

**A57 Link Roads
TR010034**

**6.5 Environmental Statement
Appendix 4.3 Environmental Scoping
Report Screening Assessment**

APFP Regulation 5(2)(a)
Planning Act 2008 Infrastructure Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009

1. Introduction

1.1 Purpose of the report

- 1.1.1 Since the submission of the A57 Link Roads (formerly referred to as the Trans-Pennine Upgrade Programme (TPUP) and hereafter referred to as the Scheme) Environmental Impact Assessment (EIA) Scoping Report (TR010034/APP/6.6) to the Planning Inspectorate (the Inspectorate) in November 2017, the Design Manual for Roads and Bridges (DMRB) environmental standards have been updated. Where relevant the new DMRB standards have been utilised in the preparation of the Environmental Statement (ES) (TR010034/APP/6.3). Furthermore, the scope of the EIA outlined in the Scoping Report has also been reviewed and updated where necessary.
- 1.1.2 Table 1 below outlines the changes in scope, methodology and mitigation measures proposed as a result of guidance changes (primarily DMRB updates) since the submission of the EIA Scoping Report in November 2017.
- 1.1.3 Table 2 below outlines the changes in scope, methodology and mitigation measures proposed as a result of the key design changes to the Scheme since the submission of the EIA Scoping Report. Justifications for these design changes are provided in the Assessment of alternatives (Chapter 3) of the ES (TR010034/APP/6.3)

Table 1: Guidance updates - changes to key EIA elements included in the ES

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
Chapter 4: Environmental Assessment Methodology	DMRB V11, S2, P5: HA205/08 Assessment and Management of Environmental Effects	DMRB, LA 104 Environmental assessment and monitoring	Environmental Value of Receptors	No change	No change
			Magnitude of Impact	No change	No change
			Significance of Effect Matrix	No change	No change
Chapter 5: Air Quality	DMRB HA 207/07 IAN 170/12 v3 IAN 185/15 IAN 174/13 IAN 175/13 Defra's Local Air Quality Management Technical Guidance TG16. Latest Transport Analysis Guidance as provided by the Department for Transport	DMRB LA 105 Air quality Defra's Local Air Quality Management Technical Guidance TG16.	Study Area and Assessment Years	Change to traffic speed change criteria (i.e. From two way daily average speed change of 10km/hr or more and peak hour speed change of 20km/hr or more to a change in either one way or two way speed band) for defining the affected road network and air quality study area. Change to dispersion model base year (2018). Change to Scheme opening year (2025). Change to terminology to define areas modelled.	No change
			Human Health	Assessment of opening year PM ₁₀ no longer required, now only required to model 2018 base for PM ₁₀ . Change to assessment methodology for determining compliance with EU Air Quality Directive.	Mitigation no longer required, but due to modelling refinements and revised traffic data rather than methodology changes.
			Ecological	Additional designations to be considered within the assessment - local nature reserves, local wildlife sites,	Further assessment of additional designations, to be reported within the ES.

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				<p>nature improvement areas, ancient woodland and veteran trees.</p> <p>Road NO₂ at ecological receptors to be determined and converted to nitrogen deposition.</p> <p>Change to 'significance of effect' methodology, such that where the lower nitrogen deposition critical load for the relevant habitat is exceeded and the change in nitrogen deposition is expected to be greater than 1% of the lower critical load then the significance of air quality effects on designated habitats has to be assessed by a competent expert for biodiversity</p>	
			Regional	No longer required under DMRB LA 105 Changes in carbon dioxide emissions (CO ₂) from operational road traffic are now reported under DMRB LA 114 Climate	No change
			Construction Dust	Methodology now requires identification of sensitive receptors within distance bands from construction works	No change
			Construction Traffic	The impact of construction activities on vehicle movements is now required only where the duration of construction works exceeds 2 years as opposed to 6 months as per the previous guidance.	No change

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
			WebTAG appraisal	Change to WebTAG methodology. Damage costs approach now followed rather than impact pathway.	No change
			Aspects scoped in	Assessment of local nature reserves, local wildlife sites, nature improvement areas, ancient woodland and veteran trees now scoped in. Assessment of Peak District Moors (South Pennine Moors Phase 1) SPA, Hurst Clough LNR and non-statutory designated sites are now scoped in.	No change
			Aspects scoped out	Regional Assessment no longer required under DMRB LA 105	No change
Chapter 6: Cultural Heritage	DMRB, V11, S3, P2: HA208/07 Cultural Heritage	DMRB, LA 106 Cultural Heritage DMRB, LA 104 Environmental assessment and monitoring	Archaeological assets	No change to study area	No change
			Built heritage	Receptor sensitivity/ value and magnitude of impact criteria updated in line with DMRB LA 106 and DMRB LA 104.	
			Historic landscapes		
			Aspects scoped in	No additional aspects scoped in for assessment	No change
			Aspects scoped out	No additional aspects scoped out for assessment	No change
			Chapter title	Change of chapter title to Landscape and Visual Effects	No change

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
Chapter 7: Landscape and Visual	DMRB V11, S3, P5: Landscape Effects. Interim Advice Note 135/10, Landscape and Visual Effects Assessment. Guidelines for Landscape and Visual Impact Assessment (Third Edition) (GLVIA3)	DMRB, LA 107 Landscape and Visual DMRB, LA 104 Environmental assessment and monitoring Guidelines for Landscape and Visual Impact Assessment (Third Edition) (GLVIA3) Landscape Institute TGN 06/19 Visual Representation of development proposals	Landscape assessment	No change to study area. Receptor sensitivity/ value and magnitude of impact criteria updated in line with DMRB LA 107. Significance of effects matrix updated in line with DMRB LA 104.	No change
			Visual assessment	No change to study area. Receptor sensitivity/ value and magnitude of impact criteria updated in line with DMRB LA 107. Significance of effects matrix updated in line with DMRB LA 104. The opinions and consensus of the local public and different interest groups, their perception of the landscape, the value they place it and assessment of the change of the project will incur (in line with DMRB LA107). Viewpoint photography figures updated in line with Landscape Institute TGN 06/19 Viewpoint photography for two new viewpoints to be added. ZTV to be updated. The study area should extend to the entire ZTV where any part of the Proposed Scheme is theoretically visible to align with LA107.	No change

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
			Aspects scoped in	Night-time views scoped in, to align with DMRB LA107 Two new viewpoints from within the PDNP but outside the study area due to consultation request to include them for indirect effects of the Scheme on traffic flow as set out in TN25 Landscape and Visual Impacts Assessment of Indirect Effects Public input to what is of value in alignment with DMRB LA107	No change
			Aspects scoped out	No aspects scoped out - Noise and vibration (was previously in TN25 Landscape and Visual Assessment of Indirect Effects)	No change
Chapter 8: Biodiversity	DMRB HA 205/08	DMRB, LA 108 Biodiversity	Statutory designated sites for nature conservation	No change to study area. Receptor sensitivity/ value and magnitude of impact criteria updated in line with DMRB LA 108.	No change
	DMRB V10, S4, P1 HA84	DMRB, LA 118 Biodiversity design	Non-statutory designated sites for nature conservation		
	Field survey area in	DMRB, LA 108 Biodiversity	Otter	Decrease from 500 m from DCO boundary to 175 m.	No longer required in DMRB LA 108.

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
	accordance with DMRB V10, S4, P4	DMRB, LA 118 Biodiversity design	Water vole	Decrease from 500 m from DCO boundary to 175 m. Field survey area in accordance with the Water Vole Mitigation Handbook (Dean et al., 2016)	No longer required in DMRB LA 108.
Chapter 9: Geology and Soils	DMRB V11, S3, P6 & P11	DMRB LA104	Study area	No significant change to study area.	Update with outcomes of statutory consultations.
	DMRB, V11, S2, P5	DMBR LA109 DMRB LA113		Baseline buffer originally set at 250 m, increasing dependant on receptor sensitivity (e.g. up to 1km for aquifer/groundwater resource).	
	CLR11, 2011	Land contamination risk management (LCRM), Environment Agency, 2019	Geological designations and hydrogeological receptors	No change in Chapter Title.	Liaison with Environment Agency regarding hydrogeology design of cuttings including further hydrological assessment and supplementary ground investigation to support design to be undertaken by the Applicant. Hydrogeological assessment on conductivity of groundwater and surface water.
	CIRIA C552 Contaminated Land Risk Assessment, 2001	CIRIA C552 Contaminated Land Risk Assessment, 2001		Geology and Soils chapter will now include potential environmental impacts associated with geological designations and hydrogeological receptors.	
			Mineral resources and mineral sterilisation	The Geology and Soils chapter will now exclude mineral resources in accordance with DMRB LA110. The significance of impacts is to be included in Material Assets and Waste.	No change
			Spills and run off	The Geology and Soils will now exclude spills and run off in accordance with DMRB LA113. The significance of impacts is to be included within Road Drainage and the Water Environment.	No change

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
			Receptor sensitivity/value and magnitude of impact	Receptor sensitivity/value and magnitude of impact criteria to be updated in line with DMRB LA 109 and LA 113 for the Geology and Soil chapter.	No change
			Aspects scoped out	Geology exposure as a beneficial learning resource in operation. scoped out due to practicality highlighted in inspectors report.	No change
			Unexploded Ordnance (UXO)	Risk of UXO not required to be assessed in terms of environmental impact in accordance with DMRB LA109	Risk dealt with under GG104 risks
			Coal mining	Coal mining hazards scoped out ES chapter	Risk assessment associated with geotechnical hazards and land stability assessed separately under requirements of CD622 (previously HD 22/08).
			Contaminated land	Contaminated Land, terminology amended to match LCRM (including BS8485 for ground gas risk).	Assessment pertaining to ground gas risk associated with mining hazards. Update from statutory consultations to identify any private drinking water receptors. Further supplementary ground investigation underway.
			Soils	Update ES chapter in summary of reuse of soils assessed in Material Assets and Waste.	Reference the requirement for a Materials Management Plan (in accordance with CL:AIRE Definition of Waste Code of Practice). Commitment to produce Site Waste Management Plan (SWMP) and Materials Management Plan (MMP) prior to construction stage provided within the Material Assets and Waste Chapter and Environmental Management Plan.

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
					GIR associated with additional ground investigation to also support suitability of material for reuse and future MMP.
	DMRB V11, S3, P6 Note: Agricultural land was assessed within People and Communities	LA109 Geology and Soils	Agricultural soils and Agricultural Land Classification	No change to study area. Receptor sensitivity/ value and magnitude of impact criteria updated in line with DMRB LA 109 No change to significance of effect matrix compliant with DMRB LA 104	No change
Chapter 10: Material Assets and Waste	IAN 153/11 DMRB V11, S2, P5: HA205/08	DMRB, LA 110 Material Assets and Waste	Chapter title	Change of chapter title to 'Material assets and waste'.	No change
			Material assets methodology	The material assets assessment will assess the following items in accordance with DMRB LA 110: <ul style="list-style-type: none"> • the percentage of non-hazardous CD&E waste generated by the Scheme that is expected to be recycled or recovered; • the percentage of aggregate expected to be used by the Scheme that is reused or recycled; and • the sterilisation of mineral safeguarding sites or peat resources. 	No change
			Waste methodology	In addition to the regional waste infrastructure capacity, referred to in the Scoping Report, the assessment will also consider landfill capacity in the	No change

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
				<p>region and the estimated waste generated by the Scheme that would need to be disposed of outside of the region in accordance with DMRB LA 110.</p> <p>The Scheme is located on the border of Derbyshire County Council and Greater Manchester County Council and, therefore, the waste infrastructure capacity in those authorities will be considered.</p>	
			Assessment criteria	The assessment of effects will now use the significance category description and significance criteria provided in Table 3.13 and Table 3.14 of DMRB LA 110, respectively.	No change
			Mitigation measures	No additional aspects are scoped in for the assessment.	No change
			Aspects scoped in	Waste generation during operation has been scoped out as this is not anticipated to be significant. This is in agreement with Inspectorate comments in the Inspectorate's Scoping Opinion and Responses (Document Reference: TR010034/APP/6.5.1).	No change
			Aspects scoped out	Waste generation during operation has been scoped out as this is not anticipated to be significant. This is in agreement with Inspectorates comments in the Inspectorate's Scoping Opinion and Responses (TR010034/APP/6.4).	No change

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
Chapter 11: Noise and Vibration	<p>DMRB V11, S3 P7: HD213/11 Noise and Vibration, (Revision 1)</p> <p>IAN 185/15</p> <p>BS 5228: 2009+A1: 2014 'Code of Practice for Noise and Vibration Control on Construction and Open Sites'</p> <p>Control of Pollution Act 1974</p> <p>Calculation of Road Traffic Noise</p>	<p>DMRB, LA 111 Noise and Vibration (Revision 2)</p> <p>DMRB, LA 104 Environmental assessment and monitoring</p> <p>BS 5228: 2009+A1: 2014 'Code of Practice for Noise and Vibration Control on Construction and Open Sites'</p> <p>Calculation of Road Traffic Noise</p>	Study area - construction	<p>Study areas for the construction phase will be set in accordance with the DMRB LA 111 as follows:</p> <ul style="list-style-type: none"> Construction noise study area: typically 300m around works but can be greater if required. Variations in the study area can be defined for individual projects. Diversion route study area: 25m width from the kerb line of the diversion routes where a project requires full carriageway closures are required during the night. Construction traffic study area: 50m width from the kerb line of public roads with the potential for an increase in baseline noise level (BNL) of 1 dB(A) or more as a result of the addition of construction traffic to existing traffic levels. Construction vibration study area: 100 m from the closest vibration-generating construction activity is normally sufficient. Variations in the study area can be defined for individual projects traffic levels. 	No change to mitigation or requirements for further work

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
			Study area - operation	<p>The study area for the operation phase noise has been set out in accordance with the DMRB LA 111 as follows:</p> <ul style="list-style-type: none"> the area within 600 m of new road links or road links physically changed or bypassed by the project the area within 50 m of other road links with potential to experience a short term BNL change of more than 1.0 dB(A) as a result of the project. <p>DMRB LA 111 notes that the study area can be reduced or extended to ensure it is proportionate to the risk of likely significant effects, and variations in the study area can be defined for individual projects.</p> <p>DMRB LA 111 removes the requirement for speed-banding set out in IAN 185/15, so the BNL is calculated using the speed-pivoted traffic data from the traffic model. This changes the sensitivity of noise predictions to traffic speed and can affect the size of the study area beyond 600m from the Scheme.</p> <p>Operational vibration effects are scoped out</p>	<p>The revised guidance increased the coverage area for a quantitative assessment, which has been incorporated into the assessment in the ES.</p> <p>It is estimated that the application of speed banding from IAN 185/15 would have resulted in up to six additional roads being included in the study area, all located more than 600 m from the Scheme. Negligible changes were predicted on these roads using the DMRB LA 111 methodology, so further assessment is unlikely.</p> <p>No change to mitigation measures as a result of the study area change.</p>
			Baseline conditions	Further baseline noise surveys are unlikely to be required.	No change to mitigation or requirements for further work.
			Design, mitigation and	Requirement in DMRB LA 104 to distinguish between embedded and essential mitigation measures	No change to mitigation or requirements for further work.

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
			enhancement measures		
			Residual effects	Mostly no change, however more consultant discretion is given to determining significance at receptors	No change to mitigation or requirements for further work.
			Assessment methodology	The Noise and vibration assessment in the ES follows the methodology provided in DMRB LA 111 for assessing and reporting significance for the construction and operation phase, and uses the stated values to represent the LOAEL and SOAEL for each source type. The operation phase noise methodology allows a number of contextual factors to be considered when determining the impact significance.	No changes resulting from the DMRB LA 111 requirements for assessing and reporting significance other than the provision of additional commentary in the Noise and vibration chapter as needed. Further assessment of night-time noise levels included in the Noise and vibration chapter of the ES. No changes to mitigation measures required as a result of the revised road surface corrections.
			Assessment assumptions and limitations	Revised values and methodology for road surface corrections provided in DMRB LA 111 Appendix A, having the potential to affect noise predictions. Operational vibration has been scoped out from the assessment	No change to mitigation or requirements for further work.
			Aspects scoped in	Assessment of impacts at locations highlighted in the Scoping Opinion and from stakeholder consultation. Additional noise sensitive receptors included due to increased size of study area. Night-time short-term operational noise change and night-time changes to	No change to mitigation or requirements for further work.

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
				relevant 'other' non-residential noise sensitive receptors.	
			Aspects scoped out	Operational vibration	No change to mitigation or requirements for further work.
Chapter 12: Population and Human Health	DMRB V11, S3, P6,8,9 IAN 125/15	DMRB LA 112 Population and Human Health	General: Chapter Title	Changed from People and Communities to Population and Human Health Environmental Scoping Report published prior to formal Population and Human Health assessment methodology, therefore scoped in a 'People and communities' assessment, in accordance with DMRB, Volume 11, Section 3, which was adapted to consider 'health' as a sub-topic. Methodology now DMRB LA 112 compliant, and Population and human health supersedes the previously scoped 'People and communities' technical chapter	No change
	DMRB V11, S3, P6	DMRB LA 112 Population and Human Health	Agricultural land holdings	No change to study area. Receptor sensitivity/ value and magnitude of impact criteria updated in line with DMRB LA 112 No change to significance of effect matrix compliant with DMRB LA 104	Individual farm impact assessments required
	DMRB V11, S3 P8,9	DMRB LA 112 Population and Human Health	Study Area	Study area to be updated in line with DMRB LA112: assessment study areas, assessment is based on the construction footprint / Scheme	Human Health assessment required

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
		Missing IAN 125/15		boundary (including compounds and temporary land take) plus 500m area surrounding the Scheme boundary. However, the extent of this study area may be increased during subsequent assessment stages should relevant considerations become known. That will also include the findings of other EIA topics that may inform the Population and Human Health assessment, such as Landscape and Visual impact, Transport, Noise and Vibration and Air Quality.	
			Driver Stress	Driver Stress is removed from assessment	No change
	DMRB V11, S3 P6,8,9	DMRB LA112	Baseline conditions	Baseline conditions to be updated in line with DMRB LA 112.	Mitigation measures to include Human Health.
			Assessment methodology	<p>The assessment will follow the approach set out in DMRB LA 112. Receptor sensitivity/ value and magnitude of impact criteria updated in line with DMRB LA 112.</p> <p>Views from the road is also no longer required</p> <p>Assessment on private properties to only consider demolition</p> <p>Community effects and severance is now covered under the topics of community land and assets and Walkers Cyclists and Horse riders in DMRB LA 112.</p> <p>No change to significance of effect matrix compliant with LA 104 for</p>	Additional assessment criteria included for Human Health in line with DMRB LA 112

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
				assessment of Land-use and accessibility. Assessment of Human health to follow the assessment criteria in DMRB LA 112	
			Assessment Assumptions and Limitations	Certain assumptions have been made to assist in the undertaking of the assessment, for example that the Scheme is considered to achieve an overall improvement in traffic management as the aims of the Scheme.	No change
Chapter 13: Road Drainage and the Water Environment	DMRB V11, S3, P10, HD 45/09	DMRB LA113 Road Drainage and the Water Environment	Study area	No Change to Scoping or Baseline. However, only 0.5 km used in original report whereas we use 1 km study area will be used as best practice going forward.	Additional WFD waterbody scoped in due to increase in 1 km study area. This should not result in much additional work
	DMRB V11, S3, P10, HD 45/09 National Networks National Policy Statement Greenhouse Gases Sub Objective, TAG Unit A3 PAS 2080:2016 Carbon	DMRB LA113 Road Drainage and the Water Environment LA 114 Climate	Assessment methodology	A number of minor methodology clarifications have been introduced in DMRB LA 113. The main change concern modifications to copper Environmental Quality Standard (EQS) thresholds, which can directly affect the compliance of road runoff discharges. The copper EQS threshold is now set to 1 µg rather than determined by the hardness of the receiving water which for this scheme meant an EQS of 10 µg under the superseded guidance. The updated DMRB guidance is an order of magnitude more stringent for this test. A hydromorphological assessment is also required	Impacts to Water Quality have been undertaken using the latest HEWRAT version (V2.04). Hydromorphological assessments have been considered as part of the WFD compliance assessment, results of which are incorporated into the ES. DMRB LA 113 guidance has been used to determine receptors required for assessment (i.e. surface waters, groundwaters and GWTDEs).

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
	management in infrastructure		Flood risk	The definition of Importance in LA 113, in terms of flood risk, is now based on the vulnerability classification (as defined in NPPF) of the receptors.	Flood Risk will be considered as part of the WFD with suspected minimal impact.
			Guidance/policy	<p>Planning and policy context needs updating.</p> <p>The existing ESR does not have a sub section covering this though it does refer to NN NPS, EIA regulation 2017, Greenhouse Gases Sub Objective, TAG Unit A3 and PAS 2080:2016 Carbon management in infrastructure for Assessment methodology.</p> <p>No reference to Climate Change Act 2008 which needs to be included.</p>	No change
Chapter 14: Climate	National Networks National Policy Statement	LA 114 Climate	Study area	Study area to be updated in line with LA114	No change
	Greenhouse Gases Sub Objective, TAG Unit A3			‘For construction and operational maintenance, the study area shall comprise GHG emissions associated with project construction related activities/materials and their associated transport’	
	PAS 2080:2016 Carbon management in infrastructure		Baseline	<p>Study area is now defined differently.</p> <p>The timeframe for defining the current baseline climate has changed to 1961-1990 in latest DMBR. But the ESR presents no baseline data.</p> <p>Need to report on recent weather events in the baseline</p>	No change

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
				Need to report on historical weather events in the baseline Need to use latest climate projections. The ESR only had UKCP09 available. Assessment now uses UKCP18. As part of this we would switch from using the high estimate to RCP8.5.	
			Design, mitigation and enhancement measures	Does not refer to any measures for climate effects, only refers to climate adaption/resilience.	Design, mitigation and enhancement measures to be detailed in ES.
			Assessment methodology	Does not refer to details related to scoping, project life cycle stages, significance criteria, data collection as required by DMRB LA 114	Details relating to project life cycle stages, significance criteria and data collection to be included in the ES.
			Magnitude of Impact	No change	No change
Chapter 15: Assessment of Cumulative Effects	DMRB V11, S2, P5: HA205/08 Assessment and Management of Environmental Effects Planning Inspectorate Advice Note 17 Cumulative Effects Assessments, Version 1	DMRB LA 104 Environmental assessment and monitoring Planning Inspectorate Advice Note 17 Cumulative Effects Assessments, Version 2 (August 2019)	Environmental Value of Receptors	No change	No change
			Assessment methodology	The assessment of cumulative effects should report on: 1) roads projects which have been confirmed for delivery over a similar timeframe. 2) other development projects with valid planning permissions or consent orders, and for which EIA is a requirement; and 3) proposals in adopted development plans with a clear identified programme for delivery.	No change

ES Chapter	Guidance used for Scoping	Guidance used for ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
	(December 2015)		Magnitude of Impact	No change	No change
			Significance of Effect Matrix	No change	No change

Table 2: Design changes - changes to key elements included in the ES

ES Chapter	Design Change	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
Chapter 5: Air Quality	Roe Cross Road Link (removal of junction and link)	Air quality modelling	No change	Further assessment required remodelling of air quality required for ES to reflect the Scheme design changes and traffic model updates.
	Mottram Moor Roundabout			
Chapter 8: Biodiversity	River Etherow Crossing changed to single span structure	Phase 1 Habitat Survey	Decrease from 500 m from DCO boundary to 50 m.	None – repeat survey to 50 m only and rely on 2017 data for 50-500 m.
		Barn Owls	Increase in study area from 500 m to 1.5 km in line with current best practice guidelines. Increase in desk study area from 1 km to 5 km.	Potential increase in vegetation planting to avoid road mortality depending on results. Sensitive lighting regimes at strategic locations. Potential change in construction timings depending on extent of noise/vibration disturbance and proximity of active breeding site.
		Bats	Increase in desk study area from 1 km to 5 m. Increase in survey area from within red line boundary to 50 m.	Increase in compensatory roosting spaces (i.e. dedicated purpose-built bat house).
		Badger	Bait marking exercise to establish clan territories. Corridor of 500 m (i.e. 250 m either side of the centre-line of the road). In line with Appendix A1 of LD 118	Increase in mammal crossing points to aid movement.

ES Chapter	Design Change	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
Chapter 9: Geology and Soils	Temporary land take locations and areas have changed	Agricultural Soils and Agricultural Land Classification	Methodology now DMRB LA109 No change to study area.	No change
			Receptor sensitivity/ value and magnitude of impact criteria updated in line with DMRB LA 109 No change to significance of effect matrix compliant with DMRB LA 104	
Chapter 11: Noise and Vibration	Removal of spur road to A6018	Study area	Study area to reduce by several hundred metres as Scheme red line regresses south east	No change
		Construction noise	A reduced footprint leads to lower levels of construction noise, though the overall effect will be negligible	No change
		Operational noise	Noise source from spur removed will be of some benefit to nearby receptors, however Scheme will still be the dominant source of road noise	No change
	Roe Cross Underpass	Operational noise	Road noise attributable to the Scheme may increase at receptors close to the western extreme of the underpass.	Mitigation measures assessed as part of the ES. Noise barriers are proposed close by to the redesigned Mottram underpass portals.
	Signalised Junction	Construction noise	No change	No change
	Etherow Bridge	Aspects scoped in	No change	No change
Aspects scoped out		Portion of the study area to the north west	No change	

ES Chapter	Design Change	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
Chapter 12 Population and Human Health	Temporary land take locations and areas have changed	Agricultural land holdings	Methodology now DMRB LA112 No change to study area. Receptor sensitivity/ value and magnitude of impact criteria updated in line with DMRB LA 112 No change to significance of effect matrix compliant with DMRB LA 104	Individual farm impact assessments required
	DCO boundary amendments, land take for all design changes	Population and Human Health	Methodology now DMRB LA112. Receptor sensitivity/ value and magnitude of impact criteria updated in line with DMRB LA 112	Impact assessments required will be in line with DMRB LA 112 guidance.
Chapter 13: Road Drainage and the Water Environment	River Etherow Crossing – single span structure	Flood Risk	The method of assessment is the same. Additional river modelling work has been undertaken to examine the reduced River Etherow bridge span crossing.	Proposal approved in principle by Environment Agency.
		Water Quality	Confirmation of location of drainage outfalls to inform the Highways England Water Risk Assessment Tool (HEWRAT) assessment.	HEWRAT assessment identified in original scope - no change to this assessment methodology.
		Groundwater	No change.	No change to proposed assessment.
		Hydromorphology	Confirmation of proposed bridge structure (and associated works) at River Etherow crossing.	Scour assessment associated with bridge structure identified in original scope - no change to this assessment methodology.
	Mottram Underpass	Flood Risk	No change to assessment methodology.	No change to proposed mitigation or further assessment required.

ES Chapter	Design Change	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
		Water Quality	Confirmation of location of drainage outfalls to inform HEWRAT assessment.	HEWRAT assessment identified in original scope - no change to this assessment methodology.
		Groundwater	No change.	No change to proposed assessment.
		Hydromorphology	No change.	Assessment identified in original scope - no change to this assessment methodology.
	Mottram Moor Junction	Flood Risk	No change to assessment methodology.	No change to proposed mitigation or further assessment required.
		Water Quality	Confirmation of location of drainage outfalls to inform HEWRAT assessment.	HEWRAT assessment identified in original scope - no change to this assessment methodology.
		Groundwater	Scope changed to assess proposed underpass design, rather than original tunnel design. No change to assessment methodology.	Additional ground investigation and hydrogeological risk assessment to be completed.
		Hydromorphology	No change.	No assessment identified in original scope - no change.
	Cricket Ground roundabout	Flood Risk	No change to assessment methodology.	No change to proposed mitigation or further assessment required.
		Water Quality	Confirmation of location of drainage outfalls to inform HEWRAT assessment.	HEWRAT assessment identified in original scope - no change to this assessment methodology.
		Groundwater	No change.	No change to proposed assessment.
		Hydromorphology	No change.	Assessment identified in original scope - no change to this assessment methodology.
	Roe Cross Junction	Flood Risk	No change to assessment methodology.	No change to proposed mitigation or further assessment required.

ES Chapter	Design Change	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion	Change to mitigation or further assessment likely to be required
		Water Quality	Confirmation of location of drainage outfalls to inform HEWRAT assessment.	HEWRAT assessment identified in original scope - no change to this assessment methodology.
		Groundwater	No change.	No change to proposed assessment.
		Hydromorphology	No change.	No assessment identified in original scope - no change.
Chapter 14: Climate	No design changes have resulted in a change to the scope, methodology or assessment outcome of Chapter 14: Climate	N/A	N/A	N/A
Chapter 15: Cumulative effects	No design changes have resulted in a change to the scope, methodology or assessment outcome of Chapter 15: Cumulative effects	N/A	N/A	N/A

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