

A14
Cambridge to Huntingdon
improvement scheme
Development Consent Order Application

HE/A14/EX/87

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Response to ExA's Second Written Questions:
Principal Issue 9 Landscape and Visual Effects

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The Infrastructure Planning (Examination Procedure) Rules 2010

A14 Cambridge to Huntingdon improvement scheme

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9 Landscape and Visual Effects

Question 2.9.1

Requirement 7 provides for the approval and implementation of a landscaping scheme, but sets no time by which such a scheme should be submitted. Should the Requirement be amended to begin 'No part of the authorised development shall commence until a written landscape scheme applicable to that part of the scheme has been submitted to and approved in writing by the Secretary of State, following consultation with the relevant planning authority'. How would this requirement be monitored and enforced?

Response

1. As per its previous submissions (see for example the response to written question 1.6.27 in Highways England's *Response to the ExA's First Written Questions Report 6: Development Consent Order* (Applicant reference HE/A14/EX/33, PINS reference REP2-007)), Highways England considers the timing of the submission of details pursuant to this requirement to be implicit. However, for the sake of clarity, Highways England is content to include the suggested wording and this has been reflected in the latest draft of the Development Consent Order submitted at Deadline 7 (*Applicant reference HE/A14/EX/96*).
2. It is anticipated that the relevant local planning authority would monitor compliance with this requirement and, in the event of any breach, could use its powers under Part 8 of the Planning Act 2008.

Question 2.9.2

Can the applicant confirm that Requirement 7 applies to ecological mitigation generally and not simply to landscaping works?

Response

3. As a result of the proposed landscaping works and ecological mitigation overlapping to a certain extent, Highways England can confirm that it anticipates the requirement contained in paragraph 7 of Part 1 of Schedule 2 to the draft Development Consent Order will apply to both elements.

Question 2.9.3

In order to further assess the effect of the proposed scheme on the crossing of the River Great Ouse and East Coast Main Line how would the applicant demonstrate to the ExA, using physical features, the height and alignment of the proposed A14. (General Arrangement Regulation Sheet 6 and 7 of 24). This should be in addition to any photomontages which the applicant may wish to prepare to show the likely visual effects of the proposals in this location.

Response

4. The ExA has asked how the applicant would demonstrate the height and alignment of the proposed A14 at the crossing location using physical features. Additional information on the relationship of the proposed crossings to their surroundings will be provided to assist the ExA in its further assessment of effects.
5. Additional cross sections are being prepared perpendicular to the structure alignment to show the relationship to the local topography and physical features.
6. An additional illustrative cross section is being prepared to illustrate the relationship of the structures to adjacent physical features. This section runs from Offord Hill, through the structure directly over the Ouse and crossing the gravel pits to the south west. It is aligned to pick up significant landform at Offord Hill and the more notable belts of trees within the floodplain to show the relationship to existing physical features.
7. The sections will be in the same format as Figure 3.3 of the *Environmental Statement Figures* (Applicant reference HE-A14-EX-04, PINS reference APP-766) which comprises illustrative cross sections to complement the outline environmental design provided in Figure 3.2 of the *Environmental Statement Figures* (Applicant reference HE-A14-EX-18, PINS reference APP-781).
8. An elevation drawing of the structure is being prepared to show the context of the viaducts within the Ouse floodplain, including the relationship with the higher ground to the east at Offord Hill, and that to the west where the route passes south of Buckden landfill.

9. The written question states “*any photomontages which the applicant may wish to prepare to show the likely visual effects of the proposals in this location.*” As part of the application for a Development Consent Order, two photomontages have been provided which Highways England considers effectively demonstrate the relationship of the two crossing structures to the surroundings as seen from publicly available viewpoints. These photomontages at year 1 and year 15 are for illustrative purposes only (See Figure 10.6 of the *Environmental Statement Figures* (Applicant reference 6.2, PINS reference APP-383)). The photomontages for viewpoint 3 “From Ouse Valley Way (visual receptor P13)” show the crossing of the Great Ouse from a distance of circa 780m. The photomontages for viewpoint 13 “From Offord Road north of Offord Darcy” include the crossing of the East Coast Main Line from a distance of circa 515m.
10. There are limited publicly available viewpoints in close proximity to the scheme which might be selected for additional photomontage purposes. However, in view of the concerns expressed by residents at Buckden Marina, potential viewpoints further to the south have been reviewed and further photomontages are being prepared as follows.
- Viewpoint 15 – View north east from Ouse Valley Way immediately north of Buckden Marina
 - Viewpoint 16 – View northwest from Ouse Valley Way within the marina looking towards Lodge Farm and Buckden landfill
11. Details of the height and alignment of the proposed crossings of the River Great Ouse and the East Coast Main Line can be found in the following locations within the Development Consent Order application as amended.

Table 9.1: Drawing references for the River Great Ouse and East Coast Mainline

River Great Ouse
<p>1. Drawing title: BN 05 – River Great Ouse Viaduct – Option 2A General Arrangement Drawing Number: A14-ACM-BN-05-DR-S-00021, Revision: 1</p> <p>This drawing shows the plan and elevation of the recommended solution.</p> <p>2. Drawing title: BN 05 – River Great Ouse Viaduct General Arrangement Drawing Number: A14-ACM-BN-05-DR-S-00004, Revision: 2</p> <p>This drawing shows cross sections through the proposed bridge.</p>
East Coast Mainline
<p>1. Drawing title: BN06 ECML Railway Bridge General Arrangement Options 1 & 2 Drawing Number: A14-JAC-BN-06-DR-S-00001, Revision 1</p> <p>This drawing shows the elevation and cross-section for Options 1 and 2.</p> <p>2. Drawing title: BN06 ECML Railway Bridge General Arrangement Option 3</p>

Drawing Number: A14-JAC-BN-06-DR-S-00002, Revision 1

This drawing shows the elevation and cross-section for Option 3.

3. Drawing title: BN06 ECML Railway Bridge Proposed OLE Modifications for 6.38m Soffit Height

Drawing Number: A14-JAC-BN-06-DR-S-00003, Revision 1

This drawing shows proposals for OLE cable support.

12. The effects of the proposed scheme at the two crossings are set out in the following locations within the *Environmental Statement*.

Table 9.2: References for the effects of the proposed scheme at the River Great Ouse and ECML crossings

Description of Assessment	Applicant Document Reference	PINS document reference
Visual effects schedule – residential properties	Reference 6.3 – Appendix 10.02. Table references for River Great Ouse: 35, 36, 37, 38, 40, 43, 45, 46, 47 and 48. Table references for ECML: 37, 38, 40, 43, 44, 45, 46, 47 and 48 Reference 6.2 – Figures 10.7 and 10.8	APP-683 APP-384 and APP-386
Visual effects schedule – commercial properties	Reference 6.3 – Appendix 10.03. Table reference for ECML: B7 Reference 6.2 – Figures 10.7 and 10.8	APP-684 APP-384 and APP-386
Visual effects schedule – public rights of way	Reference 6.3 – Appendix 10.04. Table references for River Great Ouse: P13, P14, P15, P17 and P18 Reference 6.2 – Figures 10.7 and 10.8	APP-685 APP-384 and APP-386
Visual effects schedule – public receptors	Reference 6.3 – Appendix 10.05. Table references for River Great Ouse: PR2 and PR3 Reference 6.2 – Figures 10.7 and 10.8	APP-686 APP-384 and APP-386
Beneficial visual effects due to anticipated reduction in traffic	Reference 6.3 – Appendix 10.06. Table 10.1 for River Great Ouse reference. Reference 6.2 – Figures 10.7	APP-687 APP-384 and APP-386

	and 10.8	
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13. Reference to the height, alignment and effects of the crossings has been included in Highways England's Responses to ExA's *First Written Questions and Comments on Written Representations* as follows.

Table 9.3: Reference to height, alignment and effects of the crossings at the River Great Ouse and ECML in the Written Questions and Written Representation

1. Written Questions	River Great Ouse	East Coast Mainline
<p>Question 1.9.6 (Report 9: Applicant reference HE-A14-EX-36, PINS reference REP2-010): Paragraphs 4.28-4.35 of the National Networks NPS establish the criteria for good design. Can the applicant demonstrate how good design has been incorporated into the proposals with particular reference to aesthetics, and the design of structures including the River Great Ouse viaduct and viaduct over the East Midlands Railway line?</p>	<p>Extract from response:</p> <p>Paragraph 43: <i>“The River Great Ouse Viaduct has been designed to reduce impacts on the Great Ouse Valley and to support the views of stakeholders who indicated that the aesthetic quality of the structure should be a priority consideration. An options design process was undertaken, and the proposed design aims to minimise visual intrusion and maintain views along the valley floor. A structure with a thick deck would not sit well in the landscape of the River Great Ouse Valley and as deck thickness would increase significantly with longer spans between piers, overly long spans have been avoided. The edge beam of the deck features a cantilever, which will shade the supporting beams and will make the deck appear slimmer. As the design progresses it is intended that details of piers and other elements will be developed taking into account the setting. Simple but carefully considered structural details are proposed.”</i></p>	<p>Extract from response:</p> <p>Paragraph 47: <i>“Highways England recognises that the crossing of the East Coast Mainline railway would be at a high point in the alignment. The design has therefore sought to minimise the height of the structure and reduce visual impact. This has been achieved in the design by proposing to modify the railway overhead electrification equipment to allow the bridge deck to be at a lower level, therefore reducing the visual impact.”</i></p>

<p>Question 1.9.9 (Report 9: Applicant reference HE-A14-EX-36, PINS reference REP2-010): Concerns have been raised by IPs about the visual effect of bridges, the elevation of the proposed road and the introduction of new highway infrastructure. Can the applicant please provide an explanation of the design approach to features which potentially would have significant visual impacts?</p>	<p>Extract from response:</p> <p>Paragraph 76: “River Great Ouse Crossing – the height of the A14 alignment over the river and banks is governed by the depth of the structure and clearances agreed with the Environment Agency: to the navigation channel of 3m minimum above the 100 year flood level including 20% climate change allowance and 4.5m minimum headroom above the banks to allow for maintenance access.”</p>	<p>Extract from response:</p> <p>Paragraph 76: “East Coast Mainline railway crossing – the height of the A14 alignment over the East Coast Mainline Railway is governed by the level of the existing railway (which is on embankment), clearance agreed with Network Rail to the Overhead Line Equipment (OHLE) and the depth of the structure. The agreed clearance from rail level to underside of the bridge of 6.38m is the minimum that can be accommodated and this includes modification to the OHLE, lowering it from its current height, noting that the height of the OHLE at the nearby level crossing at Offord Cluny, is a constraint on this modification, as OHLE headroom over the road has to be maintained.”</p>
<p>Question 1.5.17 (Report 5: Applicant reference HE-A14-EX-32, PINS reference REP2-006): Are any agricultural underpasses or over bridges proposed? If so, where, why and to what standard?</p>	<p>Extract from response:</p> <p>Paragraph 90: “The river Great Ouse viaduct will also be built with sufficient headroom to allow agricultural vehicles to pass under the proposed A14 Huntingdon Southern Bypass (2.2 General Arrangement Plans Sheet 6).”</p>	<p>Not Applicable</p>
<p>2. Written Representations</p>	<p>River Great Ouse</p>	<p>East Coast Mainline</p>
<p>Report 2: Parish Councils (Applicant reference HE-A14-EX-50, PINS reference REP4-012):</p> <p>Page 83: “In February 2014, The Right Honourable John Hayes MP made a speech entitled ‘Beautiful Roads’</p>	<p>Extract from response:</p> <p>Paragraph 7.4.31: “The River Great Ouse Viaduct has been designed to reduce impacts on the Great Ouse Valley and to support the views of stakeholders who indicated that the aesthetic quality of the structure should be a priority consideration. An</p>	<p>Not Applicable</p>

<p><i>(https://www.gov.uk/government/speeches/b-eautiful-roads) and set out his vision “...to protect and even enhance the beauty of our countryside...” when designing major roads such as the proposed DCO Application. We cannot find any evidence that this type of thinking has been considered by HE when they submitted the DCO.”</i></p>	<p><i>options design process was undertaken, and the proposed design aims to minimise visual intrusion and maintain views along the valley floor. A structure with a thick deck would not sit well in the landscape of the River Great Ouse Valley and as deck thickness would increase significantly with longer spans between piers, overly long spans have been avoided. The edge beam of the deck features a cantilever, which will shade the supporting beams and will make the deck appear slimmer. As the design progresses it is intended that details of piers and other elements will be developed taking into account the setting. Simple but carefully considered structural details are proposed.”</i></p>	
<p>Report 2: Parish Councils (Applicant reference HE-A14-EX-50, PINS reference REP4-012):</p> <p>Page 133: <i>“The key point, which appears not to feature within this section of the EIA is the view from the top of Offord Hill. It is this view that is the reason for the AONB proposal, looking down and across the Ouse Valley. It is this view that will be destroyed by the new A14 route. So this EIA should provide mitigation measures for protecting this – something that no amount of “woodland” will achieve.”</i></p>	<p>Not Applicable</p>	<p>Extract from response:</p> <p>Paragraph 9.9.24: <i>“Views from Offord Hill and the residential properties located there are taken into account by the landscape and visual assessment as reported in chapter 10 of the ES. Para 10.5.94 identifies the most significant adverse visual effects following construction (very large adverse during construction and in winter year 1) which include “residential properties at Offord Hill (visual receptors 45, 46 and 47) and from the northernmost property within Offord Darcy (visual receptor 43), from where there would be open views of the East Coast mainline railway bridge and the Offord Road bridge.” The planting proposals would over time, provide some screening of views of the scheme and would generally reduce the</i></p>

		<p><i>significance of visual effects in the long term. For the aforementioned properties this would reduce to large adverse or moderate adverse.</i></p>
<p>Report 2: Parish Councils (Applicant reference HE-A14-EX-50, PINS reference REP4-012):</p> <p>Page 130: <i>“In order to satisfy Environment Agency concerns about flood risk, the original raised banking supporting the road as it traverses the distance between the river Ouse and the railway bridge has been replaced by a number of steel and concrete spans. Not only is this a visual blight, the construction makes impossible the planting of any trees or any other vegetative mitigation. Even HE have had to acknowledge the fact by providing a photographic representation of this part of the route as it would be “in fifteen years time” which shows a completely unchanged landscape!”</i></p>	<p>Extract from response:</p> <p>Paragraph 9.9.1: <i>“It is acknowledged that even with the proposed mitigation planting there would be significant residual adverse landscape and visual effects resulting from the proposed A14 crossing of the Great Ouse and the railway. These are recorded in Chapter 10 of the Environmental Statement (ES) (document reference 6.1), and the accompanying Visual Effects Schedules attached in the ES appendices 10.2 to 10.5, (document reference 6.3). The visual impact assessment included within the ES assesses all elements of the view - lighting, signs, gantries and traffic day and night, but does not separate day and night time effects. In general terms if traffic is visible during the day then headlights would be visible at night and both would have an effect.</i></p> <p>Paragraph 9.9.2: <i>Extensive woodland planting of trees and shrubs would be carried out on the embankments of the proposed A14 bridge over the railway and extending eastwards to assist in integrating the structure into the landscape and provide screening to traffic and vehicle headlights. The bridge parapet would also provide screening to headlights except cab-top lighting. The screen planting is clearly seen in the photomontages from</i></p>	<p>Not Applicable</p>

	<p><i>viewpoint 13 (from Offord Road north of Offord Darcy) included within Figure 10.6 of the ES Figures (document reference 6.2).</i></p> <p><i>Paragraph 9.9.3: The replacement of the embankments supporting the new A14 between the Great Ouse and the railway bridge with a viaduct type structure has had several landscape benefits in addition to minimising intrusion into the floodplain, these are:</i></p> <ul style="list-style-type: none"><i>• the openness of the River Great Ouse floodplain is maintained in views along the river experienced by users of the Footpath Buckden 13 Ouse Valley Way.</i><i>• the footprint of the scheme and the loss of grazing marsh in the river floodplain are both reduced.</i><i>• However, without embankments it is not possible to provide dense mitigation screen planting for traffic and vehicle headlights along this part of the new A14. Whilst the mitigation proposals do include scattered tree planting to offset the new structure, the absence of continuous dense planting would inevitably result in little overall change in some views of the structures even after fifteen years.</i><i>• The ES includes in Figure 10.6 photomontages from two viewpoints (viewpoints 5 and 13) to depict different aspects of the effects of the proposed scheme at this location</i>	
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<p>Report 4: Statutory Undertakers (Applicant reference HE-A14-EX-52, PINS reference REP4-014):</p> <p>Page 7: <i>“Work to install bridge would interfere with the OLE. Adequate provision not made for the carrying out of these works and the safety of the railway.”</i></p>	<p>Not Applicable</p>	<p>Extract from response:</p> <p>Paragraph 3.2.4: <i>“During the first meeting (22 September 2014) Network Rail confirmed that a multi discipline meeting should be convened to discuss the possible modification of OLE. A meeting was held on 30 September 2014 and it was agreed by Network Rail that the East Coast Main Line overbridge could be constructed with a soffit clearance height of 6.38m, providing the OLE would be modified prior to construction.”</i></p>
<p>Report 3: Environmental Statutory Bodies (Applicant reference HE-A14-EX-51, PINS reference REP4-013):</p> <p>Page 8: <i>“Viaduct crossing over the River Great Ouse, as detailed under issue 1.23, the piers of the proposed viaduct under Annex H of the FRA in Appendix 17.1 drawing no A14-ACM-BN-05-DR-S-00021 rev P00.1 are currently too close to the river to allow our staff to access the banks to undertake maintenance works. The design of the viaduct will therefore need to be revised to allow us to adequate access along the bank with vehicles and machinery.”</i></p>	<p>Extract from response:</p> <p>Paragraph 2.4.1: <i>“A hardened access track 6.0m wide with 4.5m headroom would be provided running parallel to the River Great Ouse to allow the Environment Agency access along the river and at a position to be agreed with the Environment Agency. The access track would go around the pier columns.”</i></p>	<p>Not Applicable</p>
<p>Report 5: Land Interests (Applicant reference HE-A14-EX-53, PINS reference REP4-015):</p> <p>Page 403: <i>“Further, the clients will represent that the Applicant has failed to show that the</i></p>	<p>Not Applicable</p>	<p>Extract from response:</p> <p>Paragraph 58.4.3: <i>“The soil storage areas located around Ermine Street Junction would be required to stockpile both general fill as well as</i></p>

<p><i>soil storage areas are required on the scale sought or at all.</i></p>		<p><i>topsoil. The offline alignment between the East Coast Mainline (ECML) railway and A1198 would mainly be in cutting whilst the offline alignment between the A1198 and existing A14 would be on embankment fill. The excavated material from the cutting could provide some of the embankment fill material (to the east of the A1198).</i></p>
<p>Report 6: Non Statutory Organisations and Businesses (Applicant reference HE-A14-EX-54, PINS reference REP4-016):</p> <p><i>Page 84: “As well as the noise issues addressed in the attached report, the impact of artificial lux light levels (static and moving) on the marina, and the architectural scheme design for the bridge which will dominate views from the complex, have not been considered or addressed. The area enjoys relatively little impact from moving light sources; the new road, due to the topography and lack of visual shielding, will impact on the complex. Moreover, the visual impact of the scheme (particularly in winter when trees would provide no visual shielding) means that, when viewed from ground level, the road would break the skyline along most of its length junction. Visually, this would be highly intrusive and, while there is no right to “a view”, the scheme for the bridge design has absolutely no architectural merit.</i></p>	<p>Extract from response:</p> <p>Paragraph 11.2.1: <i>“The river Great Ouse viaducts have been carefully designed to reduce impacts on the Great Ouse valley and to support the views of key stakeholders who indicated that the aesthetic quality of the structure should be a priority consideration. An options design process has been carried out as part of the scheme development, and a design has been generated which aims to minimise visual intrusion and to maintain views along the valley floor. Intermittent tall growing trees are proposed alongside the river Great Ouse viaducts, which would establish to enhance the extent and effectiveness of existing mature screening vegetation between Buckden Marina and the viaducts.</i></p> <p>Paragraph 11.2.2: <i>The river Great Ouse viaducts would be approximately 610m to the north of Buckden Marina at the nearest point. Views from residential properties on the northern edge of Buckden Marina towards the viaducts and traffic flow would be concealed during the summer by intervening mature vegetation along the Ouse Valley. There might, from parts of the wider Buckden Marina, be distant, intermittent, glimpses through mature</i></p>	<p>Not Applicable</p>

<p><i>Thus, not only would there be the scar across rural countryside of a 6-lane road with no visual mitigation, but also yet another ugly, concrete pier and span construction bridge - and this will be a highly visible 600m long structure that will break the skyline from most viewpoints, given the height at which it has to be built to clear the railway. The Secretary of State for Transport's "beauty test" for roads would be failed spectacularly."</i></p>	<p><i>vegetation in leaf of the river Great Ouse viaducts and traffic flow. In winter there would be distant filtered glimpses through intervening mature vegetation of high sided vehicles on the Great Ouse viaduct. The viaducts are not lit, although some lighting from HGVs maybe glimpses. However, there would be no significant adverse residual visual effects from any part of Buckden Marina, (see Environmental Statement Chapter 10 Landscape & Visual Effects and supporting appendices, document references 6.1 and 6.3)."</i></p>	
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