



Dun Laoghaire/Rathdown County Council

Longitude Festival 15th to 17th July 2016

Marlay Park, Dublin

Title: Noise Measurements Taken at Noise Sensitive locations surrounding Marlay Park while the Concerts are being held at the park.

Reading Taken: At the noise sensitive locations (NSL's) within the vicinity of Marlay Park.

Equipment Used: Hand Held Analyser, Bruel & Kjaer 2250 Light, Sound Level Meter

Prepared by: Noise Unit, DLRCC

Summary

The Noise Unit at Dun Laoghaire/Rathdown Co. Council has been requested to perform a noise assessment investigation for the Concerts being held at Marlay Park 2016.

This report details the equipment and measurement methods employed and presents an acoustic analysis of all data collected.

Objectives

The technical assessments were carried out:

1. To determine the ambient noise environment and background noise levels at the noise sensitive location(s) (NSL's) where monitoring has been carried out.
2. To relate the music noise level from the Marlay Parks Concerts to the noise conditions set down in the planning application and show a reasonable cause for annoyance or otherwise.
3. To assess if the complaints logged by local residents are justified.

Introduction

Marlay Park is located in Dun-laoghaire/Rathdown Co. Council and has been used for Longitude Festival concerts on Friday, 15th July to Sunday, 17th July 2016.

The condition relating to the event states that “The music noise level should not exceed 72dB(A) LAeq, over a fifteen-minute period, at one meter from the façade of any noise sensitive premises for events being held”

Description of the Noise Source

There is a stone wall approximately 1.5 – 2 metres high running along the park boundary between the nearest noise receptor location and the noise source. There are some tall trees and wooded areas within the park.

The primary noise nuisance is emitting from the live and recorded music featured on a single stage, with live music between approximately 02:00 and 23:00.

Description of the Noise Receiver

The closest noise sensitive area is situated on the Grange Road to the north and east of the park. Residents living in the area include young and old families.

Equipment and Measurement Set Up

The recorder used during the noise assessment was with a Hand Held Analyser, Bruel & Kjaer 2250 Light, Sound Level Meter.

Noise Equipment Specifications

Type: Class 1, 2250 Light, Hand-held analyser, Sound Level Meter (SLM)

Type: 4231 Class 1 Acoustic Calibrator

Manufacturer: Bruel & Kjaer

Weighted Setting: A-Weighting

Meter Response Time: Fast

Serial Number: 2638896

Measurement Set-Up

The sound level meter was calibrated before site visit and recordings were carried out.

Location: Outdoors in the noise sensitive location.

Orientation: Pointed towards the noise source.

Meteorological Conditions

Meteorological conditions can have a substantial influence on the propagation of sound and may provide important information for assessing noise compliance and a noise complaint. Wind speed and wind direction have the potential to affect the noise measurements. An average wind speed of less than 5m/s is the preferred limit when noise measurements are being taken.

The prevailing weather conditions at the time of measurement has been noted and recorded in the report. These occurrences may influence the final noise reading.

External Influences and limitations

Precautions were put in place to minimise outside interference. These include covering microphone with a wind shield to minimise outside interference and pausing the SLM if deemed necessary.

The Grange Road runs to the north and east of the Park. This appears to be a busy road to the north of the park with fewer vehicles using the eastern part of the road.

The M50 motorway runs approximately east to west to the south of the Park.

Road traffic noise and crowd noise were noted during the course of each monitoring session. These occurrences may influence the final noise reading.

Methodology

Noise levels were measured by a competent person for environmental noise monitoring, in accordance with EPA Environmental Noise Guidance Document and International Standard ISO 1996: Acoustics Description & Measurement of Environmental Noise.

Monitoring Position & Measurement Set Up

Parameters Used on the SLM: Ambient Noise Levels, LAeq, t and Background Noise, L90

Location of Sound Level Meter: Free-Field

The recorder was placed at least 3.5m from any wall or large reflecting surface.

SLM: 1.2 -1.5metres in height

Windshield Used: Yes

Orientation: Pointing the microphone at the noise source.

Date: 15.07.16

Noise Sensitive Location: Highfield Court

Calibration Deviation: -0.04

Sound Level Meter Reference No: 160715 074

Start Time: 18:41:53

Finish Time: 18:58:56

LAeq, 15 mins 69.7 dB

L90, 15 mins 62.9dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: 0.03

Sound Level Meter Reference No: 160715 075

Start Time: 19:03:29

Finish Time: 19:18:30

LAeq, 15 mins 70.6 dB

L90, 15 mins 63.2 dB

Noise Sensitive Location: Pine Valley Avenue

Calibration Deviation: 0.01

Sound Level Meter Reference No: 160715 076

Start Time: 19:22:18

Finish Time: 19:37:19

LAeq, 15 mins 65.5 dB

L90, 15 mins 60.8 dB

Noise Sensitive Location: Heather Drive

Calibration Deviation: 0.01

Sound Level Meter Reference No: 160715 077

Start Time: 19:44:20

Finish Time: 20:02:40

LAeq, 15 mins 68.2 dB

L90, 15 mins 63.5dB

Noise Sensitive Location: Manor Rise

Calibration Deviation: -0.02

Sound Level Meter Reference No: 160715 078

Start Time: 20:15:49

Finish Time: 20:31:55

LAeq, 15 mins 66.5 dB

L90, 15 mins 60.4 dB

Noise Sensitive Location: Highfield Court

Calibration Deviation: 0.01

Sound Level Meter Reference No: 160715 079

Start Time: 20:41:26

Finish Time: 20:58:46

LAeq, 15 mins 68 dB

L90, 15 mins 61 dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: 0.02

Sound Level Meter Reference No: 160715 080

Start Time: 21:03:19

Finish Time: 21:19:09

LAeq, 15 mins 65.9 dB

L90, 15 mins 62.9 dB

Noise Sensitive Location: La Touche Court

Calibration Deviation: -0.02

Sound Level Meter Reference No: 160715 081

Start Time: 21:43:31

Finish Time: 21:58:39

LAeq, 15 mins 71.2 dB

L90, 15 mins 65.4 dB

Date: 16.07.16

Noise Sensitive Location: Grange Wood

Calibration Deviation: 0.03

Sound Level Meter Reference No: 160716 082

Start Time: 14:01:08

Finish Time: 14:16:44

LAeq, 15 mins 63.5 dB

L90, 15 mins 58.2dB

Noise Sensitive Location: Heather Drive

Calibration Deviation: -0.03

Sound Level Meter Reference No: 160716 083

Start Time: 14:19:56

Finish Time: 14:34:57

L_{Aeq}, 15 mins 62.1 dB

L₉₀, 15 mins 57.7 dB

Noise Sensitive Location: Pine Valley Avenue

Calibration Deviation: 0.00

Sound Level Meter Reference No: 160716 084

Start Time: 14:39:29

Finish Time: 14:54:43

L_{Aeq}, 15mins 68.6 dB

L₉₀, 15 mins 63dB

Noise Sensitive Location: Highfield Court

Calibration Deviation: 0.04

Sound Level Meter Reference No: 160716 085

Start Time: 18:42:33

Finish Time: 18:57:34

L_{Aeq}, 15 mins 63.3 dB

L₉₀, 15 mins 57.7dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: -0.04

Sound Level Meter Reference No: 160716 086

Start Time: 19:02:27

Finish Time: 19:18:18

L_{Aeq}, 15 mins 71.4 dB

L₉₀, 15 mins 66.7dB

Noise Sensitive Location: Heather Drive

Calibration Deviation: 0.03

Sound Level Meter Reference No: 160716 088

Start Time: 19:23:10

Finish Time: 19:44:08

L_{Aeq}, 15 mins 65 dB

L₉₀, 15 mins 61.4dB

Noise Sensitive Location: Pine Valley Avenue

Calibration Deviation: -0.01

Sound Level Meter Reference No: 160716 089

Start Time: 19:49:41

Finish Time: 20:04:43

L_{Aeq}, 15 mins 65.4 dB

L₉₀, 15 mins 60.9dB

Noise Sensitive Location: Highfield Court

Calibration Deviation: -0.04

Sound Level Meter Reference No: 160716 090

Start Time: 20:10:30

Finish Time: 20:25:33

L_{Aeq}, 15 mins 64.8 dB

L₉₀, 15 mins 58.5dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: 0.02

Sound Level Meter Reference No: 160716 091

Start Time: 20:29:11

Finish Time: 20:44:12

L_{Aeq}, 15 mins 72.6 dB

L₉₀, 15 mins 62.8dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: -0.02

Sound Level Meter Reference No: 160716 096

Start Time: 21:42:48

Finish Time: 21:58:50

L_{Aeq}, 15 mins 72.1 dB

L₉₀, 15 mins 66.9dB

Date: 17.07.2016

Noise Sensitive Location: Highfield Court

Calibration Deviation: 0.08

Sound Level Meter Reference No: 160716 097

Start Time: 18:44:04

Finish Time: 18:59:05

L_{Aeq}, 15 mins 67.3 dB

L₉₀, 15 mins 57.1dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: -0.03

Sound Level Meter Reference No: 160716 098

Start Time: 19:03:20

Finish Time: 19:18:21

L_{Aeq}, 15 mins 65 dB

L₉₀, 15 mins 61.8dB

Noise Sensitive Location: Heather Drive

Calibration Deviation: 0.03

Sound Level Meter Reference No: 160716 099

Start Time: 19:36

Finish Time: 19:52:07

L_{Aeq}, 15 mins 68.2 dB

L₉₀, 15 mins 62.1dB

Noise Sensitive Location: Broadford Rise

Calibration Deviation: -0.10

Sound Level Meter Reference No: 160716 100

Start Time: 20:03:17

Finish Time: 20:19:22

LAeq, 15 mins 62.9 dB

L90, 15 mins 57.7dB

Noise Sensitive Location: Pine Valley Avenue

Calibration Deviation: -0.02

Sound Level Meter Reference No: 160716 101

Start Time: 20:27:34

Finish Time: 20:42:35

LAeq, 15 mins 67.5 dB

L90, 15 mins 61.5dB

Noise Sensitive Location: Heather Drive

Calibration Deviation: 0.02

Sound Level Meter Reference No: 160716 102

Start Time: 21:03:35

Finish Time: 21:18:39

LAeq, 15 mins 67 dB

L90, 15 mins 63.2dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: 0.01

Sound Level Meter Reference No: 160716 103

Start Time: 21:24:17

Finish Time: 21:44

L_{Aeq}, 15 mins 68.7 dB

L₉₀, 15 mins 64.3dB

Noise Sensitive Location: Heather Lawns

Calibration Deviation: -0.02

Sound Level Meter Reference No: 160716 104

Start Time: 21:45:38

Finish Time: 22:01:02

L_{Aeq}, 15 mins 65 dB

L₉₀, 15 mins 59.7dB

Meteorological Conditions:

Dry, warm

Approximate Temperature: 19 to 24 degrees Celsius

Moderate to gentle breeze from west-southwest

Discussion of Acoustic Analysis

Noise monitoring was carried out by the Noise Unit to determine compliance with the following licensed condition:

“The music noise level should not exceed 72dB(A) L_{Aeq}, over a fifteen-minute period, at one meter from the façade of any noise sensitive premises for events being held”.

There was no exceedance of 72dB(A) LAeq, over a fifteen-minute period for any of the monitoring sessions carried out.

Conclusion of Acoustic Analysis

Having given careful consideration to the monitoring readings, the Noise Unit for Dun-Laoghaire/Rathdown Co. Council have concluded that the noise emitted from the Longitude concert complied with the conditions set down in the planning application.