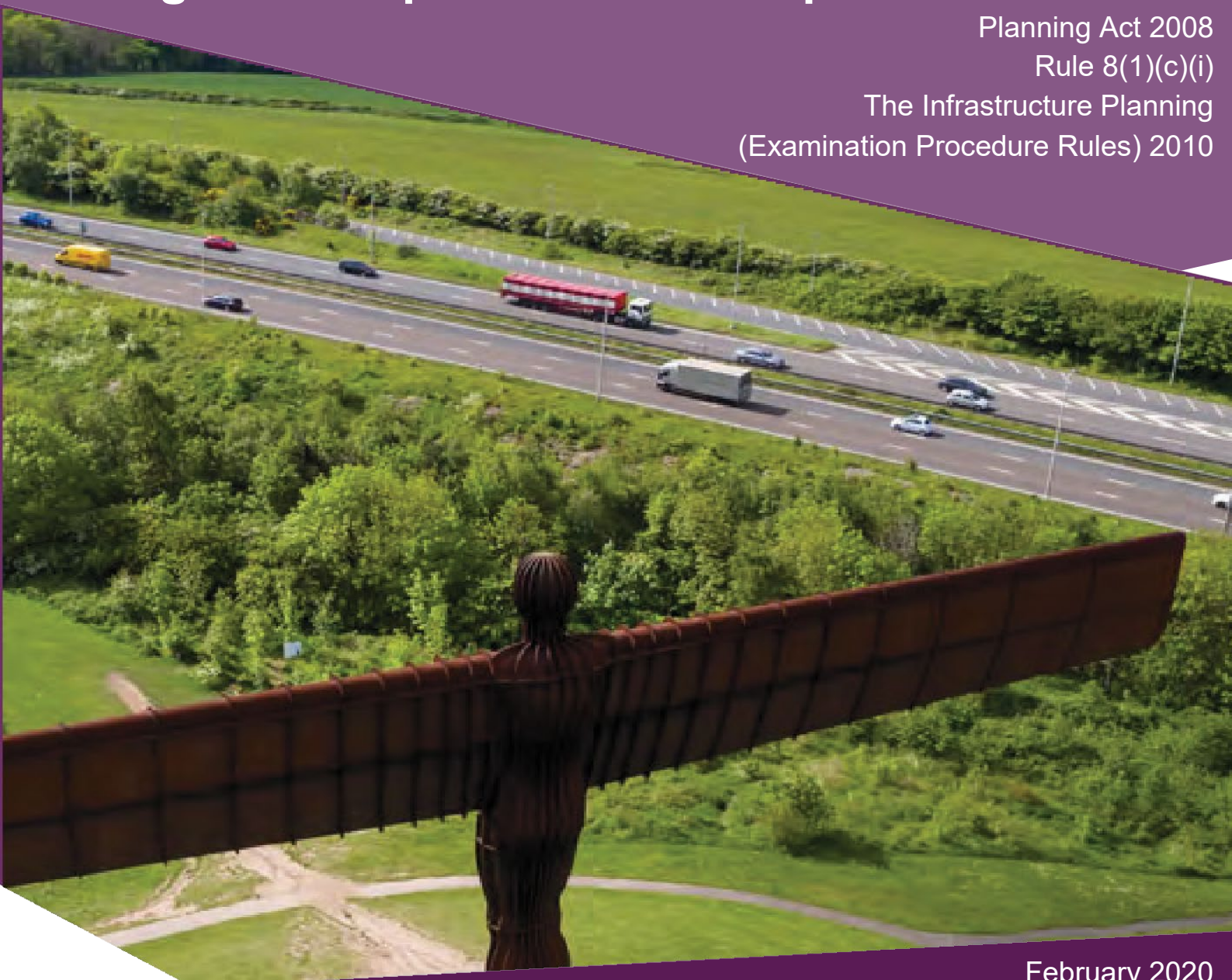


A1 Birtley to Coal House

Scheme Number: TR010031

Applicant's Responses to ExA's First Written Questions – Appendix 1.0.C - Differences in Mitigation Required for Each Option

Planning Act 2008
Rule 8(1)(c)(i)
The Infrastructure Planning
(Examination Procedure Rules) 2010



Infrastructure Planning

Planning Act 2008

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

**The A1 Birtley to Coal House
Development Consent Order 20[xx]**

**APPLICATION'S RESPONSES TO EXA'S FIRST
WRITTEN QUESTIONS – APPENDIX**

Rule Number:	Rule 8(1)(c)(i)
Planning Inspectorate Scheme Reference	TR010031
Application Document Reference	n/a
Author:	A1 Birtley to Coal House Project Team, Highways England

Version	Date	Status of Version
Rev 0	25 February 2020	For Issue

Table.1.0.C - Differences in Mitigation Required for Each Option

Aspect Requiring Mitigation	Paragraph 2.4.5 SOR: Embankment Option- Single Span Bridge over ECML	Paragraph 2.4.8 SOR Viaduct Option - Multiple Span Option
<p>New bridge structural loads will need to be carried to a competent bearing layer with an adequate factor of safety and to limit long term settlements to within acceptable values for the form of structure proposed. Foundations for the new structure(s) to be selected such that they do not cause any adverse impact to existing third party assets.</p>	<p>Bored piles: All new bridge loads carried to competent bearing layer at depth and below the zone where they could impact third party assets. Fewer piles would be required than for the multi span option. However, a greater volume of material would need to be imported for the approach embankments than would be required for the multi span option.</p>	<p>Bored piles: All new bridge loads carried to competent bearing layer at depth and below the zone where they could impact third party assets. More piles would be required for the multi span option, but less import of material would be needed for the reduced length of the approach embankments.</p>
<p>New western approach embankment to bridge structure is likely to cause the compressible ground beneath the footprint of the embankment to settle. This can cause differential settlement at the interface with any new bridge and could also cause movement of existing third-party asset such as the East Coast Mainline.</p>	<p>The settlements would be limited to within acceptable limits at the interface with the new bridge structure and third-party assets using a grid system of rigid inclusions beneath the footprint of the new earthwork. There would be a greater number of rigid inclusions for this option than for the multi-span viaduct option as the new earthwork would be longer.</p>	<p>The length and height of the approach embankments is reduced and the distance between the new embankment and third-party assets is greater, which reduces the risk that the new embankment could adversely impact third party assets. A grid of rigid inclusions would be included beneath the footprint of the approach embankment to reduce the differential settlement at the interface with the new structure. The grid would be less extensive than for a single span option as the overall length of new embankment would be shorter.</p>