

## **APPENDIX 9.2 BASELINE NOISE MONITORING**

## Appendix 9.2: Baseline Noise Monitoring

To inform the noise and vibration assessment required for the ES for Stag Brewery, Mortlake, a comprehensive noise survey was undertaken over a five-day period from Friday 24 June to Wednesday 29 June 2016, covering a typical weekday and weekend period in order to establish and quantify the existing noise climate at and within the vicinity of the Site.

### Baseline Noise Survey

The noise monitoring locations are shown on **Figure 9.1** and described below in **Table 9.2.1**.

Table 9.2.1: Noise Monitoring Locations

Monitoring Location (Refer to Figure 9.1)	Description	Observations and Predominant Noise Sources
LT1	Free-field measurement at the south-western Site boundary overlooking Lower Richmond Road (the A3003). Microphone located 1.2m AGL.	Noise climate dominated by constant vehicular traffic on Lower Richmond Road / Mortlake High Street. Although intermittent in comparison, noise from low flying aircraft movements in to Heathrow Airport (located approx. 11km to the east) was significant, with approximately one plane every minute going over the Site.
LT2	Façade measurement on the second floor of the Stag Brewery Co. building at the south-eastern Site boundary overlooking Mortlake High Street. Microphone located 6.0m AGL.	Contributory noise from human activities, distant road noise and distant aircraft also influence the noise climate to some extent.
LT3	Façade measurement on the boundary wall to the north-east of the Site overlooking the River Thames. Microphone located 4.0m AGL.	Noise climate dominated by aircraft noise, as detailed above. Contributory noise from local and distant road traffic and occasional passing cyclists and joggers on the footpath over the river.
LT4	Free-field measurement at the south-western boundary of the Site orientated towards Clifford Avenue/Chiswick Bridge (the A316). Microphone located 2.5m AGL.	Noise climate influenced by constant vehicular traffic on Clifford Avenue. Contributory noise from domestic activities from nearby residential dwellings.

A summary of the measured daytime (07:00 to 19:00), evening (19:00 to 23:00) and night-time (23:00 to 07:00) noise levels are presented in **Table 9.2.2**, with full results displayed graphically in time-history format below. A summary of attended short-term daytime measurement results are presented in **Table 9.2.3** out of completeness.

Table 9.2.2: Summary of Unattended (Long Term) Baseline Noise Measurements (free-field)

Monitoring Location (Figure 9.1)	Period	Duration	L <sub>Aeq,T</sub> dB		L <sub>A10,T</sub> dB		L <sub>A90,T</sub> dB		L <sub>AFmax,5min</sub> dB	
			Range	Ave <sup>1</sup>	Range	Ave <sup>2</sup>	Range	Ave <sup>2</sup> (Mode)	Range	90th Percentile <sup>3</sup>
LT1	Day	12hr	65 - 81	71	69 - 78	74	47 - 67	59 (61)	76 - 104	86
	Evening	4hr	65 - 77	69	69 - 75	73	43 - 62	52 (53)	74 - 98	83
	Night	8hr	43 - 73	65	41 - 76	65	33 - 63	42 (40)	56 - 98	83
LT2	Day	12hr	64 - 87	70	68 - 75	71	48 - 68	62 (63)	72 - 107	89
	Evening	4hr	60 - 79	68	64 - 74	69	43 - 66	57 (58)	70 - 102	85
	Night	8hr	42 - 79	63	42 - 74	63	32 - 64	43 (39)	57 - 99	80
LT3	Day	12hr	51 - 72	61	53 - 73	63	42 - 59	50 (51)	62 - 100	78
	Evening	4hr	43 - 76	59	46 - 69	61	38 - 53	47 (48)	50 - 98	75
	Night	8hr	38 - 66	55	41 - 71	51	34 - 54	42 (41)	46 - 82	73
LT4	Day	12hr	48 - 70	60	50 - 70	64	42 - 60	48 (48)	61 - 89	76
	Evening	4hr	44 - 63	58	46 - 68	61	38 - 52	46 (47)	49 - 83	74
	Night	8hr	35 - 66	55	38 - 70	50	31 - 54	39 (36)	43 - 79	73

**Notes:** <sup>1</sup> Logarithmic average over the day/evening/night survey periods; <sup>2</sup> Arithmetic average over the day/evening/night survey periods; <sup>3</sup> The 90<sup>th</sup> percentile L<sub>AFmax</sub> value (equivalent to the 10<sup>th</sup> highest measured L<sub>AFmax</sub> level) is presented and considered representative of typical L<sub>AFmax</sub> levels experienced. All figures rounded to nearest whole decibel.

Table 9.2.3: Summary of Attended (Short Term) Baseline Noise Measurements (free-field)

Monitoring Location (Figure 9.1)	Period	Duration	L <sub>Aeq,T</sub> dB	L <sub>A10,T</sub> dB	L <sub>A90,T</sub> dB	L <sub>AFmax,5min</sub> dB
			Ave <sup>1</sup>	Ave <sup>2</sup>	Ave <sup>2</sup>	Ave <sup>2</sup>
ST1	Day	30mins	61	64	54	74
ST2	Day	30mins	66	63	53	76
ST3	Day	25mins	75	78	65	88
ST4	Day	20mins	61	65	51	72
ST5	Day	20mins	61	64	50	77
ST6	Day	30mins	69	71	64	80
ST7	Day	20mins	65	68	57	76
CRTN	Day	3hrs	72	76	62	84

**Notes:** <sup>1</sup> Logarithmic average over the daytime survey periods; <sup>2</sup> Arithmetic average over the daytime survey periods. All figures rounded to nearest whole decibel.

Figures 9.2.1 to 9.2.4 present the time history plots of the long-term noise monitoring locations LT1 to LT4 respectively.

Figure 9.2.1: Time History Plot LT1

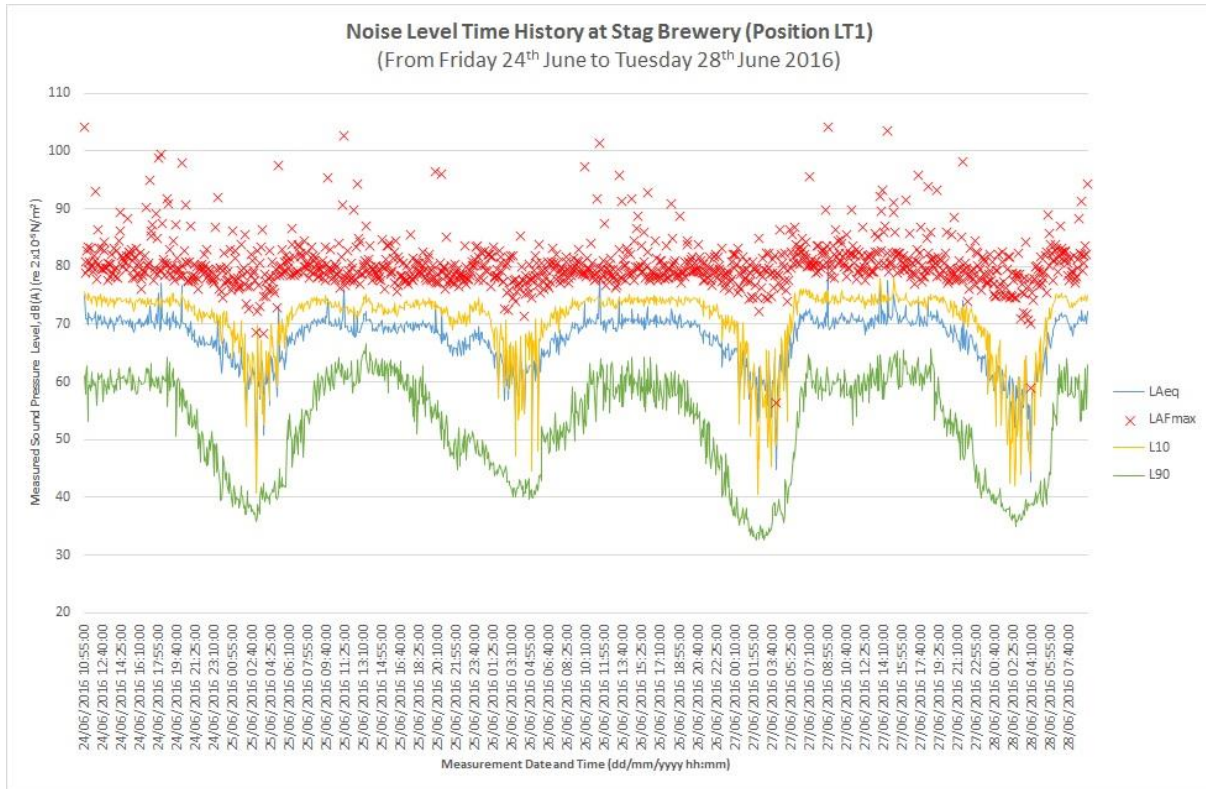


Figure 9.2.2: Time History Plot LT2

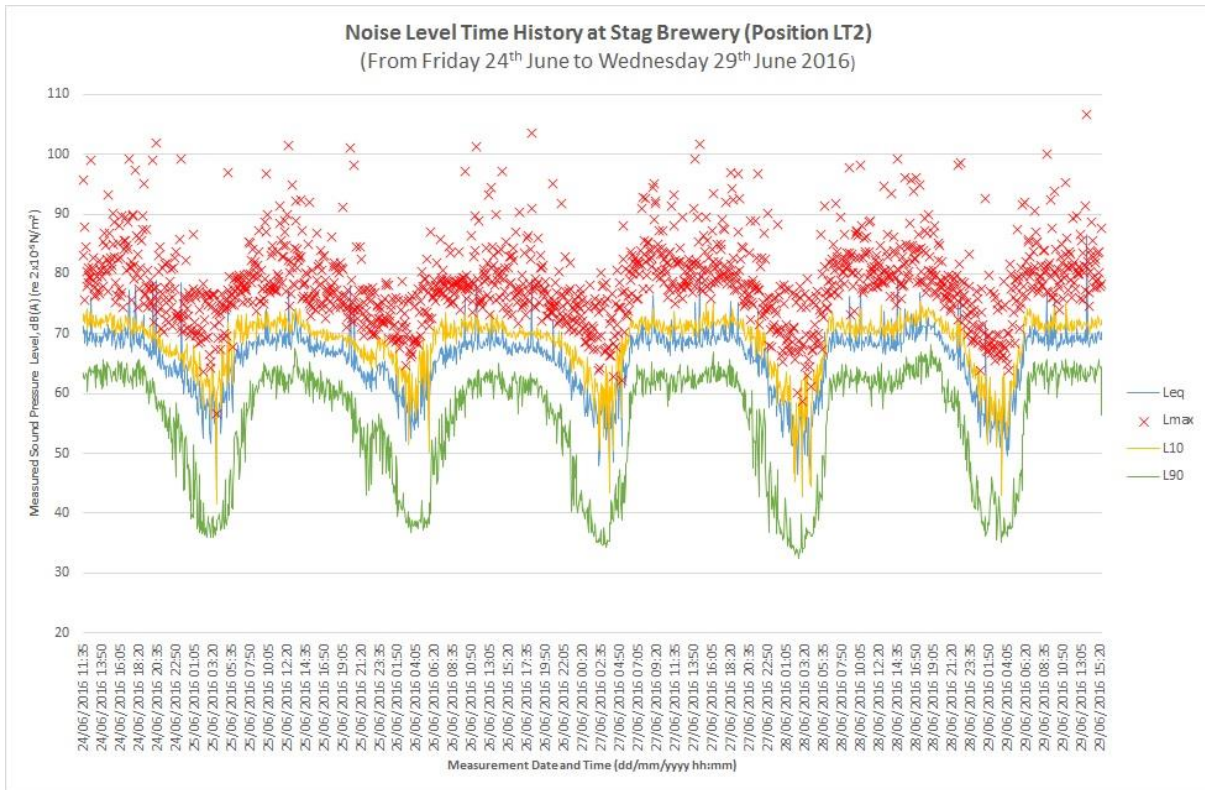


Figure 9.2.3: Time History Plot LT3

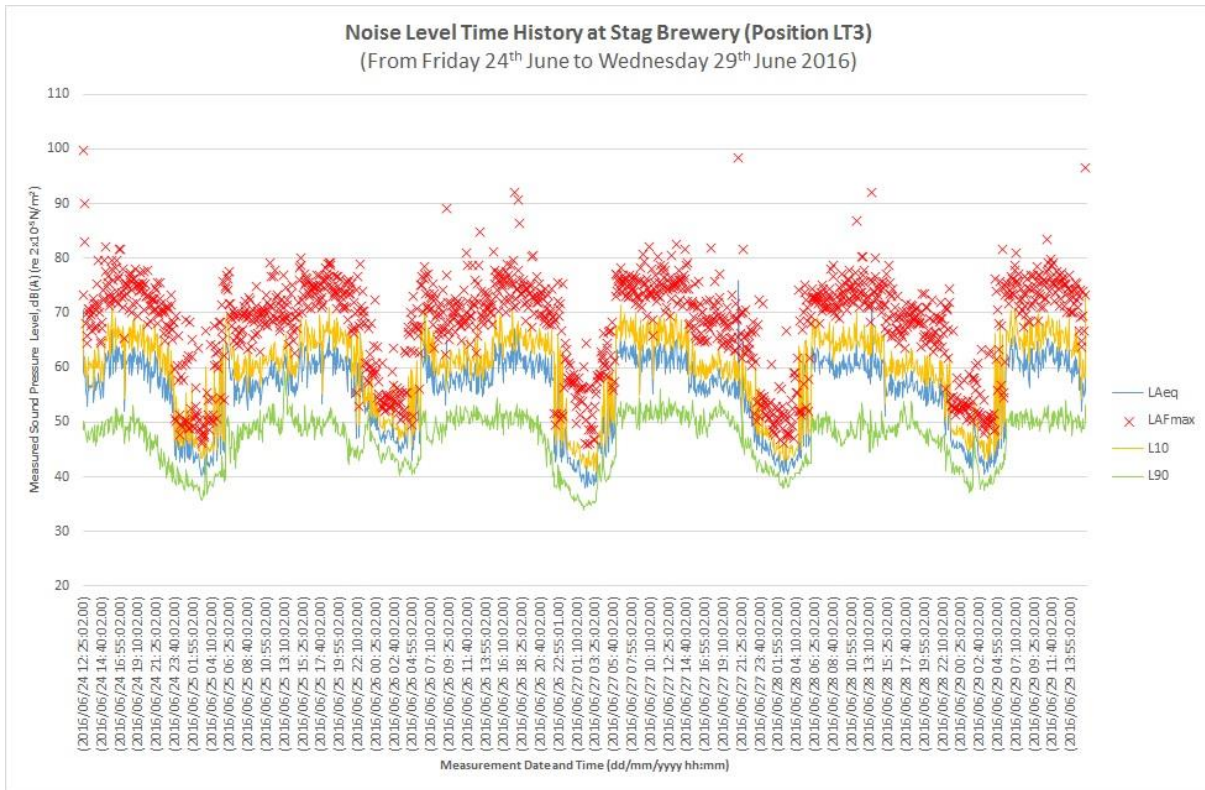




Figure 9.2.4: Time History Plot LT4

