Table 12.10: Detailed measurement results

Location	Measured Noise (dB (A))					Comments
	L_{min}	L_{90}	L_{eq}	L_{10}	L_{max}	
	Day time					
Kiln Lane	45.2	48.3	52.6	54.2	70.7	Ambient noise generally dominated by road traffic on main road and bird song. Also contributions from Tessenderlo and garage, Occasional vehicle movements, revving engines, reversing alarms and impact noises. Also more local domestic noise, vehicles passing on Kiln Lane infrequently. Occasional light aircraft overflights.
	44.9	48.3	52.7	54.9	69.5	
Macc Road	41.6	52.0	70.3	74.2	88.9	Microphone 5 m from c'way edge. Road very busy, with mixed traffic including occasional tractors and numerous HGVs.
	42.3	52.7	69.8	74.2	85.1	As above, including helicopter overflight.
	39.6	52.6	69.5	73.9	84.0	Slightly less traffic between 13:30 and 14:00, then seemingly increasing.
Abbey Green Road, Jcn Park Rd	38.9	41.0	54.3	53.9	75.6	No single noise dominant; mix of distant rtn, occasional noises from commercial units, high speed saw noise from DS Pine Mill and occasional vehicle drive-bys. Measurement includes noise of car door slamming approx 40m away.
	39.7	42.1	54.1	49.5	76.5	Several vehicles passing including Fedex delivery van at speed. Noticeable increase in wind and noise from wind in adjacent trees.
41 - 53 Abbey Green Road	36.8	38.6	50.9	50.3	75.5	Much quieter location; distant road traffic and general urban noise. Bird song dominant. Variety of noises from commercial area including bangs, shouting, reversing alarms and distant fan noise
	35.9	39.2	55.5	59.4	73.6	Much as above, but many more vehicles passing along road by measurement location.
	38.3	40.4	50.4	50.0	72.7	

Location	Measured Noise (dB (A))					Comments
	L_{min}	L_{90}	L_{eq}	L_{10}	L_{max}	
	Night time					
Kiln Lane	42.9	44.0	46.5	49.3	57.1	Ambient noise dominated by audible plant equipment noise from Tessenderlo, principally cooling tower fans. Occasional noise of vehicles on Main road, contribute significant noise level, particularly travelling uphill out of town.
	44.2	45.2	46.2	47.3	51.2	Measurement includes body clatter of HGV of large aggregate HGV. Also more cars than previous measurement.
	42.2	43.3	44.4	45.6	51.5	
Macc Road	32.9	34.4	53.7	47.1	72.6	A passageway beside No 51, 3m from carriageway edge. Can still hear distant fan noise from Tessenderlo. Occasional impact noise from the site. 2 vehicles pass.
	33.5	35.0	58.6	49.7	79.4	Passage of UPS truck with large trailer.
	33.0	34.1	35.6	37.2	44.8	No vehicles passed.
Abbey Green Road, Jcn Park Rd	32.8	34.2	35.5	37.0	41.3	Can still hear plant noise from Tessenderlo, but quite distant.
	33.5	34.4	36.1	38.1	44.5	Passage of bus on main road.
41 - 53 Abbey Green Road	32.0	33.3	35.5	35.8	50.5	Clear line of sight to Tessenderlo. Surprisingly noisy noise from fans at Tessenderlo. Car on main road very clearly audible.
	30.4	31.5	32.8	33.6	52.6	

Table 12.11: Detailed calculation Table for time-averaged night-time delivery vehicle noise

Receptor	HGV in	HGV out	HGV in service yard	Unload delivery	Car parks	Employ. Delivery (x3)	Delivery noise level	Limit	Impact
	(Haul Route)	(Haul Route)	(5 mins)	(50 mins)		($L_{Aeq, 1h}$)	(dB $L_{Aeq, 1h}$)	(dB $L_{Aeq,1h}$)	(dB)
17 Abbey Green Rd	20.8	20.6	13.2	15.1	25.9	27.4	30.9	45.0	-14.1
22 Abbey Green Rd	24.0	23.9	17.1	19.1	26.9	30.6	33.5	45.0	-11.5
40 Abbey Green Rd	22.7	22.5	12.0	19.2	28.4	29.3	33.0	45.0	-12.0
Bryn Hellig	21.3	21.8	24.9	31.2	14.1	29.2	34.4	45.0	-10.6
Kiln Lane	23.1	23.3	25.9	25.2	16.1	31.3	34.0	45.0	-11.0
101 Macclesfield Rd	20.6	20.4	22.1	36.6	13.0	23.2	37.2	45.0	-7.8
1 Grace St	18.2	19.6	16.5	17.1	5.3	34.8	35.1	45.0	-9.9
1 Thomas St	24.3	23.9	17.3	15.6	13.4	36.1	36.7	45.0	-8.3
2 Thomas St	34.2	33.8	16.8	20.5	20.9	41.8	43.1	45.0	-1.9
Proposed residential on access rd	45.3	46.8	17.0	18.5	29.8	53.4	54.8	45.0	**9.8**
Proposed residential facing car park	24.4	23.8	15.0	17.1	39.3	29.8	40.0	45.0	-5.0
Proposed residential at rear of retail units	34.9	36.4	15.8	17.2	25.6	41.5	43.4	45.0	-1.6

Table 12.12: Detailed calculation Table for maximum night-time delivery vehicle noise

Receptor	HGV in (Haul Route)	HGV out (Haul Route)	HGV in service yard	Unload delivery	Employ. Delivery	Delivery maximum noise level (dB L_{Amax})	Limit (dB L_{Amax})	Impact (dB)
17 Abbey Green Rd	46.0	45.9	31.7	36.0	44.7	46.0	60.0	-14.0
22 Abbey Green Rd	47.5	47.5	35.6	40.0	44.4	47.5		-12.5
40 Abbey Green Rd	46.1	46.3	30.5	40.1	43.7	46.3		-13.7
Bryn Hellig	44.1	44.0	43.4	52.1	43.6	52.1		-7.9
Kiln Lane	45.2	46.1	44.4	46.1	45.7	46.1		-13.9
101 Macclesfield Rd	45.0	44.7	40.6	57.5	44.0	57.5		-2.5
1 Grace St	46.1	47.3	35.0	38.0	54.3	54.3		-5.7
1 Thomas St	50.7	47.4	35.8	36.5	54.8	54.8		-5.2
2 Thomas St	61.6	60.0	35.3	41.4	61.9	61.9		**1.9**
Proposed residential on access rd	71.4	73.9	35.5	39.4	70.9	73.9		**13.9**
Proposed residential facing car park	49.4	49.1	33.5	38.0	44.9	49.4		-10.6
Proposed residential at rear of retail units	58.6	61.1	34.3	38.1	54.0	61.1		**1.1**

Table 12.13: Traffic data used for noise screening exercise

Link		Traffic data					Calculated noise		
		Baseline 2013		Baseline + Development		% Increase	Baseline	Baseline + Development	Impact
		AAWT	%HGV	AAWT	%HGV		(dB $L_{A10,18h}$)	(dB $L_{A10,18h}$)	(dB)
1a	A523 Macclesfield Rd (west off Site access)	10725	2.7	11103	1.8	4	67.5	67.3	-0.2
1b	A523 Macclesfield Rd (between site access & Belle Vue Rd)	10574	2.8	18411	2.0	74	67.4	69.6	2.1
2	Site Access (off A523 Macclesfield Road)	-	-	7813	1.2	-	-	*65.5*	*65.5*
1c	A523 Macclesfield Rd (between Belle Vue Rd & Abbey Green Rd)	9935	2.4	15764	2.0	59	67.0	68.9	1.9
3	Belle Vue Road	2614	2.8	3894	1.8	49	61.3	62.7	1.4
4a	Abbey Green Road (between A523 Macc Rd and Site Access)	959	0.0	1178	0.6	23	55.9	57.0	1.1
5	Residential Access (off Abbey Green Road)	-	-	454	1.4	-	-	53.2	53.2
4b	Abbey Green Road (north of Site access)	612	0.0	689	0.0	13	53.9	54.5	0.5
1d	A523 Mill St (between Abbey Green Rd & Church St)	9908	3.6	15974	2.7	61	67.4	69.2	1.8
6	Church St	5730	0.8	6719	0.7	17	64.0	64.6	0.6
1e	A523 Church St (between Church St and St Edwards St)	13140	2.6	18383	2.3	40	68.3	69.6	1.4
1f	A523 Stockwell St (between Ball Haye St & St Edwards St)	10137	3.1	12713	2.4	25	67.3	68.1	0.7
7a	St Edwards St (between Broad St and A523 Church St)	8952	2.2	11186	2.5	25	66.5	67.6	1.1
9a	Broad St	10670	2.6	11699	2.7	10	67.4	67.8	0.4
9b	Brook St	11037	2.1	11087	2.0	0	67.4	67.3	0.0
7b	Compton	12691	2.0	13845	1.2	9	67.9	68.0	0.1
10a	Ball Haye St (N)	7369	3.7	7740	2.7	5	66.2	66.0	-0.1
1g	Buxton Road	10321	2.3	11920	2.0	15	67.2	67.7	0.5
10b	Ball Haye St (S)	4747	1.7	5298	1.5	12	63.5	63.9	0.4