

29th October 2015

South Tyneside NHS Foundation Trust

Ref: KS 08-14-41127 NC2 Rev 01 DC

For the attention of: Michael Collins

Dear Mr Collins,

RE: South Tyneside Integrated Care Hub – Background Noise survey

Introduction

Stroma Technology (Stroma) has been commissioned by South Tyneside NHS Foundation to carry out background noise level measurements at the site of a new development at South Tyneside District Hospital, specifically, the South Tyneside Integrated Care Hub (STICH). The measurements are required in order to establish the prevailing background noise levels at the nearest noise-sensitive receptors surrounding the site. The purpose of this is to assess the impact of plant noise associated with the development on surrounding noise-sensitive receptors. It is likely that the development itself will also be a key noise-sensitive receptor.

The background noise level measurements will form the basis of a BS 4142 plant noise impact assessment. The report will be used to discharge any plant noise related planning condition and also act as evidence in order to achieve the plant BREEAM Noise Pollution Credit under Pol 05.

Noise Survey

The background noise level measurements were carried out by Kevin Shepherd of Stroma on 28th and 29th October 2014. The sound level meter was calibrated before and after use with no significant deviation observed. The weather was light rain at times with occasional dry periods, and wind speeds averaging 0.5 m/s.

Table 1 lists the equipment used for the environmental noise survey:

Equipment Description	Type Number	Manufacturer
Sound Level Meter, (complete with building acoustics module BZ7204 & wireless remote control unit)	2260	Bruel & Kjaer
0.5" Microphone	4189	Bruel & Kjaer
Calibrator	4231	Bruel & Kjaer
Tripod		

Table 1 Equipment

The adopted noise monitoring locations are set out below:

Location 1- Residential housing on Harton Lane

Location 2 - Residential housing on Junction of McAnany Avenue and Hollingside Way

Location 3 - Hospital South Car park

Results

The results of the measurements undertaken are listed below in Table 2:

Location	Date & Time	L _{Aeq} (dB)	L _{Amax} (dB)	L _{A90} (dB)
1	18:15 28/10/14	57	75	41
2	18:40 28/10/14	53	80	46
1	23:00 28/10/14	53	76	43
2	00:40 29/10/14	54	68	38
3	08:55 29/10/14	60	82	54
1	09:55 29/10/14	59	72	51
2	10:30 29/10/14	56	73	46
3	11:00 29/10/14	57	82	52
2	11:05 29/10/14	55	76	40
1	13:52 29/10/14	54	71	40

Table 2 Results

Comments

The dominant noise sources were road traffic on the nearby main dual carriageway A1300 John Reid Road and also road traffic on Harton Lane. The lowest measured background noise levels at each location, 1, 2 and 3 respectively are as follows: 40 dB(A), 38 dB(A) and 52 dB(A).

This document forms part of the BREEAM Design Stage evidence submission. A further document, specifically, a plant noise impact assessment, will be produced once the noise level data for the proposed plant is known. The document produced will form part of the BREEAM Interim Design Stage / Construction Stage evidence and will also be suitable for submission to the Local Authority if required.

Further to this, in-situ noise level measurements will be undertaken at Final Post-construction Stage in order to verify that the target noise level limits have been met.

Should you have any queries regarding the above, or if you require any additional information, then please do not hesitate to contact me.

Yours sincerely

Dan Cramond MIOA
For Stroma Technology