

A303 Sparkford to Ilchester Dualling Scheme TR010036

6.3 Environmental Statement Appendix 11.3 Construction Assessment for Residential Properties

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Forms and Procedure) Regulations 2009
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Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Applications: Prescribed Forms
and Procedure) Regulations
2009**

**A303 Sparkford to Ilchester Dualling
Scheme**

Development Consent Order 201[X]

6.3 Environmental Statement
Appendix 11.3 Construction Assessment for Residential Properties

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1 Construction Assessment for Residential Properties

1.1 Daytime works

1.1.1 The following tables assess each of the 10 nearest residential receptors (those subject to levels above the Significant Observed Adverse Effect Level (SOAEL)), using Method 2 – 5 dB Change from BS5228-1, in order to inform mitigation. Figures depicting these locations can be found in Chapter 11 Noise and Vibration, Environmental Statement, Volume 6.1. The baseline L_{Aeq} for all daytime works has been calculated from the existing traffic flows that were used to inform the operational noise model for the Do-Minimum scenario in the baseline year (defined in Chapter 11 Noise and Vibration, Environmental Statement, Volume 6.1). All levels have been rounded to the nearest whole number.

Without barrier mitigation

1.1.2 The following tables assess each of the 10 nearest residential receptors before barrier mitigation.

Table 11.1: Construction assessment for R1 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	19	68	78	79	yes
	Site clearance	19	68	80	80	yes
Earthworks	Topsoil strip	19	68	85	85	yes
	Bulk earthworks	19	68	84	84	yes
	Re-soil	19	68	80	80	yes
	Roadbox and capping	19	68	80	80	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	19	68	85	85	yes
	Road markings	19	68	77	77	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.2: Construction assessment for R2 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	12	69	82	82	yes
	Site clearance	12	69	84	84	yes
Earthworks	Topsoil strip	12	69	89	89	yes
	Bulk earthworks	12	69	88	88	yes
	Re-soil	12	69	84	84	yes
	Roadbox and capping	12	69	84	84	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	12	69	89	89	yes
	Road markings	12	69	81	81	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.3: Construction assessment for R3 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	35	62	72	72	yes
	Site clearance	35	62	74	74	yes
Earthworks	Topsoil strip	35	62	79	79	yes
	Bulk earthworks	35	62	78	78	yes
	Re-soil	35	62	74	74	yes
	Roadbox and capping	35	62	74	74	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	35	62	79	79	yes
	Road markings	35	62	70	71	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.4: Construction assessment for R4 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L _{Aeq} [dB]	Predicted plant L _{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	8	71	86	86	yes
	Site clearance	8	71	87	87	yes
Earthworks	Topsoil strip	8	71	93	93	yes
	Bulk earthworks	8	71	92	92	yes
	Re-soil	8	71	88	88	yes
	Roadbox and capping	8	71	87	87	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	8	71	92	92	yes
	Road markings	8	71	84	84	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.5: Construction assessment for R5 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L _{Aeq} [dB]	Predicted plant L _{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	8	71	86	86	yes
	Site clearance	8	71	87	87	yes
Earthworks	Topsoil strip	8	71	93	93	yes
	Bulk earthworks	8	71	92	92	yes
	Re-soil	8	71	88	88	yes
	Roadbox and capping	8	71	87	87	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	8	71	92	92	yes
	Road markings	8	71	84	84	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.6: Construction assessment for R6 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	30	63	74	74	yes
	Site clearance	30	63	75	76	yes
Earthworks	Topsoil strip	30	63	81	81	yes
	Bulk earthworks	30	63	80	80	yes
	Re-soil	30	63	76	76	yes
	Roadbox and capping	30	63	75	76	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	30	63	80	80	yes
	Road markings	30	63	72	73	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	20	63	81	81	yes
	Compound construction	20	63	79	79	yes
	Compound operation (daytime)	20	63	66	67	no
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.7: Construction assessment for R7 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	30	63	74	74	yes
	Site clearance	30	63	75	76	yes
Earthworks	Topsoil strip	30	63	81	81	yes
	Bulk earthworks	30	63	80	80	yes
	Re-soil	30	63	76	76	yes
	Roadbox and capping	30	63	75	76	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	30	63	80	80	yes
	Road markings	30	63	72	73	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
	Site clearance	20	63	81	81	yes

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Site compounds	Compound construction	20	63	79	79	yes
	Compound operation (daytime)	20	63	66	67	no
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.8: Construction assessment for R8 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	32	64	73	73	yes
	Site clearance	32	64	75	75	yes
Earthworks	Topsoil strip	32	64	80	80	yes
	Bulk earthworks	32	64	79	79	yes
	Re-soil	32	64	75	75	yes
	Roadbox and capping	32	64	75	75	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	32	64	80	80	yes
	Road markings	32	64	71	72	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.9: Construction assessment for R9 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	32	62	72	73	yes
	Site clearance	32	62	74	74	yes
Earthworks	Topsoil strip	32	62	79	79	yes
	Bulk earthworks	32	62	78	78	yes
	Re-soil	32	62	74	74	yes
	Roadbox and capping	32	62	74	74	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Roadworks	Road pavement construction / asphaltting	32	62	79	79	yes
	Road markings	32	62	70	71	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.10: Construction assessment for R10 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	30	62	74	74	yes
	Site clearance	30	62	75	75	yes
Earthworks	Topsoil strip	30	62	81	81	yes
	Bulk earthworks	30	62	80	80	yes
	Re-soil	30	62	76	76	yes
	Roadbox and capping	30	62	75	76	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	30	62	80	80	yes
	Road Markings	30	62	72	72	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	20	62	81	81	yes
	Compound construction	20	62	79	79	yes
	Compound operation (daytime)	20	62	66	67	no
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

With barrier mitigation

1.1.3 The following tables assess each of the 10 nearest residential receptors after barrier mitigation (reducing the resultant noise levels from works by 10dB).

Table 11.11: Construction assessment for R1 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L _{Aeq} [dB]	Predicted plant L _{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	19	68	68	71	no
	Site clearance	19	68	70	72	no
Earthworks	Topsoil strip	19	68	75	76	yes
	Bulk earthworks	19	68	74	75	yes
	Re-soil	19	68	70	72	no
	Roadbox and capping	19	68	70	72	no
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	19	68	75	76	yes
	Road markings	19	68	67	71	no
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.12: Construction assessment for R2 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L _{Aeq} [dB]	Predicted plant L _{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	12	69	72	74	yes
	Site clearance	12	69	74	75	yes
Earthworks	Topsoil strip	12	69	79	80	yes
	Bulk earthworks	12	69	78	79	yes
	Re-soil	12	69	74	75	yes
	Roadbox and capping	12	69	74	75	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	12	69	79	79	yes
	Road markings	12	69	71	73	no
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.13: Construction assessment for R3 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L _{Aeq} [dB]	Predicted plant L _{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	35	62	62	65	no
	Site clearance	35	62	64	66	no
Earthworks	Topsoil strip	35	62	69	70	yes
	Bulk earthworks	35	62	68	69	yes
	Re-soil	35	62	64	66	no
	Roadbox and capping	35	62	64	66	no
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	35	62	69	69	yes
	Road markings	35	62	60	64	no
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.14: Construction assessment for R4 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L _{Aeq} [dB]	Predicted plant L _{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	8	71	76	77	yes
	Site clearance	8	71	77	78	yes
Earthworks	Topsoil strip	8	71	83	83	yes
	Bulk earthworks	8	71	82	82	yes
	Re-soil	8	71	78	78	yes
	Roadbox and capping	8	71	77	78	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	8	71	82	82	yes
	Road markings	8	71	74	76	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.15: Construction assessment for R5 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	8	71	76	77	yes
	Site clearance	8	71	77	78	yes
Earthworks	Topsoil strip	8	71	83	83	yes
	Bulk earthworks	8	71	82	82	yes
	Re-soil	8	71	78	78	yes
	Roadbox and capping	8	71	77	78	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	8	71	82	82	yes
	Road markings	8	71	74	76	yes
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.16: Construction assessment for R6 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	30	63	64	66	no
	Site clearance	30	63	65	67	no
Earthworks	Topsoil strip	30	63	71	71	yes
	Bulk earthworks	30	63	70	71	yes
	Re-soil	30	63	66	68	yes
	Roadbox and capping	30	63	65	67	no
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	30	63	70	71	yes
	Road markings	30	63	62	66	no
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
	Site clearance	20	63	71	71	yes

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Site compounds	Compound construction	20	63	69	70	yes
	Compound operation (daytime)	20	63	56	64	no
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.17: Construction assessment for R7 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	30	63	64	66	no
	Site clearance	30	63	65	67	no
Earthworks	Topsoil strip	30	63	71	71	yes
	Bulk earthworks	30	63	70	71	yes
	Re-soil	30	63	66	68	yes
	Roadbox and capping	30	63	65	67	no
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	30	63	70	71	yes
	Road markings	30	63	62	66	no
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	20	63	71	71	yes
	Compound construction	20	63	69	70	yes
	Compound operation (daytime)	20	63	56	64	no
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.18: Construction assessment for R8 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	32	64	63	66	no
	Site clearance	32	64	65	67	no
Earthworks	Topsoil strip	32	64	70	71	yes
	Bulk earthworks	32	64	69	70	yes
	Re-soil	32	64	65	67	no
	Roadbox and capping	32	64	65	67	no
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Roadworks	Road pavement construction / asphaltting	32	64	70	71	yes
	Road markings	32	64	61	66	no
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.19: Construction assessment for R9 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	32	62	62	65	no
	Site clearance	32	62	64	66	no
Earthworks	Topsoil strip	32	62	69	70	yes
	Bulk earthworks	32	62	68	69	yes
	Re-soil	32	62	64	66	no
	Roadbox and capping	32	62	64	66	no
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	32	62	69	69	yes
	Road markings	32	62	60	64	no
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	Distance too great and will not be significant				
	Compound construction	Distance too great and will not be significant				
	Compound operation (daytime)	Distance too great and will not be significant				
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

Table 11.20: Construction assessment for R10 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Enabling works	Tree / hedgerow clearance	30	62	64	66	no
	Site clearance	30	62	65	67	yes

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Earthworks	Topsoil strip	30	62	71	71	yes
	Bulk earthworks	30	62	70	70	yes
	Re-soil	30	62	66	67	yes
	Roadbox and capping	30	62	65	67	yes
Drainage	Pavement drainage, ducting and chambers	Distance too great and will not be significant				
Roadworks	Road pavement construction / asphaltting	30	62	70	71	yes
	Road Markings	30	62	62	65	no
Structures	4 new structures	Distance too great and will not be significant				
Haul road	Haul road	Levels will not be significant				
Site compounds	Site clearance	20	62	71	71	yes
	Compound construction	20	62	69	70	yes
	Compound operation (daytime)	20	62	56	63	no
	Compound operation (night time)	Distance too great and will not be significant				
	Batching plant compound operation	Distance too great and will not be significant				

1.2 Night time works

1.2.1 The following tables assess each of the nearest residential receptors (those subject to levels above SOAEL) using Method 2 – 5 dB Change from BS5228-1, in order to inform mitigation. The baseline L_{Aeq} for all night time works has been calculated from the existing traffic flows that were used to inform the operational noise model for the Do-Minimum scenario in the baseline year (defined in Chapter 11 Noise and Vibration, Environmental Statement, Volume 6.1). All levels have been rounded to the nearest whole number.

Without barrier mitigation

1.2.2 The following tables assess each of the nearest residential receptors before barrier mitigation.

Table 11.21: Construction assessment for NT1 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	75	50	61	61	yes
	Roadbox and capping	75	50	64	65	yes

Table 11.22: Construction assessment for NT2 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	118	46	56	57	yes
	Roadbox and capping	118	46	60	60	yes

Table 11.23: Construction assessment for NT3 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	35	54	69	70	yes
	Roadbox and capping	35	54	73	73	yes

Table 11.24: Construction assessment for NT4 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	35	54	69	70	yes
	Roadbox and capping	35	54	73	73	yes

Table 11.25: Construction assessment for NT5 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	84	61	60	63	no
	Roadbox and capping	84	61	63	65	no

Table 11.26: Construction assessment for NT6 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	84	61	60	63	no
	Roadbox and capping	84	61	63	65	no

Table 11.27: Construction assessment for NT7 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	140	53	54	57	no
	Roadbox and capping	140	53	58	59	yes

Table 11.28: Construction assessment for NT8 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	137	46	55	55	yes
	Roadbox and capping	137	46	58	58	yes

Table 11.29: Construction assessment for NT9 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	162	43	53	53	yes
	Roadbox and capping	162	43	56	56	yes

Table 11.30: Construction assessment for NT10 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	139	43	54	55	yes
	Roadbox and capping	139	43	58	58	yes

Table 11.31: Construction assessment for NT11 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	37	53	69	69	yes
	Roadbox and capping	37	53	72	72	yes

Table 11.32: Construction assessment for NT12 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	90	47	59	59	yes
	Roadbox and capping	90	47	62	63	yes

Table 11.33: Construction assessment for NT13 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	130	46	55	56	yes
	Roadbox and capping	130	46	59	59	yes

Table 11.34: Construction assessment for NT14 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	130	46	55	56	yes
	Roadbox and capping	130	46	59	59	yes

Table 11.35: Construction assessment for NT15 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	90	47	59	59	yes
	Roadbox and capping	90	47	62	63	yes

Table 11.36: Construction assessment for NT16 – without barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	140	43	54	55	yes
	Roadbox and capping	140	43	58	58	yes

With barrier mitigation

1.2.3 The following tables assess each of the nearest residential receptors after barrier mitigation (reducing the resultant noise levels from works by 10dB).

Table 11.37: Construction assessment for NT1 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	75	50	51	54	no
	Roadbox and capping	75	50	54	56	yes

Table 11.38: Construction assessment for NT2 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	118	46	46	49	no
	Roadbox and capping	118	46	50	51	yes

Table 11.39: Construction assessment for NT3 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	35	54	59	61	yes
	Roadbox and capping	35	54	63	63	yes

Table 11.40: Construction assessment for NT4 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	35	54	59	61	yes
	Roadbox and capping	35	54	63	63	yes

Table 11.41: Construction assessment for NT5 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	84	61	50	61	no
	Roadbox and capping	84	61	53	62	no

Table 11.42: Construction assessment for NT6 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	84	61	50	61	no
	Roadbox and capping	84	61	53	62	no

Table 11.43: Construction assessment for NT7 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	140	53	44	54	no
	Roadbox and capping	140	53	48	54	no

Table 11.44: Construction assessment for NT8 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	137	46	45	48	no
	Roadbox and capping	137	46	48	50	no

Table 11.45: Construction assessment for NT9 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point A works	Resurfacing	162	43	43	46	no
	Roadbox and capping	162	43	46	48	yes

Table 11.46: Construction assessment for NT10 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	139	43	44	47	no
	Roadbox and capping	139	43	48	49	yes

Table 11.47: Construction assessment for NT11 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	37	53	59	60	yes
	Roadbox and capping	37	53	62	54	yes

Table 11.48: Construction assessment for NT12 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	90	47	49	51	no
	Roadbox and capping	90	47	52	54	yes

Table 11.49: Construction assessment for NT13 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	130	46	45	49	no
	Roadbox and capping	130	46	49	50	no

Table 11.50: Construction assessment for NT14 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	130	46	45	49	no
	Roadbox and capping	130	46	49	50	no

Table 11.51: Construction assessment for NT15 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	90	47	49	51	no
	Roadbox and capping	90	47	52	54	yes

Table 11.52: Construction assessment for NT16 – with barrier mitigation

Phase	Activity	Distance to works (m)	Baseline L_{Aeq} [dB]	Predicted plant L_{Aeq} [dB]	Baseline +Plant [dB]	Potential for significant effect?
Night time pinch point B works	Resurfacing	140	43	44	47	no
	Roadbox and capping	140	43	48	49	yes