OXFORDSHIRE
STRATEGIC RAIL FREIGHT INTERCHANGE

DCO Submission

Environmental Statement

Chapter 5: Noise and Vibration
Appendix 5.12: Operational Road Traffic Noise Predictions and Assessment

Document 6.5L

Revision A

On behalf of
Oxfordshire Railfreight Limited

Prepared by ~~Vanguardia~~Air & Acoustic Consultants
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Appendix 5.12

Operational Road Traffic Noise Predictions and Assessment Rev A

Table 1 Prediction and assessment of daytime road traffic noise – 2031 opening year and 2034 completion year

Receptor	2031 Opening Year - Day						2034 Completion Year - Day					
	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
(R05) Crossroads Farm - South	44.7	48.2	<LOAEL	3.5	-	NO	46.3	50.2	Between LOAEL and SOAEL	3.9	Minor Adverse	NO
(R06) Quarry Cottages - South	48.2	47.8	<LOAEL	-0.4	-	NO	48.2	48.3	<LOAEL	0.1	-	NO
(R07) Fewcott Lodge - South	59.2	56.0	Between LOAEL and SOAEL	-3.2	Minor Beneficial	NO	59.5	57.6	Between LOAEL and SOAEL	-1.9	Negligible	NO
(R08) Almscar North	53.8	53.0	Between LOAEL and SOAEL	-0.8	Negligible	NO	53.7	53.5	Between LOAEL and SOAEL	-0.2	Negligible	NO
(R09) The Cottages - East	61.9	61.3	Between LOAEL and SOAEL	-0.6	Negligible	NO	61.9	61.1	Between LOAEL and SOAEL	-0.8	Negligible	NO
(R10) 26/28 Ardley Road - East	59.6	58.4	Between LOAEL and SOAEL	-1.2	Negligible	NO	59.7	58.9	Between LOAEL and SOAEL	-0.8	Negligible	NO
(R10) 26/28 Ardley Road - West	54.4	53.9	Between LOAEL and SOAEL	-0.5	Negligible	NO	54.6	54.4	Between LOAEL and SOAEL	-0.2	Negligible	NO
(R11) 2/4 Ardley Road - East	63.7	60.7	Between LOAEL and SOAEL	-3.0	Minor Beneficial	NO	63.9	60.9	Between LOAEL and SOAEL	-3.0	Minor Beneficial	NO
(R11) 2/4 Ardley Road - South	60.0	58.1	Between LOAEL and SOAEL	-1.9	Negligible	NO	60.3	58.4	Between LOAEL and SOAEL	-1.9	Negligible	NO
(R13) Manor Farm Ardley - North	55.4	55.4	Between LOAEL and SOAEL	0.0	No Change	NO	55.5	56.4	Between LOAEL and SOAEL	0.9	Negligible	NO
(R14) Church Road – East	55.9	55.0	Between LOAEL and SOAEL	-0.9	Negligible	NO	55.9	55.3	Between LOAEL and SOAEL	-0.6	Negligible	NO
(R16) Exton Cottage – North	65.5	66.4	≥SOAEL	0.9	Negligible	NO	66.1	64.4	≥SOAEL	-1.7	Minor Beneficial	NO
(R16) Exton Cottage – South	58.5	50.6	Between LOAEL and SOAEL	-7.9	Moderate Beneficial	NO	58.8	51.1	Between LOAEL and SOAEL	-7.7	Moderate Beneficial	NO
(R16) Exton Cottage – West	65.0	61.9	Between LOAEL and SOAEL	-3.1	Minor Beneficial	NO	65.3	60.0	Between LOAEL and SOAEL	-5.3	Moderate Beneficial	NO
(R17) Fox & Hounds – West	66.7	54.6	Between LOAEL and SOAEL	-12.1	Major Beneficial	NO	67.0	55.4	Between LOAEL and SOAEL	-11.6	Major Beneficial	NO
(R18) 1 St Marys Walk – South	61.9	54.1	Between LOAEL and SOAEL	-7.8	Moderate Beneficial	NO	62.1	54.6	Between LOAEL and SOAEL	-7.5	Moderate Beneficial	NO
(R18) 1 St Marys Walk – West	65.9	53.1	Between LOAEL and SOAEL	-12.8	Major Beneficial	NO	66.2	54.1	Between LOAEL and SOAEL	-12.1	Major Beneficial	NO
(R19) Grooms Cottage – East	60.3	60.2	Between LOAEL and SOAEL	-0.1	Negligible	NO	60.4	60.2	Between LOAEL and SOAEL	-0.2	Negligible	NO
(R19) Grooms Cottage – North	61.5	61.1	Between LOAEL and SOAEL	-0.4	Negligible	NO	61.6	61.1	Between LOAEL and SOAEL	-0.5	Negligible	NO
(R20) The Barnhouse Kennels – North	66.7	66.9	≥SOAEL	0.2	Negligible	NO	66.7	66.6	≥SOAEL	-0.1	Negligible	NO
(R20) The Barnhouse Kennels - South	68.3	68.7	≥SOAEL	0.4	Negligible	NO	68.4	68.8	≥SOAEL	0.4	Negligible	NO
(R20) The Barnhouse Kennels - West	63.0	62.7	Between LOAEL and SOAEL	-0.3	Negligible	NO	63.2	62.6	Between LOAEL and SOAEL	-0.6	Negligible	NO
(R21) Foxfield Farm - East	70.4	70.5	≥SOAEL	0.1	Negligible	NO	70.4	70.4	≥SOAEL	0.0	No Change	NO
(R21) Foxfield Farm - North	67.4	67.7	≥SOAEL	0.3	Negligible	NO	67.5	67.0	≥SOAEL	-0.5	Negligible	NO
(R22) Woodbine Cottage – West	58.4	58.3	Between LOAEL and SOAEL	-0.1	Negligible	NO	58.3	58.0	Between LOAEL and SOAEL	-0.3	Negligible	NO
(R23) 1/2 Jersey Cottages – East	71.6	55.8	Between LOAEL and SOAEL	-15.8	Major Beneficial	NO	72.1	56.1	Between LOAEL and SOAEL	-16.0	Major Beneficial	NO
(R24) 3 Station Road - East	60.1	59.7	Between LOAEL and SOAEL	-0.4	Negligible	NO	60.0	59.8	Between LOAEL and SOAEL	-0.2	Negligible	NO
(R24) 3 Station Road - West	67.2	49.9	<LOAEL	-17.3	-	NO	67.7	50.5	Between LOAEL and SOAEL	-17.2	Major Beneficial	NO
(R26) The Bungalow - East	66.4	58.4	Between LOAEL and SOAEL	-8.0	Moderate Beneficial	NO	66.7	58.6	Between LOAEL and SOAEL	-8.1	Moderate Beneficial	NO
(R26) The Bungalow - South	61.4	55.6	Between LOAEL and SOAEL	-5.8	Moderate Beneficial	NO	61.7	56.0	Between LOAEL and SOAEL	-5.7	Moderate Beneficial	NO
(R27) Upland Cottage - East	60.1	60.0	Between LOAEL and SOAEL	-0.1	Negligible	NO	60.0	60.3	Between LOAEL and SOAEL	0.3	Negligible	NO
(R27) Upland Cottage - South	60.8	57.2	Between LOAEL and SOAEL	-3.6	Minor Beneficial	NO	61.0	57.6	Between LOAEL and SOAEL	-3.4	Minor Beneficial	NO
(R27) Upland Cottage – West	62.0	50.2	Between LOAEL and SOAEL	-11.8	Major Beneficial	NO	62.3	51.1	Between LOAEL and SOAEL	-11.2	Major Beneficial	NO
(R28) Ardley Fields Farm Cottages	66.5	67.1	≥SOAEL	0.6	Negligible	NO	67.2	67.5	≥SOAEL	0.3	Negligible	NO
(R34A) Richborough Estates – East	59.4	59.3	Between LOAEL and SOAEL	-0.1	Negligible	NO	59.7	59.7	Between LOAEL and SOAEL	0.0	No Change	NO
(R35) 50 Duvall Park – North	62.8	62.5	Between LOAEL and SOAEL	-0.3	Negligible	NO	63.1	63.3	≥SOAEL	0.2	Negligible	NO

Receptor	2031 Opening Year - Day						2034 Completion Year - Day					
	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
(R36) Manor Farm – North	48.0	47.9	<LOAEL	-0.1	-	NO	48.1	48.6	<LOAEL	0.5	-	NO
(R37) 4 Manor Farm Cottages -East	58.2	57.7	Between LOAEL and SOAEL	-0.5	Negligible	NO	58.3	56.1	Between LOAEL and SOAEL	-2.2	Negligible	NO
(R37) 4 Manor Farm Cottages – North	54.2	53.7	Between LOAEL and SOAEL	-0.5	Negligible	NO	54.3	52.8	Between LOAEL and SOAEL	-1.5	Negligible	NO
(R38) 1 Manor Farm Cottages – South	59.8	59.2	Between LOAEL and SOAEL	-0.6	Negligible	NO	59.9	56.1	Between LOAEL and SOAEL	-3.8	Minor Beneficial	NO
(R39) Dewars Farm - South	59.6	58.8	Between LOAEL and SOAEL	-0.8	Negligible	NO	59.8	53.5	Between LOAEL and SOAEL	-6.3	Moderate Beneficial	NO
(R39) Dewars Farm - West	61.0	60.2	Between LOAEL and SOAEL	-0.8	Negligible	NO	61.2	55.6	Between LOAEL and SOAEL	-5.6	Moderate Beneficial	NO
(R40) Dewars Farm Cottages – East	59.3	58.9	Between LOAEL and SOAEL	-0.4	Negligible	NO	59.3	57.4	Between LOAEL and SOAEL	-1.9	Negligible	NO
(R40) Dewars Farm Cottages – West	71.3	70.4	≥SOAEL	-0.9	Negligible	NO	71.4	64.4	≥SOAEL	-7.0	Major Beneficial	NO
(R41) Bucknell Lodge – West	63.1	63.3	≥SOAEL	0.2	Negligible	NO	64.1	61.7	Between LOAEL and SOAEL	-2.4	Negligible	NO
(R46) Holly Tree House - East	55.4	55.4	Between LOAEL and SOAEL	0.0	No Change	NO	55.4	55.5	Between LOAEL and SOAEL	0.1	Negligible	NO
(R46) Holly Tree House – West	66.8	65.7	≥SOAEL	-1.1	Minor Beneficial	NO	67.0	62.0	Between LOAEL and SOAEL	-5.0	Moderate Beneficial	NO
(R47) Chapel Cottage – East	57.2	57.1	Between LOAEL and SOAEL	-0.1	Negligible	NO	57.1	57.3	Between LOAEL and SOAEL	0.2	Negligible	NO
(R47) Chapel Cottage - North	51.4	51.0	Between LOAEL and SOAEL	-0.4	Negligible	NO	51.4	51.3	Between LOAEL and SOAEL	-0.1	Negligible	NO
(R47) Chapel Cottage - South	55.9	55.9	Between LOAEL and SOAEL	0.0	No Change	NO	55.8	55.2	Between LOAEL and SOAEL	-0.6	Negligible	NO
(R48) Gaygle Brook Cottage - East	60.0	60.0	Between LOAEL and SOAEL	0.0	No Change	NO	60.0	59.0	Between LOAEL and SOAEL	-1.0	Negligible	NO
(R48) Gaygle Brook Cottage – North	61.8	61.8	Between LOAEL and SOAEL	0.0	No Change	NO	61.9	60.0	Between LOAEL and SOAEL	-1.9	Negligible	NO
(R48A) Rigaletto - East	57.9	57.8	Between LOAEL and SOAEL	-0.1	Negligible	NO	57.8	57.7	Between LOAEL and SOAEL	-0.1	Negligible	NO
(R48A) Rigaletto - North	56.4	56.3	Between LOAEL and SOAEL	-0.1	Negligible	NO	56.4	56.2	Between LOAEL and SOAEL	-0.2	Negligible	NO
(R49) Bicester Road	66.2	66.2	≥SOAEL	0.0	No Change	NO	66.3	63.8	≥SOAEL	-2.5	Minor Beneficial	NO
(R50) 56 Ardely Road	59.9	58.8	Between LOAEL and SOAEL	-1.1	Negligible	NO	60.0	59.4	Between LOAEL and SOAEL	-0.6	Negligible	NO
(R51) Travelodge - North	61.6	60.8	Between LOAEL and SOAEL	-0.8	Negligible	NO	61.6	59.2	Between LOAEL and SOAEL	-2.4	Negligible	NO
(R52) Jersey Arms - East	69.1	68.2	≥SOAEL	-0.9	Negligible	NO	69.4	65.1	≥SOAEL	-4.3	Moderate Beneficial	NO
(R52) Jersey Arms - West	69.8	69.9	≥SOAEL	0.1	Negligible	NO	70.0	68.2	≥SOAEL	-1.8	Minor Beneficial	NO
T01 22 Fewcott Road	60.1	57.8	Between LOAEL and SOAEL	-2.3	Negligible	NO	60.3	58.7	Between LOAEL and SOAEL	-1.6	Negligible	NO
T02 North Street	59.9	60.2	Between LOAEL and SOAEL	0.3	Negligible	NO	60.2	59.8	Between LOAEL and SOAEL	-0.4	Negligible	NO
T03 Lower Heyford	58.3	58.2	Between LOAEL and SOAEL	-0.1	Negligible	NO	58.6	58.3	Between LOAEL and SOAEL	-0.3	Negligible	NO
T04 Rosebank	62.0	63.9	≥SOAEL	1.9	Minor Adverse	NO	62.8	61.6	Between LOAEL and SOAEL	-1.2	Negligible	NO
T05 17 Middleton Rd	57.5	59.0	Between LOAEL and SOAEL	1.5	Negligible	NO	58.0	57.2	Between LOAEL and SOAEL	-0.8	Negligible	NO
T06 Lovelynch House	64.0	64.2	≥SOAEL	0.2	Negligible	NO	64.0	64.7	≥SOAEL	0.7	Negligible	NO
T07 Isis Ave/Howes Lane	56.8	57.5	Between LOAEL and SOAEL	0.7	Negligible	NO	55.8	57.9	Between LOAEL and SOAEL	2.1	Negligible	NO
T08 Chesterton	69.4	69.4	≥SOAEL	0.0	No Change	NO	69.5	69.4	≥SOAEL	-0.1	Negligible	NO
T09 Trefoil Drive	41.1	40.2	<LOAEL	-0.9	-	NO	43.1	40.9	<LOAEL	-2.2	-	NO
T10 Isis Avenue	61.0	61.2	Between LOAEL and SOAEL	0.2	Negligible	NO	61.3	62.7	Between LOAEL and SOAEL	1.4	Negligible	NO
T11 Camp Road	60.4	60.0	Between LOAEL and SOAEL	-0.4	Negligible	NO	60.5	60.8	Between LOAEL and SOAEL	0.3	Negligible	NO
T12 Stoke Wood Lane	66.6	66.6	≥SOAEL	0.0	No Change	NO	66.6	66.5	≥SOAEL	-0.1	Negligible	NO
T13 The Green	60.0	60.1	Between LOAEL and SOAEL	0.1	Negligible	NO	60.0	60.0	Between LOAEL and SOAEL	0.0	No Change	NO
O1 St Marys Church	64.3	57.8	Between LOAEL and SOAEL	-6.5	Moderate Beneficial	NO	64.5	58.1	Between LOAEL and SOAEL	-6.4	Moderate Beneficial	NO

Receptor	2031 Opening Year - Day						2034 Completion Year - Day					
	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
O2 Ardley Village Hall S/E	68.7	63.6	≥SOAEL	-5.1	Major Beneficial	NO	69.0	63.7	≥SOAEL	-5.3	Major Beneficial	NO
O3 Ardley Playing Fields	61.4	59.8	Between LOAEL and SOAEL	-1.6	Negligible	NO	61.5	60.2	Between LOAEL and SOAEL	-1.3	Negligible	NO
O4 Ardley Woods	56.3	55.9	Between LOAEL and SOAEL	-0.4	Negligible	NO	56.4	56.2	Between LOAEL and SOAEL	-0.2	Negligible	NO
O5 Ardley Fields Quarry[1]	67.9	67.9	-	0.0	-	-	67.8	68.0	-	0.2	-	-
O6 Ardley Fields Ponds [1]	63.2	63.8	-	0.6	-	-	63.5	63.8	-	0.3	-	-
O7 The Heath Proposed DWS [1]	57.1	56.1	-	-1.0	-	-	57.5	60.3	-	2.8	-	-
O8 Upper Heyford Airfield [1]	52.6	50.7	-	-1.9	-	-	52.6	51.0	-	-1.6	-	-

Notes:
^This refers to whether a significant effect would occur once context has been taken into account.
1 These are non-residential ecological receptors which are considered in Chapter 6 Ecology.

Table 2 Prediction and assessment of night-time road traffic noise – 2031 opening year and 2034 completion year

Receptor	2031 Opening Year - Night						2034 Completion Year - Night					
	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
(R05) Crossroads Farm – South	42.4	43.7	Between LOAEL and SOAEL	1.3	Minor Adverse	NO	43.0	48.7	Between LOAEL and SOAEL	5.7	Major Adverse	NO
(R06) Quarry Cottages - South	47.7	47.6	Between LOAEL and SOAEL	-0.1	Negligible	NO	47.7	48.3	Between LOAEL and SOAEL	0.6	Negligible	NO
(R07) Fewcott Lodge – South	54.6	53.8	Between LOAEL and SOAEL	-0.8	Negligible	NO	54.7	53.4	Between LOAEL and SOAEL	-1.3	Minor Beneficial	NO
(R08) Almscar – North	52.7	52.4	Between LOAEL and SOAEL	-0.3	Negligible	NO	52.8	53.1	Between LOAEL and SOAEL	0.3	Negligible	NO
(R09) The Cottages – East	60.6	60.2	≥SOAEL	-0.4	Negligible	NO	60.5	60.2	≥SOAEL	-0.3	Negligible	NO
(R10) 26/28 Ardley Road – East	57.1	56.4	≥SOAEL	-0.7	Negligible	NO	57.1	57.1	≥SOAEL	0.0	No Change	NO
(R10) 26/28 Ardley Road - West	52.0	52.0	Between LOAEL and SOAEL	0.0	No Change	NO	52.2	52.7	Between LOAEL and SOAEL	0.5	Negligible	NO
(R11) 2/4 Ardley Road - East	59.6	57.8	≥SOAEL	-1.8	Minor Beneficial	NO	59.8	58.3	≥SOAEL	-1.5	Minor Beneficial	NO
(R11) 2/4 Ardley Road - South	55.9	55.0	≥SOAEL	-0.9	Negligible	NO	56.1	55.6	≥SOAEL	-0.5	Negligible	NO
(R13) Manor Farm Ardley - North	53.4	53.7	Between LOAEL and SOAEL	0.3	Negligible	NO	53.5	54.8	Between LOAEL and SOAEL	1.3	Minor Adverse	NO
(R14) Church Road - East	54.6	54.5	Between LOAEL and SOAEL	-0.1	Negligible	NO	54.7	54.9	Between LOAEL and SOAEL	0.2	Negligible	NO
(R16) Exton Cottage - North	59.7	59.2	≥SOAEL	-0.5	Negligible	NO	60.0	59.2	≥SOAEL	-0.8	Negligible	NO
(R16) Exton Cottage - South	54.7	51.7	Between LOAEL and SOAEL	-3.0	Moderate Beneficial	NO	54.9	52.5	Between LOAEL and SOAEL	-2.4	Minor Beneficial	NO
(R16) Exton Cottage - West	59.5	55.9	≥SOAEL	-3.6	Moderate Beneficial	NO	59.8	56.3	≥SOAEL	-3.5	Moderate Beneficial	NO
(R17) Fox & Hounds - West	60.6	52.8	Between LOAEL and SOAEL	-7.8	Major Beneficial	NO	60.9	54.2	Between LOAEL and SOAEL	-6.7	Major Beneficial	NO
(R18) 1 St Marys Walk - South	57.6	54.0	Between LOAEL and SOAEL	-3.6	Moderate Beneficial	NO	57.7	54.6	Between LOAEL and SOAEL	-3.1	Moderate Beneficial	NO
(R18) 1 St Marys Walk - West	60.0	52.0	Between LOAEL and SOAEL	-8.0	Major Beneficial	NO	60.2	53.4	Between LOAEL and SOAEL	-6.8	Major Beneficial	NO
(R19) Grooms Cottage - East	58.2	58.1	≥SOAEL	-0.1	Negligible	NO	58.2	58.3	≥SOAEL	0.1	Negligible	NO
(R19) Grooms Cottage - North	59.0	58.8	≥SOAEL	-0.2	Negligible	NO	59.1	59.0	≥SOAEL	-0.1	Negligible	NO
(R20) The Barnhouse Kennels - North	65.5	65.7	≥SOAEL	0.2	Negligible	NO	65.5	66.1	≥SOAEL	0.6	Negligible	NO
(R20) The Barnhouse Kennels - South	69.0	69.2	≥SOAEL	0.2	Negligible	NO	69.0	69.5	≥SOAEL	0.5	Negligible	NO
(R20) The Barnhouse Kennels - West	64.7	64.4	≥SOAEL	-0.3	Negligible	NO	64.7	64.8	≥SOAEL	0.1	Negligible	NO
(R21) Foxfield Farm - East	68.7	68.8	≥SOAEL	0.1	Negligible	NO	68.7	69.2	≥SOAEL	0.5	Negligible	NO
(R21) Foxfield Farm - North	66.8	67.0	≥SOAEL	0.2	Negligible	NO	66.9	67.2	≥SOAEL	0.3	Negligible	NO
(R22) Woodbine Cottage - West	55.9	55.9	≥SOAEL	0.0	No Change	NO	55.9	55.8	≥SOAEL	-0.1	Negligible	NO
(R23) 1/2 Jersey Cottages - East	64.6	54.8	Between LOAEL and SOAEL	-9.8	Major Beneficial	NO	65.0	55.2	≥SOAEL	-9.8	Major Beneficial	NO
(R24) 3 Station Road - East	57.9	57.6	≥SOAEL	-0.3	Negligible	NO	57.9	57.9	≥SOAEL	0.0	No Change	NO
(R24) 3 Station Road West -	61.5	50.6	Between LOAEL and SOAEL	-10.9	Major Beneficial	NO	61.9	51.4	Between LOAEL and SOAEL	-10.5	Major Beneficial	NO
(R26) The Bungalow - East	62.1	56.6	≥SOAEL	-5.5	Major Beneficial	NO	62.3	57.0	≥SOAEL	-5.3	Major Beneficial	NO
(R26) The Bungalow - South	58.7	54.8	Between LOAEL and SOAEL	-3.9	Moderate Beneficial	NO	58.9	55.2	≥SOAEL	-3.7	Moderate Beneficial	NO
(R27) Upland Cottage - East	57.9	57.9	≥SOAEL	0.0	No Change	NO	57.9	58.3	≥SOAEL	0.4	Negligible	NO
(R27) Upland Cottage - South	57.3	55.9	≥SOAEL	-1.4	Minor Beneficial	NO	57.4	56.5	≥SOAEL	-0.9	Negligible	NO
(R27) Upland Cottage - West	57.0	50.8	Between LOAEL and SOAEL	-6.2	Major Beneficial	NO	57.3	51.8	Between LOAEL and SOAEL	-5.5	Major Beneficial	NO
(R28) Ardley Fields Farm Cottages	60.8	62.4	≥SOAEL	1.6	Minor Adverse	NO	61.5	63.2	≥SOAEL	1.7	Minor Adverse	NO
(R34A) Richborough Estates - East	53.8	53.7	Between LOAEL and SOAEL	-0.1	Negligible	NO	53.9	54.0	Between LOAEL and SOAEL	0.1	Negligible	NO
(R35) 50 Duvall Park - North	54.9	55.0	≥SOAEL	0.1	Negligible	NO	55.3	56.4	≥SOAEL	1.1	Minor Adverse	YES

Receptor	2031 Opening Year - Night						2034 Completion Year - Night					
	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
(R36) Manor Farm - North	47.7	47.7	Between LOAEL and SOAEL	0.0	No Change	NO	47.7	48.2	Between LOAEL and SOAEL	0.5	Negligible	NO
(R37) 4 Manor Farm Cottages - East	53.9	54.0	Between LOAEL and SOAEL	0.1	Negligible	NO	53.9	53.0	Between LOAEL and SOAEL	-0.9	Negligible	NO
(R37) 4 Manor Farm Cottages - North	50.5	50.6	Between LOAEL and SOAEL	0.1	Negligible	NO	50.5	50.1	Between LOAEL and SOAEL	-0.4	Negligible	NO
(R38) 1 Manor Farm Cottages - South	55.0	55.1	≥SOAEL	0.1	Negligible	NO	55.0	53.3	Between LOAEL and SOAEL	-1.7	Minor Beneficial	NO
(R39) Dewars Farm - South	53.6	53.9	Between LOAEL and SOAEL	0.3	Negligible	NO	53.8	50.6	Between LOAEL and SOAEL	-3.2	Moderate Beneficial	NO
(R39) Dewars Farm - West	55.5	55.7	≥SOAEL	0.2	Negligible	NO	55.6	52.5	Between LOAEL and SOAEL	-3.1	Moderate Beneficial	NO
(R40) Dewars Farm Cottages - East	55.1	55.4	≥SOAEL	0.3	Negligible	NO	55.2	54.4	Between LOAEL and SOAEL	-0.8	Negligible	NO
(R40) Dewars Farm Cottages - West	62.6	63.4	≥SOAEL	0.8	Negligible	NO	62.8	59.2	≥SOAEL	-3.6	Moderate Beneficial	NO
(R41) Bucknell Lodge - West	56.3	56.3	≥SOAEL	0.0	No Change	NO	56.7	56.1	≥SOAEL	-0.6	Negligible	NO
(R46) Holly Tree House – East	52.8	52.9	Between LOAEL and SOAEL	0.1	Negligible	NO	52.7	52.9	Between LOAEL and SOAEL	0.2	Negligible	NO
(R46) Holly Tree House – West	59.3	59.5	≥SOAEL	0.2	Negligible	NO	59.6	57.7	≥SOAEL	-1.9	Minor Beneficial	NO
(R47) Chapel Cottage – East	54.1	54.1	Between LOAEL and SOAEL	0.0	No Change	NO	54.0	54.3	Between LOAEL and SOAEL	0.3	Negligible	NO
(R47) Chapel Cottage - North -	49.7	49.8	Between LOAEL and SOAEL	0.1	Negligible	NO	49.7	50.1	Between LOAEL and SOAEL	0.4	Negligible	NO
(R47) Chapel Cottage – South	52.7	52.9	Between LOAEL and SOAEL	0.2	Negligible	NO	52.7	52.6	Between LOAEL and SOAEL	-0.1	Negligible	NO
(R48) Gaygle Brook Cottage - East	56.3	56.6	≥SOAEL	0.3	Negligible	NO	56.3	55.8	≥SOAEL	-0.5	Negligible	NO
(R48) Gaygle Brook Cottage – North	57.4	57.7	≥SOAEL	0.3	Negligible	NO	57.5	56.0	≥SOAEL	-1.5	Minor Beneficial	NO
(R48A) Rigaletto - East	54.6	54.8	Between LOAEL and SOAEL	0.2	Negligible	NO	54.6	54.8	Between LOAEL and SOAEL	0.2	Negligible	NO
(R48A) Rigaletto - North	53.2	53.3	Between LOAEL and SOAEL	0.1	Negligible	NO	53.2	53.3	Between LOAEL and SOAEL	0.1	Negligible	NO
(R49) Bicester Road	60.0	60.4	≥SOAEL	0.4	Negligible	NO	60.1	57.6	≥SOAEL	-2.5	Minor Beneficial	NO
(R50) 56 Ardely Road	57.3	56.4	≥SOAEL	-0.9	Negligible	NO	57.3	57.2	≥SOAEL	-0.1	Negligible	NO
(R51) Travelodge - North	59.3	59.1	≥SOAEL	-0.2	Negligible	NO	59.4	57.8	≥SOAEL	-1.6	Minor Beneficial	NO
(R52) Jersey Arms - East	60.9	61.4	≥SOAEL	0.5	Negligible	NO	61.2	59.9	≥SOAEL	-1.3	Minor Beneficial	NO
(R52) Jersey Arms - West	63.0	63.2	≥SOAEL	0.2	Negligible	NO	63.2	61.5	≥SOAEL	-1.7	Minor Beneficial	NO
T01 22 Fewcott Road	54.0	52.9	Between LOAEL and SOAEL	-1.1	Minor Beneficial	NO	52.9	54.4	Between LOAEL and SOAEL	1.5	Minor Adverse	NO
T02 North Street	51.3	51.5	Between LOAEL and SOAEL	0.2	Negligible	NO	51.5	51.3	Between LOAEL and SOAEL	-0.2	Negligible	NO
T03 Lower Heyford	52.8	53.1	Between LOAEL and SOAEL	0.3	Negligible	NO	53.0	53.8	Between LOAEL and SOAEL	0.8	Negligible	NO
T04 Rosebank	55.7	57.0	≥SOAEL	1.3	Minor Adverse	YES	56.0	56.3	≥SOAEL	0.3	Negligible	NO
T05 7 Middleton Rd	54.1	54.6	Between LOAEL and SOAEL	0.5	Negligible	NO	54.2	54.2	Between LOAEL and SOAEL	0.0	No Change	NO
T06 Lovelynch House	60.1	60.4	≥SOAEL	0.3	Negligible	NO	60.1	61.2	≥SOAEL	1.1	Minor Adverse	YES
T07 Isis Ave/Howes Lane	52.4	51.8	Between LOAEL and SOAEL	-0.6	Negligible	NO	52.6	53.3	Between LOAEL and SOAEL	0.7	Negligible	NO
T08 Chesterton	60.8	61.0	≥SOAEL	0.2	Negligible	NO	61.0	60.7	≥SOAEL	-0.3	Negligible	NO
T09 Trefoil Drive	36.2	35.5	<LOAEL	-0.7	-	NO	38.1	36.2	<LOAEL	-1.9	-	NO
T10 Isis Avenue	55.6	55.8	≥SOAEL	0.2	Negligible	NO	56.0	57.7	≥SOAEL	1.7	Minor Adverse	YES
T11 Camp Road	53.5	53.5	Between LOAEL and SOAEL	0.0	No Change	NO	53.9	55.0	≥SOAEL	1.1	Minor Adverse	YES
T12 Stoke Wood Lane	60.8	61.1	≥SOAEL	0.3	Negligible	NO	60.8	61.3	≥SOAEL	0.5	Negligible	NO
T13 The Green	52.8	53.0	Between LOAEL and SOAEL	0.2	Negligible	NO	52.8	53.3	Between LOAEL and SOAEL	0.5	Negligible	NO
O1 St Marys Church FF	59.7	56.3	≥SOAEL	-3.4	Moderate Beneficial	NO	59.9	56.7	≥SOAEL	-3.2	Moderate Beneficial	NO

Receptor	2031 Opening Year - Night						2034 Completion Year - Night					
	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
O1 St Marys Church GF	58.3	54.5	Between LOAEL and SOAEL	-3.8	Moderate Beneficial	NO	58.5	54.9	Between LOAEL and SOAEL	-3.6	Moderate Beneficial	NO
O2 Ardley Village Hall FF S/E	63.8	60.2	≥SOAEL	-3.6	Moderate Beneficial	NO	64.2	60.9	≥SOAEL	-3.3	Moderate Beneficial	NO
O2 Ardley Village Hall GF S/E	62.5	59.0	≥SOAEL	-3.5	Moderate Beneficial	NO	62.9	59.7	≥SOAEL	-3.2	Moderate Beneficial	NO
O3 Ardley Playing Fields	57.3	56.4	≥SOAEL	-0.9	Negligible	NO	57.4	57.1	≥SOAEL	-0.3	Negligible	NO
O4 Ardley Woods	52.9	52.7	Between LOAEL and SOAEL	-0.2	Negligible	NO	52.9	53.2	Between LOAEL and SOAEL	0.3	Negligible	NO
O5 Ardley Fields Quarry[1]	64.8	64.9	-	0.1	-	-	64.7	65.1	-	0.4	-	-
O6 Ardley Fields Ponds [1]	56.9	58.4	-	1.5	-	-	57.2	58.7	-	1.5	-	-
O7 The Heath Proposed DWS[1]	50.2	49.7	-	-0.5	-	-	50.5	53.7	-	3.2	-	-
O8 Upper Heyford Airfield[1]	49.0	47.4	-	-1.6	-	-	49.0	48.0	-	-1.0	-	-

Notes:
^This refers to whether a significant effect would occur once context has been taken into account.
1 These are non-residential ecological receptors which are considered in Chapter 6 Ecology.

Table 3 Prediction and assessment of daytime road traffic noise – 2042 Sensitivity Test and 2034 Completion Year with Tritax Sensitivity Test

Receptor	2042 Sensitivity Test - Day						2034 Completion Year Sensitivity Test with Tritax - Day					
	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
(R05) Crossroads Farm - South	48.5	51.3	Between LOAEL and SOAEL	2.8	Negligible	NO	48.3	50.4	Between LOAEL and SOAEL	2.1	Negligible	NO
(R06) Quarry Cottages - South	48.4	48.4	<LOAEL	0.0	-	NO	48.2	48.4	<LOAEL	0.2	-	NO
(R07) Fewcott Lodge - South	60.0	58.2	Between LOAEL and SOAEL	-1.8	Negligible	NO	59.5	58.0	Between LOAEL and SOAEL	-1.5	Negligible	NO
(R08) Almscar - North	53.6	53.6	Between LOAEL and SOAEL	0.0	No Change	NO	53.7	53.5	Between LOAEL and SOAEL	-0.2	Negligible	NO
(R09) The Cottages - East	62.1	61.3	Between LOAEL and SOAEL	-0.8	Negligible	NO	61.9	61.3	Between LOAEL and SOAEL	-0.6	Negligible	NO
(R10) 26/28 Ardley Road - East	59.8	59.1	Between LOAEL and SOAEL	-0.7	Negligible	NO	59.7	59.0	Between LOAEL and SOAEL	-0.7	Negligible	NO
(R10) 26/28 Ardley Road - West	54.8	54.6	Between LOAEL and SOAEL	-0.2	Negligible	NO	54.6	54.4	Between LOAEL and SOAEL	-0.2	Negligible	NO
(R11) 2/4 Ardley Road - East	64.3	61.3	Between LOAEL and SOAEL	-3.0	Minor Beneficial	NO	63.9	61.0	Between LOAEL and SOAEL	-2.9	Negligible	NO
(R11) 2/4 Ardley Road - South	60.7	58.9	Between LOAEL and SOAEL	-1.8	Negligible	NO	60.3	58.5	Between LOAEL and SOAEL	-1.8	Negligible	NO
(R13) Manor Farm Ardley - North	55.9	56.9	Between LOAEL and SOAEL	1.0	Negligible	NO	55.5	56.4	Between LOAEL and SOAEL	0.9	Negligible	NO
(R14) Church Road – East	56.0	55.3	Between LOAEL and SOAEL	-0.7	Negligible	NO	55.9	55.4	Between LOAEL and SOAEL	-0.5	Negligible	NO
(R16) Exton Cottage – North	67.2	66.0	≥SOAEL	-1.2	Minor Beneficial	NO	66.1	64.8	≥SOAEL	-1.3	Minor Beneficial	NO
(R16) Exton Cottage – South	59.3	51.5	Between LOAEL and SOAEL	-7.8	Moderate Beneficial	NO	58.8	51.2	Between LOAEL and SOAEL	-7.6	Moderate Beneficial	NO
(R16) Exton Cottage – West	66.1	61.5	Between LOAEL and SOAEL	-4.6	Minor Beneficial	NO	65.3	60.3	Between LOAEL and SOAEL	-5.0	Moderate Beneficial	NO
(R17) Fox & Hounds – West	67.6	56.0	Between LOAEL and SOAEL	-11.6	Major Beneficial	NO	67.0	55.5	Between LOAEL and SOAEL	-11.5	Major Beneficial	NO
(R18) 1 St Marys Walk – South	62.7	54.7	Between LOAEL and SOAEL	-8.0	Moderate Beneficial	NO	62.1	54.7	Between LOAEL and SOAEL	-7.4	Moderate Beneficial	NO
(R18) 1 St Marys Walk – West	66.8	54.6	Between LOAEL and SOAEL	-12.2	Major Beneficial	NO	66.2	54.2	Between LOAEL and SOAEL	-12.0	Major Beneficial	NO
(R19) Grooms Cottage – East	60.6	60.4	Between LOAEL and SOAEL	-0.2	Negligible	NO	60.4	60.3	Between LOAEL and SOAEL	-0.1	Negligible	NO
(R19) Grooms Cottage – North	61.8	61.4	Between LOAEL and SOAEL	-0.4	Negligible	NO	61.6	61.2	Between LOAEL and SOAEL	-0.4	Negligible	NO
(R20) The Barnhouse Kennels – North	66.9	66.7	≥SOAEL	-0.2	Negligible	NO	66.7	66.7	≥SOAEL	0.0	No Change	NO
(R20) The Barnhouse Kennels - South	68.6	68.9	≥SOAEL	0.3	Negligible	NO	68.4	68.9	≥SOAEL	0.5	Negligible	NO
(R20) The Barnhouse Kennels - West	63.6	63.2	≥SOAEL	-0.4	Negligible	NO	63.2	62.7	Between LOAEL and SOAEL	-0.5	Negligible	NO
(R21) Foxfield Farm - East	70.6	70.5	≥SOAEL	-0.1	Negligible	NO	70.4	70.5	≥SOAEL	0.1	Negligible	NO
(R21) Foxfield Farm - North	67.8	67.2	≥SOAEL	-0.6	Negligible	NO	67.5	67.1	≥SOAEL	-0.4	Negligible	NO
(R22) Woodbine Cottage – West	58.4	58.1	Between LOAEL and SOAEL	-0.3	Negligible	NO	58.3	58.1	Between LOAEL and SOAEL	-0.2	Negligible	NO
(R23) 1/2 Jersey Cottages – East	72.5	56.3	Between LOAEL and SOAEL	-16.2	Major Beneficial	NO	72.1	56.2	Between LOAEL and SOAEL	-15.9	Major Beneficial	NO
(R24) 3 Station Road - East	60.1	59.9	Between LOAEL and SOAEL	-0.2	Negligible	NO	60.0	59.8	Between LOAEL and SOAEL	-0.2	Negligible	NO
(R24) 3 Station Road - West	68.1	50.7	Between LOAEL and SOAEL	-17.4	Major Beneficial	NO	67.7	50.5	Between LOAEL and SOAEL	-17.2	Major Beneficial	NO
(R26) The Bungalow - East	67.1	58.7	Between LOAEL and SOAEL	-8.4	Moderate Beneficial	NO	66.7	58.7	Between LOAEL and SOAEL	-8.0	Moderate Beneficial	NO
(R26) The Bungalow - South	62.0	56.0	Between LOAEL and SOAEL	-6.0	Moderate Beneficial	NO	61.7	56.0	Between LOAEL and SOAEL	-5.7	Moderate Beneficial	NO
(R27) Upland Cottage - East	60.1	60.4	Between LOAEL and SOAEL	0.3	Negligible	NO	60.0	60.3	Between LOAEL and SOAEL	0.3	Negligible	NO
(R27) Upland Cottage - South	61.3	57.7	Between LOAEL and SOAEL	-3.6	Minor Beneficial	NO	61.0	57.7	Between LOAEL and SOAEL	-3.3	Minor Beneficial	NO
(R27) Upland Cottage – West	62.8	51.4	Between LOAEL and SOAEL	-11.4	Major Beneficial	NO	62.3	51.1	Between LOAEL and SOAEL	-11.2	Major Beneficial	NO
(R28) Ardley Fields Farm Cottages	67.7	68.2	≥SOAEL	0.5	Negligible	NO	67.2	67.6	≥SOAEL	0.4	Negligible	NO
(R34A) Richborough Estates – East	59.8	59.9	Between LOAEL and SOAEL	0.1	Negligible	NO	59.7	59.8	Between LOAEL and SOAEL	0.1	Negligible	NO
(R35) 50 Duvall Park – North	63.0	63.7	≥SOAEL	0.7	Negligible	NO	63.1	63.4	≥SOAEL	0.3	Negligible	NO

Receptor	2042 Sensitivity Test - Day						2034 Completion Year Sensitivity Test with Tritax - Day					
	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
(R36) Manor Farm – North	48.1	48.9	<LOAEL	0.8	-	NO	48.1	48.6	<LOAEL	0.5	-	NO
(R37) 4 Manor Farm Cottages -East	58.0	56.8	Between LOAEL and SOAEL	-1.2	Negligible	NO	58.3	56.3	Between LOAEL and SOAEL	-2.0	Negligible	NO
(R37) 4 Manor Farm Cottages – North	54.1	53.7	Between LOAEL and SOAEL	-0.4	Negligible	NO	54.3	53.0	Between LOAEL and SOAEL	-1.3	Negligible	NO
(R38) 1 Manor Farm Cottages – South	59.6	56.9	Between LOAEL and SOAEL	-2.7	Negligible	NO	59.9	56.2	Between LOAEL and SOAEL	-3.7	Minor Beneficial	NO
(R39) Dewars Farm - South	59.4	55.1	Between LOAEL and SOAEL	-4.3	Minor Beneficial	NO	59.8	53.7	Between LOAEL and SOAEL	-6.1	Moderate Beneficial	NO
(R39) Dewars Farm - West	60.8	56.9	Between LOAEL and SOAEL	-3.9	Minor Beneficial	NO	61.2	55.8	Between LOAEL and SOAEL	-5.4	Moderate Beneficial	NO
(R40) Dewars Farm Cottages – East	59.1	58.1	Between LOAEL and SOAEL	-1.0	Negligible	NO	59.3	57.6	Between LOAEL and SOAEL	-1.7	Negligible	NO
(R40) Dewars Farm Cottages – West	71.0	67.3	≥SOAEL	-3.7	Moderate Beneficial	NO	71.4	64.6	≥SOAEL	-6.8	Major Beneficial	NO
(R41) Bucknell Lodge – West	65.6	63.2	≥SOAEL	-2.4	Minor Beneficial	NO	64.1	62.0	Between LOAEL and SOAEL	-2.1	Negligible	NO
(R46) Holly Tree House - East	55.3	55.7	Between LOAEL and SOAEL	0.4	Negligible	NO	55.4	55.6	Between LOAEL and SOAEL	0.2	Negligible	NO
(R46) Holly Tree House – West	66.5	65.2	≥SOAEL	-1.3	Minor Beneficial	NO	67.0	62.3	Between LOAEL and SOAEL	-4.7	Minor Beneficial	NO
(R47) Chapel Cottage – East	57.1	57.4	Between LOAEL and SOAEL	0.3	Negligible	NO	57.1	57.4	Between LOAEL and SOAEL	0.3	Negligible	NO
(R47) Chapel Cottage - North	51.3	51.7	Between LOAEL and SOAEL	0.4	Negligible	NO	51.4	51.4	Between LOAEL and SOAEL	0.0	No Change	NO
(R47) Chapel Cottage - South	55.8	55.2	Between LOAEL and SOAEL	-0.6	Negligible	NO	55.8	55.2	Between LOAEL and SOAEL	-0.6	Negligible	NO
(R48) Gaygle Brook Cottage - East	59.9	58.9	Between LOAEL and SOAEL	-1.0	Negligible	NO	60.0	58.7	Between LOAEL and SOAEL	-1.3	Negligible	NO
(R48) Gaygle Brook Cottage – North	61.8	59.8	Between LOAEL and SOAEL	-2.0	Negligible	NO	61.9	59.5	Between LOAEL and SOAEL	-2.4	Negligible	NO
(R48A) Rigaletto - East	57.8	57.8	Between LOAEL and SOAEL	0.0	No Change	NO	57.8	57.7	Between LOAEL and SOAEL	-0.1	Negligible	NO
(R48A) Rigaletto - North	56.4	56.3	Between LOAEL and SOAEL	-0.1	Negligible	NO	56.4	56.0	Between LOAEL and SOAEL	-0.4	Negligible	NO
(R49) Bicester Road	66.3	63.4	≥SOAEL	-2.9	Minor Beneficial	NO	66.3	63.1	≥SOAEL	-3.2	Moderate Beneficial	NO
(R50) 56 Ardely Road	60.1	59.5	Between LOAEL and SOAEL	-0.6	Negligible	NO	60.0	59.4	Between LOAEL and SOAEL	-0.6	Negligible	NO
(R51) Travelodge - North	61.7	59.5	Between LOAEL and SOAEL	-2.2	Negligible	NO	61.6	59.3	Between LOAEL and SOAEL	-2.3	Negligible	NO
(R52) Jersey Arms - East	69.0	67.7	≥SOAEL	-1.3	Minor Beneficial	NO	69.4	65.3	≥SOAEL	-4.1	Moderate Beneficial	NO
(R52) Jersey Arms - West	69.9	68.7	≥SOAEL	-1.2	Minor Beneficial	NO	70.0	68.2	≥SOAEL	-1.8	Minor Beneficial	NO
T01 22 Fewcott Road	60.6	59.1	Between LOAEL and SOAEL	-1.5	Negligible	NO	60.3	59.0	Between LOAEL and SOAEL	-1.3	Negligible	NO
T02 North Street	61.1	59.6	Between LOAEL and SOAEL	-1.5	Negligible	NO	60.2	60.0	Between LOAEL and SOAEL	-0.2	Negligible	NO
T03 Lower Heyford	58.4	58.4	Between LOAEL and SOAEL	0.0	No Change	NO	58.6	58.1	Between LOAEL and SOAEL	-0.5	Negligible	NO
T04 Rosebank	64.4	63.7	≥SOAEL	-0.7	Negligible	NO	62.8	62.1	Between LOAEL and SOAEL	-0.7	Negligible	NO
T05 17 Middleton Rd	59.0	57.8	Between LOAEL and SOAEL	-1.2	Negligible	NO	58.0	57.4	Between LOAEL and SOAEL	-0.6	Negligible	NO
T06 Lovelynch House	64.1	64.7	≥SOAEL	0.6	Negligible	NO	64.0	64.6	≥SOAEL	0.6	Negligible	NO
T07 Isis Ave/Howes Lane	57.5	58.3	Between LOAEL and SOAEL	0.8	Negligible	NO	55.8	57.9	Between LOAEL and SOAEL	2.1	Negligible	NO
T08 Chesterton	70.1	69.8	≥SOAEL	-0.3	Negligible	NO	69.5	69.4	≥SOAEL	-0.1	Negligible	NO
T09 Trefoil Drive	41.3	41.7	<LOAEL	0.4	-	NO	43.1	41.2	<LOAEL	-1.9	-	NO
T10 Isis Avenue	61.9	63.4	≥SOAEL	1.5	Minor Adverse	YES	61.3	62.7	Between LOAEL and SOAEL	1.4	Negligible	NO
T11 Camp Road	60.4	61.1	Between LOAEL and SOAEL	0.7	Negligible	NO	60.5	60.8	Between LOAEL and SOAEL	0.3	Negligible	NO
T12 Stoke Wood Lane	66.9	67.1	≥SOAEL	0.2	Negligible	NO	66.6	66.7	≥SOAEL	0.1	Negligible	NO
T13 The Green	59.3	60.0	Between LOAEL and SOAEL	0.7	Negligible	NO	60.0	59.9	Between LOAEL and SOAEL	-0.1	Negligible	NO
O1 St Marys Church	65.0	58.1	Between LOAEL and SOAEL	-6.9	Moderate Beneficial	NO	64.5	58.1	Between LOAEL and SOAEL	-6.4	Moderate Beneficial	NO

Receptor	2042 Sensitivity Test - Day						2034 Completion Year Sensitivity Test with Tritax - Day					
	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
O2 Ardley Village Hall S/E	69.3	64.2	≥SOAEL	-5.1	Major Beneficial	NO	69.0	63.8	≥SOAEL	-5.2	Major Beneficial	NO
O3 Ardley Playing Fields	61.7	60.4	Between LOAEL and SOAEL	-1.3	Negligible	NO	61.5	60.3	Between LOAEL and SOAEL	-1.2	Negligible	NO
O4 Ardley Woods	56.5	56.3	Between LOAEL and SOAEL	-0.2	Negligible	NO	56.4	56.3	Between LOAEL and SOAEL	-0.1	Negligible	NO
O5 Ardley Fields Quarry[1]	67.8	67.9	-	0.1	-	-	67.8	68.0	-	0.2	-	-
O6 Ardley Fields Ponds [1]	63.9	64.8	-	0.9	-	-	63.5	63.9	-	0.4	-	-
O7 The Heath Proposed DWS[1]	57.5	61.1	-	3.6	-	-	57.5	60.8	-	3.3	-	-
O8 Upper Heyford Airfield[1]	52.7	51.1	-	-1.6	-	-	52.6	51.1	-	-1.5	-	-

Note:
^This refers to whether a significant effect would occur once context has been taken into account.
1 These are non-residential ecological receptors which are considered in Chapter 6 Ecology.

Table 4 Prediction and assessment of night-time road traffic noise - 2042 Sensitivity Test and 2034 Completion Year with Tritax Sensitivity Test

Receptor	2042 Sensitivity Test - Night						2034 Completion Year Sensitivity Test with Tritax– Night					
	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
(R05) Crossroads Farm – South	44.2	48.7	Between LOAEL and SOAEL	4.5	Moderate Adverse	NO	43.0	48.8	Between LOAEL and SOAEL	5.8	Major Adverse	NO
(R06) Quarry Cottages - South	47.7	48.3	Between LOAEL and SOAEL	0.6	Negligible	NO	47.7	48.4	Between LOAEL and SOAEL	0.7	Negligible	NO
(R07) Fewcott Lodge – South	55.0	55.4	≥SOAEL	0.4	Negligible	NO	54.7	53.5	Between LOAEL and SOAEL	-1.2	Minor Beneficial	NO
(R08) Almscar – North	52.8	53.1	Between LOAEL and SOAEL	0.3	Negligible	NO	52.8	53.1	Between LOAEL and SOAEL	0.3	Negligible	NO
(R09) The Cottages – East	60.7	60.4	≥SOAEL	-0.3	Negligible	NO	60.5	60.5	≥SOAEL	0.0	No Change	NO
(R10) 26/28 Ardley Road – East	57.2	57.2	≥SOAEL	0.0	No Change	NO	57.1	57.1	≥SOAEL	0.0	No Change	NO
(R10) 26/28 Ardley Road - West	52.2	52.7	Between LOAEL and SOAEL	0.5	Negligible	NO	52.2	52.7	Between LOAEL and SOAEL	0.5	Negligible	NO
(R11) 2/4 Ardley Road - East	60.0	58.5	≥SOAEL	-1.5	Minor Beneficial	NO	59.8	58.4	≥SOAEL	-1.4	Minor Beneficial	NO
(R11) 2/4 Ardley Road - South	56.4	55.7	≥SOAEL	-0.7	Negligible	NO	56.1	55.7	≥SOAEL	-0.4	Negligible	NO
(R13) Manor Farm Ardley - North	53.6	54.9	Between LOAEL and SOAEL	1.3	Minor Adverse	NO	53.5	54.9	Between LOAEL and SOAEL	1.4	Minor Adverse	NO
(R14) Church Road - East	54.7	54.8	Between LOAEL and SOAEL	0.1	Negligible	NO	54.7	54.9	Between LOAEL and SOAEL	0.2	Negligible	NO
(R16) Exton Cottage - North	60.6	60.0	≥SOAEL	-0.6	Negligible	NO	60.0	59.4	≥SOAEL	-0.6	Negligible	NO
(R16) Exton Cottage - South	55.2	52.5	Between LOAEL and SOAEL	-2.7	Minor Beneficial	NO	54.9	52.5	Between LOAEL and SOAEL	-2.4	Minor Beneficial	NO
(R16) Exton Cottage - West	60.3	57.0	≥SOAEL	-3.3	Moderate Beneficial	NO	59.8	56.5	≥SOAEL	-3.3	Moderate Beneficial	NO
(R17) Fox & Hounds - West	61.4	54.3	Between LOAEL and SOAEL	-7.1	Major Beneficial	NO	60.9	54.3	Between LOAEL and SOAEL	-6.6	Major Beneficial	NO
(R18) 1 St Marys Walk - South	58.1	54.5	Between LOAEL and SOAEL	-3.6	Moderate Beneficial	NO	57.7	54.7	Between LOAEL and SOAEL	-3.0	Moderate Beneficial	NO
(R18) 1 St Marys Walk - West	60.7	53.5	Between LOAEL and SOAEL	-7.2	Major Beneficial	NO	60.2	53.5	Between LOAEL and SOAEL	-6.7	Major Beneficial	NO
(R19) Grooms Cottage - East	58.3	58.4	≥SOAEL	0.1	Negligible	NO	58.2	58.4	≥SOAEL	0.2	Negligible	NO
(R19) Grooms Cottage - North	59.2	59.1	≥SOAEL	-0.1	Negligible	NO	59.1	59.1	≥SOAEL	0.0	No Change	NO
(R20) The Barnhouse Kennels - North	65.5	66.1	≥SOAEL	0.6	Negligible	NO	65.5	66.2	≥SOAEL	0.7	Negligible	NO
(R20) The Barnhouse Kennels - South	69.1	69.5	≥SOAEL	0.4	Negligible	NO	69.0	69.6	≥SOAEL	0.6	Negligible	NO
(R20) The Barnhouse Kennels - West	64.8	64.9	≥SOAEL	0.1	Negligible	NO	64.7	64.9	≥SOAEL	0.2	Negligible	NO
(R21) Foxfield Farm - East	68.8	69.2	≥SOAEL	0.4	Negligible	NO	68.7	69.3	≥SOAEL	0.6	Negligible	NO
(R21) Foxfield Farm - North	67.0	67.3	≥SOAEL	0.3	Negligible	NO	66.9	67.3	≥SOAEL	0.4	Negligible	NO
(R22) Woodbine Cottage - West	56.0	55.8	≥SOAEL	-0.2	Negligible	NO	55.9	55.8	≥SOAEL	-0.1	Negligible	NO
(R23) 1/2 Jersey Cottages - East	65.5	55.2	≥SOAEL	-10.3	Major Beneficial	NO	65.0	55.3	≥SOAEL	-9.7	Major Beneficial	NO
(R24) 3 Station Road - East	58.0	57.8	≥SOAEL	-0.2	Negligible	NO	57.9	57.9	≥SOAEL	0.0	No Change	NO
(R24) 3 Station Road West -	62.4	51.4	Between LOAEL and SOAEL	-11.0	Major Beneficial	NO	61.9	51.4	Between LOAEL and SOAEL	-10.5	Major Beneficial	NO
(R26) The Bungalow - East	62.7	56.9	≥SOAEL	-5.8	Major Beneficial	NO	62.3	57.0	≥SOAEL	-5.3	Major Beneficial	NO
(R26) The Bungalow - South	59.2	55.2	≥SOAEL	-4.0	Moderate Beneficial	NO	58.9	55.3	≥SOAEL	-3.6	Moderate Beneficial	NO
(R27) Upland Cottage - East	58.0	58.3	≥SOAEL	0.3	Negligible	NO	57.9	58.4	≥SOAEL	0.5	Negligible	NO
(R27) Upland Cottage - South	57.6	56.4	≥SOAEL	-1.2	Minor Beneficial	NO	57.4	56.5	≥SOAEL	-0.9	Negligible	NO
(R27) Upland Cottage - West	57.7	51.9	Between LOAEL and SOAEL	-5.8	Major Beneficial	NO	57.3	51.9	Between LOAEL and SOAEL	-5.4	Major Beneficial	NO
(R28) Ardley Fields Farm Cottages	62.0	63.3	≥SOAEL	1.3	Minor Adverse	YES	61.5	63.3	≥SOAEL	1.8	Minor Adverse	YES
(R34A) Richborough Estates - East	54.1	54.3	Between LOAEL and SOAEL	0.2	Negligible	NO	53.9	54.1	Between LOAEL and SOAEL	0.2	Negligible	NO
(R35) 50 Duvall Park - North	55.2	56.7	≥SOAEL	1.5	Minor Adverse	YES	55.3	56.5	≥SOAEL	1.2	Minor Adverse	YES

Receptor	2042 Sensitivity Test - Night						2034 Completion Year Sensitivity Test with Tritax– Night					
	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
(R36) Manor Farm - North	47.7	48.4	Between LOAEL and SOAEL	0.7	Negligible	NO	47.7	48.3	Between LOAEL and SOAEL	0.6	Negligible	NO
(R37) 4 Manor Farm Cottages - East	53.7	53.1	Between LOAEL and SOAEL	-0.6	Negligible	NO	53.9	53.1	Between LOAEL and SOAEL	-0.8	Negligible	NO
(R37) 4 Manor Farm Cottages - North	50.4	50.3	Between LOAEL and SOAEL	-0.1	Negligible	NO	50.5	50.2	Between LOAEL and SOAEL	-0.3	Negligible	NO
(R38) 1 Manor Farm Cottages - South	54.8	53.4	Between LOAEL and SOAEL	-1.4	Minor Beneficial	NO	55.0	53.4	Between LOAEL and SOAEL	-1.6	Minor Beneficial	NO
(R39) Dewars Farm - South	53.6	50.8	Between LOAEL and SOAEL	-2.8	Minor Beneficial	NO	53.8	50.6	Between LOAEL and SOAEL	-3.2	Moderate Beneficial	NO
(R39) Dewars Farm - West	55.4	52.8	Between LOAEL and SOAEL	-2.6	Minor Beneficial	NO	55.6	52.6	Between LOAEL and SOAEL	-3.0	Moderate Beneficial	NO
(R40) Dewars Farm Cottages - East	55.0	54.6	Between LOAEL and SOAEL	-0.4	Negligible	NO	55.2	54.5	Between LOAEL and SOAEL	-0.7	Negligible	NO
(R40) Dewars Farm Cottages - West	62.6	60.7	≥SOAEL	-1.9	Minor Beneficial	NO	62.8	59.3	≥SOAEL	-3.5	Moderate Beneficial	NO
(R41) Bucknell Lodge - West	57.4	56.6	≥SOAEL	-0.8	Negligible	NO	56.7	56.2	≥SOAEL	-0.5	Negligible	NO
(R46) Holly Tree House – East	52.7	52.9	Between LOAEL and SOAEL	0.2	Negligible	NO	52.7	53.0	Between LOAEL and SOAEL	0.3	Negligible	NO
(R46) Holly Tree House – West	59.3	59.3	≥SOAEL	0.0	No Change	NO	59.6	57.8	≥SOAEL	-1.8	Minor Beneficial	NO
(R47) Chapel Cottage – East	53.9	54.2	Between LOAEL and SOAEL	0.3	Negligible	NO	54.0	54.3	Between LOAEL and SOAEL	0.3	Negligible	NO
(R47) Chapel Cottage - North -	49.6	50.2	Between LOAEL and SOAEL	0.6	Negligible	NO	49.7	50.2	Between LOAEL and SOAEL	0.5	Negligible	NO
(R47) Chapel Cottage – South	52.6	52.5	Between LOAEL and SOAEL	-0.1	Negligible	NO	52.7	52.6	Between LOAEL and SOAEL	-0.1	Negligible	NO
(R48) Gaygle Brook Cottage - East	56.4	55.6	≥SOAEL	-0.8	Negligible	NO	56.3	55.7	≥SOAEL	-0.6	Negligible	NO
(R48) Gaygle Brook Cottage – North	57.5	55.8	≥SOAEL	-1.7	Minor Beneficial	NO	57.5	55.7	≥SOAEL	-1.8	Minor Beneficial	NO
(R48A) Rigaletto - East	54.6	54.7	Between LOAEL and SOAEL	0.1	Negligible	NO	54.6	54.7	Between LOAEL and SOAEL	0.1	Negligible	NO
(R48A) Rigaletto - North	53.2	53.2	Between LOAEL and SOAEL	0.0	No Change	NO	53.2	53.2	Between LOAEL and SOAEL	0.0	No Change	NO
(R49) Bicester Road	60.2	56.6	≥SOAEL	-3.6	Moderate Beneficial	NO	60.1	56.8	≥SOAEL	-3.3	Moderate Beneficial	NO
(R50) 56 Ardely Road	57.4	57.3	≥SOAEL	-0.1	Negligible	NO	57.3	57.3	≥SOAEL	0.0	No Change	NO
(R51) Travelodge - North	59.4	58.0	≥SOAEL	-1.4	Minor Beneficial	NO	59.4	57.9	≥SOAEL	-1.5	Minor Beneficial	NO
(R52) Jersey Arms - East	61.1	61.0	≥SOAEL	-0.1	Negligible	NO	61.2	59.8	≥SOAEL	-1.4	Minor Beneficial	NO
(R52) Jersey Arms - West	63.3	61.1	≥SOAEL	-2.2	Minor Beneficial	NO	63.2	60.6	≥SOAEL	-2.6	Minor Beneficial	NO
T01 22 Fewcott Road	54.4	54.4	Between LOAEL and SOAEL	0.0	No Change	NO	52.9	54.6	Between LOAEL and SOAEL	1.7	Minor Adverse	NO
T02 North Street	52.1	51.2	Between LOAEL and SOAEL	-0.9	Negligible	NO	51.5	51.4	Between LOAEL and SOAEL	-0.1	Negligible	NO
T03 Lower Heyford	53.0	53.6	Between LOAEL and SOAEL	0.6	Negligible	NO	53.0	53.5	Between LOAEL and SOAEL	0.5	Negligible	NO
T04 Rosebank	57.1	57.5	≥SOAEL	0.4	Negligible	NO	56.0	56.6	≥SOAEL	0.6	Negligible	NO
T05 7 Middleton Rd	54.5	54.2	Between LOAEL and SOAEL	-0.3	Negligible	NO	54.2	54.3	Between LOAEL and SOAEL	0.1	Negligible	NO
T06 Lovelynch House	60.2	61.1	≥SOAEL	0.9	Negligible	NO	60.1	61.2	≥SOAEL	1.1	Minor Adverse	YES
T07 Isis Ave/Howes Lane	52.8	53.6	Between LOAEL and SOAEL	0.8	Negligible	NO	52.6	53.4	Between LOAEL and SOAEL	0.8	Negligible	NO
T08 Chesterton	61.7	61.2	≥SOAEL	-0.5	Negligible	NO	61.0	60.7	≥SOAEL	-0.3	Negligible	NO
T09 Trefoil Drive	36.2	36.9	<LOAEL	0.7	-	NO	38.1	36.3	<LOAEL	-1.8	-	NO
T10 Esis Avenue	56.4	58.3	≥SOAEL	1.9	Minor Adverse	YES	56.0	57.8	≥SOAEL	1.8	Minor Adverse	YES
T11 Camp Road	53.7	55.2	≥SOAEL	1.5	Minor Adverse	YES	53.9	55.1	≥SOAEL	1.2	Minor Adverse	YES
T12 Stoke Wood Lane	61.1	62.7	≥SOAEL	1.6	Minor Adverse	YES	60.8	61.4	≥SOAEL	0.6	Negligible	NO
T13 The Green	52.2	53.3	Between LOAEL and SOAEL	1.1	Minor Adverse	NO	52.8	53.2	Between LOAEL and SOAEL	0.4	Negligible	NO
O1 St Marys Church FF	60.3	56.7	≥SOAEL	-3.6	Moderate Beneficial	NO	59.9	56.8	≥SOAEL	-3.1	Moderate Beneficial	NO

Receptor	2042 Sensitivity Test - Night						2034 Completion Year Sensitivity Test with Tritax– Night					
	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^	DM $L_{Aeq,8hr}$ (dB)	DS $L_{Aeq,8hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect^
O1 St Marys Church GF	58.9	54.9	Between LOAEL and SOAEL	-4.0	Moderate Beneficial	NO	58.5	55.0	≥SOAEL	-3.5	Moderate Beneficial	NO
O2 Ardley Village Hall FF S/E	64.4	61.2	≥SOAEL	-3.2	Moderate Beneficial	NO	64.2	61.0	≥SOAEL	-3.2	Moderate Beneficial	NO
O2 Ardley Village Hall GF S/E	63.1	60.0	≥SOAEL	-3.1	Moderate Beneficial	NO	62.9	59.8	≥SOAEL	-3.1	Moderate Beneficial	NO
O3 Ardley Playing Fields	57.5	57.2	≥SOAEL	-0.3	Negligible	NO	57.4	57.1	≥SOAEL	-0.3	Negligible	NO
O4 Ardley Woods	53.0	53.2	Between LOAEL and SOAEL	0.2	Negligible	NO	52.9	53.3	Between LOAEL and SOAEL	0.4	Negligible	NO
O5 Ardley Fields Quarry[1]	64.7	64.9	-	0.2	-	-	64.7	65.1	-	0.4	-	-
O6 Ardley Fields Ponds [1]	57.6	59.2	-	1.6	-	-	57.2	58.9	-	1.7	-	-
O7 The Heath Proposed DWS[1]	50.4	54.3	-	3.9	-	-	50.5	54.1	-	3.6	-	-
O8 Upper Heyford Airfield[1]	49.1	48.0	-	-1.1	-	-	49.0	48.0	-	-1.0	-	-

Note
^This refers to whether a significant effect would occur once context has been taken into account.
1 These are non-residential ecological receptors which are considered in Chapter 6 Ecology.

Table 5 Prediction and assessment of road traffic noise taking the Framework Travel Plan modal shift into account

Scenario	Receptor	Day					
		DM $L_{Aeq,16hr}$ (dB)	DS $L_{Aeq,16hr}$ (dB)	DS Effect Level	Change	Impact Magnitude	Significant Effect
2034 Day (Core ES Scenario)	T10 Isis Avenue GF	61.3	62.6	Between LOAEL and SOAEL	1.3	Negligible	NO
2042 Day (For information only)	T10 Isis Avenue GF	61.9	63.2	≥SOAEL	1.3	Minor Adverse	YES
		Night					
Scenario	**Receptor**	**DM $L_{Aeq,8hr}$ (dB)**	**DS $L_{Aeq,8hr}$ (dB)**	**DS Effect Level**	**Change**	**Impact Magnitude**	**Significant Effect**
2034 Night (Core ES Scenario)	R35 50 Duvall Park – North	55.3	56.2	≥SOAEL	0.9	Negligible	NO
	T11 Camp Road	53.9	54.9	Between LOAEL and SOAEL	1.0	Minor Adverse	NO
	T06 Lovelynch House*	60.1 ~~66.9~~	61.0 ~~67.6~~	≥SOAEL	0.~~7~~9	Negligible	NO
	T10 Isis Avenue*	56.0 ~~64.7~~	57.6 ~~65.9~~	≥SOAEL	1.6~~2~~	Minor Adverse	YES
2042 Night (For information only)	R35 50 Duvall Park – North	55.2	56.5	≥SOAEL	1.3	Minor Adverse	YES
	T11 Camp Road	53.7	55.0	≥SOAEL	1.3	Minor Adverse	YES
	T06 Lovelynch House*	60.2 ~~62.2~~	60.9 ~~62.9~~	≥SOAEL	0.7	Negligible	NO
	T10 Isis Avenue*	56.4 ~~58.4~~	58.1 ~~60.1~~	≥SOAEL	1.7	Minor Adverse	YES

Note:
* in preparing this updated Addendum to include Figure 1 and Table 6 to show the eligible properties, it was noticed that the predicted noise levels for T06 and T10 at night were incorrect. The correct results are now reported, the changes do not alter the DS effect level, impact magnitude or the significance of any effects from those reported previously, therefore no changes to ES Chapter 5 Noise and Vibration are required.

Figure 1 Noise Impact Plan Showing Properties Eligible for Noise Mitigation Offer

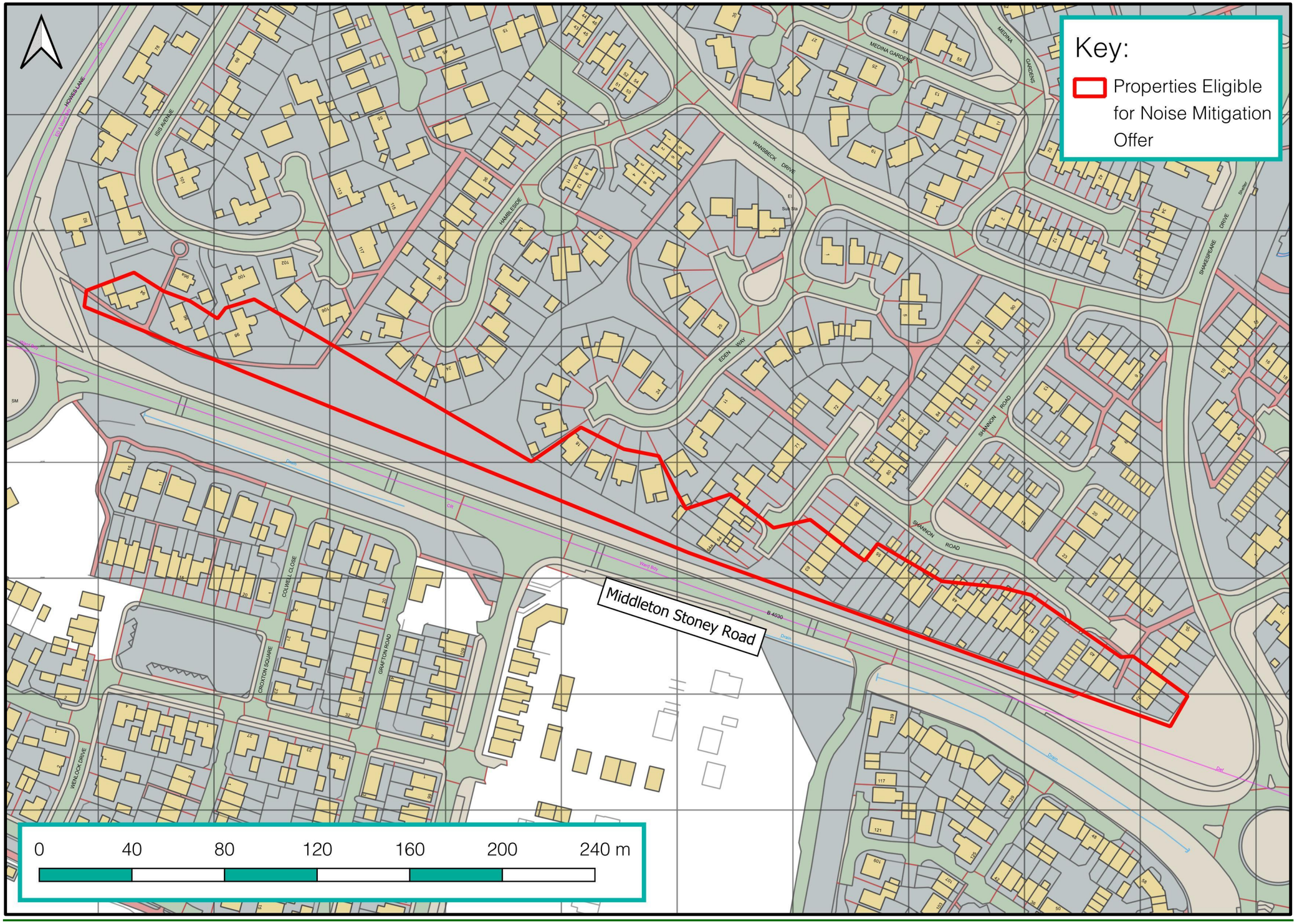


Table 6 List of Eligible Properties

Road	Eligible Properties
Isis Avenue	86 Isis Avenue, Bicester, OX26 2GS 94 Isis Avenue, Bicester, OX26 2GS 96 Isis Avenue, Bicester, OX26 2GS
Eden Way	15 Eden Way, Bicester, OX26 2RP 16 Eden Way, Bicester, OX26 2RP 17 Eden Way, Bicester, OX26 2RP 18 Eden Way, Bicester, OX26 2RP
Shannon Road	35 Shannon Road, Bicester, OX25 2RN 36 Shannon Road, Bicester, OX25 2RN 37 Shannon Road, Bicester, OX25 2RN 38 Shannon Road, Bicester, OX25 2RN 39 Shannon Road, Bicester, OX25 2RN 40 Shannon Road, Bicester, OX25 2RN 41 Shannon Road, Bicester, OX25 2RN 42 Shannon Road, Bicester, OX25 2RN 43 Shannon Road, Bicester, OX25 2RN 44 Shannon Road, Bicester, OX25 2RN 45 Shannon Road, Bicester, OX25 2RN 46 Shannon Road, Bicester, OX25 2RN 47 Shannon Road, Bicester, OX25 2RN 48 Shannon Road, Bicester, OX25 2RN 49 Shannon Road, Bicester, OX25 2RN 50 Shannon Road, Bicester, OX25 2RN 51 Shannon Road, Bicester, OX25 2RN 52 Shannon Road, Bicester, OX25 2RN 53 Shannon Road, Bicester, OX25 2RN 54 Shannon Road, Bicester, OX25 2RN 55 Shannon Road, Bicester, OX25 2RN 61 Shannon Road, Bicester, OX25 2RN 61 Shannon Road, Bicester, OX25 2RN 62 Shannon Road, Bicester, OX25 2RN 63 Shannon Road, Bicester, OX25 2RN 64 Shannon Road, Bicester, OX25 2RN 64a Shannon Road, Bicester, OX25 2RN 65 Shannon Road, Bicester, OX25 2RN 66 Shannon Road, Bicester, OX25 2RN 67 Shannon Road, Bicester, OX25 2RN