

Appendix 12.4

Operational Road Traffic Assessment

Road traffic noise assessment

This appendix provides the results of the initial traffic noise modelling study for assessment stages 2b and 2c.

The basic noise level (BNL), which is the level at 10m from the carriageway edge, has been calculated in accordance with CRTN based on data provided by the project transport consultant. Results are presented in terms of BNL because this enables a direct comparison of the change in noise level associated with particular sections of road.

The following traffic datasets have been used for the operational assessment:

- 2022 Do-Minimum (short-term future baseline without Application 4 or wider SRF) – denoted as **DM**
- 2027 Do-Something 1 (long-term scenario corresponding to assessment stage 2b, with Application 4 [Red Bank Built Development] completed) – denoted as **DS1**
- 2027 Do-Something 2 (long-term scenario corresponding to assessment stage 2c, with both Application 4 [Red Bank Built Development] and wider SRF completed) – denoted as **DS2**

The method for determining potential significant effects is described in the Noise and Vibration ES chapter. In summary, the traffic noise levels for the Do-Something (with scheme) scenarios for both assessment stages 2b and 2c have been compared with the 2022 Do-Minimum (DM) (without scheme) scenario to establish the magnitude of change. Depending on the policy effect level, impact magnitudes and potential significant effects can then be determined.

Link	18hr AAWT			% HGVs			Average speed, kph			BNL at 10m, dBL _{A10,18hr}			Change in noise, dB		Policy effect level	Impact magnitude
	2022	2022	2027	2022	2022	2027	2022	2022	2027	2022	2022	2027	Assessment stage 2b	Assessment stage 2c		
	DM	DS1	DS2	DM	DS1	DS2	DM	DS1	DS2	DM	DS1	DS2	DS1-DM	DS2-DM		
Red Bank (south of Honey Street)	7573	8604	8604	2%	2%	2%	50	50	50	66.0	66.5	66.5	0.6 dB	0.6 dB	LOAEL	Negligible
North Street/Red Bank (north of Honey Street)	7696	9613	9613	2%	2%	2%	50	50	50	66.1	67.0	67.0	0.9 dB	0.9 dB	LOAEL	Negligible
Honey Street	369	390	390	10%	10%	10%	50	50	50	55.0	55.3	55.3	0.3 dB	0.3 dB	LOAEL	Negligible
Knowsley Street (east of Cheetham Hill Road)	926	978	978	3%	4%	4%	50	50	50	57.2	57.5	57.5	0.3 dB	0.3 dB	LOAEL	Negligible
Cheetham H Road (north of Knowsley Street)	25589	27022	27478	2%	2%	2%	50	50	50	71.1	71.3	71.4	0.3 dB	0.3 dB	SOAEL	Negligible
Cheetham H Road (south of Knowsley Street)	25610	27044	27501	2%	2%	2%	50	50	50	71.1	71.4	71.4	0.3 dB	0.3 dB	SOAEL	Negligible
Roger Street	2111	2229	2229	1%	1%	1%	50	50	50	59.8	60.1	60.1	0.3 dB	0.3 dB	LOAEL	Negligible
Lord Street	6111	7207	7207	2%	2%	2%	50	50	50	65.1	65.8	65.8	0.7 dB	0.7 dB	LOAEL	Negligible
Red Bank (north of Roger St)	7845	9771	9771	2%	2%	2%	50	50	50	66.1	67.0	67.0	0.9 dB	0.9 dB	LOAEL	Negligible
Red Bank (south of Roger St)	2111	2962	2962	1%	1%	1%	50	50	50	59.8	61.3	61.3	1.5 dB	1.5 dB	LOAEL	Negligible
Cheetham H Road (north of Lord St)	24984	26384	26840	2%	2%	2%	50	50	50	71.0	71.3	71.3	0.3 dB	0.3 dB	SOAEL	Negligible
Cheetham H Road (south of Lord St)	27681	29942	30366	2%	2%	2%	50	50	50	71.5	71.8	71.9	0.4 dB	0.4 dB	SOAEL	Negligible
Lord Street (west of CHR)	2715	2992	3166	3%	3%	3%	50	50	50	61.8	62.2	62.4	0.4 dB	0.7 dB	LOAEL	Negligible

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	2022	2022	2027	2022	2022	2027	2022	2022	2027	2022	2022	2027	Assessment stage 2b	Assessment stage 2c		
	DM	DS1	DS2	DM	DS1	DS2	DM	DS1	DS2	DM	DS1	DS2	DS1-DM	DS2-DM		
Lord Street (east of CHR)	6422	7535	7535	2%	2%	2%	50	50	50	65.3	66.0	66.0	0.7 dB	0.7 dB	LOAEL	Negligible
Cheetham Hill Road (north of Trinity Way)	27723	29987	30411	2%	2%	2%	50	50	50	71.5	71.9	71.9	0.4 dB	0.4 dB	SOAEL	Negligible
Cheetham Hill Road (south of Trinity Way)	43358	46271	47810	3%	3%	3%	50	50	50	73.8	74.1	74.2	0.3 dB	0.4 dB	SOAEL	Negligible
Trinity Way	41151	44108	45838	3%	3%	3%	50	50	50	73.7	74.0	74.2	0.3 dB	0.5 dB	SOAEL	Negligible
Angel Street	20108	22076	23843	3%	3%	3%	50	50	50	70.4	70.8	71.1	0.4 dB	0.7 dB	SOAEL	Negligible
Aspin Ln	18677	19966	21323	3%	3%	3%	50	50	50	70.1	70.4	70.7	0.3 dB	0.6 dB	SOAEL	Negligible
Rochdale Road	15470	16547	18139	3%	3%	3%	50	50	50	69.2	69.5	69.9	0.3 dB	0.7 dB	SOAEL	Negligible
Rochdale Road (north of Angel Street)	15575	16531	19270	3%	3%	3%	50	50	50	69.3	69.6	70.1	0.3 dB	0.9 dB	SOAEL	Negligible
Rochdale Road (north of Gould Street)	9386	9995	12734	3%	3%	2%	50	50	50	67.0	67.4	68.3	0.3 dB	1.2 dB	SOAEL	Minor
Queens Road (west of Cheetham Hill Road)	15319	16177	16177	2%	2%	2%	50	50	50	68.9	69.2	69.2	0.3 dB	0.3 dB	SOAEL	Negligible
Cheetham Hill Road (south of Queens Road)	19129	20808	20898	1%	1%	1%	50	50	50	69.6	70.0	70.0	0.4 dB	0.4 dB	SOAEL	Negligible
Queens Road (east of Cheetham Hill Road)	20256	21943	22578	2%	2%	2%	50	50	50	70.2	70.6	70.7	0.4 dB	0.5 dB	SOAEL	Negligible
Queens Road (west of Rochdale Road)	20256	21943	22578	2%	2%	2%	50	50	50	70.2	70.6	70.7	0.4 dB	0.5 dB	SOAEL	Negligible
Rochdale Road (south of Queens Road)	14807	15804	17554	1%	1%	1%	50	50	50	68.5	68.9	69.3	0.3 dB	0.7 dB	SOAEL	Negligible
Queens Road (east of Rochdale Road)	18141	19405	20256	2%	3%	2%	50	50	50	69.8	70.2	70.3	0.3 dB	0.5 dB	SOAEL	Negligible

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	2022	2022	2027	2022	2022	2027	2022	2022	2027	2022	2022	2027	Assessment stage 2b	Assessment stage 2c		
	DM	DS1	DS2	DM	DS1	DS2	DM	DS1	DS2	DM	DS1	DS2	DS1-DM	DS2-DM		
Collyhurst Road (south of Queens Road)	5998	6628	8096	2%	2%	2%	50	50	50	64.7	65.2	66.0	0.5 dB	1.3 dB	LOAEL	Negligible
Collyhurst Road (south of Smedley Road)	5998	6628	7144	2%	2%	2%	50	50	50	64.7	65.2	65.5	0.5 dB	0.8 dB	LOAEL	Negligible