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*Appendix 6A*  
Baseline Noise Survey  
Details

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## Appendix 6A – Baseline Noise Survey Details

Loc.	Date	Time	Dur. (min.)	Parameters				Traffic Count	Comment
				L <sub>Aeq</sub>	L <sub>A10</sub>	L <sub>A90</sub>	L <sub>Amax</sub>		
1	20/5/08	10:58	15	66.4	65.5	44.0	87.7	25 – Cars 12 - HGV	Traffic on the R400 road was the main noise source
	20/5/08	15:57	15	59.5	64.0	45.5	75.3	30 – Cars 5 – HGV	As above
	20/5/08	16:12	15	64.4	67.0	46.0	82.9	35 – Cars 6 – HGV	As above
	20/5/08	19:28	15	64.4	66.0	38.5	91.0	41 – Car	As above
	20/5/08	22:30	15	57.7	52.5	33.0	80.3	12 – Car	As above
2	21/5/08	02:03	15	34.4	36.0	21.0	59.8	-	Quiet, no traffic
	20/5/08	15:20	15	45.0	48.0	38.5	58.3	-	Background factory noise and background R400 traffic noise
	20/5/08	15:38	15	45.7	48.5	39.0	60.2	-	As above
	20/5/08	16:32	15	49.4	52.0	42.0	64.5	-	As above
	20/5/08	19:12	15	47.7	50.0	41.5	-	-	As above
	20/5/08	22:55	15	31.8	39.5	23.0	54.9	-	Distant traffic on R400, otherwise no other noise
	21/5/08	01:33	15	30.0	26.5	22.5	54.8	-	Quiet field
	20/5/08	11:41	15	44.8	48.0	35.5	66.0	-	Birdsong and intermittent background traffic from R400
3	20/5/08	14:40	15	45.6	48.0	38.5	69.3	-	As above
	20/5/08	16:53	15	45.9	48.5	41.0	67.6	-	As above
	20/5/08	18:49	15	44.3	46.5	37.0	64.4	-	As above
	20/5/08	23:20	15	33.4	32.0	21.5	62.7	-	Distant traffic on R400, otherwise no other noise
	21/5/08	01:10	15	33.5	29.0	20.0	64.1	-	Quiet
4	20/5/08	12:04	15	63.9	64.5	39.0	84.5	21- Cars 9 – HGV	Traffic on the R400 road was the main noise source
	20/5/08	15:00	15	64.8	65.0	38.5	85.5	27 – Cars 5 – HGV	As above
	20/5/08	17:19	15	67.2	71.0	43.5	85.4	64 – Cars 7 – HGV	As above
	20/5/08	18:29	15	66.3	69.5	39.0	83.4	50 – Cars 4 - HGV	As above
	20/5/08	23:42	15	53.5	49.9	20.5	76.0	8 – Car	As above
	20/5/08	00:49	15	30.8	27.5	20.5	56.5	-	Quiet, no traffic
	20/5/08	12:21	15	56.1	51.5	43.0	85.0	2 – HGV	Background noise from nearby quarry
5	20/5/08	14:05	15	49.7	44.5	38.5	80.0	1 – HGV	As above
	20/5/08	17:49	15	46.4	48.0	40.0	62.7	-	As above
	20/5/08	18:05	15	47.5	50.5	39.5	63.7	1 – HGV	As above
	21/5/08	00:07	15	31.6	31.5	27.5	54.1	-	Quiet field
	20/5/08	00:24	15	32.0	32.0	20.0	54.2	-	As above

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*Appendix 6B*  
Construction Plant Teams  
and Associated Sound  
Power Levels

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## Appendix 6B – Construction Plant Teams and Associated Sound Power Levels

### (i) Phase 1

Construction Activity	Plant Items Used	Associated Sound Power Level (dBA)
Site Clearance/ Demolition	Lorry	105
	Dozer	116
	Loader	115
	Dump Truck	110
	Pneumatic Breaker – Brick work	117
	Tracked excavator fitted with breaker	124
Grading	Grader	112
	Dozer	116

### (ii) Phase 2

Construction Activity	Plant Items Used	Associated Sound Power Level (dBA)
Excavation	Lorry x 2	105
	Dozer x 2	116
	Tracked Excavator x 2	116
Piling (Driven and Bored)	Driven Piling Rig	125
	Bored Piling Rig	112
	Pile Cap Chipping	119
Pouring Foundations	Concrete Pump x 2	109
	Bored Pilling Rig x 2	112
	Compressor	100
	Poker Vibrator x 2	102
	Diesel Generator	92

### (iii) Phase 3

Construction Activity	Plant Items Used	Associated Sound Power Level (dBA)
Backfilling	Dump Truck	110
	Dozer	116
Excavation	Lorry	105
	Dozer	116
	Tracked Excavator	116
Structural Steelwork	Crane	112
	Compressor	100
	Generator	98

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*Appendix 6C*

Operational Plant, Noise  
Source Levels used in  
Noise Prediction Model

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### Appendix 6C – Operational Plant, Noise Source Levels Used in Noise Prediction Model

Power and Peaking Plant Component	Sound Power Level (L <sub>w</sub> dBA)
Gas Turbine Filter House	105
Gas Turbine Diffuser Extension Duct	114
Exhaust Stack of the Heat Recovery Steam Generator	107
Gas Reducing Station	98
Fuel Oil Systems (Fuel Pump)	103
Transformer	103
Air Cooled Condenser (Outlet)	108
Fin Fan Cooler (Outlet)	102

Building	Spatially Averaged Internal Sound Pressure Level (L <sub>i</sub> dBA)
Gas and Steam Turbine	85
Control Room	55
Workshop	85
Heat Recovery Steam Generator	85
Feed Water Pump Room	85
Gas Metering and Filtering Skid Room	85
Water Treatment Plant	85