NOISE SURVEY_{LTD}

Environmental Noise Measurements Moss Lane Ulnes Walton

Report Ref: UlnesWalston101

Client: Ulnes Walton Action Group

Site Location: Windy Harbour

Moss Lane PR26 8LX

Date of Issue: 6th June 2022

Date of Assessment: Wednesday 1st June 2022



Picture 1: Measurements conducted with a class 1 sound level meter (junction with HM Prison road)

Objective

The purpose of this report is to show noise levels on Moss Lane between 0630 - 0930 during suitable weather conditions.

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Source under Assessment

The measurements were all obtained on Moss Lane. The dominant noise source is road traffic noise. The location is characterized as a residential area.



Picture 2: Measurements obtained during suitable weather condition. Measurement location 1 is opposite Windy Harbour

Methodology

Measurements were attended and conducted between 0620 – 0935 on Wednesday 1st of June 2022. Measurements were taken at two locations on Moss Lane. The first location is opposite Windy Harbour and the second location is at the junction with HM Prison's access road. Both measurement locations are on Moss Lane.

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Each measurement was conducted using a class 1 sound level meters. Each meter was calibrated before and after the measurements successfully.

The measurement data in this report have not been edited, deleted or altered. Additionally, the meters were not paused at any time during the measurements. They have been presented and used in their entirety as was measured and logged by the class 1 sound level meters at the time.

Façade Correction

Façade measurements occur when the meter is in front of a large reflective surface at a distance of less than 3.5m away from the reflective surface. In order to convert measurements to free field equivalents, a façade correction is required. This is done by reducing the measured levels by up to 3dB. The meter was placed at a minimum distance of 3.5m from the nearest reflective surface. A façade correction is not required and has not been applied.



Picture 3: Façade correction is not required and has not been applied

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Noise Levels

Next to Windy Harbour, Moss Lane

Date	Time	LAFmx	LAeq	LAF90	LAF10
		dB	dB	dB	dB
01/06/2022	06:24:04	81.3	59.3	37.5	59
01/06/2022	06:54:04	83.4	59.7	37.5	55.5
01/06/2022	07:24:04	82.5	62.8	35.5	64
01/06/2022	07:54:04	84.1	59.7	32.5	59.5
01/06/2022	08:24:04	80.8	58.6	33	54
01/06/2022	08:54:04	80.4	58.9	36	57.5

Table 1: Measurements near Windy Harbour, Moss Lane.

The measurements taken outside Windy Harbour (Table 1) show;

Night Time: Measurements between 23:00 - 07:00

LAeq (30min) 59dB and a background level of LAF90(30min) 38dB

Day Time: Measurements between 07:00 - 23:00

LAeg(2 hours 30min) 60dB and a background LAF90(2 hours 30min) 33dB

Moss Lane, next to junction with HM Prison access road

Date	Time	LAFmx	LAeq	LAF90	LAF10.0
		dB	dB	dB	dB
01/06/2022	06:31:51	85	60.2	42.5	64
01/06/2022	07:01:51	82.9	63.9	46	68.5
01/06/2022	07:31:51	78.1	65.3	49.5	69.5
01/06/2022	08:01:51	89.6	62.1	41.5	66
01/06/2022	08:31:51	85.2	61	42	64.5
01/06/2022	09:01:51	80.3	59.3	41	62

Table 2: Measurements on Moss Lane, next to junction with HM Prison access road.

The measurements taken next the junction with HM Prison access road and Moss Lane (Table 2) show;

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Night Time: Measurements between 23:00 - 07:00

LAeq (30min) 60dB and a background level of LAF90(30min) 43dB

Day Time: Measurements between 07:00 - 23:00

LAeq(2 hours 30min) 63dB and a background LAF90(2 hours 30min) 42dB

Uncertainty

The noise levels were obtained by direct onsite measurements. The sound level meters was fitted with a wind shield and maintained on a tripod throughout the measurement period. Once readings were started, the sound level meter was free from human interference. This was done to minimize uncertainty in the readings.

In addition, the readings were taken during suitable weather conditions.

Uncertainty arises from changes in day to day noise levels. A these differences can be caused by an increase in the level of road traffic noise as well as the frequency of passing traffic. To account for day to day variations, an uncertainty factor of -/+4 dB has been added to the uncertainty calculation.

Laboratory calibration uncertainty of the sound level meter is ± 1 dB

$$u = \sqrt{a^2 + b^2 + c^2 \dots etc}$$

$$U = \sqrt{1} + 4^2$$

Uncertainty in the measurement is ± 4 dB

Signed:

Donald I Angir
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Noise Consultant
Noise Survey Ltd

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APPENDIX A

Measuring Equipment

- Casella Cel 490 type 1 sound level meter serial 230643 last calibrated July 2020 by Pennine Instrument Services Cert number 045963-1
- Casella Cel 490 type 1 sound level meter serial 056155 last calibrated
 September 2021 by Pennine Instrument Services Cert Number 050741 1
- Casella Acoustic Calibrator type 1 model cel 110/1. Last calibrated September 2021 by Pennine Instrument Services serial 138252 cert no.050741-2.
- Kane May Thermostat model KM330 serial: 723858
- Kaindl Electronic model: Windtronic 2 Anemometer.

Measuring Equipment & Calibration

At the beginning and at the end of measurements the meter was calibrated successfully with an acoustic calibrator before and after the measurements.

Weather Conditions

	Wind m/s	Cloud Cover	Temperature	Precipitation (rain)
		%(Subjective)	degrees	
			celcius	
06:20 Wednesday1st	1m/s	95%	9°C	None
June 2022				
09:45 Wednesday1st	1m/s	10%	14°C	None
June 2022				

Table 3: Weather conditions during measurement.