

**Table 8-9 Criteria to define whether a property qualifies for insulation under the Noise Insulation Regulations 1975 (as amended 1988)**

Provision	Criteria
NIR 7(1)	Distance < 300m from the nearest point of the carriageway to alter.
NIR 2(1)/4(1)	RNL $\geq$ 68dB $L_{A10,18h}$ façade (with 67.5dB rounded up).
NIR 3(2)a/4(2)b	RNL – PNL $\geq$ +1dB(A)
NIR 3(2)b/4(2)b	RNL – L'B $\geq$ +1dB(A)

Source: Noise Insulation Regulations 1975 (as amended 1988). For the acronyms see CRTN, Department of Transport, 1988, Annex 1.

### Cost-benefit analysis of enhancement measures

- 8.3.25 A value for money score has been used to determine whether each proposed enhancement measures is sustainable in line with government policy. The value for money score is the ratio of the benefits (present value benefits) to the costs (present value costs) of an enhancement measure. A value for money score of greater than one indicates that the benefits outweigh the costs and represents a sustainable solution.
- 8.3.26 Further detail on the cost-benefit methodology and background including limitations can be found in Appendix E-6.

## 8.4 Baseline conditions

- 8.4.1 Baseline noise levels have been predicted for all receptors within the calculation area. The areas which are currently predicted to be exposed to noise levels above the SOAEL of 68 dB  $L_{A10,18hr}$  daytime or 55 dB  $L_{night,outside}$  are shown within the dashed red lines on Figures 8-2 to 8-6.
- 8.4.2 At present nearly 1,000 properties are estimated to experience noise levels in excess of the daytime SOAEL of 68 dB  $L_{A10,18hr}$ .
- 8.4.3 A noise survey was undertaken in December 2016 to gain further understanding of the noise environment including non-road traffic noise sources. A summary of the findings of the noise survey is presented in Table 8-10.
- 8.4.4 Sample attended noise measurements were undertaken at 12 locations on 7<sup>th</sup> and 8<sup>th</sup> December 2016 using a mixture of the CRTN shortened measurement and comparative measurement procedures. Unattended longer term monitoring was undertaken using noise loggers at a further five locations over the period 7<sup>th</sup> to 13<sup>th</sup> December. The  $L_{A10,18hr}$  noise level has been determined from the measurements undertaken at each location. Additionally the  $L_{Aeq,16hr}$  and  $L_{Aeq,8hr}$  noise levels are shown for daytime and night-time for the logger positions. The  $L_{A10,18hr}$  noise level is most applicable to the general assessment of road traffic noise whilst the  $L_{Aeq}$  noise levels are applicable to construction noise assessment and also to changes in night-time traffic noise.
- 8.4.5 Further details of the noise survey are presented in Appendix E.4. Noise monitoring locations are shown on Figure 8-1.

**Table 8-10 Summary of Noise Measurement Results**

Position	Approximate Address	Approximate Distance to M20 (metres)	Measured Noise Level		
			dB $L_{A10, 18hr}$ (Day)	dB $L_{Aeq, 16hr}$ (Day)	dB $L_{Aeq, 8hr}$ (Night)
1	Forstal House, Roughetts Road Ryarsh, West Malling ME19 5LF	15	76	-	-
2	Old School Lane Ryarsh, West Malling	65	70	-	-

Position	Approximate Address	Approximate Distance to M20 (metres)	Measured Noise Level		
			dB L <sub>A10</sub> , 18hr (Day)	dB L <sub>Aeq</sub> , 16hr (Day)	dB L <sub>Aeq</sub> , 8hr (Night)
	ME19				
3	East Street North, Ryarsh, West Malling ME19 5DQ	35	72	-	-
3a	East Street Addington ME19 5DH	55	64	-	-
4	4 Roughetts Row Ryarsh West Malling ME19 5LE	20	73	-	-
5	181 Birling Road Leybourne, West Malling ME19 5HX	20	73	-	-
6*	Spiders Hall, Park Road Leybourne, West Malling ME19 5HP	85	61	60	56
7*	33 Willow Road Leybourne, Aylesford ME20 6QZ	25	62	62	58
8	12 Carroll Gardens Larkfield, Aylesford ME20 6NQ	35	70	-	-
9	18 Thackeray Road Larkfield, Aylesford ME20 6TJ	25	69	-	-
10	Parish Office, New Hythe Ln, Larkfield, Aylesford ME20 6QH	20	69	-	-
11*	18 Blackthorn Drive, Larkfield, Aylesford ME20 6NR	25	69	69	65
12	100 Teapot Lane, Larkfield, Aylesford ME20 7JT	25	64	-	-
13	131 Hall Road	25	78	-	-

Position	Approximate Address	Approximate Distance to M20 (metres)	Measured Noise Level		
			dB L <sub>A10</sub> , 18hr (Day)	dB L <sub>Aeq</sub> , 16hr (Day)	dB L <sub>Aeq</sub> , 8hr (Night)
	Royal British Legion Village, Aylesford ME20 7QS				
14	32 East Park Road, Royal British Legion Village, Aylesford ME20 7NP	150	65	-	-
15*	131 Station Road, Ditton, Aylesford ME20 6AZ	40	67	66	63
16	Little Ryarsh Wood West Malling	140	61	-	-
17*	2 London Road East, Royal British Legion Village, Aylesford ME20 7NN	460	58	57	53

\* Unattended noise logger positions.

- 8.4.6 The noise survey has shown that currently the closest unscreened properties to the M20 are subject to daytime noise levels in excess of 70 dB L<sub>A10</sub>,18hr.