

# A303 Amesbury to Berwick Down

TR010025

## 6.3 Environmental Statement Appendices

### Appendix 9.5 Noise and Vibration Summary of Effects Tables

APFP Regulation 5(2)(a)

Planning Act 2008

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

October 2018



# 1 Summary of Effects

1.1.1 Table 1-1 summarises the construction noise and vibration effects. Table 1-2 summarises the operational noise and vibration effects

**Table 1-1 Construction Noise and Vibration Effects**

Receptor	Attribute	Impact	Design and Mitigation Measures	Impact Magnitude	Residual Effect
Stonehenge Cottages	Vibration on human receptors (annoyance)	Vibration levels exceeding SOAEL during 2 non-consecutive, 7 day periods, from tunnelling works	Contractor to undertake detailed appraisal as set out in the CEMP Notify occupants as soon as practicably possible in advance of the works Vibration monitoring commencing when the TBM is approaching the cottages	Exceeds SOAEL	Not significant
Receptors at Countess Roundabout and Rolleston Crossroads	Vibration on human receptors (annoyance)	Vibration levels below SOAEL	No start up + run-down of vibratory plant to be undertaken within 50m of property Use of BPM and compliance with the control measures detailed in the CEMP	Below SOAEL	Not significant
Stonehenge Cottages, Rolleston Crossroads, Countess Roundabout and Stonehenge	Vibration damage	Vibration levels considerably below onset of cosmetic damage criteria	Use of BPM and compliance with the control measures detailed in the CEMP Vibration monitoring at Stonehenge Cottages during nearby TBM activities	Negligible	Not significant
Closest receptors at Countess Roundabout	Noise	Noise levels exceeding the SOAEL for short periods, in consecutive quarters, during construction of the bridge and flyover	Use of BPM and compliance with the control measures detailed in the CEMP	Exceeds SOAEL	Significant adverse
Rollestone Crossroads residential property	Noise	Noise levels exceeding the SOAEL for very short period during junction improvement	Use of BPM and compliance with the control measures detailed in the CEMP	Exceeds SOAEL	Not significant

		works			
Receptor to north of Winterbourne Stoke	Noise	Noise levels exceeding the SOAEL for short periods, in consecutive quarters, during construction of the bridge and deck installation	Use of BPM and compliance with the control measures detailed in the CEMP	Exceeds SOAEL	Significant adverse
Other receptors in the vicinity of the works	Noise	Noise levels below the SOAEL	Use of BPM and compliance with the control measures detailed in the CEMP	Below SOAEL	Not significant
Receptors along road network	Traffic	Changes in traffic noise levels	-	Negligible/Minor adverse	Not Significant

**Table 1-2 Operational Noise and Vibration Effects**

Receptor	Attribute	Impact	Design and Mitigation Measures	Impact Magnitude	Residual Effect
Receptor to north of Winterbourne Stoke	Operational Traffic Noise	Increase in traffic noise levels. Note impact occurs from the opening of the bypass at the start of Phase 2 of the construction works	Horizontal and vertical alignment, maximising height of false cuttings, use of solid parapet at River Till viaduct, use of thin surfacing (which results in lower levels of noise generation than a standard hot rolled asphalt surface)	Major adverse	Significant adverse
Receptors along Church Street/High Street Amesbury	Operational Traffic Noise	Increase in traffic noise levels. Note impact occurs from the permanent closure of the Stonehenge Road access onto the A303 at the start of the construction works	-	Moderate/Major adverse	Significant adverse
Receptors in Winterbourne Stoke	Operational Traffic Noise	Decrease in traffic noise levels	Bypass of Winterbourne Stoke	Up to major beneficial	Significant beneficial
Stonehenge,	Operational	Decrease in traffic	Tunnel, absorptive finish inside each end of	Major beneficial	Significant

Stonehenge Cottages and north end of Stonehenge Road	Traffic Noise	noise levels	tunnel		beneficial
Closest receptors to Countess Junction	Operational Traffic Noise	Increase in traffic noise levels	Horizontal and vertical alignment, noise barriers on flyover, use of thin surfacing	Negligible/Minor adverse	Not significant
Other receptors in the noise modelling study area	Operational Traffic Noise	Increase/decrease in traffic noise levels	-	Negligible/Minor adverse and beneficial	Not significant
Receptors along B390 Chitterne to Shrewton on wider road network	Operational Traffic Noise	Decrease in traffic noise levels	Transfer of traffic onto the A303	Moderate beneficial	Significant beneficial
Other receptors along wider road network	Operational Traffic Noise	Changes in traffic noise levels	-	Negligible/Minor adverse and beneficial	Not significant
Receptors within 40m of the scheme/ existing A303 and affected routes	Operational Airborne Traffic Vibration	Annoyance	Horizontal and vertical alignment, noise barriers on Countess flyover, use of thin surfacing	Negligible adverse	Not significant
Closest receptors to tunnel portals	Operational Plant Noise	Plant noise	Choice/design of plant at service buildings	Negligible adverse	Not significant
Closest receptors to tunnel portals	Operational Fan Noise	Occasional operational fan noise	Choice of fans/silencers in tunnel, absorptive finish inside each end of tunnel	Negligible adverse	Not significant

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