mitigation area and has been sampled during the evaluation. • Site 28 Field 90 – The trenches outside of the mitigation area do not contain archaeological evidence pertinent to the investigation of the enclosure (features such as furrows have been recorded). There is no evidence north of Cambridge Road and this is the first time CCC have raised this area as possibly requiring investigation. There are no other anomalies on the geophysical survey identified beyond the enclosure and string system which the mitigation area is focused on. Possible features identified on the geophysical survey were investigated during the trenching and were not found. The Applicant is unclear on the evidence that elements of the site in Field 90 extend into Field 92. This appears, from previous consultation, to be based on a feature CCC have identified on the geophysical X-Y plot that is not apparent to the geophysical team, the aerial photography expert or the A428 team. However, even if this feature survives, it would be examined in both the Field 90 (Site 28) and Field 92 (Site 30) mitigation areas.

Reference Number	Local Impact Report/Applicant Response
	There is no justification for the extended area proposed by CCC. There were no archaeological remains in the trenches in that area. • Site 33 Field 94 – There is no justification to extend this area. Trench 15 to the east contained only furrows there are no remains to the south. The Applicant is confident that they have captured remains associated with the enclosure. • Site 34 Fields 94 (east edge) and 95 – Site 34 is located within Field 95 in its entirety. The area of Site 94 was extended to match the area requested by CCC on 15 October 2020. CCC has subsequently asked for a further amendment to cover the entire field but there is no justification for this. The parish boundary was not recorded in Field 95. However, if it extends into this field, it would be recorded within the existing mitigation area. Furthermore, the evaluation excavation concluded: *"The former parish boundary between Caxton and Papworth Everard was parallel to the present A428 road at the north end of Field 96 and was present in Trenches 464, 465, 472 and 473. The ditch was up to 1.4m wide by 0.6m deep and was U-shaped in profile with a tapered rounded base. Approximately 500m of the parish boundary is within the field, as identified through geophysical survey. The parish boundary is marked on the Old Series First Edition Ordnance Survey map of 1805 and on later OS maps, including the 1887, 1:2500 scale County Series maps for Cambridgeshire and Huntingdonshire. No finds were present in the ditch so the origins of the boundary cannot be traced earlier than the beginning of the 19th century. However, it is probably older than this."* Based on this evidence it is not apparent that any further information would be gained. • Sites 36-39 Field 97 Borrow Pit 3 – See Applicant comments on the Written Representation [TR010044/EXAM/9.21] from Cambridgeshire County Council/Huntingdonshire District Council/South Cambridgeshire District Council [REP1-046ch]. 8.2.7 Individual mitigation areas will be treated in their entirety and will not be subject to piecemeal stripping or excavation. The programme will be included within individual Site Specific Written Schemes of Investigation.

Reference Number	Local Impact Report/Applicant Response
	8.2.8 The Applicant comments on the Written Representation [TR010044/EXAM/9.21] from Cambridgeshire County Council/Huntingdonshire District Council/South Cambridgeshire District Council [REP1-046cf] explains that Site 17 in Field 70 will be excavated. It is not proposed to preserve this site in its entirety under a multi-purpose construction area in the way described above. 8.2.9 The Applicant notes this comment from the Cambridgeshire authorities.
REP2-003aa	Missed opportunities 8.2.10. The location of a specific field-based archaeology compound should have been identified - one that is suitably set up with washing and drying facilities to enable environmental sample processing to occur on the scheme where it is easy to discard mass silt residues and reduce the carbon impact from the transit of large amounts of soil samples to off-site offices. Artefact washing and drying would also ideally occur in such a facility. 8.2.11. There has not been any provision for a community space(s) where volunteer community groups could safely engage with specified archaeological tasks identified in the programme without being subject to overly restrictive H&S requirements. Local groups have expressed interest in assisting with artefact processing. As part of the 'Lesson Learned' from the A14 scheme, and shared with the A428 Applicant's Team, a dual-purpose compound was discussed early in the planning for this project. It is disappointing not to see positive commitment in the DCO which instead states that the "Archaeological Contractor should consider the option of initial processing to be undertaken on site or in a nearby compound/facility" rather than this being a work asset supplied within the scheme footprint by the Applicant/Main Contractor. 8.2.12. Integrated engagement to include the Local Authority Archaeologists and community groups with the academic steering group to develop an innovative, inclusive, intelligent and inspiring programme of archaeological investigation that would be able to acceptably meet the curatorial and management needs of the local archaeological resource did not occur. 8.2.13. Engagement with CCC Museums Liaison Officer to discuss strategies and initiatives for integrated archaeological interpretation and displays of the scheme's evidence within local museums and galleries for which funding would be required has not taken place.

Reference Number	Local Impact Report/Applicant Response
Applicant Response	8.2.10 Paragraph 8.7.6 of the AMS [TR010044/EXAM/9.23] states "Consideration must be given to processing on site, or in a nearby compound/facility, of environmental samples to provide dynamic feedback on the environmental content of features, to enable additional processing to be undertaken." The Applicant has not specified that there must be on site sampling facilities because they may not be needed. This requirement will depend on the proximity to the Scheme of the Archaeological Contractor. Comments received from CCC on the AMS [TR010044/EXAM/9.23] also omitted this comment. The only comment was that the approach in the AMS [TR010044/EXAM/9.23] was endorsed. 8.2.11 The requirement for outreach is set out in Appendix E of the AMS [TR010044/EXAM/9.23] and will be developed by the Archaeological Contractor. Paragraph E.1.1.6 states *"The Archaeological Contractor will prepare a Scheme specific PACE Strategy, detailing the results of audience mapping, the targeted audiences and the activities to be undertaken. This will include a programme of activities throughout the project lifecycle."* This is the first time a requirement for a community space has been raised. With regard to initial processing, please see response to 8.2.10 above. 8.2.12 The Applicant disagrees with the statement that CCC have not been involved with the development of the mitigation strategy. Please see the response to the Written Representation from Cambridgeshire County Council/Huntingdonshire District Council/South Cambridgeshire District Council [REP1-046cf]. It is not standard practice to involve community groups in the development of mitigation strategies. 1. 8.2.13 This will take place at a later stage. It is not standard practice to have undertaken this work at the DCO stage. This work would follow the granting of Consent. As stated in Appendix, E.1.4.7, PACE activities could include *"Museum/gallery displays (requires early partnership working and funding)."* There has been one meeting with the three museum curators in January 2021 to which CCC Museums Liaison Officer was invited. CCC was consulted as part of the ongoing audience mapping for the Scheme.

Reference Number	Local Impact Report/Applicant Response
REP2-003ab	8.3. Ecology Positive impacts *During Operation* 8.3.1. The anticipated reduction in the use of the old A428 will reduce the incidences of RTAs that occur in relation to badgers and other terrestrial animals. It will also reduce indirect impacts on ecology and biodiversity in that area such as from noise, air pollution, and vibrations. 8.3.2. The proposed new habitats will provide more biodiverse habitats than the monoculture arable fields (276.52 ha) which currently cover much of the site. 8.3.3. The route has been designed to avoid the removal of woodland where possible, resulting in net positive woodland cover. Appendix 8.19 (APP-206) shows that pre-construction woodland cover is 4.42 ha within the redline boundary, whereas post construction there will be 61.82 ha of woodland. 2.69 ha of broad-leaved semi-natural woodland and 0.2 ha of coniferous plantation woodland will be lost due to construction. However, the creation of over 60 ha of broad-leaved and mixed plantation woodland should mitigate for the woodland lost and provide a positive gain in woodland cover. Disagreements in typology of tree mixes still exist but the net gain in tree cover should be a positive. 8.3.4. There will be a net increase in grassland habitat. Appendix 8.19 (APP-206) states that pre-construction there is a total of 39.9 ha of grassland within the redline boundary of the scheme. Post construction figures show 180.94 ha. There will be a loss of 9.85 ha of poor semi-improved grassland; however, an increase in 133.93 ha of semi-improved grassland will mitigate for its loss. Disagreements in seed mixes, location and extent, and management of grasslands still exist; however, increases in grassland cover should be a positive.
Applicant Response	The Applicant notes the positive comments made by the Cambridgeshire authorities. The Applicant welcomes the advice on species types and mixes for grassland habitat. The species mixes were amended based on views received from the landscape architects from both HDC and SCDC. If CCC/HDC/SCDC wish to propose further amendments, please include a copy of these in the Statement of Common Ground for consideration.

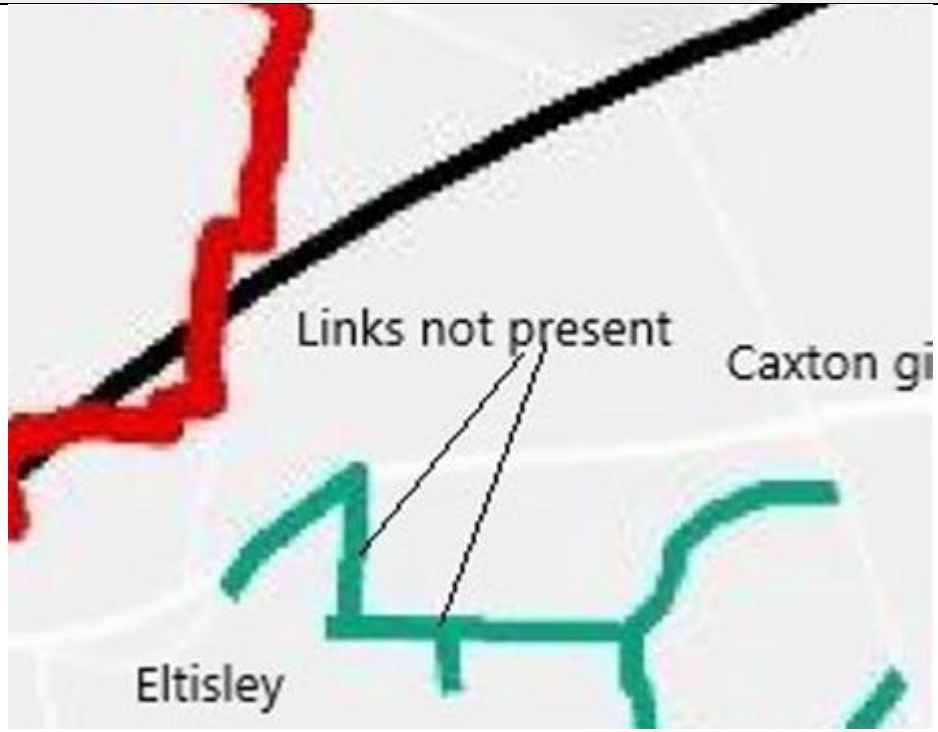
Reference Number	Local Impact Report/Applicant Response
REP2-003ac	Negative impacts During construction 8.3.5. The presence of Barbastelle bat maternity roosts in Eversden and Wimpole Woods is the reason the site is of international importance and designated as a Special Area of Conservation (SAC). The scheme will result in loss / fragmentation of habitat used by the male barbastelle bats which forage and roost in satellite woodland in the surrounding area, and by the females outside of the breeding season. Studies have shown that this species is highly sensitive to disturbance. There must be reasonably certainty of the predicted likely impacts on the Barbastelle bat population, so the Councils would expect evidence that there will be no negative impact on the Barbastelle bat population to be provided. The Councils welcome the additional surveys agreed between the Applicant and Natural England. 8.3.6. There may be disruption of flight lines (such as hedgerows) for all species of bats through an increase in lighting at new and retained junctions and new bridges, although the Impact Assessment (Environmental Statement, Chapter 8) (APP-077) has stated that there will be no significant impact. The Applicant has not presented any evidence to support this statement. 8.3.7. Section 5.6 of the Biodiversity Supplementary Planning Document Consultation Draft July 2021 section 5.6 illustrates the indicative functionally linked habitat around Eversden and Wimpole Woods SAC. This shows hedgerow adjacent to the proposed route which falls within the SAC's 10 km sustenance or wider conservation area identified by Natural England. 8.3.8. There must be reasonable certainty of the predicted likely impacts on the bat populations (all of which are European Protected Species), so we would expect an outline lighting strategy to be submitted or evidence that there will be no lighting of hedgerows or tree belts. 8.3.9. Loss of breeding ponds and terrestrial habitat and direct mortality will impact Great Crested Newt (GCN). The scheme does not include measures to protect GCN during the construction phase or provide compensatory habitat within the Order Limit. 8.3.10. There are 6 ponds within the Order Limits which have records of GCN. Two of these will be retained and enhanced and will have GCN translocated into them; two will be retained, but essential surrounding terrestrial habitat will be decreased making them unsuitable for GCN; and two will be lost.

Reference Number	Local Impact Report/Applicant Response
	8.3.11. There are welfare issues for GCN which are translocated into ponds with an existing population. This is due to a lack of carrying capacity i.e. not enough space and resources. 8.3.12. Natural England's Standing Advice for GCN states that if a developer cannot avoid destroying a GCN breeding pond they should, replace it with 2 new ponds on the development site; make sure the new ponds are ready for GCN before they destroy the old pond; safeguard or replace other ponds which may be used by GCN within 500m. 8.3.13. The Applicant has not provided evidence that the scheme will be eligible and that there is capacity within Natural England's GCN District Level Licencing (DLL) scheme in Cambridgeshire to off-set the impacts of the scheme. 8.3.14. Therefore, the scheme will have a negative impact and potential adverse impact on the favourable conservation status of the local population of this species. Under the Conservation of Habitats and Species Regulations 2017 (as amended), the favourable conservation status of European Protected Species should be protected as part of the scheme. 8.3.15. The scheme will not adequately avoid / mitigate / compensate for the loss of priority habitat. It is also noted that the junction designs may have been over-engineered (depending on the accuracy of the submitted traffic modelling data) which would result in unnecessary land-take and loss of habitat. See Chapter 7 for further information. 8.3.16 The adverse impact to priority / irreplaceable habitats does not accord with South Cambridgeshire Local Plan policy NH/4, Hunts Local Plan 2019 policy LP 30 and Cambridgeshire & Peterborough Mineral and Waste Local Plan 2021 policies 19 and 20 (borrow-pits) or NPPF 2021. 8.3.17. Arable field margins of district importance (A29 and A30) will be permanently/temporarily lost to the scheme. The survey work was undertaken outside of the optimal season and did not identify the exact locations of this habitat, so the full level of impact cannot be determined. Given no mitigation is proposed, we expect that the scheme will have an impact of Moderate (adverse), leading to a significance of Moderate (adverse) effect. 8.3.18 87 of the 93 hedgerows will be fully/partly lost to the scheme, including hedgerows of district/county importance. New hedgerow will be planted, but they will not include key features (e.g. elm & deadwood) and, therefore, will be of lower quality. In addition, the lack of

Reference Number	Local Impact Report/Applicant Response
	connectivity over the road (e.g. green bridges), will result in a permanent impact on hedgerow connectivity of moderate (adverse) effect, leading to a significance of moderate (adverse) effect. 8.3.19. Appendix 8.19 shows that 0.82 km of hedgerow will be permanently lost due to the scheme (please note that the figures are listed in a column headed "Area (ha)"; whereas hedges should be measured in km, therefore, we assume these are km (please see Biodiversity Net Gain Missed Opportunities section regarding the use of a bespoke Biodiversity Metric for further details). 8.3.20. Potential lowland meadow /lowland calcareous grassland will be lost/directly impacted by the scheme. No surveys have been undertaken of unimproved grassland to confirm presence/absence of this priority habitat and its condition and therefore, the impact on grassland priority habitats is unknown. 8.3.21. There will be loss/fragmentation of standing open water habitat (ponds) and watercourses. Survey work for fish and aquatic invertebrates is considered out-of-date / surveyed in suboptimal conditions, with surveys being conducted in a particularly dry season (2018). It is expected that there will be some enhancement of watercourse through the Water Framework Directive (WFD) assessment, but no information has been provided. Therefore, the level of impact (whether positive or negative) cannot be determined. 8.3.22. A single veteran English Elm tree (irreplaceable habitat) of county importance is located within a landscape area. No evidence has been provided to demonstrate the assumption that the tree will not be impacted during (landscape) construction works (para 8.9.33, ES) (APP-077). 8.3.23. Protected Road Verge S8 (Brockley Road) is designated as one of the best quality grasslands in the local road verge network. However, no survey work has been undertaken to determine its condition. The assessment fails to consider the direct impact as a result of the construction of the proposed alignment of junction with the new road (Work No. 109c on work plan) and does not take into account previous degradation and loss of the southern section of the Protected Road Verge (PRV) as a result of the previous A428 improvement works (Cambourne). Therefore, the level of impact of the scheme cannot be determined.

Reference Number	Local Impact Report/Applicant Response
	8.3.24 Major habitat loss will be unavoidable during construction, but much of this will be temporary with new habitats to be created post construction. However, there will be a net increase in hard surfaces (+59.14 ha) which will have no biodiversity or ecological value. 8.3.25. Much of the farmland birds' (priority species) preferred habitat (field margins and hedges) will be removed and not replaced. Most of the grassland mixes currently proposed by the Applicant do not represent the magnitude of the removal of semi-improved grassland field margins. A majority of the "open- grassland" habitat to be created will contain no flowering plants or arable weeds. The loss of 0.82 km of hedgerow will have consequences for the provision of winter berries and summer fruits, impacting both farmland birds and wintering birds. 8.3.26. Insufficient information regarding terrestrial invertebrates has been submitted to fully measure the impact of the scheme. Seven surveys are recommended under industry guidance, but no nocturnal surveys for flying insects were undertaken, and only pit fall trapping was used as systematic methodology. All other instances of observation were undertaken through direct or sometimes incidental observation. 8.3.27. The surveys to date have identified invertebrate assemblages of county importance (saproxylic or deadwood specialists) and local importance (elm specialists). The scheme will result in loss of both standing deadwood and elm (neither to be incorporated into the scheme) and, therefore, adversely impact on these specialists of county / local importance. 8.3.28. Therefore, until such time as a fuller dataset is presented this must be viewed as a negative impact due to loss of hedgerows and field margins. 8.3.29. Temporary disturbances of species through noise, vibration, increased air pollution, temporary habitat removal/destruction. All disturbances to protected species should be known and undertaken with licencing in place, where required.
Applicant Response	8.3.5 The Applicant has already agreed with Natural England to submit survey findings into the examination once they are available. 8.3.6 The Applicant has identified that lighting may cause disruption to flight-lines along hedgerows as per paragraph 8.7.3, subsection B of Chapter 8, Biodiversity [APP-077] during operation of the Scheme. To this end, as part of the embedded mitigation for the Scheme, the Applicant

Reference Number	Local Impact Report/Applicant Response
	has also identified that lighting of new and improved sections of roads within the Scheme has been confined to locations where safety is a priority, in order to minimise the potential for light spill into adjacent habitats. As part of the mitigation for the Scheme, the Applicant has also identified the designing and positioning of construction lighting to minimise light spill onto adjacent habitats, including where there are potential bat roosts and important foraging or commuting habitats that are regularly used by local bat populations. Given that the majority of the length of the Scheme would be unlit including bat tunnel/underpass locations, the magnitude of the artificial lighting impact on the bat population would be Negligible (adverse) in the operational period, resulting in a significance of Neutral. 8.3.7 On close examination of the Biodiversity Supplementary Planning Document Consultation Draft (July 2021) and the 10 km sustenance zone for Eversden and Wimpole Woods SAC, a significant proportion of those hedgerows marked as part of the linkage do not exist (Figure 1) and of those that do, the structure of some is very poor (Figure 2). Figure 1. SAC 10 km sustenance zone to east of Eltisley (green lines = hedgerows as in Biodiversity Supplementary Planning Document Consultation Draft (July 2021); red line = boundary of South Cambridgeshire District council; black line = existing A428)

Reference Number	Local Impact Report/Applicant Response
	

Reference Number	Local Impact Report/Applicant Response
	Figure 2. Poor hedgerow adjacent to A428 to east of Eltisley within SAC 10 km zone.  This evidence further supports the conclusion that there is no coherent linkage between the Scheme and the Eversden and Wimpole Woods SAC. 8.3.8 The Applicant notes this comment. However, the Applicant has stated its assumptions (presented within Chapter 8, Biodiversity paragraph 8.8.11) [APP-077] regarding lighting which is embedded as part of the Scheme and the assessment for bats is based on bat survey results for areas which are now part of the Eversden and Wimpole SAC Impact Risk Zone. The Applicant notes the comments made within 8.3.9 to 8.3.14 by the combined authorities. 8.3.9, 8.3.10, 8.3.11, 8.3.12, 8.3.13 and 8.3.14. Following the on-going Great Crested Newt surveys throughout 2021, the Applicant can confirm there would be no loss of Great Crested Newt breeding ponds within the Order limit and Natural England's Standing Advice in this respect does not apply.

Reference Number	Local Impact Report/Applicant Response
	As this is the case, there is no need for any translocation of newts and no welfare issues associated with translocations into ponds with existing populations. Where terrestrial habitat associated with ponds outside the Order limit occurs, this will be mitigated for through a submission made by the Applicant to join the Bedfordshire District Level Licence scheme and a draft application for a European Protected Species licence for Cambridgeshire, the latter approach being necessitated by Natural England's lack of capacity to provide off-setting. Both include mitigation for terrestrial habitat. The habitat creation within the Order limit would not only provide much improved terrestrial habitat for Great Crested Newt as compared with the poor quality of arable fields and associated risks of mortality due to farm machinery, but also, the connectivity between those ponds with newts and other ponds will be improved. Taking into account the absence of any breeding ponds within the Order limit and the Applicant's approach to mitigation and enhancement, the favourable conservation status of this European Protected Species will be protected as part of the Scheme with benefits further afield. 8.3.15 Table 2-1 of Chapter 2, The Scheme [APP-072] contains entries which explain how the Scheme has been designed to take account of all habitats. However, the Applicant would like to draw the authorities' attention to the entry regarding "modifications made to the horizontal alignment of the new dual carriageway during the design-development process", the effect of this was "to avoid impact on notable and valued landscape features – for example veteran Elm tree located to the north of Hen Brook, and other veteran trees at Croxton Park registered park and garden" now beyond the Order limit. Both of these features are priority habitats in Cambridgeshire and the Scheme was moved to avoid them. In relation to the comment regarding adequate mitigation, the Scheme has demonstrated it has mitigated the significant effects of the Scheme. In the context of priority habitats, paragraph 8.9.29 Chapter 8, Biodiversity [APP-077] and Table 8-9 of [APP-077] summarise the losses of woodland, hedgerow and arable habitats and that although there will also be a loss of grassland habitat, this habitat was not assessed to be a priority habitat in this instance. There is no need for any compensation. The Applicant requests that further clarification is provided on what aspects of the junction design the combined authorities consider have been over-engineered

Reference Number	Local Impact Report/Applicant Response
	8.3.16 The authorities' position is noted. However, the Scheme does comply with the National Policy Statement for National Networks (NPSNN), paragraph 4.25, which as an NSIP is the compliance framework. 8.3.17 The limitation associated with the survey of arable field margins was stated as part of the survey limitations and this has been taken account of in the Applicant's assessment. Additionally, habitats were re-surveyed in 2021 to keep the biodiversity baseline up to date. These surveys confirmed that there are no arable field margins supporting notable arable weeds that will be lost to the Scheme. The report of these surveys will be made available to CCC/HDC/SCDC and the Examination by Deadline 4. 8.3.18 to 8.3.21. The Applicant refers the combined authorities to its response to Question 1.3.3.1 within its Responses to the Examining Authority's First Round of Written Questions [REP1-022]. 8.3.22 Regarding the Veteran Elm Tree, the Applicant wishes to direct the combined authorities to the response to RR-076b in the *Applicant's Response to Relevant Representations* [REP1-121]. In summary, the Applicant can confirm that the English Veteran Elm Tree would not be impacted by the Scheme. 8.3.23 A reassessment of Protected Road Verge (PRV) S8, Brockley Road, Elsworth (west side) was undertaken in July 2021 in the form of a detailed survey which confirmed that the southern section of this PRV had been damaged and that the site was in unfavourable condition and declining in line with the most recent assessments undertaken by the Wildlife Trust (2019) which considered the southern section had "been destroyed by roadworks and should be removed from the PRV". The results of these surveys are being used to provide updates to those data collected in 2018-19 and will be communicated to CCC, SCDC and HDC and the Examination for Deadline 4. The results will help to inform the measures in the Biodiversity Management Plan to avoid any damage to the road verge during construction. 8.3.24 It is important to stress that the design of the Scheme included avoidance of major habitat (and features) from the outset. This included woodland and Great Crested Newt ponds (Badger habitat and setts and the veteran elm tree). The Applicant notes the comments made by the combined authorities with respect to the hard surfaces.

Reference Number	Local Impact Report/Applicant Response
	8.3.25 The creation of habitat as presented in the Environmental Masterplan provides mitigation for habitat loss including those supporting farmland birds including those of county importance which use hedgerows and woodland. The Applicant welcomes the advice on the species mixes and plant community composition and encourages inclusion of a copy of this advice in the Statement of Common Ground for discussion. 8.3.26 The terrestrial invertebrate fauna was surveyed according to the recognised guidance, that is the Natural England Research Council Report 005 'Surveying Terrestrial and Aquatic Invertebrates for Conservation Evaluation'. which included seven visits over the period 2018 to 2019. This guidance recommends several passive trapping, active trapping, and direct observational survey techniques that can be used and gives details on the terrestrial invertebrate taxa targeted by chosen techniques as presented within Appendix 8-16 Terrestrial invertebrates [APP-203]. The field techniques selected and utilised when undertaking the terrestrial invertebrate survey were: • Sweeping conducted by sweeping vegetation with a large heavy-duty net on a metal frame. • Grubbing: searching at ground level in vegetative litter, moss and under vegetative mats. • Sieving to sample invertebrates in vegetative litter, moss and under vegetative mats. • Refugia search: Natural refugia such as large stones, logs and boards were lifted. • Beating using a beating tray and pole to dislodge arboreal invertebrates from tree and scrub foliage. • Close observation/spot checking, studying small areas of exposed or sparsely vegetated ground for invertebrates or looking closely at vegetation and blossom to find invertebrates resting or feeding. • Pitfall trapping by installing small pitfall traps filled with salt solution to trap nocturnally active ground roving taxa. • Dung searching in and around animal dung for invertebrate taxa, particularly the Scarabidae.

Reference Number	Local Impact Report/Applicant Response
	The extent to which most British invertebrates are or are not attracted to or affected by light is currently unknown. Many moth species are to some extent attracted to light and White-spotted Pinion is one of them, but to even begin to speculate as to how operational lighting might affect the species in the vicinity of the Scheme would be scientifically spurious. The surveyor did not carry out moth trapping because with this indiscriminate method, there is no direct way of knowing where moths attracted to a trap have originated from (i.e. whether from within or far outside the site survey boundary). The surveyor is not aware of any research of the effects of operational lighting nor of any other surveys by other colleagues in the profession that have ever taken this question into consideration for invertebrates. The Applicant notes the comments made by the combined authorities within 8.3.27 to 8.3.28. Table 8.8 of Chapter 8, Biodiversity [APP-077] identifies an adverse effect on both terrestrial and aquatic invertebrates. Mitigation is provided through habitat creation including woodland, hedgerows, grassland and wetland. 8.3.29 The Applicant can confirm that where required the applicable licences for protected species will be sought prior to the commencement of work that might affect such species.
REP2-003ad	Missed Opportunities 8.3.30. The proposed landscape scheme is not based on local habitats, species mixes or important habitats destined to be removed (field margins, hedgerows and woodland). Instead, species have been included which will not thrive with the predicted future climate (e.g. silver birch), while key characteristic species, such as elm, have been omitted. 8.3.31. Huntingdonshire is a national stronghold for elm specialist invertebrates due to the presence of Dutch Elm disease resistant elm trees. The scheme itself supports a veteran elm and locally important invertebrate assemblages associated with elm and county important deadwood. The lack of elm within the planting scheme is a missed opportunity to future-proof the veteran tree habitat, as well as providing habitat for key terrestrial invertebrates. 8.3.32. The 5-year landscape maintenance period (set out in the first iteration Environmental Management Plan) is insufficient to allow habitats to establish (e.g. the Environment Bill that is currently sitting before Parliament suggests habitats are managed for a minimum of 30 years). This would not allow habitats to reach target condition.

Reference Number	Local Impact Report/Applicant Response
	8.3.33. As a result, it is considered that the scheme is likely to result in net loss in biodiversity value, rather than the reported 20.5% biodiversity net gain. 8.3.34. The HE Calculator used for the submitted calculations does not appear to have been through the same scrutiny as the accepted DEFRA Metric. It is based on the Warwickshire Model, but with no apparent separation of linear and regional biodiversity, which questions the mathematical integrity of the model. There is no estimation of future habitat condition (all is assumed to be poor), and there is no separation of pre-construction habitat types. 8.3.35. For example, all dense scrub is represented by the same distinctiveness and condition score. However, different areas of the same broad habitat can have different condition scores. Similarly, different geographical locations across the UK will have different distinctiveness scores from the model which was designed to assess Warwickshire habitats. 8.3.36. NSIPs are to be subject to mandatory biodiversity net gain through an amendment to the Environment Bill currently sitting before Parliament and we would assume that they would therefore be expected to provide all calculations using the latest DEFRA Metric. 8.3.37. The opportunity has been missed to implement a mitigation strategy to minimise impact to Arable Field Margins of district importance (priority habitat). A small section of these fields will be permanently lost to the route of the road or landscape scheme, whilst other areas will be lost as a result of the landscape scheme or the site compound. The site compound could be designed to avoid the arable field margins. In addition, the landscape scheme within the field margins should have been prioritised for arable field margins, rather than grassland / scrub / trees. 8.3.38. A small section of these fields will be permanently lost to the route of the road or landscape scheme, whilst other areas will be lost as a result of the landscape scheme or the site compound. The site compound could be designed to avoid the arable field margins. In addition, the landscape scheme within the field margins should have been prioritised for arable field margins, rather than grassland / scrub / trees. 8.3.39. The opportunity has been missed to implement a restoration scheme for the borrow-pits (sites 3 & 4), site compounds and soil storage areas which benefits biodiversity and breeding and wintering birds in particular.

Reference Number	Local Impact Report/Applicant Response
	8.3.40. Many of the residual impacts to habitats and species could have been compensated through a well-designed scheme. It is understood the restoration of these sites has been designed for the future aspirations of the land owner – being returned to agriculture. A well-designed agricultural scheme could deliver both ecological mitigation and be returned to the land owner, with covenants to manage it for biodiversity. For example: a) Borrow-pits 3 & 4 are identified as being restored to grassland. This area could compensate for the loss of Great Crested Newt (GCN) terrestrial habitat through selection of an appropriate species-rich wildflower grassland mix, and management of the site for GCNs (e.g. creation of areas of tussocky grassland) as well as providing compensation for loss of any priority grassland. b) Restoration and long-term management of priority habitat arable field margins within fields that currently support (or are next to) arable field margins of county importance, c) Planting of hedgerows / trees within the agricultural fields away from the road scheme to provide breeding habitat for farmland birds, along with planting of seed mixes for foraging / wintering birds (within fields with poor quality arable field margins). 8.3.41. The opportunity has been missed to create wildlife ponds. The scheme incorporates only attenuation ponds that will be maintained as wet grassland. The creation of wildlife ponds would add immensely to biodiversity interest, providing new habitats and drawing in additional invertebrates and terrestrial species. 8.3.42. The high number of missed opportunities demonstrates that the scheme has not been adequately designed to implement the mitigation hierarchy - to avoid, minimise or compensate for adverse impact on biodiversity, including adverse impacts on wildlife sites, priority habitats and species / habitats of local-county importance. 8.3.43. The design of the scheme has not maximised opportunities for biodiversity enhancement and, therefore, does not accord with South Cambridgeshire Local Plan 2018 policy NH/4, Hunts Local Plan 2019 policy LP 30 and Cambridgeshire & Peterborough Mineral and Waste Local Plan 2021 policies 19 and 20 (borrow-pits) or NPPF 2021.
Applicant Response	8.3.30 The proposed landscape scheme includes local habitats such as woodland and grassland. Whilst the detailed species composition of these habitats is to be resolved, these habitats will

Reference Number	Local Impact Report/Applicant Response
	mitigate for habitat loss and achieve an overall enhancement in the biodiversity of the Scheme. The species mixes were shared with landscape officers of relevant local authorities and the comments received were considered in updating the mixes presented in the First Iteration Environment Management Plan [APP-234]. The Scheme has been routed so as to minimise effects to important habitats. Where this was not feasible, mitigation has been proposed within the landscape scheme. In relation to species which the authorities think will not thrive with the predicted climate, the combined authorities were aware these species were going to be included in the planting scheme, and further explanation for the absence of elm will be provided in the response to 8.3.31. 8.3.31 Native elm is susceptible to Dutch Elm Disease and is not commercially available, particularly on the scale required for a major infrastructure project. Paragraph 1.10.14 of the Landscape and Ecology Management Plan (LEMP) (Annex L of the First Iteration Environment Management Plan [APP-234]), explains that English Elm (Ulmus procera) and small-leaved elm (Ulmus minor) are under consideration as part of the planting mix, predominantly for hedgerows. 8.3.32 The five year landscape maintenance period is to manage the landscape to ensure that physical plant losses are mitigated for and that the conditions for habitat establishment are in place. The LEMP does not refer to "target condition" because the LEMP seeks to ensure mitigation establishment. 8.3.33 As stated in Chapter 8, Biodiversity [APP-076], the Biodiversity Net Gain Report [APP-206] and response to Question 1.3.2.2 in the Applicant's Responses to the Examining Authority's First Round of Written Questions [REP1-022], net gain is not a requirement for NSIPs because the legislative environment to deliver it does not exist. The calculations for net gain have been updated and submitted at Deadline 3, further information regarding the results of the calculation are presented in Biodiversity Net Gain: Metric 2.0 (TR010044/EXAM/9.25). 8.3.34 The combined authorities' comment is noted. The Applicant refers the combined authorities to Question Q1.3.2.1 in the Applicant's Responses to the Examining Authority's First Round of Written Questions [REP1-022] and the response to RR-13b, RR-048b and RR-100b of the Applicant Responses to Relevant Representations [REP1-021]. The biodiversity net gain

Reference Number	Local Impact Report/Applicant Response
	calculation for the Scheme using the Defra metric 2.0 has been submitted at Deadline 3 [TR010044/EXAM/9.25]. 8.3.35 The Applicant notes the information provided by the combined authorities. Neither the National Highways biodiversity net gain metric nor the Defra metric 2.0 takes regional variation in habitats into consideration. 8.3.36 The Applicant notes the combined authorities' comments. However, the Environment Bill is yet to be enshrined into UK legislation and therefore the legislative environment in which NSIPs can deliver net gain does not currently exist. 8.3.37 The Applicant disagrees that this is an opportunity missed. The location of compounds was consulted upon as part of the supplementary consultation in advance of submission and no comment was raised by any of the authorities regarding arable field margins, in addition, disturbance during construction of the Scheme would create favourable conditions for arable weeds to germinate and establish. For those that do, this will achieve a temporary benefit. 8.3.38 The Applicant notes the comment from the combined authorities. 8.3.39 The Applicant disagrees this is an opportunity. 8.3.40 While the Applicant notes the comment, notwithstanding, the Scheme would not have residual significant effects on the species and habitats identified in bullet points a) to c) of REP2-003ad. 8.3.41 The Applicant does not agree this is an opportunity missed. 8.3.42 The Applicant does not accept that a "high number" of opportunities have been missed due to the inadequacy of the design or the incorrect implementation of the of the mitigation hierarchy. Chapter 2, The Scheme [APP-071] highlights the embedded mitigation measures that sought to avoid environmental impacts, and each subsequent environmental topic assessment from Chapter 5, Air Quality [APP-074] to Chapter 14, Climate [APP-086] included a Section titled *Design, mitigation and enhancement measures*, these sections provide topic specific measures that have sought to remove and / or reduce the impacts of the Scheme. 8.3.43 From a biodiversity perspective, early engagement in the design process enabled the avoidance of most priority habitats including woodland, parkland and certain key features

Reference Number	Local Impact Report/Applicant Response
	such as the veteran elm, Badger habitat and setts and Great Crested Newt ponds. For those habitats and features that would be impacted, the Scheme has provided mitigation to the extent that the Scheme would achieve an increase in habitats including woodland, grassland and wetland. There is no need for any compensation. To this extent, the design of the Scheme has maximised opportunities for biodiversity enhancement and accords with South Cambridgeshire Local Plan 2018 policy NH/4, Hunts Local Plan 2019 policy LP 30. The authorities' comment is noted, however the Applicant refers the combined authorities to Question Q1.3.2.1the Applicant's Responses to the Examining Authority's First Round of Written Questions [REP1-022] and the response to RR-13b, RR-048b and RR-100b of the Applicant Responses to Relevant Representations [REP1-021] which confirms the net gain calculation for the A428 using the Defra metric 2.0 which has will be submitted at Deadline 3 [TR010044/EXAM/9.25].
REP2-003ae	8.4. Noise and vibration 8.4.1. The Explanatory Note within the Noise Policy Statement for England (NPSE) policy document introduces the following concepts to aid in the establishment of significant effects: a) No Observed Effect Level (NOEL): the level below which no effect can be detected. Below this level no detectable effect on health and quality of life due to noise can be established. b) Lowest Observable Adverse Effect Level (LOAEL): the level above which adverse effects on health and quality of life can be detected. c) Significant Observed Adverse Effect Level (SOAEL): the level above which significant adverse effects on health and quality of life occur. 8.4.2. The factors to be considered in determining if noise is a concern have been identified, including the absolute noise level of the source, the existing ambient noise climate, time of day, frequency of occurrence, duration, character of the noise and cumulative impacts. These have been used to inform the setting of LOAEL and SOAEL levels. Positive impacts

Reference Number	Local Impact Report/Applicant Response

8.4.3. The table below compares the long-term effects of noise on dwellings both without the scheme in operation (Opening Year 2025) (DM) and with the scheme in operation in 2040 (Do Something) (DS).

8.4.4. An overall decrease in traffic noise levels due to the Scheme in the study area is predicted to occur in the longer term. However, the impact of traffic growth over time reduces the beneficial impacts of the scheme.

Table 18: Long-term change in predicted Do-Something traffic noise levels (DM2025 to DS 2040)

Change in noise level		Daytime		Night-time	
		Number of residential buildings	Number of other sensitive receptors	Number of residential buildings	Number of other sensitive receptors
Increase in noise level Daytime $L_{A10,18h}$ dB	0.1-2.9	2090	11	2,066	2
	3.0-4.9	80	3	54	1

Reference Number	Local Impact Report/Applicant Response

Night-time $L_{night,outside}$ dB	5.0-9.9	36	1	23	0
	≥10	4	0	1	0
No change	0	9	0	9	0
Decrease in noise level Daytime $L_{A10,18h}$ dB Night-time $L_{night,outside}$ dB	0.1-2.9	662	4	749	2
	3.0-4.9	127	0	117	0
	5.0-9.9	38	1	30	0
	≥10	3	0	0	0

8.4.5. The introduction of the new dual carriageway between Eltisley and Caxton Gibbet draws traffic away from the existing A428. As a result, the scheme is predicted to result in both traffic noise increases and decreases at properties along this section.

8.4.6. Major and moderate decreases in day and night time traffic noise levels are predicted at properties in the north and west of Eltisley. These decreases result from traffic no longer predicted to use St Neots Road and The Green to access the B1040 once the scheme opens, with this traffic accessing the B1040 via Potton End instead. The transfer of traffic from the existing A428 onto the scheme also contributes to these decreases, with traffic levels at a number of properties reducing from above to below SOAEL. It is considered that the major and moderate decreases in noise at these properties are likely to result in a significant beneficial effect at these properties.

8.4.7. As a result of traffic drawn to the scheme rather than using alternative parallel east-west routes through smaller villages to the north and south the villages predicted to experience moderate decreases in road traffic noise include Yelling, Toseland, Gamlingay, and Abbotsley.

Reference Number	Local Impact Report/Applicant Response
	8.4.8. With regards to noise impacts on public rights of way, the scheme will have positive effects in the vicinity of the existing A428, where the reduced traffic volumes will lead to a decrease in noise levels. However, on balance those path sections near the new A428 will have increased noise levels, as set out in the below section.
Applicant Response	The Applicant can confirm the summary of the assessment provided by the Cambridgeshire authorities is correct.
REP2-003af	Negative impacts *During construction* 8.4.9. The main construction activities that would take place during the scheme construction phase are utility works, site clearance, earthworks, retaining wall construction, bridge construction, bridge demolition and road construction (pavement) works. These construction activities have the potential to result in temporary noise impacts at the receptors closest to the scheme.

Reference Number	Local Impact Report/Applicant Response

Table 19: Summary of predicted construction noise levels (levels at or above the SOAEL/LOAEL in bold underline)[12]

Receptor ID	Daytime L_{Aeq} dB (façade)			Evening / weekend L_{Aeq} dB (façade)			Night L_{Aeq} dB (façade)		
	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level
R01 - 53 Bedford Road, Roxton	65	**58**	62	60	**55**	57	**55**	**52**	58
R02 - 4 High Street, Roxton	65	**58**	57	55	52	52	55	**49**	52
R03 - 39 School Lane, Roxton	65	**53**	60	55	**50**	53	**50**	**45**	53
R04 - 2 Hills Close, Roxton	65	**51**	54	55	48	45	50	**43**	45
R05 - The Bungalow, Roxton Garden Centre Road, Roxton	**65**	**58**	67	**60**	**53**	63	**55**	**48**	63
R06 – Greenacres, Great North Road, Roxton	**65**	**62**	74	65	**59**	63	**55**	**54**	63
R07 - Kelpie Marina,	70	**63**	64	65	**60**	61	**55**	**55**	61

[12] N/A indicates that there are no construction works which affect this receptor during the specified time period.

Reference Number	Local Impact Report/Applicant Response

Receptor ID	Daytime L_{Aeq} dB (façade)			Evening / weekend L_{Aeq} dB (façade)			Night L_{Aeq} dB (façade)		
	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level
Great North Road, Roxton									
R08 - 10 Roxton Road, Chawston	**65**	**56**	69	60	**53**	62	**55**	**49**	62
R09A - Chawston Manor, Colesden Road, Chawston (S)	65	**54**	55	55	51	47	50	**47**	48
R09B - Chawston Manor, Colesden Road, Chawston (E)	65	**52**	55	55	49	47	50	**46**	48
R10 - Mandeville House, Chawston Lane, Chawston	**65**	**62**	68	65	**59**	64	**55**	**54**	64
R11 - Russet House, Nagshead Lane, Wyboston	**65**	**60**	70	60	57	52	55	**53**	53
R12 - 25 Great North Road, Wyboston	75	75	69	72	72	57	66	66	57
R13 - 3 The Lane, Wyboston (W)	**65**	**57**	75	**60**	**53**	64	**55**	**51**	65
R14 - 51 Great North	75	75	61	73	73	53	67	67	54

Reference Number	Local Impact Report/Applicant Response

Receptor ID	Daytime L_{Aeq} dB (façade)			Evening / weekend L_{Aeq} dB (façade)			Night L_{Aeq} dB (façade)		
	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level
Road, Wyboston									
R15A - 9 Great North Road, Chawston (W)	75	70	71	67	67	74	61	61	74
R15B - 9 Great North Road, Chawston (S)	70	67	71	65	64	71	58	58	71
R16 - 2 The Barns, Little Barford Road, Little Barford	70	66	71	65	63	68	58	58	68
R17 - Rectory Farm, Little Barford Road, Little Barford	65	47	61	55	43	42	45	40	50
R18 - Hill Farm, Station Road, Tempsford	65	44	53	55	40	N/A	45	37	N/A
R19 - Orchard House, Potton Road, Abbotsley	65	55	57	55	52	32	55	48	32
R20 - Parkers Farmhouse , Potton Road, Abbotsley	65	59	68	60	56	60	55	52	61

Reference Number	Local Impact Report/Applicant Response

Receptor ID	Daytime L_{Aeq} dB (façade)			Evening / weekend L_{Aeq} dB (façade)			Night L_{Aeq} dB (façade)		
	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level
R21 - Rectory Farm Cottage, Potton Road, Abbotsley	**65**	**53**	74	55	**50**	50	**50**	**47**	50
R22 - Rectory Farm, Potton Road, Abbotsley	65	**49**	60	55	46	43	45	**42**	43
R23A - 2 Rectory Farm Cottage, Potton Road, Abbotsley (SE)	**65**	**58**	68	60	**55**	55	**55**	**50**	55
R23B - 2 Rectory Farm Cottage, Potton Road, Abbotsley (NW)	**65**	**61**	67	65	**58**	59	**55**	**53**	59
R24 - 155 Howitts Gardens, Eynesbury	65	51	50	55	48	39	50	44	40
R25 - Greyholme, Cambridge Road, St Neots	**65**	**60**	65	**60**	**57**	64	**55**	**54**	64
R26 - 4 Stone Hill, St Neots (GF)	65	61	52	60	57	43	55	52	43

Reference Number	Local Impact Report/Applicant Response

Receptor ID	Daytime L_{Aeq} dB (façade)			Evening / weekend L_{Aeq} dB (façade)			Night L_{Aeq} dB (façade)		
	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level
R27 - 1 Wintringham Cottages, Wintringham Road, Wintringham (N)	65	62	74	65	59	57	55	55	58
R28 - Wintringham Hall, Wintringham Road, Wintringham	65	62	63	65	58	63	55	55	63
R29 - Lower Wintringham Farm, Wintringham Road, Wintringham	65	45	50	55	41	40	45	39	41
R30 - Elisley Manor, Cambridge Road, Eynesbury (GF)	70	65	61	65	62	51	57	57	51
R31 - North Farm, Cambridge Road, Eynesbury	65	53	60	55	49	43	50	47	43
R32 - Whitehall Farm House, Whitehall Farm, Cambridge Road,	70	64	65	65	61	47	57	57	48

Reference Number	Local Impact Report/Applicant Response

Receptor ID	Daytime L_{Aeq} dB (façade)			Evening / weekend L_{Aeq} dB (façade)			Night L_{Aeq} dB (façade)		
	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level
Croxton									
R33 - 24 St Neots Road, Eltisley	70	64	63	65	61	59	**56**	**56**	59
R34 - Lion House, Cambridge Road, Eltisley	65	**59**	63	60	**56**	58	**55**	**52**	57
R35 - 46 Caxton End, Eltisley	65	**48**	53	55	45	44	45	**41**	44
R36 - Fairview Farm, St Ives Road, Yelling	65	62	60	65	59	54	55	**54**	54
R37 - North East Farmhouse, North East Farm, Cambridge Road, Eltisley	65	**58**	60	60	53	44	55	50	44
R38 - Pembroke Farmhouse, Pembroke Farm, Cambridge Road, Eltisley	65	**53**	59	55	**50**	51	**50**	**47**	52
R39 - The Bungalow, Pastures Farm, Ermine	65	**51**	55	55	48	48	50	**43**	48

Reference Number	Local Impact Report/Applicant Response

Receptor ID	Daytime L_{Aeq} dB (façade)			Evening / weekend L_{Aeq} dB (façade)			Night L_{Aeq} dB (façade)		
	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level
Street, Caxton									
R40A - Iway Inn, Ermine Street South, Papworth Everard (1 Storey SW - GF)	75	69	67	**66**	**66**	71	**60**	**60**	71
R40B - Iway Inn, Ermine Street South, Papworth Everard (1 Storey S - GF)	**65**	**60**	67	**60**	**57**	63	**55**	**52**	63
R41 - Crows Nest Farm House, Farm, Ermine Street South, Papworth Everard	65	57	48	60	54	40	55	49	40
R42 - Oak Tree Cottage, St Neots Road, Cambourne	70	**63**	68	65	**60**	63	**56**	**56**	63
R43 - Swansley Wood Farmhouse, Swansley	65	**50**	52	55	**47**	47	50	**44**	47

Reference Number	Local Impact Report/Applicant Response

Receptor ID	Daytime L_{Aeq} dB (façade)			Evening / weekend L_{Aeq} dB (façade)			Night L_{Aeq} dB (façade)		
	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level	SOAEL	LOAEL	Max Level
Wood Farm, St Neots Road, Cambourne									
R44 - 4 Common Farm Cottages, Brockley Road, Elsworth	65	**49**	55	55	**48**	48	50	**43**	49
R45 - Lawn Farm, St Neots Road Old Alignment, Elsworth	65	51	37	55	48	32	50	45	33

8.4.10. Of the 45 selected construction noise assessment locations:

a) 36 are predicted to experience construction noise levels which are at or above the LOAEL during the daytime period in one or more months, of which 14 would also be at or above the SOAEL.

b) For the evening/weekend period, 22 receptors are predicted to be at or above the LOAEL, of which 8 would also be at or above the SOAEL.

c) For the night-time period, 33 receptors are predicted to be at or above the LOAEL, of which 22 would also be at or above the SOAEL.

8.4.11. As a result of construction traffic movements there are moderate increases in predicted road traffic noise on the following routes during construction:

a) Bourn Road, Caxton between Caxton Road and Royston Road (Phase 4).

b) Main Street, Caldecote between B1046 and approximately New Barns Farm, Caldecote (Phase 3 and Phase 4).

c) Caxton Road between Alms Hill, Caxton End and Bourn Road, Caxton (Phase 3 and Phase 4). B1046 Meadow Road, Great Gransden (Phase 3 and Phase 4).

Reference Number	Local Impact Report/Applicant Response
	8.4.12. Disruption to all Public Rights of Way (PROWs) is anticipated due to temporary closure with negative impacts on noise, views and amenity for those paths that remain open or the agreed temporary alternative routes. This is likely to decrease usage locally with potential impacts on health and wellbeing. The diversion of footpath 2/87 will have an increase in noise levels compared to the current route. The proposed diversion of the route to Toseland Bridge and back, involves approximately 900 metres additional length parallel to the new A428 at approximately 20 metres. The other 300 metres of the route is on embankments and a bridge over the A428 which will also lead to increased noise on the diverted route. 8.4.13. Most of the scheme construction will take place in a rural environment with just a few properties being affected by construction noise. There are two main areas that will be affected by construction noise; the Potton Road junction and the Cambridge Road junction. Both junctions will see new stretches of local road bridging over the new A428. The following dwellings are likely to experience a significant adverse effect during the day and night: Parkers Farm, The Bungalow at Parkers Farm, Rectory Farm Cottage and 1-2 Rectory Farm Cottage at the Potton Road junction, and Greyholme (Cambridge Road) and Wintringham Cottages (Wintringham Road - A428) at the Cambridge Road junction. The village of Wintringham may also experience a significant adverse effect during the night-time.
Applicant Response	The Applicant notes the comments made within 8.4.9 to 8.4.11. The Applicant is however unsure of the origin of the conclusions presented by the combined authorities in 8.4.12 relating to construction related noise impacts on the diverted public rights of way and requires further clarification. With regard to 8.4.13, construction noise significant adverse effects are identified through the consideration of the predicted construction noise levels and the likely duration of the impact. It is noted that although all these properties listed in 8.4.13 are predicted to experience construction noise levels above SOAEL, when taking likely duration of activities into account, potential significant adverse effects are not identified at night at the following properties: R20 – Parkers Farmhouse (including Bungalow at Parkers Farm) R21 – Rectory Farm Cottage

Reference Number	Local Impact Report/Applicant Response
	R23 A and B – 1-2 Rectory Farm Cottages R25 - Greyholme R27 – Wintringham Cottages R28 – Wintringham Hall For further information, please refer to paragraphs 11.9.8 to 11.9.11 of Chapter 11, Noise and Vibration [APP-080].
REP2-003ag	Construction Vibration 8.4.14. Significant adverse construction vibration effects are identified at the following locations where either moderate or major adverse vibration annoyance impacts are predicted to occur: a) 64 to 68 Great North Road (alongside southbound A1). b) Parallel to both sides of the A1 between The Lane and Black Cat junction. c) Along parts of The Lane, Nags Head Lane and Chawston Lane in proximity to the Roxton Road Link between Roxton Road and The Lane. d) Where the new Roxton Road re-alignment ties into the existing Roxton Road. e) Greenacres. f) Kelpie Marina. g) At the new turning head on School Lane. h) To the north east of the new alignment of Barford Road. i) Along Potton Road in proximity to the new Scheme alignment. j) At the southern alignment of the new Cambridge Road junction. k) At the junction between Cambridge Road and Toseland Road. l) Along the A1198 to the north of the new Caxton Gibbet junction (Iway Inn).

Reference Number	Local Impact Report/Applicant Response
Applicant Response	The Applicant notes the contents of 8.4.14 which reflect the assessment set out within Chapter 11 Noise and Vibration [APP-080].
REP2-003ah	Operational Impacts 8.4.15 Minor increases in traffic noise are predicted on The Lane in the vicinity of the junction with Roxton Road. Moderate increases in traffic noise are also predicted to occur at a number of properties fronting St Neots Road in Eltisley, between the B1040 and The Green. 8.4.16. Increases in traffic noise on the moderate/minor border are predicted at properties to the east of Eltisley. Although the Scheme moves traffic slightly closer to these properties, the acoustic environment of these properties remains unchanged with the new dual carriageway at least 600m from these properties and traffic noise levels tending to remain low both during the day and night. Minor increases in traffic noise are also predicted at North East Farmhouse located between Eltisley and Caxton Gibbet junctions, although new dual carriageway moves traffic slightly further away from this property. Taking all these factors into consideration, no significant effects are likely at these properties. 8.4.17. Minor and moderate increases in traffic noise are also predicted at a number of isolated properties in the vicinity of Caxton Gibbet junction, including Pastures Farm, The Dovecote at Pastures Farm, Pembroke Farmhouse, The Cow Shed (1 and 2 Pembroke Farm), New Bungalow, Oak Tree Cottage, 1-4 Common Farm Cottages and the Iway Inn. These increases in traffic noise result from traffic transferring from the existing A428 to the new dual carriageway which moves slightly closer to a number of these properties, in addition to the new dual carriageway carrying a greater volume of traffic at higher speed through the proposed grade separated junction. Traffic noise will continue to dominate their acoustic environment, these properties have a direct line of sight of the new dual carriageway and Caxton Gibbet junction, both of which are elevated in this section. Taking all these factors into account, it is considered that significant adverse effects are likely to occur at these properties. 8.4.18. Increases in traffic noise on the minor/moderate border are also predicted at Swansley Wood Farmhouse in Cambourne, located approximately 500m to the south east of the scheme. However, the view of the Scheme from this property is likely to be limited, due to the development of Cambourne West providing screening of the scheme at this property. Taking

Reference Number	Local Impact Report/Applicant Response
	these factors into account, it is considered that a significant adverse effect is unlikely to occur at this property. 8.4.19. Increases in traffic noise are predicted in the area of the Cambourne West development, with moderate increases in noise predicted in the areas close to the scheme. These increases result from the new dual carriageway carrying a greater volume of traffic at higher speed through the proposed grade separated junction. Traffic noise will continue to dominate the acoustic environment in these areas once the scheme is operational, with both the new dual carriageway and Caxton Gibbet junction visible to those properties to be located on the north and west boundaries of the development. 8.4.20. A small number of affected routes are predicted to experience a minor increase in traffic noise levels in the short term. These routes are predominantly in the vicinity of the west and eastern extents of the scheme. These increases are a result of traffic being drawn to the scheme on routes in close proximity to the western and eastern extent of the scheme, including the A421 to the west of Roxton, the existing A428 east of Caxton Gibbet and routes through Caxton. This adverse effect is classed as not significant.
Applicant Response	With regard to 8.4.15, the Applicant's position is that the summary of the noise assessment made by the Cambridgeshire authorities is incorrect. Minor decreases are predicted on The Lane to the east of the junction of Roxton Road. Also, moderate increases at properties fronting St Neots Road in Eltisley between the B1040 and The Green is incorrect. As stated in paragraph 11.9.76 of Chapter 11, Noise and Vibration [APP-080], moderate and major decreases are predicted at these properties. Otherwise the Applicant is happy with the summary provided by the Cambridgeshire authorities.
REP2-003ai	8.5 Air Quality 8.5.1 With regard to the operational phase of the development, it is agreed that the scheme will not have a significant adverse impact in terms of air quality on human health within the Cambridgeshire districts with regard to the modelled outputs. These are based upon data within the transport assessment, therefore if any changes are made to the traffic data the potential impact of these changes on air quality will need to be demonstrated. Positive impacts

Reference Number	Local Impact Report/Applicant Response
	8.5.2. Huntingdonshire District Council have four AQMA's within their district and the proposals will not lead to a breach of the air quality objectives in these areas, or elsewhere in the district. 8.5.3. South Cambridgeshire District Council have one AQMA within their district and the proposals will not lead to a breach of the air quality objectives in these areas, or elsewhere in the district. 8.5.5. The scheme has the potential to affect air quality during operation, both increasing and decreasing the annual average concentration of Nitrogen Dioxide NO_2 within the study area. Whilst the proposals are predicted to lead to improvements in air quality for a number of residents, it is noted that some small increases in the annual average concentration of Nitrogen Dioxide (NO_2) are predicted at a limited number of locations representative of sensitive residential receptors within the districts. The largest modelled increase within Huntingdonshire is predicted to be 0.8µg/m3 and 1.1µg/m3 within South Cambridgeshire. However, all modelled residential receptors are predicted to remain well below the relevant air quality objectives for NO_2 and the predicted impact is classed as non-significant. 8.5.6. The predicted pollution levels from the proposed scheme demonstrate there will not be a breach in national objectives or an unacceptable risk from air pollution for the residents of Cambridgeshire.
Applicant Response	The Applicant notes the positive comments from the Cambridgeshire authorities.
REP2-003aj	Negative impacts 8.5.7. Construction activities could have a significant impact on residents, however adequate controls can be secured by way of an Environment Management Plan to ensure adequate mitigation measures are agreed and utilised.
Applicant Response	The Applicant agrees that adequate mitigation measures will be set out in the Environmental Management Plan to mitigate the effects of construction dust on sensitive receptors.
REP2-003ak	Missed opportunity

Reference Number	Local Impact Report/Applicant Response
	8.5.8. No enhancement measures relating to air quality have been incorporated into the design of the scheme. This could have been achieved through provision of infrastructures to facilitate more sustainable modes of transport for the future particularly through the provision of Electric Vehicles Charging Stations.
Applicant Response	The Applicant does not intend to include electric charge point infrastructure as part of the Scheme.
REP2-003al	8.6. Climate Positive impacts 8.6.1. From a climate perspective, specifically in relation to carbon emissions, there are not considered to be any positive impacts from the scheme as it will result in an increase in emissions. There is potential for these negative impacts to be mitigated, albeit we seek further clarification as to the measures that will be implemented to mitigate impacts, as set out in our Written Representation (REP1-048).
Applicant Response	The Applicant notes the comments with regard to providing further clarification on GHG mitigation measures. Further detail on measures to mitigate GHG emissions during construction will be included in the next iteration of the Environmental Management Plan. The impact of emissions from road users is addressed in the response to 8.6.2 to 8.6.5 below.
REP2-003am	Negative impacts 8.6.2. The scheme will result in an increase in carbon emissions, both during the construction phase and during the scheme's operational phase. Table 14-9 of the climate change chapter of the Environment Statement (APP-083) indicates construction stage emissions of 208,380 tCO2e. Operational emissions in the year of opening are shown to rise by 35,280 tCO2e from the do minimum scenarios to the do something scenario. This increase is due to the increase in vehicle kilometres travelled as a result of the scheme (APP-083 paragraph 14.9.12). 8.6.3. Table 14-11 and paragraph 4.9.24 of the ES (APP-083) presents these emissions against the national carbon budgets. During the period when carbon emissions from the scheme would be at their highest level (short- and near-term construction activity and the first year of

Reference Number	Local Impact Report/Applicant Response
	operation), the scheme's carbon emissions would equate to 0.012% of the UK's carbon budget for the relevant period (the fourth carbon budget period, 2023-2027). For the fifth carbon budget period (2028 to 2032), the scheme's carbon emissions would equate to 0.011% of the national carbon budget. While the significance testing of the scheme as not considered the implications of the sixth carbon budget, covering the period from 2033 to 2037, paragraph 14.9.28 notes that the scheme represents less than 0.117% of total emissions in the budget period. 8.6.4. The presentation of a single project as a percentage of a national emissions budget will also result in a low value leading to an impression that the emissions are small. However, they do still represent an increase in emissions, and when one considers all national level road building under RIS2, road building will lead to an additional 20 MtCO2 of cumulative emissions between 2020 and 2032. This represents a 5% increase in emissions over a do-nothing scenario, making the task of emissions even more challenging at a time when, as noted by the Committee on Climate Change in their recent June 2021 progress report to parliament, we should be reducing emissions. The Committee have noted that "decisions on investment in roads should be contingent on analysis justifying how they contribute to the UK's pathway to Net Zero. This analysis should demonstrate that the proposals would not lead to increases in overall emissions. Wherever possible, investment in roads should be accompanied by proportionate investment in EV charging infrastructure and in active travel and public transport." 8.6.5. Any increase in kilometres travelled as a result of the Scheme will also impact on the ability of the CPCA to meet the recommendations from the CPICC to reduce car miles by 15% by 2030.
Applicant Response	An assessment of GHG emissions from the Scheme in the context of the 6th Carbon Budget has been undertaken and is presented in the Applicant's Response to Examining Authority's First Round Written Questions, question 1.4.1.1d [REP1-022]. In summary the assessment against the 6th carbon budget concluded that emissions from the Scheme during the 6th carbon budget period (2032 to 2037) would equate to 226,637tCO2e, representing 0.024% of the total 6th carbon budget. On this basis the Scheme is not considered to have a material impact on the UK Government meeting its carbon reduction targets.

Reference Number	Local Impact Report/Applicant Response
	As stated in the Applicant's Response to Examining Authority's First Round Written Questions [REP1-022], question 1.1.1.1, GHG emissions from road users presented in Chapter 14, Climate of the Environmental Statement [APP-083] have been calculated using the DMRB calculator which is based on the Defra Emissions Factors Toolkit (EFT) along with the outputs of traffic modelling for the Scheme. This approach does not currently factor in the impact of recent government policy presented in the Transport Decarbonisation Plan (TDP), published in July 2021. The EFT used to calculate road user emissions only accounts for traffic fleet projections to 2030 and therefore no consideration has been given in the model to the targets presented in the TDP such as the end of the sale of new petrol and diesel cars by 2030 and the associated uptake of electric vehicles. This means that the GHG emissions from road users presented in the Environmental Statement represent a conservative estimate of carbon emissions. The consideration of the cumulative effects of the Scheme with other existing and/or approved projects is inherent within the methodology followed in the Environmental Statement through the inclusion of the Scheme and other locally committed developments within the traffic model. UK Carbon Budgets, used to put emissions from the Scheme into context, are inherently cumulative as they consider emissions across all sectors of the economy. It was held in the recent case of R (Transport Action Network Limited) v Secretary of State for Transport and Highways England Company Limited (2021) EWHC 2095 (Admin) that in relation to the judgment reached regarding the entirety of the carbon emissions from all schemes within RIS 2. *"I see no reason to question the judgment reached by the DfT that the various measures of carbon emissions from RIS 2 were legally insignificant, or de minimis, when related to appropriate comparators for assessing the effect on climate change objectives." (paragraph 159)* Therefore, the High Court has concluded that the total amount of carbon emissions from the schemes listed in RIS2 programme is legally insignificant in the context of appropriate comparators for assessing the effect on climate change objectives.
REP2-003an	Missed opportunity 8.6.6. Specific opportunities to use materials with lower embodied carbon should have been identified in detail at this stage in order to inform comments on the scheme.

Reference Number	Local Impact Report/Applicant Response
	8.6.7. Opportunities to enhance infrastructure to support low emissions vehicles alongside the route of the scheme have been missed (for example provision of ultra-rapid chargepoint provision across motorways and A-roads, in line with commitments made in Decarbonising Transport, page 98, first bullet point).
Applicant Response	The Applicant notes the comments at 8.6.6. As stated in the response to 8.6.1, further detail on measures to mitigate GHG emissions during construction will be included in the next iteration of the Environmental Management Plan. The Applicant does not intend to include ultra-rapid charge point infrastructure as part of the Scheme.
REP2-003ao	8.7. Pedestrians, Cyclists and Equestrian travellers Positive impacts 8.7.1. The provision of grade separated crossings across the new A428, combined with less traffic along the route of the existing A428 may encourage greater usage by removing some of the barriers for safe use. 8.7.2. A new public footpath linking Public footpaths Abbotsley1/9 and 1/17 will enable circular walks between the two existing parallel paths. This provision helps to encourage greater use through providing additional options of route length and interest. 8.7.3. The A428 scheme will partly tie in with the revision of public rights of way at the Wintringham development east of St Neots. 8.7.4. Localised improvements to NMU facilities at Eltisley Link Road and Caxton Gibbet junctions may encourage non-motorised user movements in these areas. 8.7.5. The DCO proposes to upgrade the provision between Caxton Gibbet North roundabout and Brockley Road, Elsworth, to bridleway status, which will accommodate a greater variety of highway users and provide an improved link between the A1198 and the former A428 at Elsworth leading towards Cambourne.

Reference Number	Local Impact Report/Applicant Response
Applicant Response	The Applicant notes the comments from the Cambridgeshire authorities.
REP2-003ap	Negative impacts 8.7.6. The scheme will result in the closure and diversion of 15 PROWs in Cambridgeshire during the construction phase. Closures and diversions must be signed at the point where there the PROW leaves the public carriageway, in addition to the point of closure. This did not happen with the A14 scheme and resulted in users attempting to continue along the closed route rather than back-track several kilometres, putting users potentially at risk on a live scheme as well as engendering poor relations. Good, consistent communication is critical. 8.7.7. During construction of the new A428 a large number PROWs will be closed or diverted. CCC's experience with the A14 is that whilst the mainline A14 dual carriageway opened in December 2019, and the Local Access Road fully opened in April 2020, 16 months later (August 2021) many of the diverted and changed PROW are incomplete do not have confirmed dates for opening. It is unacceptable that the route network non-motorised users are negatively impacted for an unnecessarily longer time that road users. 8.7.8. Noise will impact the Public Rights of Way, during construction and in operation. Within Cambridgeshire the majority of the new A428 is at, or above ground level, resulting in traffic noise carrying a further distance than if in a cutting. Tree planting and screening would help to mitigate both the noise and visual impact of the road. 8.7.9. Where the proposed A428 is elevated it will impact visually and reduce the ruralness of the routes with sight of the new road. 8.7.10. Flooding and damage to surface of PROW in close proximity to the A428 construction works. Experience with the A14 suggests that such issues only become apparent during/following construction. Therefore, there should be preparedness in Highways' England's design process to be ready to address such issues. 8.7.11. New and improved existing links to create opportunities for local people to commute from A to B on safe NMUs and provide opportunities to improve pedestrian, cycle and horse-riding experience have not been provided fully in accordance with National and Local Policies:

Reference Number	Local Impact Report/Applicant Response
	• National Planning Policy Framework paragraph 100 • Highways England 'Connecting our customers 2021' • Department for Transport 'Gear Change: A bold vision for cycling and walking' • Department for Transport 'Cycle infrastructure design - Local Transport Note 1/20' • Cambridgeshire County Council 'Rights of Way Improvement Plan.' 8.7.12. The current new NMU provision is limited to only where the A428 has disrupted the existing highway network. Providing good, well connected NMU networks may positively influence the uptake of more active forms of transport to help meet the aims set out in the South Cambridgeshire Zero Carbon Strategy, ease congestion and help to maintain air quality targets locally. 8.7.13. The Cambridgeshire Transport & Health JSNA (2015) states priorities as being improving safety and perception of safety, infrastructure. 8.7.14. The Countywide health and wellbeing strategy 2020-2024 promotes housing and transport infrastructure that is designed to help tackle climate change. 8.7.15. In a CCC report entitled Reducing air pollution, congestion, and CO2 emissions from transport across Cambridgeshire (2019) it recommends a minimum goal that 60% of travel in 2030 ought to be on buses, cycling and walking. 8.7.16. The impacts on NMU routes which are considered to be of moderate or major significance in operation: **Table 20: NMU routes with a moderate to significant impact during operation** **Route** | NMU route at Cambridge Road Junction | NMU users at the Cambridge Road junction will be required to cross the new A428 slip roads without a signalised crossing facility. This is inconsistent with the crossing 96

<table>
<tr><th>Reference Number</th><th>Local Impact Report/Applicant Response</th></tr>
<tr><td></td><td>
<table>
<tr><th>Route</th><th></th></tr>
<tr><td></td><td>facilities that have been provided at a similar A428 junction at Cambourne</td></tr>
<tr><td>Abbotsley Footpath 1/16</td><td>Realignment drops into the A428 cutting and back out again adding additional height change to the route which may cause difficulties for some users including those with protected status. Part of the route runs close to the new A428, where it will be noisy and visually intrusive: there is no amenity benefit.
A revised route along the top of the cutting would resolve these issues.</td></tr>
<tr><td>Yelling Footpath 278/7</td><td>The diversion of this route utilising the Toseland Road bridge will add approximately 1.2km additional length to the route. 900 metres of the diverted route will run closely (15-20m) parallel to the new A428 with significant noise and visual intrusion. On the northern side of the A428, an extension to the DCO boundary would have enabled the route to utilise an existing farm track which would have allowed the northern part of the diversion to have run at 170m from the new A428. The existing diversion proposals must provide adequate screening to mitigate the effects of the proximity to the new road.</td></tr>
<tr><td>Caxton Gibbet Junction North Roundabout</td><td>The A1198 will be more difficult to cross without an NMU underpass / bridge or signalised crossing due to the increased number of lanes of traffic (proposed 3 southbound and 2 northbound lanes)</td></tr>
<tr><td>NMU users at New Caxton Gibbet junction</td><td>NMU users at the New Caxton Gibbet junction will be required to cross the new A428 slip roads without a signalised crossing facility. This is inconsistent with the crossing facilities that have been provided at a similar A428 junction at Cambourne</td></tr>
<tr><td>Caxton Gibbet North Roundabout to Brockley Road</td><td>Users of the Caxton Gibbet North Roundabout to Brockley Road, Elsworth NMU route will have to share the route with a private vehicular access. Vehicular use of the route may lead to a deterioration of the surface material and thus a negative effect on the enjoyment of the route by Non-motorised users.</td></tr>
<tr><td>All routes that cross or run close to the new A428.</td><td>Permanent intrusion into the rural nature of the affected Public Rights of Way, which will now be closer to (in some cases immediately next to) a high-speed dual carriageway. The Environmental statement Table 7-6 lists that during year 15 of operation there will be a moderate-adverse (significant) of the road - LLCA 11: Wintringham and Weald Clay Farmland in Cambridgeshire. This may dissuade some users from using paths with impact on health and well-being.</td></tr>
</table>
</td></tr>
<tr><td>Applicant Response</td><td>8.7.6 The Applicant is not aware of 15 PRoW closures or diversions associated with the Proposed Development. The new dual carriageway impacts eight Public Rights of Way within the area of Cambridgeshire, the Applicant is proposing five crossing facilities to maintain connectivity. The Applicant proposes the stopping up of 3 sections of PRoWs (Footpaths 1/19, 1/20, 1/16)</td></tr>
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Reference Number	Local Impact Report/Applicant Response
	near Wintringham Park to align with the development's proposal. On a temporary basis the Applicant will, in addition, impact footpaths 194/55 and 59/1, continuation of footpaths 1/9 and 278/7 respectively. The Applicant is committed to signing the temporary closures and diversion appropriately. 8.7.7 The Applicant is committed to continuing engagement on the completion of the PRoW and the lessons learnt on the A14. 8.7.8 Chapter 11, Noise and Vibration [APP-080] provides details of the operational traffic noise impacts on the PRoW in the noise modelling study area in paragraphs 11.9.87 to 11.9.92. The assessment concludes that 'given the linear nature of PRoWs, the range of noise impacts along them, the absolute traffic noise levels, and the transient usage of a PRoW, a material change in the experience of using the PRoWs as a whole, which could affect people's health or quality of life, is not anticipated and no significant adverse or beneficial effects on PRoWs have been identified.' A number of sections of the route are below existing ground level (i.e. in cutting) which would screen traffic and reduce noise impacts in the vicinity. These include the A1 in the vicinity of Black Cat Junction, in the vicinity of the B1046 overbridge, Cambridge Road junction, east of Toseland Road bridge and through Eltisley junction. It is agreed that cuttings will act as a barrier reducing the propagation of noise from the Scheme. Similarly, screening such as the bunds included in the Scheme design at Roxton and close to the intersection with Potton Road, also reduce the propagation of traffic noise. With regards to planting to reduce noise impacts, the benefits of vegetation in providing an effective sound 'barrier' are limited and are generally more in terms of a perceived benefit, due to either reducing/ removing the view of the road and/ or a masking effect due to leaves rustling in the wind, rather than an actual reduction in traffic noise. A substantial depth, density and consistency of vegetation is required to achieve any reduction in levels. It is not possible to guarantee that any reductions in traffic noise levels from planting would be achieved or could be maintained throughout the seasons and over the longer term. Therefore, to ensure a conservative approach the standard UK traffic noise prediction methodology (Calculation of Road Traffic Noise) and the standard traffic noise assessment methodology set out in the 'Design Manual for Roads and Bridges' (DMRB), as

Reference Number	Local Impact Report/Applicant Response
	adopted in the operational traffic noise assessment as presented within Chapter 11, Noise and Vibration [APP-080] does not include any barrier effect for vegetation. 8.7.9 For details on the visual impacts of the Proposed Development, please refer to Chapter 7, Landscape and Visual Effects [APP-076] of the Environmental Statement. 8.7.10 The Applicant notes the comments from the Cambridgeshire authorities. 8.7.11 The Applicant notes the comments set out above, however disagrees that the Scheme provides insufficient provision for walkers, cyclists and horse riders. Section 8.3 of the Transport Assessment Part 1 [APP-241] sets out the provision that is made within the Scheme to maintain connectivity of the existing function of Public Rights of Way where possible, and at paragraph 8.3.3 sets out the new and improved routes that are delivered through the Scheme. This includes shared footway/cycleways are proposed along Roxton Road Link, Roxton Road, Bedford Road and Kelpie Marina access for the replacement of infrastructure on the A1. Furthermore, shared footway/cycleways are proposed at Cambridge Road and Caxton Gibbet junctions. These routes have been upgraded from a footway to shared use facilities. The National Policy Statement for National Networks (NPSNN), paragraphs 5.201-5.217 provide the Government's policy in respect of impacts from nationally significant road developments upon transport networks. Paragraph 5.215 explains that mitigation measures for schemes should be proportionate and reasonable, focused on promoting sustainable development. Paragraph 5.216 goes on to explain that where development would worsen accessibility such impacts should be mitigated so far as reasonably possible. There is a very strong expectation that impacts on accessibility for non-motorised users should be mitigated. The Scheme has provided proportionate and reasonable mitigation for Non-Motorised Users (NMUs) where they are severed or disrupted by the Scheme. The Applicant also notes the comments about LTN 1/20, however does not consider it appropriate to adopt these principles for the Scheme for the following reasons: • The Applicant is not required to adopt the principles of Local Transport Notes. These are advisory documents produced by the Department for Transport and recommended to local highway authorities for use on their roads. Compliance with LTN1/20 is not

Reference Number	Local Impact Report/Applicant Response
	compulsory for the local highway authority and therefore the requirements of the Design Manual for Roads and Bridges is the appropriate standard to be complied with, including the assessment and review process in GG142. • The existing A428 and the local roads are not new roads, a status not changed by the de-trunking process. 8.7.12 In the delivery of the Scheme, the Applicant is required to re-provide NMU routes that are severed or disrupted as a result of the Scheme. Where appropriate the Applicant seeks to deal with existing severance issues. Whilst wider interventions may sometimes be appropriate to address community severance resulting from the existing strategic road network, it is beyond the proper scope of the Scheme to address all existing issues faced by existing users of the wider highways network. 8.7.13 The Applicant notes the comments from the Cambridgeshire authorities. 8.7.14 The Applicant notes the comments from the Cambridgeshire authorities. 8.7.15 The Applicant notes the comments from the Cambridgeshire authorities. 8.7.16 The Applicant would comment as follows and does not agree that the routes described would experience a moderate or significant impact: a) In accordance with DMRB CD143, the Applicant proposes a signalised crossing of the Cambridge Road junction slip roads. b) The proposed alignment of footpath 1/16 within the Order Limits passes through and along the variable earthwork regrading as shown on the General Arrangement Plans [APP-011] which is relatively flat (<0.5%). The Applicant proposes to remove a localised high point in the terrain and a such passage for the footpath users will be less difficult. c) The route of the Footpath 278/7 diversion was chosen to avoid using the agricultural track as much as possible because the Applicant was advised by the landowner that the current track is well used by large agricultural machinery. The proposed route preserves as much of the original route of the footpath as possible, albeit with a longer

Reference Number	Local Impact Report/Applicant Response
	diversion route. The surveys carried out in 2016 and 2020 recorded no users at any time on this route and the impact on users was assessed as negligible [APP-081]. d) The Applicant proposes a signalised crossing of the A1198 north of Caxton Gibbet junction. e) The Applicant in accordance with DMRB CD143 proposes a signalised crossing of the Caxton Gibbet junction slip roads. f) The surfacing used along the route will be designed for the intensity of use and the nature of the agricultural machinery that is anticipated to use it. It is considered unlikely that the use of the route by agricultural machinery will lead to a such a severe degradation of the surfacing to such a point that the enjoyment of its use by non-motorised users will be affected. g) The Applicant notes the comment made by the combined authorities.
REP2-003aq	Missed Opportunities 8.7.17. All NMU provision should include equestrians in accordance with CCC ROWIP and Highways England's own Accessibility Strategy and Connecting Our Customers 2021 policy. Equestrians are classed as vulnerable road users. By having the equivalent right to use the off-carriageway NMUs, they would benefit from much safer routes. 8.7.18. NMU improvements should be delivered by the scheme where they sit within the red line boundary: it is unreasonable to push the risk and burden of delivering these improvements onto the LHA. In addition, it lengthens the time before the NMU facilities can be provided, since the LHA cannot start work until the highway is handed over to the LHA. 8.7.19. The Eltisley–Caxton Gibbet Junction link has a 600-metre gap in NMU provision where vulnerable users will have to use the carriageway to continue and are then required to cross the realigned A428 with no crossing provision. This creates a safety risk and acts a significant barrier to the use of the entire NMU route between Eltisley and Cambourne. 8.7.20. The request for the upgrade of Abbotsley FP1/17 to Bridleway status, included in our Supplementary Consultation response, and the associated improvements to the proposed NMU bridge over the new A428, has not been incorporated into the draft order. This is

Reference Number	Local Impact Report/Applicant Response
	disappointing as an opportunity to create off road east west links for all NMU users is being missed. The Connecting Our Customers 2020-21 Highways England5 publication also states that they will: "make improvements for walkers, cyclists and horse riders based on what they tell us they want to see. For example, building better cycle routes and safer crossing points." Such provision would also support the CCC Rights of Way Improvement Plan (ROWIP), Statement of Action (SOA) 5 – Filling in the Gaps – Given the lesser extent of the bridleway network there is a real need to improve the network making connections to the wider transport network. 8.7.21. The re-aligned Potton Road B1046 over the new A428, has no space available for NMU users off-carriageway. This creates a risk for on-road NMUs and prevents future potential for providing safe NMU provision along this route. Provision of such space is required to bring the Scheme into compliance with ROWIP (SOA 2 - A safer and health enhancing activity; SOA5, Filling in the gaps). 8.7.22. The existing A428 to be de-trunked has no suitable NMU facilities: this will inhibit the creation of an active travel corridor between St Neots and Cambridge. Leaving the NMU provision to a Designated Funds application leaves it at risk of not being delivered. Designated Funds requires equal matching of funds or expertise by CCC, which is unreasonable as CCC has no additional resources for A428 works. 8.7.23. Croxton – Eltisley. Current NMU facilities along the existing A428 that connect these two communities are sub-optimal and should have been identified for improvement as part of the DCO in accordance with Highways England's own Accessibility Strategy. 8.7.24. Toseland Road: No off-carriageway NMU provisions are provided northwards to link the new works at Toseland Road with Toseland Footpath 237/7, despite the DCO boundary extending far enough to allow such works to proceed. This would allow a longer NMU and a better transition from the road to NMU. 8.7.25. Eltisley northern bypass (existing A428): Improved equestrian crossing facilities have not been provided at Eltisley, where Eltisley bridleway 74/6 crosses the existing A428. This crossing will remain on a B-class road that represents a well-used through-route for local traffic and the provision of a safe crossing point should be considered.

Reference Number	Local Impact Report/Applicant Response
	8.7.26. Eltisley Link North roundabout: This should facilitate cyclists who wish to continue northwards on the B1040 with a suitable transition from off to on road. The roundabout should be designed to slow traffic speeds with LTN 1/20 compliant refuges for crossing the roundabout. Local Transport Note 1/20 Cycle Infrastructure Design (LTN 1/20) states that: "The guidance should be applied to all changes associated with highway improvements, new highway construction and new or improved cycle facilities, including those on other rights of way such as bridleways and routes within public open space." 8.7.27. Caxton Gibbet Junction Services: The footway linking to the services should be built as an NMU for pedestrian and cyclists, to enable workers and customers to safely access the services by active travel. Department of Transport "Gear Change 2020" includes the following statement: To receive Government funding for local highways investment where the main element is not cycling or walking improvements, there will be a presumption that all new schemes will deliver or improve cycling infrastructure to the new standards laid down, unless it can be shown that there is little or no need for cycling in the particular road scheme." 8.7.28. Connectivity Caxton Gibbet Junction to Cambourne Junction: The speed and volume of traffic on the old A428 section between Brockley Road, Elsworth and Cambourne junction is not suitable for cycling, and so the NMU route from the Caxton Gibbet roundabout to the old A428 at Brockley Road should be continued eastward to link with the existing NMU route into Cambourne. This is a high priority route in the draft Cambridgeshire Local Cycling and Walking Infrastructure Plan and, with the Highways England funded link to Papworth Everard, would provide a continuous segregated route from Papworth to Cambourne and onward connectivity to Cambridge through the recent A14 scheme NMU improvements. The Connecting Our Customers 2020-21 Highways England publication also states that they will: "work with our partners and stakeholders to improve how our roads connect with other transport modes and networks by providing more sustainable options for our customers".
Applicant Response	8.7.17 The provision for walkers, cyclist and horse-riders is determined on an identified need basis for which evidence is gathered. Provision is not made by default for specific user groups. The provision requirements for horse-riders, in accordance with DMRB CD143, is more onerous and would require additional infrastructure, especially around crossings. Should Cambridgeshire County Council wish to extend the bridleway network within the area and

Reference Number	Local Impact Report/Applicant Response
	provide an off-carriageway route, the proposed Scheme does not preclude any such extensions or alterations in the future. 8.7.18 The Applicant has proposed NMU improvements where the Scheme directly impacts the network. It is perfectly reasonable for Cambridgeshire County Council to implement their NMU improvements plans within their jurisdiction but it is unreasonable to expect the Applicant to deliver these where there is no evidence of need. The Scheme does not preclude Cambridgeshire County Council from implementing enhanced measures or contributing to the additional costs associated with these upgrades. It would be for the local authority to evidence the need for the upgrades and secure any additional land to deliver these facilities. 8.7.19 Please refer to RR-013bn in the Applicant's Response to Relevant Representations [REP1-021]. 8.7.20 The upgrade of Footpath 1/17 would create an isolated section of bridleway which equestrians could not legally access. The Applicant cannot provide upgraded provision for Cambridgeshire County Council's aspiration to connect to the wider bridleways, as to do so would impact existing landowners. It is for the local highway authority to negotiate new highway rights with the landowners or use their compulsory acquisition powers. The Council are suggesting that the Applicant justifies the Council's NMU aspiration and compulsory acquisition need. As stated earlier, the Scheme does not preclude the Council from implementing and/or contributing to enhanced measures. 8.7.21 The Applicant notes that there is no NMU provision on the existing B1046 and Potton Road and that there is no identified a need for off-carriageway provision. In any event, the Applicant does not preclude the Council from implementing and/or contributing to enhanced measures. 8.7.22 The Applicant cannot provide enhanced measures for Cambridgeshire County Council's aspiration to have an active travel corridor alongside the de-trunked section of the A428 as this would be beyond the proper scope of the Scheme. Depending upon the design of suitable facilities it may also require acquisition of land adjacent to the existing road, for which a compelling case cannot be made. As stated earlier, the Applicant does not preclude the Council from implementing and/or contributing to enhanced measures.

Reference Number	Local Impact Report/Applicant Response
	8.7.23 The Accessibility Strategy, published in 2016 refers to a 'commitment to ringfence funding for a range of accessibility, integration and inclusion schemes between now and 2021'. This relates to the Highways England Delivery Plan 2015 -2020. The Applicant continues to promote accessibility proposals within the Highways England Delivery Plan 2020 – 2025 as part of the Designated Funds initiative which is dealt with outside of the DCO process. Similarly to the above response, the Applicant does not preclude the Council from implementing enhanced measures to meet their aspirations, policies and plans. 8.7.24 Additional land is required to provide requested footpath, this is outside scope the scope of the scheme. It should be noted that there is no existing footpath along Toseland road within the scheme boundary. The Applicant does not preclude the Council from implementing enhanced measures to meet their aspirations, policies and plans. 8.7.25 The Applicant proposes that the existing bridleway crossing of the existing A428 to be de-trunked will be retained as is. Traffic on the existing A428 is anticipated to significantly reduce as a result of the Scheme and crossing the existing road will be safer. Should the Council have concerns about safety, the Applicant welcomes further information from the Council that demonstrates this point so that it can be considered. 8.7.26 Please refer to RR-013bj in the Applicant's Response to Relevant Representations [REP1-021]. 8.7.27 Please refer to REP1-048bc in the Applicant's Response to the Examining Authorities First Written Questions [REP1-022]. 8.7.28 Similarly to the above responses, no need has been identified and the Applicant does not preclude the Council from implementing enhanced measures to meet their aspirations, policies and plans.

Reference Number	Local Impact Report/Applicant Response
REP2-003ar	8.8. Flooding and Water Positive impacts 8.8.1. The attenuation basins proposed within the scheme are integral to the design. They promote the use of SuDS to manage surface water from the site and are used for the treatment of the surface water before this discharges into the wider watercourse network. As the watercourses around this scheme are large and can carry high flows as well as containing habitants and passages for wildlife, if pollutants manage to enter the watercourses, this could be very detrimental to the biodiversity. The proposed basins are retaining the flows to reduce the discharge to the natural rates, as well as treating the water to ensure that biodiversity is maintained for the lifetime of the carriageway. The basins therefore provide multiple benefits once constructed and fully functioning. 8.8.2. Part of the discussions with the EA and scheme proposals are to retain flood waters on the westbound carriageway side by undersizing the culverts, which would ensure that the scheme is providing betterment where possible to the surrounding flood risk. While this is part of the flood zone compensation and flood alleviation works discussed with the EA, it will provide a major benefit post construction, as there are some large scale developments occurring on the south and eastern fringes of St Neots.
Applicant Response	The Applicant notes these comments from the Cambridgeshire authorities on the benefits of SuDS and under sizing culverts.
REP2-003as	Negative impacts 8.8.3. During construction, there is an increased risk of pollution. This is a result from earthworks which generate sediment movement, which can result in an increase of sediment being discharged into the surrounding watercourses, unless carefully managed. The other risk presented is the presence of hazardous pollutants, such as fuel and oils, which could cause high levels of damage to the watercourses if they are discharged into them. While the monitoring of the water bodies and watercourses around the scheme is proposed, more detail should be provide around the proposed mitigation to reduce the risk of these pollutants being discharged into the watercourses. This includes items such as the use of settlement basins to

Reference Number	Local Impact Report/Applicant Response
	reduce sediment transport, bunging of gullies from the finished surface while there is still a risk of higher sediment loaded entering the system and safe disposal of high contaminant laden water. The damage these pollutants can cause to the wildlife and habitants of the watercourses can be substantial.
	8.8.4. The current proposed works to the watercourses around the scheme, such as the diversions, culverting and removal of watercourses, could present negative impacts post development. The large watercourses which the A428 dissects are proposed to be culverted, which is fine, however the proposed culverts can present a risk. Currently the proposals are for the shortest crossing, leading to sharp bends in the watercourses to pass the road perpendicular to the direction of travel. Where this is the case, the water will slow down and sediment will start to deposit around the corners. The best practice design of culverts is to keep them aligned with the natural flow of water as far as possible. The other area of particular concern is around the Wintringham brook crossing, which indicates flows will be converging head on, before passing below the proposed A428 carriageway. This would lead to sediment deposition and potentially erosion in higher flows. The risk around watercourse works and main concerns from the LLFA is that the Land Drainage Act 1991 is being proposed to be disapplied, which means that no authorising body is able to comment and provide input on the proposals. The LLFA is against the disapplication of section 23 of the Land Drainage Act 1991.
	8.8.5. Proprietary treatment by means of interceptors is proposed in area where there is viewed to be an increased risk of pollution against the HEWRAT assessment. Generally, proprietary treatment systems are opposed by the LLFA as they are not viewed as a sustainable solution and the maintenance risks associated with the feature. If the features aren't maintained appropriately or regularly enough, they start losing their treatment benefits and even stop treating surface water. This could lead to the risk of increased pollutant loads being discharged into the watercourses, which has a negative impact on the surrounding biodiversity. The LLFA's preference for treatment is through SuDS. While the basins are providing a level of treatment, this is not enough for the higher risk areas. The use of features such as reed planting can treat surface water in a natural way to reduce the maintenance need and risk of the treatment failing and should be considered over the use of proprietary treatment.

Reference Number	Local Impact Report/Applicant Response
	8.8.6. The proposals for the discharge from the different catchments across the scheme is to limit the runoff from the basins to the natural Greenfield runoff rates. However, the submitted reports indicate that where the rate is below 5 l/s then this should be defaulted to a minimum of 5 l/s. This could increase the discharge rates from certain catchments pretty drastically, increasing the peak volumes discharging from the basins into the surrounding watercourses, in turn increasing the risk of flooding to the downstream extents of the receiving watercourses. As this is upstream of large developments such as Wintringham Park and the wider St Neots area, this could increase the risk of flooding to existing and future properties There is a balance to meet around the discharge rates and risk of blockage, however the increased rates to 5 l/s is an outdated approach and this can be reduced further. 8.8.7. Maintenance of the features has not been fully arranged. There needs to be a clear delineation between the adoption and ongoing maintenance body for the proposed surface water features. This is to ensure that they are maintained appropriately for the entirety of the lifetime of the upgraded carriageway. If a feature is not maintained then its function and ability to manage water will reduce and lead to risks previously discussed, such as increased pollution and flood risk. It is acknowledged that not all of the works will remain with Highways England post construction, and some will be handed back to land owners or other maintenance bodies, such as the highways team. Where these are to be adopted by bodies such as the highways team then it must be clear that this has been agreed by all parties.
Applicant Response	In relation to paragraph 8.8.3, an Outline Water Management Plan has been prepared and is included as Annex F of the First Iteration EMP [APP-234]. The Outline Water Management Plan provides further details as to how construction phase water quality risks and potential physical impacts to water bodies will be managed. This plan will be developed further and incorporated into the Second Iteration EMP in accordance with Requirement 3 of the dDCO [REP1-003]. In relation to paragraph 8.8.4, we note the concerns regarding risk of in channel sediment deposition or erosion. The detailed design of culverts has not yet been undertaken. The detailed design of culverts would be undertaken simultaneously with the design of watercourse diversions and realignments. The design will consider the risk of in channel deposition or erosion and will seek to minimise this. Watercourses in the study area are also typically heavily modified. There is therefore an opportunity for watercourse diversions and realignments to provide enhancement of the baseline. This is discussed in Chapter 13 Road Drainage and the Water Environment [APP-082] of the

Reference Number	Local Impact Report/Applicant Response
	Environmental Statement and Appendix 13.1 Water Framework Directive Assessment [APP-217] of the Environmental Statement. A Water Framework Directive Mitigation and Enhancement Strategy is also proposed and is secured through the First Iteration EMP [APP-234]. The Applicant notes the concerns raised regarding the disapplication of section 23 of the Land Drainage Act 1991 and that the consent of CCC as LLFA is required before this disapplication can be secured. The Applicant will continue to discuss this element with CCC as LLFA. In relation to paragraph 8.8.5, oil interceptors are not proposed by the Scheme. National Highways do not support the use of oil interceptors as they may not be effective in the longer term. There is evidence that they can contribute to the pollution risk to receiving watercourses. Vortex flow separators, which are a proprietary measure that is supported by National Highways, are proposed on some road catchments for outfalls but only in combination with other SuDS measures. The treatment trains proposed are based on a water quality risk assessment, which is available in Appendix 13.2 Assessment of Road Runoff and Spillage Risk to Watercourses (HEWRAT) [APP-218] of the Environmental Statement. In relation to paragraph 8.8.6, the Applicant notes the authorities culvert alignment and location comments. Offline culvert construction was chosen as the preferred option to reduce disruption to the existing watercourse during construction and perpendicular alignment to reduce the length of watercourse that is culverted. Within the Order Limits there is scope, during detail design, to reduce the hydraulic impact of ditches that are currently shown to converging head on, before passing below the new dual carriageway. This can be done by minor adjustments to the angle of the ditch's juncture. The Applicant notes the comments from the authorities on the Applicant's recommended 5l//s minimum flow restrictions at SuDs outfalls and could apply alternative minimum flow restrictions such as a minimum 75mm diameter flow control measure, where required. As stated in Section 3.3.4 of the Drainage Strategy Report [APP- 219] ".. *the calculated maximum Qbar flow rate for each catchment outfall was used in the proposed drainage attenuation sizing and the determination of the Scheme's drainage land requirements and associated Order Limits."* The Order Limits for the Scheme drainage systems are therefore considered adequate. In relation to paragraph 8.8.7, the Applicant notes the authorities request for clarity regarding the adoption and ongoing maintenance body for the proposed surface water features. As these features

Reference Number	Local Impact Report/Applicant Response
	will form part of the highway assets to be handed over, these elements will be addressed as part of the ongoing discussions on this point and any agreement reached will be set out within the legal agreement to be completed between the parties.
REP2-003at	8.9 Minerals and Waste 8.9.1. As set out above, the focus of the impacts in respect of minerals and waste are focused mainly on the borrow pits and associated effects. There will be some impacts in relation to waste generation and management, these are impacts are likely to be lesser and so are not the focus of the Council's comments. Positive impacts 8.9.2. In terms of positive impacts, it is proposed that fill material will be sourced, and waste will be disposed of, on-site where possible, though the use of borrowpits. This should limit the wider impact on existing waste and minerals sites, associated transport movements and their associated impacts, such as amenity. Furthermore, the documentation sets out that the developer will seek to minimise waste generation. Both of these help support the development in meeting Policy 23 Traffic, Highways and Rights of Way of the MWLP.
Applicant Response	The Applicant welcomes the comments from the Cambridgeshire authorities in these matters.
REP2-003au	Negative impacts 8.9.3 However, the borrowpits as proposed are likely to have negative impacts. It is likely that there will be temporary negative onsite impacts such as disruption of existing site use (agriculture); potential disruption to wildlife, and the water table; and the destruction / removal from site of archaeology. There may also be temporary off-site impacts centre around amenity, particularly in relation to noise, dust and light from on-site and transportation activities. These topics are covered by policies 7, 19 and 20 of the MPWLP. As it stands, the Council is of the view that the current proposals are not compliant with these policies owing to lack of detail and not according with the policy in respect of restoration (see missed opportunities). This lack of consideration, particularly of Policy 19, undermines confidence that the developer respects local priorities.

Reference Number	Local Impact Report/Applicant Response
	8.9.4. In failing to address Policies 7 and 19 the proposals, which currently involve returning the borrowpits to their original use as part of restoration, fail to provide on-site biodiversity net-gain or mitigation for climate change, which would assist in the proposal complying with local policy. In addition, the proposals do not contain any assessment to establish if it may be more sustainable to acquire the required materials from local quarries, and aid in their restoration by disposing of inert materials at those locations. Nor has there been an assessment of the impact of the timing of extraction from the borrowpits on local quarries. These missed opportunities not only demonstrate a lack of appreciation of local priorities, but also ambition to provide additional biodiversity net-gain and potential adaption to climate change where an opportunity presents itself. Ultimately this indicates that the current proposal may not be the most sustainable solution which is sought by Policy 1 of the MWLP.
Applicant Response	The applicant notes the comment made in paragraph 8.9.3, however an assessment of the construction effects resulting from the Scheme for air quality and noise has been presented in Chapter 5 (Air Quality) [APP-074] and Chapter 11 (Noise and Vibration) [APP-080] of the ES. The mitigation proposed for dust, noise and light during construction, in all construction activity, is secured in the First Iteration EMP [APP-234]. The applicant is of the view the information submitted is appropriate for the authorities to make an assessment, however further sign posting regarding the borrow pits specifically has been completed as part of the Borrow Pits Excavation and Restoration Report (Document 9.24) at Deadline 3. The National Policy Statement for National Networks (NPSNN) refers to applicants and decision makers giving due regard to policies set out in local plans (paragraphs 5.203 and 5.211), but the MPWLP was published in July 2021 and did not exist for consideration prior to the submission of the application for the Scheme. The Cambridgeshire Councils suggest in their Local Impact Report [REP2-003] paragraph 8.9.4, that it may be more sustainable to obtain materials from local quarries than to use the proposed borrow-pits. The Applicant considers that this would not be the case, for the following reasons. Details of the reasoning and borrow pit site selection strategy and process is provided in application document 7.6 - the Borrow Pits Optioneering Report [APP-246]. Section 2.2 [APP-246] sets out the strategic context regarding the need for and sourcing of earthworks materials for construction of the Scheme. At paragraph 2.2.3, it outlines the alternatives that were considered and states that *"the relative performance of the following three strategic buildability options were considered:*

Reference Number	Local Impact Report/Applicant Response
	1. Import all deficit material and off-site disposal of Class 4 materials (lower quality materials). *2. Incorporation of borrow pits (near Black Cat roundabout and Caxton Gibbet roundabout) and mitigation bunds.* *3. Include eastern borrow pits (near Caxton Gibbet roundabout) but not western borrow pits (near Black Cat roundabout)."* At paragraph 2.2.4 it concludes that, *"Following a review of the options, it was identified that Option 2, the incorporation of borrow pits (near to Black Cat roundabout and Caxton Gibbet roundabout) and mitigation bunds providing storage of fill material would be adopted by the project team into the overall approach to scheme delivery. Option 2 would provide a secure source of fill and defined locations to place Class 4 materials. Using borrow pits would likely reduce some of the environmental impacts associated with construction of the Scheme, however it was recognised that this was also likely to temporarily increase environmental impacts in the local area. Although additional land would be required, the use of borrow pits would reduce the need to transport construction materials, leading to a reduction in construction traffic on public and local roads and associated reductions in fuel use and vehicle emissions."* The three strategic buildability options are also discussed in Chapter 3, Assessment of Alternatives [APP-072] of the Environmental Statement, within Table 3-5: Location of borrow pits. Furthermore, the Applicant has prepared further information in relation to the borrow pits, which includes reference to (but is not limited to) the environmental assessment, excavation methodology, restoration of the borrow pits and the amount of soil to be removed from each borrow pit. This information is reported in the "Borrow Pits Excavation and Restoration Report" [TR010044/EXAM/9.24], which the Applicant has submitted to the Examination at Deadline 3 The Applicant has prepared a table commenting upon the local policy assessment undertaken by the Cambridgeshire authorities as part of their Local Impact Report (LIR). The Applicant's comments on this local policy assessment have also been submitted at Deadline 3 [TR01044/EXAM/9.22].

Reference Number	Local Impact Report/Applicant Response
REP2-003av	8.10 Economy Positive impacts 8.10.1. During construction there will be direct and indirect benefits to employment linked to the project. 8.10.2. There will be employment opportunities for local residents and additional economic benefits such as local spending from the construction workforce involved in the project on elements such as food and accommodation particularly for those who may not live locally to the scheme. 8.10.3. Tier 1, 2 and 3 construction companies in the local area will have the opportunity to obtain work from the appointed main contractor. 8.10.4. Highways England has developed a process to upskill construction businesses who may be interested in joining their supply chain - this programme will be beneficial to many aspiring local constructors. 8.10.5. The proposed route is likely to disrupt or displace fewer businesses as the construction is planned in a rural area in the Huntingdonshire and South Cambridgeshire districts. 8.10.6. Once completed, the A428 upgrade, will enable accessible local movement in and around St Neots and Cambourne, linking existing and future railway stations and employment sites. The road improvements will facilitate long-term sustainable economic growth, improving journey times for freight and port traffic as well as other business users. St Neots will be a key beneficiary, sitting upon an improved north, south, east, west axis providing links to the midlands, the ports and to London. For both Huntingdonshire and South Cambridgeshire Districts there is going to be more reliable travel time between Cambridge, Bedford, Milton Keynes (M11, A1, M1) This development, alongside East-West Rail, is a key component and will help Huntingdonshire and South Cambridgeshire contribute further to the development and success of the Ox-Cam-Arc.
Applicant Response	The Applicant welcomes and agrees with the above comments from the Cambridgeshire authorities.

Reference Number	Local Impact Report/Applicant Response
REP2-003aw	Negative impacts 8.10.7. There will be a greater potential of traffic disruption and longer journey times close to St Neots East which is an important access point to St Neots mainline station, and north south rail travel and providing access to London. 8.10.8. Longer and disrupted journeys will have a negative impact, financially and on the productivity of local business particularly the businesses operating at the services area at Caxton Gibbet. 8.10.9. The costs associated with the disbenefits of construction according to the calculations of the Highways England economic assessment amount to £35 Million.
Applicant Response	8.10.7 The Applicant acknowledges that traffic flows on Cambridge Road are predicted to increase, with the Scheme in place. Traffic modelling predicts increases on Cambridge Road between Station Road and the approach to the A428 junction east of St Neots. The Scheme would provide substantial relief to the existing A428. Therefore, adjoining local roads, such as Cambridge Road, would become more attractive for traffic joining the A428 through reduced conflict with mainline A428 traffic. Analysis of the model forecasts shows that there is no transfer of long-distance traffic to Cambridge Road under the DS scenario. Thus, the improved side road capacity at the junction of the A428/Cambridge Road therefore provides a benefit to local road users. It should also be noted that improved connectivity to the A428 via Cambridge Road would benefit traffic from the nearby developments at Loves Farm and Wintringham as well as local traffic to/from west and north St Neots and Little Paxton. 8.10.8 Through consultation with this Interested Party, the Applicant has confirmed that the existing services at Caxton Gibbet junction would be signed from the new dual carriageway. The design of the services signing will be developed as part of the detailed design and would be in accordance with the requirements of the current version of the Traffic Signs Regulations and General Directions (TSRGD) and the guidance given in the Traffic Signs Manual for the signing of trunk road service facilities. As the new road will not be a special road, branded signing cannot be used

Reference Number	Local Impact Report/Applicant Response
	In addition to signage, 2040 AADT traffic volumes on the A1198 are forecast to be slightly higher to the south of the A428 (+2,400) and slightly lower to the north of the A428 (-3,100). The overall volume of traffic on the Scheme will be higher than the existing A428 and remains within close proximity to the services. 8.10.9 Inevitably there are costs associated with the construction phase arising from the speed restrictions imposed in the vicinity of the works for safety reasons. However, the overall economic appraisal of the Scheme shows it has beneficial impacts on all journey purposes in all modelled periods and a beneficial impact on the wider economy.
REP2-003ax	8.11. Social and Community Matters 8.11.1. This section identifies social and community impacts from the scheme during construction and operation. The impacts focus on specific local impacts which may have also been made as representations in relation to the application by groups or individuals specifically affected. The purpose of this section is to specify the local social and community impacts and to highlight examples of how the local communities / businesses are affected. Positive impacts 8.11.2. The methodology used by the Applicants in preparing the Population and Human Health chapter in the Environment Statement is generally satisfactory and broadly aligns with the proposal outline.
Applicant Response	The Applicant welcomes and agrees with the above comments from the Cambridgeshire authorities.
REP2-003ay	Negative impacts 8.11.3. There has been no reference to the Cambridgeshire Health Board or Wellbeing Strategy and so it is not clear how this has been considered as part of the proposal. 8.11.4. There is also no mention of Cambridgeshire data or local Joint Strategic Needs Assessments (JSNAs) being used as part of the data sources for health. These should be used and referenced in the assessment of impacts on Human Health, specifically the "Cambridgeshire Core Data Set" and the "Cambridgeshire Transport and Health JSNA".

Reference Number	Local Impact Report/Applicant Response
	8.11.5. The applicant should have considered if the assessment of "impacts on any feeder PRoWs between destinations, within 1km of the DCO site boundary" is appropriate considering that it is recommended to include walking and cycling as part of active travel to work and therefore distances travelled by NMU greater than 1km are not unusual, therefore consideration should have been given to extend the boundary to 5km, or consideration given to identifying relevant employment and leisure destination within 5 km of the DCO boundary, this was requested at the scoping request stage but doesn't seem to have be addressed or a justification for scoping it out given. 8.11.6. There appear to be no embedded mitigation measures proposed to address any impacts on human health which include access to and severance from community facilities, education facilities, recreational facilities and health facilities; access to and severance from open space, blue space, green space and play space; use of walking, cycling and horse riding routes; air quality and noise and vibration. Only significant adverse effects are mitigated. 8.11.7. Noting that the existing A428 between Caxton Gibbet junction and the Cambridge Road junction will experience closures for 43 months between August 2022 and March 2026 it is not clear if there has been any assessment on the impact the diversion routes will have on villages, local residents, access to emergency services following the night closures of existing A428. In particular, it is not clear what the specific impact of night time closures on access to Cambridge University Hospital Trust (Addenbrookes) which is the Regional Trauma Centre would be. 8.11.8. The statement that the "Proposed Development would have no significant adverse effects on human health or designated habitats sites during either construction or operational phases of the scheme" has not been adequately demonstrated. The health chapter of the ES clearly states "During the operation of the Scheme, Chapter 11, Noise and Vibration of the Environmental Statement [TR010044/APP/6.1] identifies likely significant adverse noise effects at. (a number of sensitive locations)" and "Therefore, the operational effect of the Scheme in terms of noise and vibration as a determinant of human health will result in a negative health outcome for the people living and working in the properties identified" one of which is Eltisley Manor nursing home, which is a 37-bed psychiatric nursing home offering specialist mental health care services for the over 50s, separate care for over 18s with complex mental health issues and patients coming to the end of their rehabilitation process.

Reference Number	Local Impact Report/Applicant Response
	8.11.9. The ES has not quantified if this impact due to noise is significant or not, just that is it a negative impact, whereas the document has identified moderate adverse – significant impacts on recreational users or the River Great Ouse and to users of PROW 73/17due to closure during construction. Specifically, the Eltisley Manor should be looked at in depth as any impacts are likely to be disproportionately felt by the occupiers of this facility due to the health nature of the residents. In addition, it is not clear if an assessment has been undertaken in respect of the need for emergency night time access by NHS services, particularly factoring in the profile of the residents of the Manor.
Applicant Response	Please refer to the Applicant's comments to other parties responses to the first written questions [REP1-051] Q4.1.34 where each of the above points have been addressed.
REP2-003az	Missed Opportunity 8.11.10. The benefit of using a Health Impact Methodology within the production of the Health Chapter of the EIA is that it enables the consideration of the effects of the wider determinants of health on not only the physical environment but also the social environment. It is also known that these wider determinants are not distributed equally among populations (e.g., those people living in areas of deprivation tend to have poorer health outcomes). Therefore, more details should have been included in respect of: • An appraisal of the potential positive and negative health and wellbeing impacts of the proposed development on any planned new communities and the adjacent existing communities in the study area. • Highlight any potential differential distribution effects of health impacts among groups within the population by asking 'who is affected?' for the impacts identified. • Suggest actions / mitigations that aim to minimise any potential negative health impacts and maximise potential positive health impacts, referencing where possible the most affected vulnerable group(s).
Applicant Response	Please refer to the Applicant's comments to other parties responses to the first written questions [REP1-051] Q4.1.34 where these points have been addressed.

Reference Number	Local Impact Report/Applicant Response
REP2-003ba	9 Legacy 9.0.1. The Councils are working with the Applicant, who has set up four Legacy working groups, to create additional sustainable outcomes, beyond scheme mitigation, for the environment, economy and local communities aligned to local needs and priorities. These are broken down into Connected Communities (also covering NMU), Enhancing the Environment, Local Economy, Skills and Employment, and opportunities to apply to Highway England's Designated Fund. 9.0.2. The HE Designated Funds process is welcomed by the local authorities. It has yielded positive outcomes in relation to other projects in the area promoted by the Applicant, including the A14. The local authorities are in the preliminary stages of the application process for projects centred on improving NMU connections and town centre regeneration for St Neots. It is anticipated that there may be other applications that could be submitted by the local authorities as dialogue with the Applicant's Designated Funds team continues. 9.0.3. The local authorities are concerned that too much reliance on Designated Funds is placed to deliver mitigation that is required under the DCO. One of the fundamental concerns that remains is the uncertainty of the process and the implications of an unsuccessful Designated Funds application, particularly in the context of the much needed NMU routes along the route.
	Positive impacts 9.0.4. The local authorities welcome the opportunity to potentially deliver additional benefits beyond the scheme itself and the initial work with HDC, in particular relating to St Neots' Future High Street Fund projects which is at an early stage within the Designated Funds application process.
Applicant Response	The Applicant notes the comments made about legacy. However, it should be noted that Designated Funds cannot be used to deliver mitigation for the Scheme. Designated Funds is to support initiatives that are above and beyond the traditional focus of road investment.
REP2-003bb	Negative impacts

Reference Number	Local Impact Report/Applicant Response
	9.0.5. There are unlikely to be any negative impacts from the Legacy aspects of the scheme if delivered, however, for example, if funds are used for purposes that should otherwise have been delivered through the DCO, this reduces the availability of funds for other projects either through financial (Designated Funds or other sources of match funding) or resources, e.g. staff time. 9.0.6. In the case of NMU routes, the local authorities have flagged with the Applicant the need to ensure that these connect into existing routes otherwise they can have an undesirable outcome, e.g. routes ending short of the destination or not going ahead as subsequently deemed unfeasible.
Applicant Response	Where it is not possible to include some suggestions into the Scheme design, there may be opportunity to seek further funding through National Highway's Designated Funds. Designated funds are separate to the Scheme budget and are allocated to support initiatives that can deliver lasting benefits for road users, the environment and communities across England. Applications made to designated funds need to demonstrate and deliver value for money, and show what additional support or funding partners and stakeholders will provide to help meet the commitments of the initiative. Designated Funds cannot be used to deliver mitigation of a road scheme. The Applicant has received a list of potential connections and upgrades from the local authorities (8 July) to be progressed under Legacy. The Applicant has responded (30 July) and is awaiting further details from the local authorities to agree a programme of WCH routes for the A428 Legacy.
REP2-003bc	Missed opportunities The process of applying to the Applicant's Designated Funds, while well-supported by the Applicant's team, requires some input from the local authorities (others can also apply). There is potential that, due to limited resources, opportunities to seek funding are missed. The fund is also a time limited pot and monies agreed must be spent within the timescale (the current pot is understood to be available to 2025), beyond which it is unclear what, if any, funding may be available. Some potential projects, for example, a possible NMU connecting St Neots to Cambourne, may not be deliverable in these timescales. This re-emphasises the need for appropriate mitigation to be secured through the DCO itself where possible.

Reference Number	Local Impact Report/Applicant Response
Applicant Response	As any potential proposal raised by the local authorities is likely to be on the local authority's network and/or land, it is crucial to involve local authorities from the outset of development, the proposal is therefore likely to be a partnership proposal. The Applicant provided an in-depth briefing on the Designated Funds process and criteria to local authorities on this issue on 21 July 2021. Partnership proposals are encouraged, and the criteria states that we expect our partners, the local authorities, to contribute to the proposal. This could include providing one or more of the following: • Co-financing the project • Labour • Expertise • Land required to complete the project • Future maintenance of the improvement • Equitable treatment of intellectual property. The availability of Designated Funds is allocated to National Highways for each Roads Period by the Department for Transport. While there is no visibility of what the potential allocation is for the next Roads Period (2025-2030), the Applicant has encouraged the local authorities to undertake feasibility and design for proposals raised to ensure opportunities to secure delivery funding is not missed. Specifically on the opportunity for a WCH route from St Neots to Cambourne, following the briefing on Designated Funds on (21 July), it was agreed to organise a working session with the local authorities to develop an application to Designated Funds to secure feasibility funding. The working session was arranged for 25 August and was postponed at the request of the local authorities to consider the information required within the application form. Without having undertaken feasibility, it is challenging to determine a programme and timeline for when funds should be secured for future stages, i.e. detailed design and implementation. Therefore, we cannot say if the opportunity is deliverable at this stage and if it can be delivered within this Roads Period (2025).

3.1 Applicant's comments on the local policy assessment undertaken by CCC/HDC/SCDC

3.1.1 The Applicant notes the local policy assessment undertaken by CCC/HDC/SCDC, set out in Appendix 11 of the Local Impact Report.

Table 3-2 – County Policies

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant's Comment
Cambridgeshire & Peterborough Local Transport Plan, Cambridgeshire & Peterborough Combined Authority (February 2020)	Compliant	N/a	Confirmation of compliance welcomed.
Cambridgeshire and Peterborough Minerals and Waste Local Plan, Cambridgeshire County Council and Peterborough City Council (July 2021) Policies 1, 5, 6, 24	Compliant	N/a	Confirmation of compliance welcomed. The Applicant understands that the Minerals and Waste Local Plan (M&WLP) for Cambridgeshire County Council and Peterborough City Council was adopted by both Cambridgeshire County Council and Peterborough City Council on 28 July 2021.
Cambridgeshire and Peterborough Minerals and Waste Local Plan, Cambridgeshire County Council and Peterborough City Council (July 2021)	Non-compliant	This policy has not been adequately addressed owing to lack of detail – see section 8.8 of this LIR and section 13 of the Councils' Written Representation **(REP1-048)**. The opportunity has been missed to implement a	The Applicant considers that the Scheme is compliant with this policy. The Borrow-Pits Technical Note (submitted at Deadline 3 **[TR010044/EXAM/9.24]**) provides details on a site-by-site basis for the restoration of the borrow-pits to agriculture and explain how the Scheme is complaint with Policy 7 sections: (c)

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant's Comment
Policy 7 Borrowpits		restoration scheme for the borrow-pits (sites 3 & 4), site compounds and soil storage areas which benefits biodiversity, such as providing opportunities for breeding and wintering birds far from the road, and compensates for the loss of Great Crested Newt.	restoration; and (d) no importation of material other than from the project itself. The Applicant's response to the Joint Cambridgeshire Authorities LIR, paragraph 8.9.3 and 8.9.4 (above) provides a detailed explanation in respect of the Application's compliance with sections (a) need; (b) serving the named project only; and (d) importation of material. The biodiversity requirements of the National Policy Statement for National Networks (NPSNN) apply on a scheme-wide basis and do not require specific provision to be made for individual elements such as borrow pits as if they were applications made in their own right at a local level. As stated in the Chapter 8, Biodiversity **[APP-076]**, the scheme will not result in significant adverse effects to breeding birds and wintering birds, so mitigation for these species has not been identified. In relation to the loss of Great Crested Newt habitat, the Applicant does not propose to speculatively build ponds but design mitigation to reduce the effects of the Scheme.
Cambridgeshire and Peterborough Minerals and Waste Local Plan, Cambridgeshire County Council and Peterborough City Council (July 2021)	Non-compliant	In respect of the borrow pits within Cambridgeshire this policy has not been addressed. The proposal does not accord with this policy. Please see section 13 of the local authorities' Written Representation (REP1-048) for detail. The opportunity has been missed to implement a	The biodiversity requirements of the National Policy Statement for National Networks (NPSNN) apply on a scheme-wide basis and do not require specific provision to be made for individual elements such as borrow pits as if they were applications made in their own right at a local level..

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant's Comment
Policy 19 Restoration and Aftercare		restoration scheme for the borrow-pits (sites 3 & 4), site compounds and soil storage areas which benefits biodiversity, such as providing opportunities for breeding and wintering birds far from the road, and compensates for the loss of Great Crested Newt.	
Cambridgeshire and Peterborough Minerals and Waste Local Plan, Cambridgeshire County Council and Peterborough City Council (July 2021) Policy 20 Biodiversity and Geodiversity	Non-compliant	The adverse impact to priority/ irreplaceable habitats does not accord with this policy. The design of the scheme has not maximised opportunities for biodiversity enhancement and, therefore, does not accord with this policy. Further detail is provided at section 8.3 of this LIR.	The Applicant considers that the Scheme is compliant with this policy. The Borrow-Pits Technical Note (submitted at Deadline 3 **[TR010044/EXAM/9.24]**) provides details on a site –by- site basis for the restoration of the borrow-pits to agriculture. Ecological mitigation is provided within the Scheme as a whole; there is no policy requirement for borrow-pits (or other individual parts of a Nationally Significant Infrastructure Project (NSIP)) to be restored to wildlife habitat in the National Policy Statement for National Networks (NPSNN).
Cambridgeshire and Peterborough Minerals and Waste Local Plan, Cambridgeshire County Council and Peterborough City Council (July 2021)	Non-compliant	This policy relates to highways and rights of way which are considered to not have been sufficiently enhanced by the scheme.	Policy 23 contains the following matters with which the Scheme complies (a) sustainable transport; (b) safe and suitable site access; (c) impacts on the transport network; and (d) increases in traffic. The Applicant considers that policy 23, matter (e) on binding agreements for lorry routing are not necessary given that appropriate routeing is secured through the Outline Construction Traffic Management Plan **[APP-244]** by virtue of Requirement 11 of the draft

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant's Comment
Policy 23 Traffic, Highways and Rights of Way			Development Consent Order (DCO) **[REP1-003]**. The final Traffic Management Plan will include measures to ensure that restricted routes are complied with by all construction vehicles. Road traffic signs will be erected at every restricted route. The restrictions will be communicated to all on site and this will be achieved, for example, by way of site inductions and daily briefings, noticeboards, signs and information provided to suppliers. Reports of non-compliance will be investigated and appropriate action taken. Therefore, the Applicant considers, that the Application complies with this policy.
Cambridgeshire and Peterborough Minerals and Waste Local Plan, Cambridgeshire County Council and Peterborough City Council (July 2021) Policy 26 Other Developments Requiring Importation of Materials	Non-compliant	If the proposal satisfies Policy 7, this policy will be adequately addressed.	The Applicant considers that the Application complies with Policy 7 (see above) and is therefore compliant with this policy.
Cambridgeshire Green Infrastructure Strategy, Cambridgeshire Horizons /	Non-compliant	The Cambridgeshire Green Infrastructure Strategy is designed to assist in shaping and co-ordinating the delivery of Green Infrastructure in the county, to provide social,	Given the narrative provided by the Cambridgeshire Authorities in relation to the Green Infrastructure Strategy, it appears that the Scheme is compliant with the Strategy. No explanation is given by the

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant's Comment
Cambridgeshire County Council (June 2011)		environmental and economic benefits now and in the future. The A428 Black Cat to Caxton Gibbet Road Improvement scheme has been designed to avoid and minimise impacts and effects relating to GHG and climate change through the process of design development and by embedding mitigation measures into the design of the Scheme. These include: • Use of energy efficient road lighting; • Planting of trees; • Retention of existing highway infrastructure; • Inclusion of borrowpits within the scheme; • Reuse of materials generated from construction works; • Installation of highway equipment capable of withstanding high temperatures;	Cambridgeshire Authorities as to why they consider that the Scheme is non-compliant with the Strategy.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant's Comment
		• Incorporation of Sustainable Drainage Systems (SuDS); and • Implementation of emergency systems and response plans, including the identification of suitable network redundancies and diversion routes. To reduce the impacts and effects of construction of the scheme, the following measures have been taken: • Use of materials and plant with lower embedded GHG emissions and water consumption, using sustainably sourced materials, and using recycled or secondary materials; • Specification of energy efficient construction lighting and durable construction materials to reduce energy consumption; • Sustainable use of soil and aggregate materials won from excavation and demolition activities, where feasible, to minimise GHG	

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant's Comment
		emissions associated with the importation of materials to site and embodied carbon associated with additional materials; and • The identification, selection and use of construction materials with superior properties that offer increased tolerance of fluctuating temperatures associated with climate change. Note that we have requested further detail on mitigation measures to reduce construction impacts as part of our Written Representation. The following Biodiversity mitigation is also included along with a Biodiversity Management Plan: • Impact on important habitats (comprising woodland, grassland, hedgerow and ponds) have been avoided or reduced, where reasonably practicable; • The identification of measures that, wherever	

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant's Comment
		possible, provide a combined function of landscape integration and/or screening, and habitat creation and replacement, to mitigate effects on biodiversity interests; • Avoiding disturbance to breeding birds by not undertaking vegetation clearance and structure demolitions during the bird breeding season (March to August inclusive); • The retention of all mature trees and boundary features within the Order Limits that are outside the limits of the permanent works of the Environmental Statement except where loss is required for the safe construction of the Scheme, including temporary works; and • The supervision of construction works by an Ecological Clerk of Works (ECoW) or a suitably qualified person, where these works have the potential to impact on	

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant's Comment
		protected species, designated sites or other important biodiversity features. Enhancement Measures • A number of enhancement measures have been incorporated into the design of the Scheme, which focus principally on the creation of areas of habitat in excess of those required to mitigate losses due to the Scheme. These include hedgerow, grassland and scrub habitat as well as new areas of woodland. • Aquatic and wetland habitats will also be created, including ponds, ephemeral wetland habitat, reedbeds and wet grassland. The areas created will be in excess of those needed to mitigate for the loss of ponds. Watercourses affected by the Scheme will be restored to a better condition than when assessed in baseline surveys to the extent that they will more than mitigate for the	

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant's Comment
		damage to these watercourses under the Scheme.	
Cambridgeshire's Local Flood Risk Management Strategy (2015)	Compliant	n/a	Confirmation of compliance welcomed.
Cambridgeshire Landscape Guidelines (1993)	Non-compliant	The proposals for the A428 have included landscape mitigations which improve the visual envelope of the new carriageway but some aspects such as wildlife habitat improvements, lighting proposals and green infrastructure connectivity could be improved.	The Applicant assumes that the Cambridgeshire Authorities are referring to the Cambridgeshire Landscape Guidelines: A Manual for Management and Change in the Rural Landscape, published in 1991, rather than a 1993 publication. Paragraph 1.2.14 in Appendix 7.2: Landscape and Visual Impact Assessment Methodology and Study Area **[APP-180]** of the Environmental Statement confirms that the Cambridgeshire Landscape Guidelines (1991) were reviewed as part of the assessment when establishing Landscape Character Areas and their baseline conditions, as the guidelines are relevant for the eastern part of the assessment study area (within Huntingdonshire and South Cambridgeshire) at the County level. Paragraph 7.8.8 of Chapter 7, Landscape and Visual Effects **[APP-076]** of the Environmental Statement confirms that, as part of developing the landscape strategy for the Scheme, consideration was given to relevant guidelines. Relevant guidelines accordingly

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant's Comment
			included the Cambridgeshire Landscape Guidelines (1991). The Cambridgeshire Authorities recognise that the landscape mitigation included in the Scheme improves the visual envelope of the new carriageway, and their opinion that other aspects could be improved does not mean that the Scheme does not comply with the Guidelines. The Guidelines have been taken into account as set out above and the Applicant considers that the Scheme is fully compliant with the matters identified.
Cambridgeshire Rights of Way Improvement Plan (2016 Update)	Non-compliant	There is limited improvement and enhancement of Public Rights of Way.	The Applicant does not agree with the Cambridgeshire Authorities' assertion that there is limited improvement and enhancement on PRoWs. Section 8.3 of the Transport Assessment Part 1 **[APP-241]** sets out the provision which is made within the Scheme to maintain connectivity of the existing function of PRoW where possible, and at paragraph 8.3.3 sets out the new and improved routes that are delivered through the Scheme. This includes shared footway/cycleways that are proposed along Roxton Road Link, Roxton Road, Bedford Road and Kelpie Marina access for the replacement of infrastructure on the A1. Furthermore, shared footway/cycleways are proposed at Cambridge Road and Caxton Gibbet junctions. These routes have been upgraded from a footway to shared use facilities. Overall, there is improvement and enhancement of PRoW.

Table 3-3 – District Policies

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) S3, S/6, S8, SS7, SS/8, CC1, SC10, SC11, SC12, SC14	Compliant	n/a	Confirmation of compliance welcomed.
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) CC/6 – Construction Methods	Non-compliant	Although some details have been provided in respect of construction management of the scheme, more details will be required as set out in the joint written representations of the Cambridgeshire Authorities	The Applicant has provided details on construction management commensurate with the level of detail available at the present time. The First Iteration Environmental Management Plan **[APP-234]** and the Outline Construction Traffic Management Plan **[APP-244]** were submitted alongside the application for development consent. The updated draft DCO **[REP1-003]** sets out in Requirements 3 (Second Iteration Environmental Management Plan), 4 (Third Iteration Environmental Management Plan), and 11 (Traffic management) the processes that will be undertaken to further detail these documents, including consultation with the local authorities. It should also be noted that the Applicant has provided further information in relation to the First Iteration Environmental Management Plan **[APP-234]** in relation to the following written questions: 1.2.1.4/1.6.2.2/1.6.3.3/1.7.2.1/1.9.1.1/

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
			1.11.3.1/1.11.7.9/1.13.2.1/1.13.2.1/1.13.3.1/1.14.1.1/1.16.2.1/ 1.16.2.3/1.16.2.6/1.17.2.2/1.17.3.1. Furthermore, the Applicant has provided further information on the Outline Construction Traffic Management Plan **[APP-244]** in relation to the following written questions: 1.6.3.3/1.11.7.1/ 1.11.7.9/1.11.7.11.
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) CC/7 Water Quality	Non-compliant	Although some details have been provided in respect of drainage, further clarity has been requested in respect of risks around the safe management of sediment and hazardous pollutants during construction which is considered high. The First Iteration Environmental Management Plan covers parts of the mitigation, however this appears to be more around the monitoring of the water bodies and watercourses. It is noted that this will likely be considered in more detail later on, however, there must be a plan for controlling sediment loads.	As detailed in Annex F (Water management plan) of the First Iteration Environmental Management Plan **[APP-234]**, fine sediment will carefully managed on site. Firstly, there will be measures to minimize disturbance of the ground, the formation and conveyance of site runoff containing high levels of fine sediment. Where runoff containing fine sediment does occur, this will be trapped and removed from runoff prior to the water being discharged from the site (which may require permission from the Environment Agency or sewerage company depending on discharge location).. There are a wide range of options that the Contractor can apply as and when appropriate in response to changes in site activities and weather conditions, and these are detailed in Annex F. Mitigation measures may include fabric silt fences, straw bale walls and earth bunds, retaining buffer strips, storage of sediment-laden runoff in small lagoons or the use of settlement tanks or lamella clarifiers. These measures would ensure that any sediment (including any adsorbed pollutants) carried in suspension in the surface water runoff from the Scheme would have settled out to an acceptable level before it can be discharged to receiving watercourses or sprayed to ground to infiltrate. Where required, the Applicant will agree with the Environment Agency the acceptable suspended sediment

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
			limits in runoff discharged from the Scheme in accordance with the Protected Provisions contained within the dDCO.
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) CC/8 Sustainable Drainage Systems	Non-compliant	The attenuation basins proposed within the scheme are integral to the design. They promote the use of SuDS to manage surface water from the site and are used for the treatment of the surface water before this discharges into the wider watercourse network.	The Applicant notes the requirements of the policy which are to incorporate appropriate sustainable surface water drainage systems. As recognised by the Cambridgeshire Authorities, the attenuation basins within the Scheme are integral to the design and promote the use of SuDS to manage surface water. On this basis, the Scheme must be considered compliant with this policy. The Drainage Strategy **[APP-219]** sets out in paragraph 3.1.2 that surface water run off from the new dual carriageway will be treated and attenuated prior to discharging into the receiving watercourse. No explanation has been provided by the Cambridgeshire Authorities as to why they consider that the Scheme is not compliant with Policy CC/8.
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) CC/9 Managing Flood Risk	Non-compliant	There are concerns with regards to the minimum suggested flow controls from the attenuation basins within the scheme. It is noted that in section 3.3.4 of Appendix 13.3 Drainage Strategy Report (APP-219), the detention basins have been designed using the Qbar runoff rate calculated for their catchments. However, section 3.3.3 recommends the minimum rate of 5 l/s to be applied in any basin where the Qbar rate is below this value to reduce the risk of blockage to the controls. There are concerns	As set out earlier in this report, the Applicant notes the comments from the Cambridgeshire Authorities on the Applicant's recommended use of a 5l/s minimum flow restriction at SuDs outfalls and alternative minimum flow restrictions (such as a minimum 75mm diameter flow control measure) could be applied if required. As noted, Section 3.3.4 of the Drainage Strategy Report **[APP-219]** states *".. the calculated maximum Qbar flow rate for each catchment outfall was used in the proposed drainage attenuation sizing and the determination of the Scheme's drainage land requirements and associated Order Limits."*

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		around this as this is high value and potentially much higher than the Qbar equivalent. Using a baseline figure of 5 l/s across the scheme could lead to increased risk of flooding as the peak flows and volumes entering the wider system may be greater than the existing.	The Order Limits for the Scheme drainage systems are therefore considered adequate.
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) HQ/1 Design Principles	Non-compliant	The A428 scheme incorporates various measures for design and mitigation required under the policy. However, the measures employed only seem to be based on Highway England's Design Manual for Roads and Bridges and not local design principles as set out in policy HQ/1.	Whilst the development of and on the Strategic Road Network needs to adhere to standards set out in the Design Manual for Roads and Bridges, every effort has been made to ensure that good design principles are embedded into the design development of the Scheme. This includes the need to take account of local context. This is reflected in National Highways' publication "The road to good design" which contains a series of principles for good road design which are centred on the themes of connecting people, places and processes. This states that good road design: • Makes roads safe and useful. • Is inclusive. • Makes roads understandable. • Fits in context. • Is restrained. • Is environmentally sustainable. • Is thorough.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
			• Is innovative. • Is collaborative. • Is long-lasting. The design-development of the Scheme has been underpinned by these ten principles, which collectively have encouraged better design and helped provide a basis for the Scheme to be objectively reviewed at key stages of its development. Matters relating to scale, height, massing and alignment of the Scheme have been considered in the design development and environmental impact assessment of the scheme. Further details on the design of the Scheme can be found in **[TR010044/EXAM/9.26]** submitted at Deadline 3.
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) NH/2 Protecting and enhancing Landscape Character	Non-compliant	The loss of hedgerows within the project limits has been identified in the Biodiversity Net Gain calculations. Without additional mitigation planting, the loss will have a negative impact on wildlife, biodiversity and general landscape character as hedges are a prominent feature of all Clayland character areas. The imposition of large, engineered bridges, roundabouts, embankments, roadways and lighting columns into the rural landscape of the new route alignment will be a dramatic change for the very rural landscape into which it they are being placed causing. During the operational phase of the scheme the impact is generally irreversible and at odds with the scale, appearance and	As set out earlier in this document, the Applicant accepts that hedgerows are a prominent feature of Clayland character areas. There has been historic decline in this habitat type as fields have been enlarged to accommodate modern agricultural practices. The Scheme includes proposals for planting of 34.27km of new hedgerows to create new field boundaries and restore habitat connections. The future maintenance of hedgerows is an important consideration and new hedgerows are proposed where access for maintenance allows. Therefore, the Applicant does not agree with the Cambridgeshire Authorities' assessment of the Scheme being non-compliant in this matter.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		cultural aspects of the landscape and adversely affecting historic landscape patterns and visual amenity. All these impacts will likely be reduced as mitigation planting matures, but will not remove it entirely.	
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) NH/3 Protecting Agricultural Land	Non-compliant	The construction of a new A-road has a significant land take which is permanent in nature. Large areas of agricultural land will be taken out of use permanently. This will dramatically alter the landscape character of these areas. This has been identified as adverse within the provided reports and mitigation will be through the extensive use of planting. The existing A428 is not going to be removed but will be detrunked and returned to the Local Highway Authority for management and maintenance. Ultimately, there is no mitigation for the loss of agricultural land.	The Applicant has considered the BMV agricultural land in the design development of the Scheme by, in general, minimising permanent land acquisition and temporary possession and providing land plots more suitable for efficient farming operations. Examples include: • Following consultation with multiple landowners, realignment of the new dual carriageway between B1046 and Cambridge Road junction. This has shortened the route by approximately 117m and provided plots of land between the existing A428 and the new dual carriageway that are more suitable for efficient farming operations. In addition, where the new dual carriageway severs agricultural land, new accommodation bridges have been proposed to provide connectivity. • Siting the main construction compound on land marked for future development (planning consent granted) and not on adjacent BMV agricultural land. • Reduction in landscaping to reduce permanent impact on farming activities, as shown in the Supplementary Consultation - Consultation Booklet in the Consultation

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
			Report Appendix Q Part 1.1 **[APP-058]** (Map Reference - 42, 46, 47 and 52). • Following landowner consultation, landscape mitigation was reduced to connect fields for improved farming operations, as shown in the Supplementary Consultation - Consultation Booklet in the Consultation Report Appendix Q Part 1.1 **[APP-058]** (Map Reference - 58).
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) NH/4 Biodiversity	Non-compliant	The scheme has missed opportunities to create biodiversity rich habitats characteristic of the local area, which would therefore be more resilient to climate change. The scheme is likely to result in a net loss of biodiversity value if calculated using the DEFRA metric rather than a bespoke model. In particular, the scheme has failed to develop mitigation strategies for Priority (BAP) habitats such as arable field margins, hedgerows and woodland or to create new wildlife ponds, with associated adverse impact on farmland birds (Priority species). There will be fragmentation of hedgerows resulting in loss of connectivity of the networks used by bats, small mammals and invertebrates; and the loss of breeding ponds and connected terrestrial habitat will adversely impact great crested newt populations The lack of survey information for arable field margins, watercourses and	The proposed landscaping for the Scheme includes local habitats such as woodland and grassland, providing an ecologically coherent mosaic of habitat along the 10 miles of the route, north and south of the carriageway. Whilst the detailed species composition of these new habitats is to be resolved, they would mitigate for habitat loss and achieve an overall enhancement in the biodiversity of habitats within the Scheme. The Scheme will achieve a significant improvement in connectivity in a landscape that comprises very large fields of arable agriculture many of which are wider than the Scheme and in which woodlands and ponds are islands with low connectivity. The improved connectivity associated with the Scheme exists at two scales: habitat scale such as hedgerows and drainage channels of which there will be greater lengths of both post-construction as compared with pre-construction, and the scale at which the Scheme is a linear ecosystem, a mosaic of habitats, achieving a positive impact on the smaller widely dispersed habitats, e.g. woodlands and patches of grassland, as advocated by Natural Cambridgeshire (2018) A natural future for Cambridgeshire and Peterborough. No breeding

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		lowland meadows means that the scheme cannot be fully assessed for its impact on these Priority habitats. Potential harm to the conservation status of the barbastelle bat population of Eversden and Wimpole SAC and SSSI is still under consideration, with the results of further bat surveys agreed between the Applicant and Natural England awaited.	ponds for Great Crested Newt will be lost to the Scheme which provides a much higher quality of terrestrial habitat than arable agriculture. Chapter 8, Biodiversity of the Environmental Statement **[APP-077]** reports on the surveys undertaken to inform the assessment of the Scheme based on a Phase 1 Habitat Survey undertaken in 2016 followed by intensive biodiversity appraisal in accordance with recognised good practice surveys including detailed surveys of arable field margins, woodland and grassland (Appendix 8-3: Terrestrial Habitats of the Environmental Statement **[APP-190]**) and watercourses (Appendix 8-4: Aquatic Habitats of the Environmental Statement **[APP-191]**). This biodiversity baseline has been kept up to date with surveys being undertaken in 2021 and provides a robust basis for assessing the impact of the Scheme. Surveys as recommended by Natural England are being undertaken with respect to Barbastelle and the Eversden and Wimpole Woods SAC and will be reported to the examination in due course.
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018)	Non-compliant	The proposed route of the A428 will further fragment the existing fabric of landscape, hedgerows, footpaths, and other natural and man-made systems. While some areas are being mitigated through the provision of new planting, drainage features and footpaths/bridlepaths, there is little in the way of new features which aid in improving linkages north and south of the new	Paragraph 7.2.27 of Chapter 7, Landscape and Visual Effects **[APP-076]** of the Environmental Statement states that "*…local policy documents relating to green infrastructure strategies and design guides have been referenced in the assessment…*" Paragraph 1.4.52 in Appendix 7.1: Landscape and Visual Impact Assessment Planning Policy **[APP-179]** of the

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
NH/6 Green Infrastructure		carriageway, particularly for wildlife and sustainable transport. However, part one of the policy does allow for some adverse impacts on the GI network so long as the 'need for and benefits of the development demonstrably and substantially outweigh any adverse impacts..'	Environmental Statement identifies Policy NH6: Green Infrastructure as a relevant local policy. Paragraph 2.5.119 in Chapter 2: The Scheme **[APP-071]** of the Environmental Statement confirms that a key principle of the Scheme's landscape design was to establish "*A strategic, green infrastructure approach to design which considers the multiple benefits that the Scheme can deliver*". The Applicant can confirm that appropriate consideration was given to Policy NH/6: Green Infrastructure, and additionally other county-level strategies (for example the Cambridgeshire Green Infrastructure Strategy (2011)) as part of the design-development process and the development of landscape measures incorporated into the Scheme. Reference has been given to it in Policy NH/6 in Appendix 7.1 – Landscape and Visual Impact Assessment Planning Policy [App-179] and its use in the assessment is referred to in paragraph 7.3.23 of Chapter 7, Landscape and Visual Effect of the ES [APP-076], where the prevailing policy framework was made reference to as part of the desk study which informed the assessment. Additionally, five mitigation crossing points are embedded in the Scheme of suitable dimensions to enable the crossing by bats and other mammals and a further six culverts will be provided with mammal ledges for such species as Otter to cross under the Scheme. These are shown on the Environmental Masterplan [**APP-091**].

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) NH/7 Ancient Woodlands and Veteran Trees	Non-compliant	A single veteran English Elm tree (irreplaceable habitat) of county importance is located within a landscape area. No evidence has been provided to demonstrate the assumption that the tree will not be impacted during (landscape) construction works. The lack of elm within the planting scheme is a missed opportunity to future-proof the veteran tree habitat.	The Applicant wishes to clarify that the Scheme would not impact any veteran trees. As noted within Section 7.8 of the Chapter 7, Landscape and Visual Effects **[APP-076]** of the Environmental Statement, modifications were made to the Scheme design to avoid effects on the veteran Elm tree located to the north of Hen Brook and the Croxton Park Registered Park and Garden. Accordingly, the Scheme is compliant with this policy. Information relating to the veteran Elm tree and further trees identified within the extents for the Scheme are presented within Appendix 7.5 Arboricultural Impact Assessment (Part 1 to Part 5) **[APP-183 to APP-187]** of the Environmental Statement.
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) NH/14: Heritage Assets	Non-compliant	The Archaeological Mitigation Strategy is not fully compliant with policy NH/14 part h) (APP-238) as it is too selective in its investigative approach and risks the loss of parts of the archaeological resource by exclusion.	The Archaeological Mitigation Strategy **[APP-238]** has been developed taking into account all archaeological evidence from the phases of assessment and evaluation. The strategy has been designed so that not all sites will be fully excavated, as the primary aim of the Strategy is to maximise knowledge gain. The mitigation of the Scheme is not designed to allow recording for recording's sake, but rather to excavate those sites with intrinsic or group value, which will add to the corpus of knowledge for the region. While there are two areas where recorded remains are outside of the mitigation areas, these remains have been investigated during the evaluation and it is not considered that additional work will provide additional information, or answer research questions.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) SC/2 Health Impact Assessment	Non-compliant	There is a potential for poor communication between construction and local residents leading to increased stress and poor mental health (as experienced with A14 upgrade). A robust community communications plan must be in place.	The First Iteration Environmental Management Plan (EMP) **[APP-234]** explains that the project team will include a community relations manager, whose role would be to communicate with the public, stakeholders and other interested parties, including outreach and education. The role will also include keeping the public informed of Scheme progress and any construction activities that may cause inconvenience to local communities. The EMP is secured through Requirements 3 and 4 of the dDCO **[REP1-003]**. Accordingly, the Scheme is fully compliant with this policy.
South Cambridgeshire Local Plan 2018, South Cambridgeshire District Council (September 2018) SC/9 Lighting Proposals	Non-compliant	The imposition of lighting columns into the rural landscape of the new route alignment will be a dramatic change for the very rural landscape into which it they are being placed causing. The local authorities reiterate their view that further detail is required on the Applicant's lighting proposals so that (i) the County Council can be sure that the lighting of road assets to be maintained by the County Council meet the relevant standards; and (ii) a view can be reached of the impacts of the scheme on protected bat species.	Details in relation to highways lighting are secured through Requirement 17 of the draft Development Consent Order (dDCO) **[REP1-003]**. The requirement includes provision for the relevant local authorities to be consulted on matters related to their function. The highway lighting must, thereafter, be provided in accordance with the approved details. Lighting of new and improved sections within the Scheme has been confined to locations where safety is a priority and to minimise the potential for light spill into adjacent habitats. As part of the essential mitigation for the Scheme, the Applicant has also identified the designing and positioning of construction lighting to minimise light spill onto adjacent habitats, including where there are potential bat roosts and important foraging or commuting habitats that are regularly used by local bat populations.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP1, LP2, LP7, LP34, LP36	Compliant	n/a	Confirmation of compliance welcomed.
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP3 Green Infrastructure	Non-compliant	The Cambridgeshire Green Infrastructure Strategy identifies St Neots as a target area for the delivery of strategic green infrastructure objectives. The strategy identifies the role of the local river network in flood mitigation and providing riverine habitats, and recognises the opportunity to deliver biodiversity enhancements to the River Ouse tributaries Hen Brook and Fox Brook, both of which run through the DCO area. It specifically identifies the following environmental opportunities which are relevant to the DCO: • The creation of wet woodland and wet meadow along the River Great Ouse and its tributaries for biodiversity • The creation of wetlands within flood storage features to help mitigate the effects of climate change	The Cambridgeshire Green Infrastructure Strategy may identify St Neots as a target area for green infrastructure but St Neots is not being affected by the Scheme. The Applicant assessed the status of local habitats in determining habitat creation within the Scheme. This has focused on woodland, grassland and wetland and will achieve an overall gain in biodiversity for these habitats. The Applicant would question the opportunities which the authorities have identified because they require additional land take which has not been identified through the mitigation process for the Scheme or would require levels of maintenance which would result in highways workers spending periods of time close to the carriageway and sometimes in wet conditions in order to carry out landscape management. Neither of these types of environment are safe and where possible the requirements for these types of activity have been designed out of the Scheme. In relation to the design of drainage ponds and associated planting, the respective positions of the host authorities, Natural England and the Applicant is presented in the Joint

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		• The highest priority in landscape terms is the restoration of wildflower rich meadows. It is also felt that the areas around attenuation lagoons, particularly around the St Neots Fringe, do not currently make the most of the above opportunities. Whilst it is predicted there will be a net gain in species rich grassland, disagreements remain over the composition and locations of the grassland. Without additional mitigation planting, the loss will have a negative impact on wildlife, biodiversity and general landscape character as hedges are a prominent feature of all Clayland character areas. The impact of temporary extraction may have an effect on local wildlife which cannot be addressed until specific details such as hours of working and routing of vehicles have been established. Several attenuation basins are proposed within the area surrounding Hen Brook. The Environmental Master Plan **[APP-091]** suggests that the basins themselves will be planted with Marsh and Wet Grassland, but the First Iteration Environmental Management Plan **[APP-234]** Annex L, section 1.10 Landscape Element Types, does not detail what the species composition of the basins might be. The basins are then surrounded by	Position Statement with Host Authorities on Attenuation Basin planting **[TR010044/EXAM/9.41]** submitted at Deadline 3.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		amenity grassland which is relatively devoid of biodiversity value, missing the opportunity to create both new wetland habitat, as well as species rich grassland within the Cambridgeshire Green Infrastructure Strategy target area objectives, and it is considered that more could be done to help reach the aims of this policy. Criterion d of the policy requires that accessibility is improved including the naturalness and connectivity of green spaces. Outstanding unresolved issues regarding the DCO include: • New and improved existing links to create opportunities for local people to commute from A to B on safe NMUs and provide opportunities to improve pedestrian, cycle and horse-riding experience have not been provided fully • Permanent intrusion into the rural nature of the affected PROW be affected by proximity to a high speed dual carriage way. • The Environmental statement Table 7-6 lists that during year 15 of operation there will be a moderate-adverse (significant) of the road - LLCA 11: Wintringham and Weald Clay Farmland	

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		in Cambridgeshire. This may dissuade some users from using paths with impact on health and well-being	
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP5 Flood Risk	Non-compliant	There are concerns with regards to the minimum suggested flow controls from the attenuation basins within the scheme. It is noted that in section 3.3.4 of Appendix 13.3 Drainage Strategy Report **(APP-219)**, the detention basins have been designed using the Qbar runoff rate calculated for their catchments. However, section 3.3.3 recommends the minimum rate of 5 l/s to be applied in any basin where the Qbar rate is below this value to reduce the risk of blockage to the controls. There are concerns around this as this is high value and potentially much higher than the Qbar equivalent. Using a baseline figure of 5 l/s across the scheme could lead to increased risk of flooding as the peak flows and volumes entering the wider system may be greater than the existing Further concerns include: • The varied responses to climate change allowances for watercourse mitigation measures • Failure to reduce flood depth at Hen Brook	As set out earlier the Applicant notes the comments from the Cambridgeshire Authorities on the Applicant's recommended use of a 5l/s minimum flow restriction at SuDs outfalls and could apply alternative minimum flow restrictions such as a minimum 75mm diameter flow control measure, where required. As noted, Section 3.3.4 of the Drainage Strategy Report **[APP-219]** states *".. the calculated maximum Qbar flow rate for each catchment outfall was used in the proposed drainage attenuation sizing and the determination of the Scheme's drainage land requirements and associated Order Limits."* The Order Limits for the Scheme drainage systems are therefore considered adequate. Climate change allowances used in the Scheme assessment documents **[APP-219], [APP-220], [APP-221], [APP-222]** and **[APP-223]** for main rivers and ordinary watercourses that cross the Scheme are the same as the Governments' Climate Change Allowances (CCA) published in 2016. The allowances used are the 'Higher Central' allowance of 35% used for the Scheme design, including flood compensation storage, and the 'Upper End' allowance of 65% was applied to check that the Scheme would be robust in the event of more extreme climate change events. It should be noted that the watercourse CCA used in the assessments are considered a robust and conservative

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		• The downstream flooding impacts on Wintringham Brook Tributary • Water quality impacts at Wintringham Brook and Hen Brook All of which do not address policy LP 5 with regard to reducing overall flood risk and how flood risk management is enhanced ,improving the sustainability of flood reduction assets that the development may rely upon at present, or in the future (paragraph 4.70. This is especially pertinent in that the Great Ouse valley runs through the district. Paragraph 4.69 makes it clear that the district is projected to have increased susceptibility to climate change and that developments should seek to improve the sustainability of flood reduction assets for now and in the future.	approach given the revised Government CCA allowances of 30% and 58% for the respective 'Higher Central' and 'Upper End' allowances published on 27 July 2021. The CCA applied to overland Scheme cut off ditches, that discharge into watercourses crossing the Scheme, are based on the Government guidance peak rainfall intensity allowances in Table 1 for small catchments (less than 5km^2) and accord with the Design Manual for Roads and Bridges (DMRB) LA 113, CD522, CH 501 and CG 529. The Upper end and Central allowances of 40% and 20%, for the total potential change anticipated for the '2080s', were used in accordance with the stated DMRB CG 501 minimum Scheme design lifetime of 60 years. The assessment for Hen Brook (detailed in Section 10 of the Ordinary Watercourse Hydraulic Modelling Report- **[APP-222]** has demonstrated that the Scheme results in no increase in flood risk to third parties and therefore meets the requirements of the NPPF. Figure 10-8 and Table 10-2 of the Report demonstrate that there is no increase in pass on flows downstream, whilst Figure 10-7 shows that there is a net decrease in flood depth immediately upstream/downstream of the Scheme. The small area where an increase in flood depth is shown by the model is within the Order Limits and contains no sensitive receptors. Mitigation measures already included within the Scheme design to prevent increases in flood risk to third parties include a specially designed large mainline culvert to maintain conveyance of the watercourse, high flow culverts to maintain floodplain conveyance in line with existing, along with a large compensatory storage area.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
			It is also noted that the Environment Agency, as a statutory consultee, uses the management catchment CCA from the peak river flow map as benchmarks. The Governments' peak river flow map, published on 27 July 2021, indicates that the watercourses crossing the Scheme fall within the Upper and Bedford Ouse Management Catchment and that the higher central CCA is now 30%. Current flood risk assessments for the Scheme are therefore considered to apply a robust and conservative approach given the reduction in CCA now applicable to the Scheme. The assessment for Wintringham Brook Tributary, as detailed in Section 5 of the Ordinary Watercourse Hydraulic Modelling Report- **[APP-222]**, demonstrates that in the Scheme scenario there is no increase in pass on flow downstream, whilst upstream water levels and depths are lower than in the baseline (existing) scenario due to the hydraulic compensation area. These results show that the Scheme design and mitigation prevent any detrimental flood risk impact from the Scheme for Wintringham Brook tributary, including to adjacent farmland.
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP 10 The Countryside	Non-compliant	The construction of a new A-road has a significant land take which is permanent in nature. Large areas of agricultural land will be taken out of use permanently. This will dramatically alter the landscape character of these areas. This has been identified as adverse within the provided reports and mitigation will be through the extensive use of planting. The existing A428 is not going to	The Applicant notes that the Scheme is considered to be compliant with the Huntingdonshire Local Plan Policies LP1 and LP2, in relation to the amount and strategy for development, as it "will support the vitality and viability of the Spatial Planning Area of St Neots and the Strategic Expansion Location of St Neots East" and "improvements to key infrastructure such as the A428 are critical to support economic growth".

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		be removed but will be detrunked and returned to the Local Highway Authority for management and maintenance. Ultimately, there is no mitigation for the loss of agricultural land	The Applicant has considered the BMV agricultural land in the design development of the Scheme by, in general, minimising permanent land acquisition and temporary possession and providing land plots more suitable for efficient farming operations. Examples include: • Following consultation with multiple landowners, realignment of the new dual carriageway between B1046 and Cambridge Road junction. This has shortened the route by approximately 117m and provided plots of land between the existing A428 and the new dual carriageway that are more suitable for efficient farming operations. In addition, where the new dual carriageway severs agricultural land, new accommodation bridges have been proposed to provide connectivity. • Siting the main construction compound on land marked for future development (planning consent granted) and not on adjacent BMV agricultural land. • Reduction in landscaping to reduce permanent impact on farming activities, as shown in the Supplementary Consultation - Consultation Booklet in the Consultation Report Appendix Q Part 1.1 **[APP-058]** (Map Reference - 42, 46, 47 and 52). • Following landowner consultation, landscape mitigation was reduced to connect field for improved farming operations, as shown in the Supplementary Consultation - Consultation Booklet in the Consultation Report Appendix Q Part 1.1 **[APP-058]** (Map Reference - 58)

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP11 Design Context	Non-compliant	The Landscape and Visual Impact Assessment (LVIA) draws upon national and district landscape assessments to identify key landscape character areas within the application area and its setting. It is however considered that the LVIA does not adequately consider the "key issues" as identified within the Huntingdonshire Landscape and Townscape Assessment SPD (2007), such as the "protection of tall hedgerows with hedgerow trees which are a distinctive feature of the central area" and "planting of tree and woodland belts along major roads to screen visually intrusive development particularly to the edges of the main settlements..." Whilst trees may not currently be a part of the wider landscape in some areas surrounding St Neots, it has been identified that this is currently a fragmented and degraded landscape – there has been loss of hedgerows through agricultural pressures and the introduction of intrusive development. This has led to a landscape that has lost its sense of intimacy and tranquillity. In order to support the aims of this policy the proposals should seek to contribute to the repair of the landscape, rather than draw on its lack of enclosure as a defining character going forward.	The Applicant has drawn reference from the Huntingdonshire Landscape and Townscape Assessment SPD (2007) in defining the Local Landscape Character Areas (LLCA), including the key issues related to district level landscape character areas. These LLCAs formed the basis of the assessment of landscape effects of the Scheme and are described in detail in Appendix 7.3 of Chapter 7 of the Environmental Statement **[APP-113]**. The LLCAs were agreed with the relevant local authorities before submission of the Application. The Environmental Masterplan **[APP-091]** illustrates the extensive mitigation that is proposed to mitigate landscape and visual effects. The landscape strategy and Appendix A of Annex L of the First Iteration Environmental Management Plan [**APP-234]** explain this further, with specific reference to the Huntingdonshire Landscape and Townscape Assessment SPD (2007). This mitigation has been informed by local policy and guidance, including the Huntingdonshire Landscape and Townscape Assessment SPD. The Cambridgeshire Authorities note in their Local Impact Report the positive impacts, noting that "*extensive areas of mitigation planting will be established along the route which will enhance the local and national landscape character, reconnect some areas of fragmented woodland, and provide structure and screening for the route in the long term*". The Applicant considers that the Application has fully addressed Policy LP11 Design Context of the Huntingdonshire Local Plan to 2036.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP12 Design Implementation	Non-compliant	Very little information is currently provided on the design of infrastructure features, such as bridges, signage, gantries etc, therefore the policy is currently not supported by the proposals. In order to achieve this, the proposed infrastructure should be of high design quality, be sensitive to the host landscape, and provide beautiful tranquil routes for pedestrians and cyclist around and across the proposed highway corridor. Species mixes should also vary across different locations within the scheme (I.e. wet woodland and core woodland, and variation in the species of trees planted within hedgerows) to help create identifiable landscapes.	Whilst the development of and on the Strategic Road Network needs to adhere to standards set out in the Design Manual for Roads and Bridges, every effort has been made to ensure that good design principles are embedded into the design development of the Scheme. This includes the need to take account of local context. This is reflected in National Highways' publication "The road to good design" which contains a series of principles for good road design which are centred on the themes of connecting people, places and processes. This states that good road design: • Makes roads safe and useful. • Is inclusive. • Makes roads understandable. • Fits in context. • Is restrained. • Is environmentally sustainable. • Is thorough. • Is innovative. • Is collaborative. • Is long-lasting. The design-development of the Scheme has been underpinned by these ten principles, which collectively have encouraged better design and helped provide a basis for the

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
			Scheme to be objectively reviewed at key stages of its development. Matters relating to scale, height, massing and alignment of the Scheme have been considered in the design development and environmental impact assessment of the scheme. Furthermore, as stated in the Applicant's response to question Q1.10.1.3 of the Applicant's Response to the Examining Authority's First Round of Written Questions **[REP1-022]**, the Applicant has submitted further information on matters relating to visual appearance and good design, in particular scale, height, massing, alignment, and materials at Deadline 3 (see Scheme Design Approach and Design Principles **[TR010044/EXAM/9.26]**]).
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP14 Amenity	Non-compliant	There are a number of outstanding issues with the DCO that require resolving to enable policy compliance, these have been addressed in more detail in the main body of the Local Impact Report and include: • Temporary off-site impacts particularly in relation to noise, dust and light from on-site and transportation activities. • The introduction of new highway infrastructure and traffic which will cause adverse effects on visual amenity and tranquillity to rural and agricultural landscapes and landscape character. • Off-site impacts from borrow pits, especially in relation to noise, dust and	The policy states that a proposal will be supported where a high standard of amenity is provided for all users and occupiers of the proposed development and maintained for users and occupiers of neighbouring land and buildings. It goes on to require in part (b) that the physical relationships arising from the design and separation of buildings are not oppressive or overbearing; and in part (d) that predicted adverse impacts from obtrusive light; contamination; air pollution; water pollution; odour; dust; and overheating are "made acceptable". Where relevant, these matters are assessed in the Environmental Statement and any residual impacts are considered against policy in the Case for the Scheme **[APP-240]**. Matters relating to temporary noise, dust and light from on-site and transportation activities are dealt with in the respective assessments reported in the Environmental Statement.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		light. The effects of which cannot be determined until specific details are provided on restrictions applying to re-routed construction vehicles etc. • The imposition of large engineered bridges, roundabouts, embankments, roadways and lighting columns into the rural landscape of the new route alignment will be a dramatic change for the very rural landscape into which it they are being placed. During the operational phase of the scheme the impact is generally irreversible and at odds with the scale, appearance and cultural aspects of the landscape and adversely affecting historic landscape patterns and visual amenity. All these impacts will likely be reduced as mitigation planting matures, but will not remove it entirely. Further detail is provided in Chapter 8. • The general air quality/dust mitigation measures proposed within the First Iteration Environmental Management Plan (EMP) are appropriate, but will require confirmation through review and agreement of the Second Iteration EMP which it is advised should be submitted and agreed in writing with the LPA's prior to construction works commencing.	In terms of likely significant landscape and visual effects, these are identified and addressed in Chapter 7 of the Environmental Statement **[APP-076]**. The assessment acknowledges that there would be adverse effects on landscape character and visual amenity during construction and operation, reducing in scale and magnitude as the substantial areas of mitigation planting establish. The amenity of road users and people crossing the route, for example users of public rights of way east of St. Neots, have been a key consideration in the design, as set out in Annex L of the First Iteration Environmental Management Plan **[APP-234]** and the Scheme Design Approach and Design Principles submitted at Deadline 3 **[TR010044/EXAM/9.26]**. Further information regarding the borrow pits and their environmental effects is presented in the Borrow Pits Excavation and Restoration Report **[TR010044/EXAM/9.24]**, submitted at Deadline 3. Environmental mitigation and best-practice control measures/traffic management that would be implemented as part of construction-related activity associated with the formation, operation and restoration of the borrow pits is secured through a combination of the First Iteration Environmental Management Plan **[APP-234]** and the Outline Construction Traffic Management Plan **[APP-244]**. The Applicant notes that the Cambridgeshire Authorities have accepted that the Scheme is compliant in respect of the major strategic issues, including supporting economic growth; assisting with improved transport connections; incorporating measures to mitigate climate change, as well as supporting growth and vitality and viability of the Spatial Planning Area. The First Iteration EMP is secured through Requirements 3

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		• Potential Water quality impacts at Wintringham Brook and Hen Brook	and 4 of the draft Development Consent Order (dDCO)[REP1-003]. The host local authorities would be consulted on the second iteration of the EMP prior to submission to the Secretary of State (SoS). Effects on water quality are presented in Chapter 13, Road Drainage and the Water Environment **[APP-082]** of the Environmental Statement.
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP15 Surface Water	Non-compliant	There are a number of outstanding issues with the DCO that require resolving to enable policy compliance, these have been addressed in more detail in the main body of the Local Impact Report and include: • Opposition to the use of proprietary treatment where this is avoidable, as there is an associated and increased maintenance risk with the proprietary treatment prone to failing if not maintained correctly. This would have adverse pollution risks to the surrounding watercourses. Where possible, the surface water runoff from these areas should be treated by natural means, such as inclusion of reed beds at the inlets of the watercourses. This would reduce the risk of failure and wider pollution issues in the surrounding watercourse networks. The Preference for treatment is through SuDS	The Applicant will ensure that water quality protection measures set out in, and secured by, the First Iteration Environmental Management Plan **[APP-234]** such as the use of settlement basins to reduce sediment transport and bunging of gullies from the finished surface will be implemented during construction to mitigate contamination of watercourses. As set out earlier in this document, the Applicant notes the Cambridgeshire Authorities' recommendations for more natural proposed culverts alignments, around the Wintringham brook crossing, and the scope for adjustments to the proposed design will be considered during the detailed design. As set out earlier in this document, the Applicant notes the Cambridgeshire Authorities' concerns relating to proprietary treatment, by means of interceptors, proposed in areas viewed to be at an increased risk of pollution by the HEWRAT assessment. The Applicant will apply the principal of using more natural treatment systems, such as reed beds or SuDs in the first instance when designing and constructing drainage water treatment for the Scheme. As set out earlier in this document, the Applicant notes the comments from the Cambridgeshire Authorities on the

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		• The proposals for the discharge from the different catchments across the scheme is to limit the runoff from the basins to the natural Greenfield runoff rates. However, the submitted reports indicate that where the rate is below 5 l/s then this should be defaulted to a minimum of 5 l/s. This could increase the discharge rates from certain catchments pretty drastically, increasing the peak volumes discharging from the basins into the surrounding watercourses, in turn increasing the risk of flooding to the downstream extents of the receiving watercourses. As this is upstream of large developments such as Wintringham Park and the wider St Neots area, this could increase the risk of flooding to existing and future properties There is a balance to meet around the discharge rates and risk of blockage, however the increased rates to 5 l/s is an outdated approach and this can be reduced further. • Maintenance of the features has not been fully arranged. There needs to be a clear delineation between the adoption and ongoing maintenance body for the proposed surface water features.	Applicant's recommended use of 5l/s minimum flow restrictions at SuDs outfalls, and could apply alternative minimum flow restrictions such as a minimum 75mm diameter flow control measure, where required. It should be noted that, as stated in Section 3.3.4 of the Drainage Strategy Report **[APP- 219]** "..the calculated maximum Qbar flow rate for each *catchment outfall was used in the proposed drainage attenuation sizing and the determination of the Scheme's drainage land requirements and associated Order Limits."* The Order Limits for the Scheme drainage systems are therefore considered adequate.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP16 Sustainable Travel	Non-compliant	It is noted that the proposals seek to maintain the existing public rights of network where possible. It is concerning, however, that the proposals fail to maximise the opportunities for use of sustainable modes. For example, routes that had previously been indicated as shared use paths in earlier iterations of the design are now downgraded to paths or removed. This is detailed below in relation to the specific points on each affected route. In addition, there is concern that due to the design of routes not meeting the appropriate standards that this could deter some users and as such does not maximise the opportunities. In considering whether the A428 proposals meet Policy LP16 of the Local Plan, we have looked at each element of the policy in turn. a) opportunities are maximised for the use of sustainable travel modes It is noted that the proposals seek to maintain the existing public rights of network where possible. It is concerning, however, that the proposals fail to maximise the opportunities for use of sustainable modes. For example, routes that had previously been indicated as shared use paths in earlier iterations of the design are now downgraded to paths or removed. This is detailed in comments in	The Applicant disagrees that the Scheme provides insufficient provision for walkers, cyclists and horse riders. Section 8.3 of the Transport Assessment Part 1 **[APP-241]** sets out the provision made within the Scheme to maintain connectivity of the existing function of Public Rights of Way where possible, and at paragraph 8.3.3 sets out the new and improved routes that are delivered through the Scheme. This includes shared footway/cycleways proposed along Roxton Road Link, Roxton Road, Bedford Road and Kelpie Marina access for the replacement of infrastructure on the A1. Furthermore, shared footway/cycleways are proposed at Cambridge Road and Caxton Gibbet junctions. These routes have been upgraded from a footway to shared use facilities. The Applicant has made provision to maintain connectivity as well as providing some new and improved routes for Non-Motorised Users, where they are relevant to the Scheme and proportionate. There is no requirement in the NPSNN to "maximise" opportunities for sustainable travel modes. NPSNN in paragraph 3.17 explains that applicants should use "reasonable endeavours" to address the needs of cyclists and pedestrians in the design of new schemes. The Applicant disagrees with the Cambridgeshire Authorities in their view that impacts upon the strategic road network have not been properly addressed. The Applicant also disagrees with the Cambridgeshire Authorities in their view that the residual cumulative impacts may have been incorrectly assessed. Cumulative effects have been assessed in accordance with relevant guidelines and

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		this section in relation to the specific points on each affected route. In addition, the Councils are concerned that due to the design of routes not meeting the appropriate standards that this could deter some users and as such does not maximise the opportunities. b) its likely transport impacts have been assessed, and appropriate mitigation measures will be delivered, in accordance with National Planning Practice Guidance CCC, as Local Highway Authority, has assessed the submitted Transport Strategy and related documents. It is understood that there are aspects of the transport impacts that present concerns for NMU and public rights of way. For example, at the new roundabout junctions at Cambridge Road St Neots, suitable crossings have not been designed into the scheme; and traffic levels and speeds are expected to rise in parts of the surrounding network, impacting on the ability of non-motorised users to cross or use busy sections safely, e.g. Toseland Road. It is considered that, as a consequence, elements of the proposals do not accord with National Planning Practice Guidance or LP Policy LP16.	methodology (refer to Chapter 15: Assessment of Cumulative Effects of the Environmental Statement **[APP-084]**.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		c) safe physical access from the public highway can be achieved, including the rights of way network where appropriate As noted above there are aspects of the scheme design that are cause for concern in relation to safe access of the public highway network, as detailed elsewhere in this joint response. The revisions set out will overcome these concerns and ensure that this aspect of LP Policy LP16 is complied with. d) any potential impacts on the strategic road network have been addressed in line with Department for Transport Circular 02/2013 and advice from early engagement with Highways England This is addressed elsewhere in this response and, as it stands, there is currently concern that the impacts have not been appropriately addressed. e) there are no severe residual cumulative impacts. The councils are concerned that the level of severity of residual cumulative impacts may be incorrectly assessed in the Environmental Statement and would urge the applicant to revisit this in light of other comments set out in this representation.	

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Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP17 Parking Provision and Vehicle Movement	Non-compliant	Congestion on the A428 trunk road has already become a constraint to housing and employment growth in the St Neots area. Local and regional businesses need access to a large and diverse labour market, requiring many people to commute into and out of the area each day. The quality of life for those who live in and between Cambridge and St Neots is diminished by congestion, primarily on the A428, which can cause driver stress and can contribute to other factors affecting wellbeing, safety and health. Without improvement, the situation is expected to get worse.	The Applicant notes the requirements of the policy which are to incorporate appropriate space for vehicle movements, facilitate accessibility for service and emergency vehicles and incorporate adequate parking for vehicles and cycles, and would question the relevance of this to the Scheme. Notwithstanding this, the narrative provided by the Cambridgeshire Authorities indicates support for the Scheme since its delivery will address the congestion issues highlighted currently experienced between St Neots and Cambridge. In the event that it is relevant, no explanation has been provided by the Cambridgeshire Authorities as to why the Scheme is non-compliant with this policy.
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP29 Health Impact Assessment	Non-compliant	There is a potential for poor communication between construction and local residents leading to increased stress and poor mental health (as experienced with A14 upgrade). A robust community communications plan must be in place A Full Health Impact Assessment would also be required.	The First Iteration Environmental Management Plan (EMP) **[APP-234]** explains that the project team will include a community relations manager, whose role would be to communicate with the public, stakeholders and other interested parties, including outreach and education. The role will also include keeping the public informed of project progress and any construction activities that may cause inconvenience to local communities. The EMP is secured through Requirements 3 and 4 of the dDCO **[REP1-003].** Therefore, the Applicant does not consider that a community consultation plan is necessary. The Applicant would also draw to the attention of the Cambridgeshire Authorities, the Representations from Public Health England, **[REP1- 089]** and **[REP1-090]** which confirmed their satisfaction that emissions during the

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			construction process have been considered and that the proposals outlined in the supporting documentation and future construction and environmental management plan should be adequate. Public Health England's response to Q1.2.1.1 stated that based on the information contained within the application, namely air quality modelling, they are satisfied that there should be an insignificant impact on public health. Furthermore, the Planning Inspectorate did not request in its Scoping Opinion **[APP-231]** that a full Health Impact Assessment was required. Accordingly, the Applicant does not agree with the Cambridgeshire Authorities assertion that a *"full health impact assessment would also be required"* and considers that the scope and findings of the health component reported in Chapter 12, Population and Human Health **[APP-081]** of the Environmental Statement appropriately cover the likely significant effects of the Scheme on human health.
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP30 Biodiversity and Geodiversity	Non-compliant	The lack of survey information for arable field margins, watercourses and lowland meadows means that the scheme cannot be fully assessed for its impact on these Priority habitats. It is therefore not possible to assess if impacts have been minimised as far as possible or mitigated. The scheme has failed to develop mitigation strategies for Priority (BAP) habitats such as arable field margins, hedgerows and woodland with associated adverse impact on farmland birds (Priority species). There will be fragmentation of	Chapter 8: Biodiversity of the Environmental Statement **[APP-077]** reports on the surveys undertaken to inform the assessment of the Scheme based on a Phase 1 Habitat Survey undertaken in 2016 followed by intensive biodiversity appraisal using recognised good practice surveys including detailed surveys of arable field margins, woodland and grassland (Appendix 8-3: Terrestrial Habitats of the Environmental Statement **[APP-190]**) and watercourses (Appendix 8-4: Aquatic Habitats of the Environmental Statement **[APP-191]**). This biodiversity baseline has been kept up to date with surveys being undertaken in 2021 and

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		hedgerows resulting in loss of connectivity of the networks used by bats, small mammals and invertebrates. Potential harm to the conservation status of the barbastelle bat population of Eversden and Wimpole SAC and SSSI is still under consideration, with the results of further bat surveys agreed between the Applicant and Natural England awaited. An appropriate assessment may be required in accordance with the Habitats Directive and the Conservation of Habitats and Species Regulations 2017.	provides a robust basis for the assessment of impacts of the Scheme. Habitat creation within the Scheme has mitigated for the loss of various habitats including woodland, grassland and hedgerow and associated fauna, e.g. farmland birds, and provided enhancement of the biodiversity of the Scheme. As no arable field margins of notable value are being lost, there is no need for any mitigation for this habitat which is abundant in the surrounding landscape. Surveys as recommended by Natural England are being undertaken with respect to Barbastelle and the Eversden and Wimpole Woods SAC and will be reported to the examination in due course.
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP31 Trees, Woodland, Hedges and Hedgerows	Non-compliant	During construction the scheme does not provide a sufficient level of protection, including root protection to nearby trees subject to Tree Preservation Orders. The loss of hedgerows within the project limits has been identified in the Biodiversity Net Gain calculations. Without additional mitigation planting comprising hedgerows and hedgerows with trees, the loss will have a negative impact on wildlife, biodiversity and general landscape character as hedges are a prominent feature of all Clayland character areas. It is considered that this planting could be provided along more open stretches of the road The Local Impact Report addresses	As set out earlier in this document, the Applicant acknowledges that hedgerows are a prominent feature of Clayland character areas. There has been historic decline in this habitat type as fields have been enlarged to accommodate modern agricultural practices. The Scheme includes proposals for planting of 34.27km of new hedgerows to create new field boundaries and restore habitat connections. The future maintenance of hedgerows is an important consideration and new hedgerows are proposed where access for maintenance allows. Updated Arboricultural Assessment Plans **[TR010044/EXAM/9.27]** have been submitted as part of Deadline 3 correcting information submitted as part of the DCO application.

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		in more detail opportunities for improvement including: • Additional Elm Planting • Increased native species planting and a reduction in nonnative species • Planting trees and woodland belts along road corridors to help screen intrusive development at settlement edges and restore a higher quality landscape.	
Huntingdonshire Local Plan to 2036, Huntingdonshire District Council (May 2019) LP37 Ground Contamination and Groundwater Pollution	Non-compliant	It is noted that the groundwater monitoring is ongoing, however there are areas of concern which have not been fully addressed within the submission. There are recorded groundwater levels within the Scheme which may have an impact on the cuttings within the Scheme. Further detail is provided by the LLFA in the main body of the report.	Baseline groundwater level and quality condition within the Scheme's Order Limits has been established and presented in Appendix 13.7 (Groundwater Risk Assessment) of Chapter 13 of the Environmental Statement **[APP-082]**. Qualitative and quantitative assessment of potential impacts on groundwater and other sensitive water receptors from all possible deep excavation activities such as cuttings and borrow pits have been adequately assessed. The findings of the assessment are presented in Appendix 13.7: Groundwater Risk Assessment of the Environmental Statement **[APP-226]**. The Applicant has discussed these findings with the Environment Agency. The Applicant has also prepared an addendum Groundwater Risk Assessment technical note to address all outstanding groundwater-related issues/concerns relating to deep excavations, including cuttings and borrow pits raised by the Environment Agency. This technical note will be provided to the Environment Agency for review and comments and will subsequently be submitted to the Examination in due course.

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St Neots Neighbourhood Plan 2014-2029, St Neots Town Council (February 2016) P1, RD3	Compliant	n/a	Confirmation of compliance welcomed, although is not clear what relevance this Neighbourhood Plan policy has to the Scheme given its NSIP status. The National Policy Statement for National Networks (NPSNN) refers to applicants and decision makers giving due regard to policies set out in local plans (paragraphs 5.203 and 5.211), not specifically neighbourhood plans, but in any event, the Applicant has responded in respect of the various identified Neighbourhood Plan policies.
St Neots Neighbourhood Plan 2014-2029, St Neots Town Council (February 2016) A2 Gateway into St Neots	Non-compliant	Refer to landscaping comments set out in Chapter 8.	This Neighbourhood Plan policy relates to the provision of soft landscaping, and the provision of wide boulevards on the main approach roads into the town. It is not clear how it relates to or is relevant to the Scheme, especially given its NSIP status. No explanation is given by the Cambridgeshire Authorities as to why the Scheme does not comply with this policy.
St Neots Neighbourhood Plan 2014-2029, St Neots Town Council (February 2016) PT1 Sustainable Travel	Non-compliant	It is noted that the proposals seek to maintain the existing public rights of network where possible. It is concerning, however, that the proposals fail to maximise the opportunities for use of sustainable modes. For example, routes that had previously been indicated as shared use paths in earlier iterations of the design are now downgraded to paths or removed. This is detailed in comments in this section in relation to the specific points on each affected route. In addition, the local	The Applicant disagrees that the Scheme provides insufficient provision for walkers, cyclists and horse riders. Section 8.3 of the Transport Assessment Part 1 **[APP-241]** sets out the provision made within the Scheme to maintain connectivity of the existing function of Public Rights of Way where possible, and at paragraph 8.3.3 sets out the new and improved routes that are delivered through the Scheme. This includes shared footway/cycleways are proposed along Roxton Road Link, Roxton Road, Bedford Road and Kelpie Marina access for the replacement of infrastructure on the A1. Furthermore, shared footway/cycleways are proposed at Cambridge Road and

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		authorities are concerned that due to the design of routes not meeting the appropriate standards that this could deter some users and as such does not maximise the opportunities.	Caxton Gibbet junctions. These routes have been upgraded from a footway to shared use facilities. The NPS-NN does not require schemes for national transport infrastructure to "maximise" the opportunities for use of sustainable modes. The Applicant has incorporated many improvements to the PROW networks, where possible and proportionate.
St Neots Neighbourhood Plan 2014-2029, St Neots Town Council (February 2016) P4 Flooding	Non-compliant	There are a number of outstanding issues with the DCO that require resolving to enable policy compliance, these have been addressed in more detail in the main body of the Local Impact Report and include: • Opposition to the use of proprietary treatment where this is avoidable, as there is an associated and increased maintenance risk with the proprietary treatment prone to failing if not maintained correctly. This would have adverse pollution risks to the surrounding watercourses. Where possible, the surface water runoff from these areas should be treated by natural means, such as inclusion of reed beds at the inlets of the watercourses. This would reduce the risk of failure and wider pollution issues in the surrounding watercourse networks. The Preference for treatment is through SuDS	The Applicant notes the opposition to use of proprietary treatment and agrees this form of treatment will not be used where this is avoidable. As set out earlier, the Applicant notes the comments from the Cambridgeshire Authorities on the Applicant's recommended use of 5l/s minimum flow restrictions at SuDs outfalls and could apply alternative minimum flow restrictions such as a minimum 75mm diameter flow control measure, where required. It should be noted that Table 10-1 and 11-2 of the Drainage Strategy Report **[APP-219]** indicate that the Wintringham Brook and Wintingham Brook Tributary SuDs proposed in the Scheme, located upstream of the Wintringham Park development, do not have any recommended flow restrictions less than Greenfield Qbar flow restrictions. In Section 3.3.4 of the Drainage Strategy Report **[APP- 219]** it also states *"... the calculated maximum Qbar flow rate for each catchment outfall was used in the proposed drainage attenuation sizing and the determination of the Scheme's drainage land requirements and associated Order Limits."*

Policy/Document	CCC/HDC/SCDC View on Compliance	CCC/HDC/SCDC Policy Assessment	Applicant Response
		• The proposals for the discharge from the different catchments across the scheme is to limit the runoff from the basins to the natural Greenfield runoff rates. However, the submitted reports indicate that where the rate is below 5 l/s then this should be defaulted to a minimum of 5 l/s. This could increase the discharge rates from certain catchments pretty drastically, increasing the peak volumes discharging from the basins into the surrounding watercourses, in turn increasing the risk of flooding to the downstream extents of the receiving watercourses. As this is upstream of large developments such as Wintringham Park and the wider St Neots area, this could increase the risk of flooding to existing and future properties There is a balance to meet around the discharge rates and risk of blockage, however the increased rates to 5 l/s is an outdated approach and this can be reduced further. • Maintenance of the features has not been fully arranged. There needs to be a clear delineation between the adoption and ongoing maintenance body for the proposed surface water features.	The Order Limits for the Scheme drainage systems are therefore considered adequate.

4 Applicant's Comments on the Central Bedfordshire Council Local Impact Report

Table 4-1 – Applicant's Comments on the Central Bedfordshire Council Local Impact Report (REP2-004)

Reference Number	Local Impact Report/Applicant Comment
REP2-004a	**3. Details of the Proposal & Overall Council View** 3.1 The proposed improvement scheme is broadly supported by CBC, recognising the longer-term benefits that such a scheme will provide, however, CBC does have a number of concerns that it requests in its representations submitted in August 2021 responding to the Examining Authorities questions of 20 August 2021 are fully considered and dealt with in the mechanisms for mitigation of the project. Without adequate mitigations, the areas of concern are likely to result in significant impacts. 3.2 The forecast modelling for the scheme identifies scope to reduce the amount of traffic forecast to route through villages within the Central Bedfordshire Authority area on parallel east – west routes to the A428, as well as reducing the potential for 'rat-running' trips between the A428 and A1 south of the current 'Black Cat' roundabout junction (see the submitted Transport Assessment Annex (**APP-243**, Figure 1.2)). 3.3 The precise details are set out in the Introduction to the Application (**APP/1.2**). A more detailed and technical description is provided in Chapter 2 The Scheme of the Environmental Statement (**APP/6.1**) and the numbered works within the Development Consent Order.
Applicant Comment	The Applicant welcomes the broad support of Central Bedfordshire Council for the Scheme in their Local Impact Report.
REP2-004b	**4. Relevant Planning History and Proposals Under Consideration** 4.1 The following planning applications are considered to be relevant material considerations: 4.2 CB/20/04391/FULL - Archaeological excavation and engineering works with associated temporary change of use. Formation of site compound comprising site offices, welfare facilities and off road parking facilities at Land West of 1 The Barns, Field 34, Little Barford Road, Little Barford, Sandy granted 4th March 2021.

Reference Number	Local Impact Report/Applicant Comment
	4.3 CB/20/04083/FULL - Temporary change of use and formation of site compound comprising site offices, welfare facilities and off road parking with associated works at Land to the West of Hills Farm, Station Road, Tempsford granted 8th April 2021. 4.4 CB/20/04185/FULL - Archaeological excavation and associated engineering works at Land to the West of Hills Farm, Station Road, Tempsford granted 8th April 2021.
Applicant Comment	The Applicant notes the planning history set out by Central Bedfordshire Council. The Applicant provides the following update below: a. Works relating to planning application reference CB/20/04391/FULL are complete. b. Works relating to planning application references CB/20/04083/FULL and CB/20/04185/FULL are ongoing.
REP2-004c	**5. Relevant Planning Policy** 5.1 The National Policy Statement (NPS) for National Networks contains the relevant policies, specifically paragraphs 3.2 –3.10 and 3.15–3.17. 5.2 The Examining Authority and the Secretary of State should give due consideration to impacts on local transport networks and policies set out in Local Plans, for example, policies on demand management being undertaken at a local level. 5.3 The Central Bedfordshire Local Plan was adopted on 22 July 2021. The following policies are relevant to this application: • SP1: Growth Strategy • SP2: National Planning Policy Framework – Presumption in Favour of Sustainable Development • SE3: Holme Farm, Biggleswade • T1: Mitigation of Transport Impacts on the Network • T2: Highways Safety and Design • T4: Public Transport Interchanges • T6: Movement and Management of Freight

Reference Number	Local Impact Report/Applicant Comment
	• EE1: Green Infrastructure • EE2: Enhancing Biodiversity • EE3: Nature Conservation • EE4: Trees, Woodlands and Hedgerows • EE5: Landscape Character and Value • EE12: Public Rights of Way • CC1: Climate Change and Sustainability • CC3: Flood Risk Management • CC4: Development Close to Watercourses • CC5: Sustainable Drainage • HQ1: High Quality Development • HQ2: Developer Contributions • HQ11: Modern Methods of Construction • HE1: Archaeology and Scheduled Ancient Monuments • DC5: Agricultural Land
Applicant Comment	The Applicant notes the planning policies set out by Central Bedfordshire Council.
REP2-004d	**6. Assessment of prospective impact of the project** 6.1 Highways and Transportation – Impacts on the Local Highway Network Whilst only a short section of the route falls directly within Central Bedfordshire, the scheme is predicted to result in wider impacts on the highway network within the Central Bedfordshire Area during both the construction and operational phases of development. These effects are predicted to predominantly be to the

Reference Number	Local Impact Report/Applicant Comment
	south of the proposed scheme and consist of two main elements (see Transport Assessment (**APP-241**) Section 9.4 Figures 9.2–9.8, and Transport Assessment Annex (**APP-243**) Figure 1.2): 1. Changes in traffic levels and patterns on the highway network to the south of the existing A428, in particular with regards to the predicted number of hourly and daily movements through the villages and towns located south of the A428 and A421. 2. Changes in traffic levels and patterns on the A1 (and parallel routes) to the south of the 'Black Cat' junction. Further details with regards to these areas of impact were provided in the Council's Written Representation, including within Sections 3 to 6.
Applicant Comment	Modelling undertaken by the Applicant has forecast that a proportion of traffic could be displaced on to local roads during the construction phase (Transport Assessment **[APP-241]** Section 9.4 Figures 9.2–9.8) mainly as a result of the temporary speed reductions on the A428. The Applicant will make every effort to ensure traffic continues to use the strategic road network and will seek to address specific issues through traffic management plans. However, once the Scheme has opened, villages and towns located south of the A428 and A421 are forecast to have lower traffic flows, providing long term benefits. The Outline Construction Traffic Management Plan **[APP-244]** sets out the temporary traffic management processes that will be followed for the safe and efficient construction phases of the Scheme. The development of the Outline Construction Traffic Management Plan **[APP-244]** has been informed through discussions with the Strategic Road Users Technical Working Group which includes representatives from local authorities, as well as lessons learned from previous highway construction schemes. With regards to the A1, the Applicant has set out all impacts on the wider road network (including the A1 junctions) within the Transport Assessment Annex **[APP-243]** following detailed microsimulation modelling. Table 3-91 of the Transport Assessment Annex **[APP-243]** sets out that for the A1/A603 in Sandy, the predicted traffic flow impact is negligible with some increases in flow on the A1 and decreases on the A603-B1042. The predicted operational impact is a marginal increase in delay in 2025 but with a more significant reduction in delay in 2040. Paragraph 3.22.5 of the Transport Assessment Annex **[APP-243]** sets out that the A1/A603 junction will be the subject of a 'Monitor and Manage' approach in which the performance of the network will be monitored, and consideration will be given by National Highways to the potential need for interventions, if required.

Reference Number	Local Impact Report/Applicant Comment
	Modelling performed by the Applicant also forecasts that when the Scheme is open, traffic on local roads within Central Bedfordshire reduces, with traffic diverting on to the Strategic Road Network such as the A1 and the Scheme.
REP2-004e	**6.2 Construction Phase Impacts** The scheme itself, due to the scale and complexity of works involved, is expected to take a considerable period of time to fully construct, with a works programme extending to 45 months. As such, whilst construction phase impacts will be temporary, the duration is such that they will have a considerable impact upon local roads, the travelling public and the local communities which they pass through, in their own right. The information provided within the submitted Transport Assessment (**APP-241** Section 9.4 and summarised in figures 9.2 to 9.8) and the subsequent and more detailed construction phase flow plots identifies significant daily increases in traffic on a number of east-west routes, as traffic is predicted to be displaced from the existing A428 during the proposed works. Whilst not exhaustive these impacts include 12 hour increases of circa 1,069 vehicles through Blunham (during Phase 1 of the works), increases of circa 934 through Moggerhanger (during Phase 4 of the works), and increases in the order of 800 additional 12-hour movements through parts of Sandy, Potton and Gamlingay (during Phase 4 of the works). Lower but still substantial increases are also forecast elsewhere within the CBC network (see **APP-241** figures 9.2 to 9.8). As identified above, several of the routes expected to experience the largest increases in traffic during the construction phase are naturally constrained in terms of the standard and alignment of the roads in question and are subject to appropriate restrictions. In addition, sections of the A603 identified as a formal diversion have a recognised collision history, which could be exacerbated both by an increase in flow, including during the proposed overnight closures of the A1, by drivers unfamiliar with the route.
Applicant Comment	The Applicant acknowledges that during the construction phase of the Scheme significant increases in traffic flows are forecast in these areas. This is acknowledged in Chapter 9 of the Transport Assessment [APP-241]. Once construction of the Scheme starts, preferred diversionary routes will be signposted, which will aim to attract drivers to high capacity main road alternative routes. The modelling of the construction impacts is predicated upon the assumption that drivers have perfect knowledge of the road network and traffic conditions (e.g. delays). Traffic is assigned to routes such that all journeys across the network are optimised i.e. minimum cost. Diversionary traffic routes were not subject to

Reference Number	Local Impact Report/Applicant Comment
	any coding adjustments within the SATURN traffic model i.e. no attempt was made to force general traffic to use nominated diversion routes. This is considered to be a valid approach on the basis that there can be no certainty that all traffic would keep to the designated routes. The modelling therefore should be considered as representing a 'worst case' assumption since traffic cannot be prohibited from using legal highway routes. The Applicant will do everything within its powers to keep traffic on the strategic route network and so minimise construction traffic impacts. Any specific issues which arise will be addressed through traffic management plans in consultation with local authorities and the local police. Drivers making long distance trips who are unfamiliar with the local road network will, on the whole, tend to use the signposted routes. Whilst local drivers who are familiar with local 'rat runs' may use them, an enhanced programme of advance signage and other publicity will be used to maximise the extent to which Heavy Goods Vehicles (in particular) keep to the signposted routes and avoid the local roads through the villages. This would tend to decrease the use of the routes of concern to CBC. As explained above, the model assesses potential diverted traffic flows in a robust manner (which represents the worst case scenario) in the TAA [APP-243] and the figures provided in chapter 9 of the TA [APP-241] are likely to be over-estimates. The diversion using the A603 is one of the agreed diversion routes that National Highways currently uses when maintenance is required on the A1. The use of this diversion during the Scheme is likely to be at weekends and/or overnight. Further discussions with Central Bedfordshire are welcomed, and the traffic collision data can be reviewed to determine if any incidents that have occurred are as a result of increased traffic during closures of the A1 and, if so, what additional traffic measures may be necessary (if any) during closures for inclusion in the final Transport Management Plan. The diversion for the Wyboston to Black Cat closures is one of the agreed diversion routes that National Highways currently uses when maintenance is required on the A1. The Applicant notes CBC's suggestion to monitor the diversion and potentially design the diversionary signage for local and longer distance traffic, using the main diversion and a local diversion via Barford Road.The Applicant would welcome further discussions to determine suitable measures for inclusion in the Traffic Management Plan. The potential for conflict between the haul road crossing on Barford Road and its use a s a local diversion route is noted, and this will be taken into account in the Transport Management Plan. The Applicant notes that CBC would welcome discussion on measures to mitigate such traffic and safety impacts of diversion routes and is willing to engage with CBC accordingly.

Reference Number	Local Impact Report/Applicant Comment
REP2-004f	**6.3 Operational Phase Impacts** Strategic modelling carried out as part of the evidence base to support the DCO, as summarised in the Transport Assessment Annex (**APP-243**), identifies predicted impacts within Central Bedfordshire following completion of the scheme, in both the 2025 and 2040 forecast years. When considering links within the authority area, the operational phase impacts of the scheme are largely positive and welcomed, with predicted daily reduced levels of traffic (when compared to the 'Do-Nothing' scenario), on the majority of local roads, including those passing through Blunham, Moggerhanger, Biggleswade, Everton, Potton, Gamlingay, Sutton, and Wrestlingworth. However, there are a number of exceptions to this, as detailed within the submitted Transport Assessment Annex (Sections 3.18 to 3.21, **APP-243**), largely related to expected increases in flow on the A1 and A421, south of the scheme. The Annex identifies impacts at Sandy, Biggleswade and at Junction 13 of the M1, considered to be of sufficient scale to merit a proposed 'Monitor and Manage' approach to mitigation. In each instance these impacts are related to an increase in flow through junctions already recognised as being at, or over, reasonable levels of capacity. As an example, based upon the traffic flow information provided by the A428 team it appears that two-way traffic flow on the A1 to the immediate north of Sandy could increase by approximately 12% (when considering 12-hour flows) and 17%, (when considering AM peak hour flows when comparing the 2040 with and without scheme scenarios. This is the based upon a comparison of with and without scheme traffic flow plots provided by the applicant team, subsequent to the review of the flow changes summarised in the Transport Assessment Annex (**APP-243**). These levels of increase are not considered to be insignificant when considering the baseline levels of congestion already identified. It is also noted within the Transport Assessment Annex (**APP-243**, pages 203-216) that the increase in potential delay at the Bedford Road/High Street junction in the centre of Sandy could result in a slight adverse impact upon public transport provision, with a minimal adverse impact on public transport at the A1/ Biggleswade North roundabout and a slight adverse impact upon public transport routing through Junction 13 of the M1 (and the associated adjacent junctions). Again, these matters have been detailed within the Transport Assessment Annex (**APP-243** p 204) as to be monitored and managed following implementation of the scheme. It is noted however that the responsibility

Reference Number	Local Impact Report/Applicant Comment
	for this monitoring and managing is proposed to sit with the Local Highway Authority, where the impacted routes fall outside of the Trunk Road network, as is the case with the High Street / Bedford Road Junction within Sandy. Whilst the scheme provides welcome relief for a number of more minor routes within Central Bedfordshire, the major road network, which provides key arterial routes through the authority area is expected to experience an increase in traffic levels, with the associated knock-on effects and local impacts. Whilst the Monitor and Manage proposal may have a role to play in addressing the short term impacts of the scheme, it is the view of CBC that a comprehensive solution to the treatment of the A1 in particular, whilst outside the immediate scope of this DCO, needs to be secured within forthcoming Highways England Road Investment Strategies to identify and deliver appropriate mitigation. As detailed within the Councils Written Representation, the Council also seeks further clarification as to how any Monitor and Manage proposal will operate, and the degree to which it can be tailored to address the areas of Local Impact identified.
Applicant Comment	In relation to the point about Monitor and Manage, through The Highways England: Licence 2015 (Licence), this places an obligation on the Licence holder (Highways England) in relation to the strategic road network (SRN) to "operate and manage in the public interest, in respect of both current activities and needs in providing effective stewardship of its long-term operation and integrity". Highways England must, under the Licence, at paragraph 4.2(c) "ensure the improvement, enhancement and long-term development of the network". In complying with 4.2(c), and Part 6 of the Licence, Highways England must: "Establish and maintain a clear understanding of the pressures upon and impacts of its network at both a national and route level (including in the preparation of route strategies, as required at 5.13 [of the Licence]),and be aware of the actions needed to improve conditions for users, and manage or mitigate existing problems, to inform the future development and improvement of the network and its performance." To fulfil this commitment Highways England extensively monitors the performance of its network using data collected from daily counters, manual counts and feedback from local authorities and its operational teams. The monitoring data and data from Post Operational Evaluations Data from major schemes is analysed to develop Route Strategies. The outputs of which drive study areas and form a key building block of Highways England's future works programme.

Reference Number	Local Impact Report/Applicant Comment
	The applicant does not intend to monitor traffic impacts on the local road network as it will actively encourage current users of the strategic road network (SRN) to remain on the SRN. The Applicant sets out its position to monitoring the local road network in its response to actions arising from ISH2, point 6. Which states: In respect of other network users, traffic management for the Scheme is specifically designed to minimise delay on the Strategic Road Network (SRN) so that re-routeing onto inappropriate routes is not advantageous. This ensures that traffic is retained on the SRN strategic network as far as possible. In addition to the obvious benefits of retaining traffic on the strategic road network, it is more effective to monitor and manage traffic on the strategic network than on the wider local network. For example, if strategic network monitoring indicates that journey times are increasing on the strategic network, the Applicant can alter signage to warn drivers of the delays and to direct them to use alternative routes at an appropriate point on the strategic network, and this is done in real time. Road Investment Strategy The process for developing and delivering the RIS can be split broadly into three phases which are set out below. This process sets out how National Highways would consider the inclusion of schemes such as the A1 and demonstrates below the important role that Monitor and Manage plays in schemes being identified for the RIS, alongside other evidence. 1. **Research Phase (Year 1 and 2 of RIS)** The focus of this phase is finding out what people think should be the main objectives for National Highways and the Strategic Road Network (SRN); which locations on the SRN are most in need of improvement; the opportunities to unlock wider benefits from investment in the SRN; and if there should be any changes in the roads that make up the SRN. There are three main processes through which National Highways would be gathering this evidence: • **Route Strategies -** the focus is on a list of routes derived from policy and priorities eg. levelling up or E to W improvements etc. • **Strategic Studies**- pinch points identified on the network to see what can be done to ease these.

Reference Number	Local Impact Report/Applicant Comment
	• **Future Pipeline** Schemes identified for future development and delivery. In addition, National Highways makes full use of evidence put together by the **sub-national transport bodies**. Their work examining the transport priorities for their areas offers an invaluable perspective for the development of the RIS. This phase concludes with the publication by National Highways of its ***SRN Initial Report*** on the state of the network and its suggested priorities. The Department will hold a formal **public consultation** on this report to gather views and ensure we have as complete a picture as possible of what the RIS should seek to achieve. 2. **Decision Phase (Years 3 and 4 of RIS)** Using the responses to the public consultation, the Department will publish a ***Draft RIS*** setting out its intentions. This is the basis for a period of discussion between the Department and NH, informed by statutory advice from the Office of Rail and Road about the efficiency challenge and deliverability of emerging plans. This phase concludes with the publication of **the RIS document** and NH's **Strategic Business Plan**. 3. **Mobilisation Phase (Year 5 of RIS)** *National Highways will publish its **Delivery Plan** and start to mobilise resources ahead of the start of each Road Period.*
REP2-004g	**6.4 Air Quality** 6.4.1 The impacts of the construction phase of the proposed scheme are not considered likely to have a long-term significant detrimental effect air quality in our area. With regards to construction dust impacts the applicant has stated that dust control measures in accordance with IAQM guidance for controlling construction dust will be followed and those set out in Annex A of the Environmental Management Plan (First Iteration (**APP-234**)) appear to accord with this. CBC is generally satisfied with this in principle. However, our experience is that the failure in site dust controls that give rise to complaints tend to be because of poor implementation and management controls. Again Annex A and the associated tables set out a number of management measures that will be implemented to ensure dust controls are effective, and CBC is encouraged by this. Whilst the measures include a website where residents can report complaints, our experience is that residents prefer to complain to their Local Authority rather than the source of the problem. Therefore, close liaison and contact details for relevant Site Managers or other Senior Officials will need to be clearly established to deal with issues as and when they arise. Table A-3 of the First Iteration

Reference Number	Local Impact Report/Applicant Comment
	Environmental Management Plan (**APP-234**) states that "Regular liaison would be undertaken with the relevant local authorities, this would include discussing any complaints that had been received." However regular is not defined and CBC requests greater clarity and confirmation of close liaison and contact involved in the document. 6.4.2 The applicant has predicted an adverse impact on our Sandy AQMA and are not proposing to undertake any mitigation to counteract or offset that. The applicants during their Air Quality Modelling (see Sensitivity Test using 2020 Uncertainty Log Data report (**APP-160** to **APP-162**)) actually identified the potential for medium level impacts for the 7 properties that lie in the existing Sandy AQMA. However, because less than 30 properties are affected, they have simply classed this impact as "not significant". The size or scale of the impact is not the material factor as far as CBC is concerned – anything that likely to result in an adverse impact on the health of CBC residents at this highly sensitive location and is likely to counteract our fundamental efforts to improve air quality in the AQMA is not acceptable, particularly without mitigation measures to offset those adverse impacts. CBC's view is that mitigation must be incorporated and a requirement of the draft DCO. 6.4.3 CBC has significant concerns regarding the impact on air quality and on human receptors in the operational phases of the scheme: Currently there is regular congestion along the southbound A1 at the A603 roundabout, with queuing regularly stretching past the row of cottages fronting the A1, certainly during peak times (and sometimes beyond these periods), within the AQMA (declared for both the hourly and annual NO2 Air Quality Objectives). The capacity of the A1 is already a concern, as my colleagues from CBC Highways have advised. It is already operating at capacity and there is a need for realignment or an alternative (but significant) solution to be found and funded. The proposed works would enable the A1 southbound traffic to be free flowing at the Black Cat roundabout, but this traffic would be held up at the next stopping point (the A1/A603 roundabout). The Transport Assessment concluded that there would be a "slight impact" but the document detailed delays at the junction; however, this is on the basis that local road traffic is predicted to reduce as a result of increased flows on the A1, with para. 10.5.3 of the Transport Assessment Annex (**APP-243**) acknowledging that 'In the 2040 AM peak hour, the traffic flows are predicted to increase significantly in the Do Something relative to the Do Minimum. Therefore, the free-flowing traffic would add to the existing congestion/delays at the A1/A603 and this in turn would increase the road transportation emissions from tailpipes and have a detrimental impact on the pollution concentrations within the AQMA. There is a legal obligation for Local Authorities and Highways England to work to reduce concentrations of air pollutants and therefore the conclusion of the Air Quality Assessment that although the level of impact was

Reference Number	Local Impact Report/Applicant Comment
	medium, the fact less than 30 properties were adversely affected the overall impact was "imperceptible" and therefore no mitigation was proposed, is unacceptable. 6.4.4 The Sandy AQMA was declared in respect of both the NO_2 annual and hourly Air Quality Objectives and diffusion tube monitoring has shown exceedances of both AQOs at the 7 receptors annually. In 2019, the diffusion tube monitoring results showed that the concentration of NO_2 had decreased to below 60µg/m3 (the level recognised to highlight breaches of the hourly objective) occurred for the first time at the location of the 7 identified receptors. The 2019 result (57.5 µg/m3) is close to the hourly objective figure (see Appendix 6 of CBC's written representation). However, the results do vary year on year and therefore it is too early to conclude that air quality has improved enough to revoke the AQMA relating to the hourly objective exceedance. 6.4.5 Covid 19 restrictions have had an impact on air quality during 2020 & 2021 – lockdowns significantly decreased traffic flow numbers, and this was reflected in the 2020 monitoring result of 43.6 µg/m3 at this location (see Appendix 6 of CBC's written representation). However, both 2020 & 2021 should be considered atypical as air pollution concentrations will increase as traffic flows return to a more "normal" level. Given the high concentrations of NO_2 monitored prior to the proposed scheme, the additional delays at the A603/A1 roundabout will result in more congestion and queuing which already often stretches past the 7 receptors during peak times (and often beyond these periods) and within the AQMA. The predicted increase of NO_2 concentrations at this location because of the proposed scheme is counter to legislation requiring improvements in air quality to meet the AQOs. Additionally, the impacts of air quality on human health is well documented and the AQOs have been set with those in mind, so monitoring results above the 40 µg/m3 , show that impacts on the health of the receptors within the Sandy AQMA are a relevant concern and any scheme that will negatively impacting air quality, without offering any mitigation is unacceptable and this should be incorporated into the draft DCO requirements. 6.4.6 Central Bedfordshire Council have produced an Air Quality Action Plan (AQAP) in order to improve air quality in the AQMA. This document has been published to the Council's website and Highways England were consulted and had input into the drafting and formulation of the document. CBC would contend that rather than offering no mitigation to offset the adverse impacts that they have identified as a result of this project, Highways England could use this as a starting point to identify a range of mitigation measures that could be reasonably implemented. Measures are either:

Reference Number	Local Impact Report/Applicant Comment
	• Strategic (i.e. aimed at integrating air quality into all relevant areas of decision making within Central Bedfordshire Council); or • Specific (i.e. aimed at promoting more sustainable travel choices and reducing traffic related emissions within the two AQMAs and the district as a whole). Four 'Package of Measures' have been recommended for implementation at this time: • Package 1: reducing emissions through strategic measures • Package 2: optimising traffic flow through the AQMAs • Package 3: reducing transport emissions • Package 4: promoting sustainable transport options 6.4.7 Whilst more detail is available in the AQAP, CBC would suggest that the following measures may be most relevant to the current project: **Measure 1: Improve links with the Local Transport Plan (LTP)** **Measure 2: Improve links with the Local Planning and Development Framework** **Measure 4: Junction and Congestion Investigations** **Measure 7: Research impact on use of average speed cameras / change to speed limit** **Measure 10: reducing the emissions from goods vehicles within AQMAs** 6.4.8 Whatever mitigation measures are identified, CBC is also acutely conscious how important it is that adequate measures are put in place to ensure that the A1 can operate effectively and cope with the volume of traffic at this location as a result of the project, otherwise traffic may be pushed onto local roads creating higher levels of pollution in those locations. 6.4.9 Of further concern to us is the fact that the applicant has not adequately factored in the cumulative impacts on AQ when combined with the East-West Rail Link (EWR) proposals, in particular regarding the proposed new station at Tempsford or St Neots and what that is likely to mean in terms of traffic generation on the A1 and consequent congestion etc. There appears to be an information disconnect with the EWR Project team (so we have been advised by the Black Cat Project Team), despite the EWR Project Team

Reference Number	Local Impact Report/Applicant Comment
	assuring me separately that they were liaising on the cumulative impacts for both projects. They need to resolve this to ensure an accurate assessment of cumulative impacts is reflected in their prediction of air quality impacts, and the impacts on the Sandy AQMA are paramount in this respect.
Applicant Comment	6.4.1 The Applicant notes that the measures set out in the First Iteration Environmental Management Plan **[APP-234**] are considered by CBC to be generally adequate. The Applicant's resources include a dedicated customer team who will work with the local authorities to ensure complaints are managed in a timely and effective manner. They will also provide a direct means of contact with the team and will not rely on meetings as the only means of interaction and collaboration. Frequency of meetings will be agreed in consultation with each local authority. However, we expect customer interaction may fluctuate and have the means to adjust resources according to demand. The applicant is committed to regular and timely communications regarding customer complaints and recognises resource concerns raised by CBC within the Joint position statement with the Applicant. Therefore, the applicant has suggested discussions should be held to agree the frequency of meetings. Contact details for key members of the project team will be provided to all Local Authorities including those of the dedicated Customer liaison team. As described in the Applicant's Response to the Relevant Representation **[REP1-021],** under **[RR-016]**, using the traffic models and data generated for the Scheme, the air quality effects within the Sandy AQMA are predicted to be, at worst, imperceptible worsenings, with some small improvements recorded. This is set out in Chapter 5, Air Quality **[APP-074]** of the Environmental Statement. In summary, predicted changes would be -0.7 to +0.2 µg/m^3 in annual mean nitrogen dioxide. An imperceptible change (<1% of the objective value of 40µg/m^3) is one so small as to not be measurable and is therefore not considered to be a worsening in air quality at these receptors. These effects are not considered to be significant for air quality based on advice within the Design Manual for Roads and Bridges (DMRB) LA 105 air quality standard applied. As such, no mitigation is required to manage air quality effects associated with the Scheme. As noted in the Open Floor Hearing held on 19 August 2021, a sensitivity test has also been undertaken for an update to the traffic uncertainty log. This assessment is presented in Sensitivity Test using 2020 Uncertainty Log Data **[APP-249]**. The purpose of the Sensitivity Test was to consider the potential impacts of updating the Uncertainty Log to determine whether design changes or further mitigation may be required. This involved comparing the traffic model forecasts using the 2020 Uncertainty Log with the forecasts derived

Reference Number	Local Impact Report/Applicant Comment
	from the 2018 Uncertainty Log that were prepared for the assessment presented in the ES and associated documents. The Sensitivity Test concluded that the forecasts prepared using the 2018 and 2020 Uncertainty Logs were comparable and therefore the data used within the ES was considered robust. As such, the assessment presented in the ES is considered to represent the effects of the proposed Scheme. Even considering the Sensitivity Test, the effect on air quality due to the Scheme is not considered to be significant. Within the sensitivity test predictions only small (1-5% of the objective value) increases in annual mean NO_2 concentrations were predicted at 7 receptors within the Sandy AQMA. A small increase in annual mean concentrations at this number of receptors is not considered to be a significant adverse effect and therefore no mitigation is required. 6.4.3 Where congestion is identified within the traffic model this is included within the air quality assessment as emissions from vehicles within the air quality model are calculated based on the congested condition of the road in the time period being modelled (e.g. the AM peak period). The air quality assessment is carried out for the year of opening of the Scheme as that is considered to be worst case for air quality due to anticipated improvements in background concentrations and emission rates over time. 6.4.4 The Applicant notes this description of the Air Quality Management Area and monitoring data. 6.4.5 The Applicant notes the comments regarding 2020 and 2021 being atypical years and agrees with this evaluation. The baseline year for the air quality assessment was 2015, before construction works began on the A14 and measured concentrations from that year were used to verify the outputs of the air quality model. As noted above, an imperceptible (<1%) increase in pollutant concentrations, as predicted in the assessment presented in the ES, are not considered to be significant and therefore no mitigation is proposed. 6.4.9 The Applicant refers CBC to the response given to question 1.17.4.1 section g in the Applicant's Response to the Examining Authority's First Written Questions **REP1-022** with regard to how East West Rail has been treated with regard to cumulative effects**.** Further clarity is given in the written representation from East West Rail **[REP1-074]**, heading Q1.17.4.1(g) paragraphs 8.2, 8.3 and 8.4, whereby EWR confirm "a preferred route alignment for the EWR Project in the vicinity of the Scheme has not been announced nor has EWR Co applied for a Scoping Opinion from the Planning Inspectorate" and "…it is not considered that the EWR Project is a development that is of sufficient certainty to be apt for cumulative assessment with the Scheme".

Reference Number	Local Impact Report/Applicant Comment
	As part of paragraph 8.4 of the written representation from East West Rail **[REP1-074]**, EWR state *"in line with normal procedure, when EWR Co preforms its own environmental impact assessment(s), it will assess impact with the Scheme as predicted to be in situ/under development"*. In the absence of data regarding EWR to complete a cumulative effects assessment in relation to this scheme, EWR will complete a cumulative effects assessment as part of its own environmental impact assessment(s).
REP2-004h	**6.5 Noise & Vibration** 6.5.1 Construction Noise: Paragraph 11.3.11 of **APP-080** makes reference to further baseline monitoring that was due to be carried out but "postponed" due to the impacts of Covid 19. CBC has now been advised that this further monitoring will not be taking place but are unclear as to the justification for this, as there was clearly an identified need for the further monitoring in the first place. The justification is requested from HE. CBC is concerned about the level of construction noise impact given the duration of the construction project. The proposed hours of work are outside those that CBC allow for construction sites in Central Bedfordshire, i.e. starting before 8am. CBC would normally allow 8am to 6pm Monday to Fridays, 8am to 1pm on Saturdays and no working on Sundays or Bank Holidays. However, in view of the size and scale of the project, CBC would consider it would be appropriate to allow variation to these hours where particular circumstances required this and appropriate mitigation measures were in place and requests the draft DCO requirements to be updated in this respect. Central Bedfordshire is an area of considerable growth with a plethora of construction sites already operating across our district, and residents have therefore been subject to impacts from these construction site operations at a local level for some time. For such a major project, it will be essential to ensure that any noise impacts are robustly controlled in accordance with the provisions of BS5228:2009 Parts 1 & 2 at all times and that this is a requirement of the draft DCO. 6.5.2 Construction Noise: Most of the receptors identified in table 11-10 are outside of Central Bedfordshire. However, the small number of receptors identified in our district (R16,17 & 18) are predicted to experience noise levels above the LOAEL, with R16 expected to experience levels above the SOAEL for daytime, evening & weekends and night-times which is a significant concern (p 40, Document TR010044 Volume 6 6.1 Environmental Statement Chapter 11: Noise and Vibration (**APP-080**)). The assessment states that these works will be of very short duration (p 46-7, Document TR010044 Volume 6 6.1 Environmental Statement Chapter 11: Noise and Vibration (**APP-080**)), but this is not clarified and clarification from HE is requested. CBC would need to see further clarification (once details of the works are known, as referenced in paragraph 11.9.13) of this before CBC can comment on the assessment of significance, although the level of impact (i.e. daytime, evening & weekends and night-times) predicted for R16 above the SOAEL in itself is a

Reference Number	Local Impact Report/Applicant Comment
	concern even if this is of "very short duration". CBC note the proposed use of localised noise barriers (p36 Paragraph 11.8.4, Document TR010044 Volume 6 6.1 Environmental Statement Chapter 11: Noise and Vibration (**APP-080**)) and encourage these to be deployed where necessary to reduce construction noise impacts on residential receptors and for this to be set out as forming part of the construction noise mitigation measures required under the First or Second Iteration of the Environmental Management Plan. CBC note the intention to undertake surveys to check compliance with BPM measures, but would want to know details as to frequency of these, and who would be carrying them out, reporting arrangements etc. The details are requested from HE. 6.5.3 Operational Noise: Our concerns for this phase of the project relate to the identification of significant adverse daytime and night-time noise impacts on a small number of receptors in our area (see Table 11-13 and paragraphs 11.9.54 & 11.9.56-60 on TR010044 Volume 6 6.1 Environmental Statement Chapter 11: Noise and Vibration (**APP-080**)), who will see noise levels as a result of the new road scheme increase by around 9dB. The project team are not proposing any further mitigation beyond the embedded mitigation measures already identified to try and address these significant adverse impacts i.e. therefore the +9dB increase will be present even with the embedded mitigation in place. The report states that noise bunds and barriers have been considered, but these have been discounted either because they are not considered to be effective or on cost grounds. CBC would contend that these are not the only mitigation measures that could or should be considered. Furthermore, CBC has not seen any cost-benefit calculations to justify their exclusion on cost grounds. In my opinion, they are failing in their primary objectives as set out in their Noise & Vibration chapter, reflecting the NPSE objectives(see 11.2.18). Our position at this point is that it is simply not acceptable to expect existing residents, no matter how small in number, to be subjected to such significant long-term adverse noise impacts as a result of the operation of the new road scheme and not identify and incorporate further noise mitigation measures into the draft DCO requirements that could be implemented to alleviate those impacts. 6.5.4 Operational Noise: The cumulative noise impact of both the EWR project and this project operating at the same time has again not been assessed and this is requested by CBC. In theory, CBC would anticipate noise from the A1 to dominate to such an extent that the contribution of the EWR operation overall will have little additional impact over and above that already identified. However, this still needs to be considered and demonstrated as both are major infrastructure projects that are likely to impact on the ambient noise environment in this area for the long-term. CBC appreciate there may be difficulties with communication and co-ordination between the two project teams, but that does not obviate the need for these impacts to be

Reference Number	Local Impact Report/Applicant Comment
	properly and robustly assessed, particularly for 2 schemes of such magnitude and significance and in such close proximity to each other.
Applicant Comment	6.5.1 As set out in Section 11.6 of Chapter 11, Noise and Vibration **[APP 080]**, a baseline noise survey was undertaken in 2017. The purpose of this baseline noise survey was two-fold: Firstly, the baseline noise survey assisted with developing an understanding of the general noise climate along the Scheme. For example, to identify if any local noise sources other than road traffic were present, and if these contributed significantly to the local noise climate. Secondly, the results of the baseline noise survey have been used to validate the traffic noise prediction modelling by comparing predicted traffic noise levels with the measured noise levels. The validation exercise compared the baseline ambient noise levels measured during 2017 and the predicted traffic noise levels using 2016 traffic data, i.e. the measurement and traffic data were comparable. An exact match between the measured and predicted levels would not be expected for a variety of reasons, for example: i) The noise predictions are based on typical weekday traffic conditions over a year, not the exact traffic conditions during the few weeks or hours of noise monitoring. ii) The prediction method is designed to be conservative in terms of the effect of wind direction whereas the wind direction is likely to vary throughout the monitoring period. iii) The noise predictions only consider road traffic noise, whereas the measurements include all ambient noise sources. The monitoring carried out at ten locations along the length of the proposed Scheme provided sufficient information on the existing noise climate, concluding that a majority of the locations were dominated by existing road traffic noise source. The exception was the rural location of Rectory Farm in Little Barford (M6). This location, located away from existing roads in a rural area, was observed to experience a number of other noise sources including agricultural sources, rail noise from the East Coast Mainline and noise from nearby overhead power lines. The validation exercise concluded that at a majority of the locations where road traffic noise was dominant, there was a reasonable match between measured and predicted traffic noise levels. Further discussion of the comparison of the measured and modelled noise levels is provided in paragraphs 11.6.18-11.6.23 within

Reference Number	Local Impact Report/Applicant Comment
	Chapter 11, Noise and Vibration **[APP-080]**. Overall, the comparisons provide confidence that the noise model developed to estimate the noise impacts of the Scheme is a reasonable approximation. Taking the above into consideration the Applicant considers that the baseline monitoring conditions reported in Chapter 11, Noise and Vibration **[APP-080]** remain representative of the current noise climate. In addition, the conclusion of the validation exercise remains valid as the 2017 monitoring data was compared to predictions using comparable traffic data. No material changes in baseline conditions in the study area have been identified between 2017 and 2021. There is ongoing development at Wintringham and the former site of St Neots Footgolf and Golf Centre on Potton Road has been redeveloped with nine residential properties. However, we consider that the scale and location of both these developments to date will not make a material difference to the traffic on the surrounding network. Furthermore, the traffic generated by developments such as Wintringham are included in the traffic data for 2025 and 2040 used to predict the operational traffic noise impacts of the Scheme. As a result of feedback on the Scoping Report discussions were held with all four local authorities during 2019 and 2020 with regard to carrying out noise monitoring at four additional locations along the route, one within each local authority boundary. Two of these locations were agreed in principle, both of which are located close to existing road traffic noise sources. However, this additional monitoring was not progressed during 2020 due to the presence of non-standard traffic conditions resulting from the travel restrictions resulting from the Covid-19 pandemic. In addition, it is worth noting that any further measurements that would have been carried out at that point in time, would be less comparable with the 2016 traffic data on which the validation exercise is based. Therefore, whilst this additional monitoring would have been of interest, it is not considered to be essential, as the data collected from the 2017 survey remains representative of the current noise environment, and the conclusion of the validation exercise reported in **APP-080** remains valid. Collecting additional data would not change the outcome of the ES as baseline data are not used directly in the identification of significant effects, nor would it change any of the proposed noise mitigation measures. The Applicant is not able to change the core working hours as set out in Chapter 2, The Scheme **[APP-071]** of the Environmental Statement, as these time periods are required in order to deliver the Scheme within the overall construction programme. A consequence of a change to the core working hours would be an extension to the construction programme. However, the Applicant is willing to engage in discussions with the local authorities so that agreements can be sought when working close to sensitive locations, such as

Reference Number	Local Impact Report/Applicant Comment
	residential properties, or where there are specific activities, such as during school exams, where noise from construction could potentially be minimised. Where appropriate, discussions will be held with local authorities on these matters during the detailed design stage where mitigation can be discussed in more detail. This engagement will be secured in the next revision to the First Iteration Environmental Management Plan **[APP-234]**. 6.5.2. As set out in paragraph 11.9.6 (l) of Chapter 11, Noise and Vibration **[APP-080]** exceedances of the construction noise SOAEL in the evening and night at R16 relate to works to tie-in the Barford Road re-alignment. The estimated construction noise levels are based on reasonable worst-case assumptions in terms of the number and type of plant required, and no benefit from temporary noise barriers or site hoardings has been assumed. In addition, these tie-in works will be of very short duration i.e. well below the ten or more working days (or evenings/weekends or nights) in any 15 consecutive days criteria. Annex B Noise and Vibration Outline Management Plan of the First Iteration Environmental Management Plan (FIEMP) **[APP-234]**, sets out the generic measures which will be used by the contractor to control noise and vibration during the construction phase. At the detailed design stage exact details of the works in terms of the location, extent and timing of the works, and the number and type of plant to be used, will be more certain. Therefore, the noise assessment as presented within the environmental statement is not the final stage for determining construction mitigation. The construction noise assessment will be re-visited at the detailed design stage to ensure Best Practicable Means (BPM) have been adopted and if localised noise barriers would be appropriate. The first step in applying BPM, before the need for barriers is considered, is to reduce the noise level at source. This includes the choice of plant, the construction activities to be undertaken and the timing of these activities (such as daytime or night time). For instance, there may be potential to undertake some tie-in works during the daytime, rather than during the evening and night as currently assumed in Chapter 11, Noise and Vibration **[APP-080]**. The FIEMP **[APP-234]** includes a commitment to develop a Noise and Vibration Management Plan (NVMP) which will detail the management and monitoring to be applied at all construction sites, including tie-in works. This will be produced in consultation with the local authorities and will be approved by the Secretary of State before works can begin. The NVMP is not a static document and will be updated and revised as necessary. The NVMP will build on the generic measures set out in the FIEMP **[APP-234]** and will include adopting industry standard practice to: • Apply Best Practicable Means as defined in Section 72 of Control of Pollution Act.

Reference Number	Local Impact Report/Applicant Comment
	• Integrate noise control into preparation of all method statements for construction activities. This would include the selection of low noise plant, siting plant away from receptors where possible to minimise noise disturbance, using acoustic enclosures, using temporary site hoardings/barriers and using less intrusive reversing alarms. • Develop and implement noise monitoring protocols – locations, duration, methods to publish data. • Develop procedures for installing noise insulation and temporary rehousing residents where it is not possible to mitigate construction noise below relevant trigger levels as defined by BS 5228. • Develop a process to ensure ongoing compliance with the Noise and Vibration Management Plan and for corrective actions required to address any non-compliance 6.5.3 The responses below relate to properties within Central Bedfordshire Council. It is noted that there are a number of paragraphs identified by Central Bedfordshire which include properties outside of the district and therefore these are not specifically discussed in this response. The Applicant considers its approach to identifying operational noise mitigation measures is robust. To summarise, mitigation measures have been incorporated into the design of the scheme to minimise adverse operational traffic noise effects due to the Scheme, however, some residual adverse effects will remain. This is acceptable within the context of sustainable development as factors other than solely noise must also be considered. None of the properties specifically identified by CBC are predicted to experience an increase in traffic noise which results in traffic noise levels above the Significant Observed Adverse Effect Level (SOAEL), and thus do not experience significant adverse effects in terms of the policy aims set in Noise Policy Statement for England (NPSE) and National Policy Statement for National Networks (NPSNN). The predicted traffic noise levels at these properties are fairly low, with isolated properties being generally around the Lowest Observed Adverse Effect Level (LOAEL). Therefore, although these are not significant in terms of policy, NPSNN still requires the Applicant to consider mitigation to minimise levels, within the context of sustainable development. In addition, based on the change in traffic noise level due to the Scheme and their local context, the properties identified in Chapter 11, Noise and Vibration of the Environmental Statement **[APP-080]**

Reference Number	Local Impact Report/Applicant Comment
	paragraphs 11.9.54 (1 and 2 The Barns and Rectory Farm on Little Barford Road) and Hill Farm in paragraph 11.9.56 have been identified as likely to experience significant adverse effects in Environmental Impact Assessment terms. Therefore, the EIA process also requires mitigation to avoid or minimise these significant adverse effects to be considered. For these two reasons, the Applicant has considered mitigation measures for these identified properties. As required by the NPSE, NPSNN and LA 111, noise mitigation measures cannot be considered in isolation and a range of factors need to be considered. Paragraph 11.3.69 of Chapter 11, Noise and Vibration of the Environmental Statement **[APP-080]** summarises the factors which have been considered when identifying sustainable noise mitigation measures to be included in the Scheme. Such factors include cost versus benefit, engineering practicality, generation of non-acoustic impacts (such as visual impact) and consultation and stakeholder engagement responses. A number of noise mitigation measures have been embedded into the Scheme and these are summarised in paragraphs 11.8.9-11.8.12 of **APP-080**. This includes the Scheme being constructed with low noise surfacing materials along its length. The Applicant has considered additional noise mitigation in the form of noise barriers at a number of locations to reduce the magnitude of predicted traffic noise increases due to the Scheme, which includes the properties identified in paragraphs 11.9.54 and 11.9.56 within the Central Bedfordshire Council boundary. 1 and 2 The Barns – these properties experience a decrease on their front facades in the opening year due to the removal of traffic from Little Barford Road with the Scheme in place. These levels, which are at, near to or above SOAEL during both the day and night, reduce by around 10dB. However, these properties are predicted to experience an increase on the rear façade due to the new dual carriageway being introduced to the rear approximately 300m away at their closest approach. The levels on these facades without the Scheme will remain low below the daytime LOAEL even with predicted traffic noise increases of between 4 and 8dB $L_{A10,18h}$. Predicted levels range from 47-50 dB $L_{A10,18h}$ daytime without Scheme and 51-56 dB $L_{A10,18h}$ daytime with Scheme. The maximum predicted reduction from a 3m high noise barrier in this location is 1.1dB. Rectory Farm, Little Barford Road – this property is predicted to experience moderate and major increases in the opening year on its north and east facades of between 5 and 14dB in the daytime with the Scheme in place. These increases are due to the new dual carriageway being introduced approximately 300m away from the property at its closest approach. However, the traffic noise levels at all facades with the scheme in

Reference Number	Local Impact Report/Applicant Comment
	place will remain low, around or below the daytime LOAEL, even with these predicted increases. Predicted levels range from 40-45 $L_{A10,18h}$ daytime without Scheme and 44-56 $L_{A10,18h}$ daytime with Scheme. The maximum predicted reduction from a 3m high noise barrier in this location is 1.6 dB. Hill Farm, Station Road, Tempsford – this property is predicted to experience moderate and major increases in the opening year on all its facades of between 4 and 10 dB in the daytime with the Scheme in place. These increases are due to the new dual carriageway introducing a new noise source over 600m away from the property. However, the traffic noise levels at these facades with the Scheme in place will remain low, below the daytime LOAEL, even with these predicted increases. Predicted levels range from 35-44 dB $L_{A10,18h}$ daytime without Scheme and 40-52 $L_{A10,18h}$ daytime with Scheme. Based on the very large distance between the property and the Scheme and the very low predicted traffic noise levels, a barrier has not been explicitly modelled. However, the benefit of a barrier would be negligible. Based on the details provided above for these properties, the potential noise barriers have not been included in the Scheme as they were not identified to be sustainable noise mitigation measures. As a result, the Applicant considers the operational noise mitigation proposed is in line with the policy aims set out in the NPSNN and NPSE, within the context of Government Policy on sustainable development, and also in line with the requirements of the EIA process. Therefore, the Applicant does not consider any further noise mitigation is required to meet these aims. 6.5.4 The Applicant refers the Authority to the response given to **REP2-004h** paragraph 6.4.9, whereby in the absence of information relating to EWR at this time the assessment cannot be brought forward as part of the Scheme assessment.
REP2-004i	**6.6 Archaeology** 6.6.1 The section of the proposed A428 Black Cat to Caxton Gibbet Road Improvement Scheme that passes through Central Bedfordshire lies within a known archaeological landscape and the Central Bedfordshire and Luton Historic Environment Record (CBHER) documents the presence of several multi-period sites both within the scheme's boundary and its immediate surroundings. The known sites affected by the route survive as sub-surface remains and largely manifest themselves as cropmark evidence (for example CBHER 1387, CBHER 16800 and CBHER 16802). The pre-DCO submission archaeological evaluation works undertaken by the applicant (geophysical survey and trial trenching) has also identified several areas of previously unknown sub-surface archaeological remains. Under the terms of section 5 of the

Reference Number	Local Impact Report/Applicant Comment
	National Policy Statement for National Networks (NPSNN), chapter 16 of the National Planning Policy Framework (NPPF) and chapter 18 of the Central Bedfordshire Local Plan 2015-2035 (adopted July 2021), these sites are considered to be heritage assets with archaeological interest. There are however no designated heritage assets with archaeological interest within the section of the proposed scheme that passes through Central Bedfordshire. 6.6.2 In summary, the section of the proposed A428 Black Cat to Caxton Gibbet Road Improvement Scheme that passes through Central Bedfordshire will have an impact on sub-surface archaeological remains. Due to the evaluation works undertaken by the applicant, these sites are now known and range in date from the Late Bronze Age to the early Saxon period.
Applicant Comment	The Applicant notes the comments from Central Bedfordshire Council. The Archaeological Mitigation Strategy **[APP-238]** secures the mitigation for impacts on archaeological sites. A revised version has been submitted at Deadline 3 **[TR010044/EXAM/9.23]** which addresses all comments from CBC.
REP2-004j	**7. Conclusion** 7.1 CBC remains supportive of the proposal in principle, but would welcome further discussion with HE to address the local concerns set out above and in its representations dated August 2021 and incorporation of requirements into the draft DCO (or incorporated documents) and any Development Consent Obligation to address its concerns and secure necessary mitigation.
Applicant Comment	The Applicant welcomes CBC's support in principle to the Scheme and is willing to engage further as suggested.