

BUILDING MAINTENANCE AND STRATA MANAGEMENT ACT

**BUILDING MAINTENANCE AND STRATA MANAGEMENT
(STRATA TITLES BOARDS) REGULATIONS 2005**

STB No. 104 of 2016

In the matter of an application under section 101 of
the Building Maintenance and Strata Management
Act in respect of the development known as **LUMA**
(MCST Plan No. 3779)

Between

Lim Yew Loon

... Applicant

And

The MCST Plan No. 3779

... Respondent

GROUNDS OF DECISION

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... Respondent(s)

28 June 2017, 29 June 2017

5 July 2017

Coram:	Mr Alfonso Ang Cheng Ann	(President)
	Mr Zahidi Bin Abdul Rahman	(Member)
	Mr Tony Tay Chye Teck	(Member)

1. The Applicant, Lim Yew Loon, is the subsidiary proprietor of unit #XXX in the development known as the LUMA located at 6 River Valley Grove Singapore (the “Unit”).
2. The Respondent, MCST Plan No. 3779, is the management corporation of the development.

3. The Applicant seeks the following orders in his application:-

That Pursuant to Section 101(1)(a) and 101(1)(c) of the Building Maintenance and Strata Management Act (“BMSMA”), the Respondent be ordered to:-

- “ i. *take the necessary remedial action and rectification works to cause an end to the noise emanating from the pump system(s) for the water features and/or any other pump system(s) that is the cause of the noise at the 28th floor of LUMA; and*
- ii. *reimburse the Applicant’s STB fees and any and all cost of legal counsel and legal proceedings incurred until resolution of this application. ”*

4. In his submission, the Applicant seeks for an order that:-

“rectification work and remedial action to be carried out by the Respondent to cause an end to such noise that has been, and is still, causing unbearable annoyance and adverse health effects to the occupants of the Unit.”

BACKGROUND

- 5. Based on the Affidavits of evidence-in-chief by the parties, the following are the facts of the case.
- 6. The rooftop swimming pool, water features and Jacuzzi (and the various pump systems supporting these features) are situated on the 28th floor of LUMA directly above the Applicant’s Unit.
- 7. The occupiers of the Applicant’s Unit are the Applicant’s business partner, Tan Siok Lin Selina (the “**Occupier**”), and her mother. They have been residing in the Unit since December 2013.
- 8. Sometime in late 2014, the Occupier “noticed an incessant loud noise” in the Unit and complained to the then Managing Agent, Empire City Consultant Pte Ltd. They investigated and found that the noise was emanating from the pump systems of the Jacuzzi, swimming pool and/or the water features. The said pumps were switched off and the Occupier found that the noise stopped.
- 9. About 1 to 2 months later, the Occupier found that the noise could be heard again. The new Managing Agent, Jones Lang LaSalle Property Consultants Pte Ltd, engaged

Crystal Clear Contractor Pte Ltd (“CCC”) to investigate and to conduct tests. The pumps were again switched off for the next 2 to 3 months except on two separate occasions when they were turned on. On both occasions, the pumps were switched off following the Applicant’s complaints.

10. The pumps were kept switched off from May to December 2015 and were turned on again when other residents of LUMA complained about the prolonged non-operation of the pumps which resulted in them not being able to use the facilities. There were also concerns over algae growth in the pools.
11. On 10 September 2015, Hydro Pool Engineering (“**Hydro Pool**”) was engaged by the Respondent to conduct a fault assessment and inspection of the pump systems. The report prepared by Hydro Pool stated that:

“4.1.1. Jacuzzi and Water Feature pumps operation noise level are in satisfactory level and as root cause of the noise is from improper seating of the pumps that cause vibration noise that transmitted to the unit below.
4.1.2. Recommendation is alter the pipes and add on additional thicker rubber mat to absorb vibration to minimise the noise level to below affected unit.”
12. The Respondent placed the rubber mat as recommended. However, the Applicant continued to complain about the noise.
13. Sometime around August 2016, the Respondent made further efforts to reduce the noise levels, by engaging CCC to relocate the water feature piping and also to relocate the Jacuzzi pump from the pump room to the Jacuzzi void together with the necessary pipe fittings, wiring and rubber base. This is evidenced by the invoice issued.
14. On 9 September 2016 at around 10:30am, the Respondent engaged Dropnoise (“**Dropnoise**”) to conduct a noise test at the Master Bedroom and bathroom of the Unit. The results reproduced in the Respondent’s Affidavit of evidence-in-chief dated 19 June 2017 showed that the noise level at the Applicant’s bathroom was 51.6dBA and the noise level at the Master Bedroom was 48.4dBA when all the pumps were turned on. By comparison, the noise level at the bathroom was 40.2dBA and the noise level at the Master Bedroom was 41.5dBA when only the water feature pump was turned off.
15. Dropnoise concluded at section 1.4 of its report that:

“As discussed, the noise level measured when all the pumps are running was within the boundary maximum permitted noise levels. To reduce the noise levels further, few methods can be explored:

- i. Ensure pumps are well maintained and running smoothly
 - ii. Reduce the speed of the pumps where possible
 - iii. Use dampeners for the pumps
 - iv. Use soundproof enclosure where possible” (emphasis added)
16. On or about 8 October 2016, the Applicant was informed by the Managing Agent that the pumps would be switched on. In the same month, on their own accord, the Respondent directed that the operating hours of the facilities to be reduced from 7am – 11pm daily to 9am – 8pm daily. This is to allow the pumps to start later in the morning and end earlier in the night.
17. The Applicant filed this application to the Board on 7 December 2016. After the application was filed, the Respondent shifted the position of the water features pump to the balancing tank on 21 February 2017 and the noise was reduced. However, in May 2017, the noise returned. On 27 May 2017, the Applicant engaged Dr Lim Chiak Hwee @ Lim Ah Kow, director of Acviron Acoustics Consultants Pte Ltd, (“**Dr Lim**”) to inspect the Unit. Dr Lim recorded the highest sound level of 46dBA at the toilet while the sound level at the Master Bedroom was recorded as 40dBA. The other readings recorded at the living room and the second bedroom were 44dBA and 43dBA respectively.
18. Dr Lim made the following recommendations:-
 - i. the water feature pump be reinstated back to the same pump room with the filtration pumps and the filtration tanks. The filtration pumps, the filtration tanks and the water feature pump to be seated on a common steel frame and supported by highly efficient vibration isolators;
 - ii. all pipes be connected with flexible connectors before entering to the swimming pool and be suspended with vibration isolators from the pump room ceiling;
 - iii. the filtration pumps and the filtration tanks be installed on the same base frame to prevent any acoustic fatigue of pipes connection between the filtration pumps and the filtration tanks;
 - iv. the Jacuzzi pump be efficiently vibration isolated with the pipes installed with the ceiling vibration hangers and flexible connectors before entering the Jacuzzi tub; and
 - v. that acoustic lagging and boxing of all the pipes above the common toilet in the Unit be necessary to control the noise.
19. Dr Lim estimated the cost of the vibration isolators for the filtration pumps, filtration tanks and water feature pumps including the base frame, base frame isolators, vibration hangers and flexible connectors to be about \$30,000, excluding labour cost.

20. The cost of the vibration isolators for the Jacuzzi pump including the pump isolators, pipe vibration hangers and pipe flexible connectors is estimated to be about \$12,000, excluding labour cost.
21. The total estimated cost is approximately \$42,000, excluding labour cost.
22. On 7 June 2017, the Respondent engaged Mr Gerard Richard William ("**Mr Gerard**") care of Noise Busters Singapore to conduct a noise test in the Unit. His conclusion under section 6 are as follows:

"After the above detailed analysis was made, the following conclusions were drawn:

- The upper limit of the loudness levels as captured by the noise level meter in the master bedroom was recorded as approximately 39 [dBA]. The lower limit where all pumps were disengaged was captured as approximately 29 [dBA].
- The upper limit of the noise levels as captured by the noise meter in the common bathroom was recorded as approximately 44 [dBA]. The lower limit where all pumps were disengaged was captured as approximately 32 [dBA].
- The most prominent noise profiles that were present in the two recording points within the unit were significantly different. The filtration pump hum was mostly prominently heard in the master bedroom whilst the water feature hum was most prominently heard in the common bathroom. These hums were not present in the unit when turned off."

APPLICANT'S CASE

23. The Occupier attests that the noise from the pumps is annoying to her and her mother and it is unbearable.
24. The Applicant and the Occupier argue that the Respondent did not do their utmost to get to the root of the problem.
25. It is the Applicant's case that the Respondent has failed to exercise or perform its statutory duty and function to carry out a true and complete detection and rectification of the noise emanating from the Jacuzzi, the swimming pool and water features, as well

as the pump and piping systems. The Applicant's position is that the Respondent's efforts are ineffective given that the noise persists. Hence, the Applicant submits that less than reasonable efforts were taken by the Respondent to address his complaint.

26. The Applicant's expert agrees that there is no prescribed or permissible limit in Singapore for noise generated by common property within residential buildings. In view thereof, the Applicant argues that the American Society of Heating, Refrigeration, Airconditioning Engineers (ASHRAE) Handbook section 42.5, Table 2, for the criteria for acceptable indoor background noise level for Apartments ought to be adopted. Based on this range, Dr Lim concluded that the noise detected from inside the Applicant's Unit exceeded the ASHRAE's criteria of NC30-35 which is equivalent to 35-40 dBA void of low frequency noise.
27. Dr Lim highlighted the adverse effects of noise on health by referring to the guideline values for community noise in specific environments provided by the World Health Organisation (WHO). Based on the table reproduced by Dr Lim, the critical health effect(s) to an individual in the bedroom would be night-time sleep disturbance if the noise is at 30 LAeq [dB] (45 LAmx, fast [dB]) for a consecutive period of 8 hours. Dr Lim also repeatedly emphasised that low frequency noise which was detected in the Unit is harmful to the human body.
28. The Applicant relies on Dr Lim's report that there is a flaw in the installation of the pumps and pipes such that it caused them to be deficient in isolating vibration which in turn leads to low frequency noise to penetrate through to the Unit below. The Applicant is confident that the recommendations by Dr Lim will effectively remedy the problem and it is within the Respondent's remit to adopt Dr Lim's proposed solution or any solution which would effectively isolate the vibration noise.

RESPONDENT'S CASE

29. The Respondent submits that there are no defects to the pump systems following Hydro Pool's fault assessment and inspection report which concluded that the noise level is satisfactory.
30. The Respondent relies on Dropnoise's report and agrees that since there is no prescribed noise limits for the present factual matrix (ie. noise generated by common property within residential buildings), Singapore's National Environment Agency's ("NEA") various guidelines ought to be used for comparison in the present case.

31. Dropnoise cited from NEA's guideline that the noise limits affecting residential buildings in the day time (7am – 7pm) in the case of construction work and factory premises is 75dBA and 70dBA respectively. The limit is lowered to 55dBA from 7pm to 7am on Sundays and Public Holidays (for construction work) and in the night time between 11pm to 7am (for factory premises).
32. The Respondent argues that since the readings taken from the Applicant's Unit fall within the various ranges cited, they are within acceptable limits.
33. The Respondent also submits that all reasonable actions have been taken to address the Applicant's complaints. These include:
 - i. installing rubber mats;
 - ii. raising the pipes for the Jacuzzi pump away from the floor and connecting the water feature pipes to the swimming pool filtration system (the water feature pipes were later connected back to the water feature pump as it affected the flow of the water feature when connected to the swimming pool filtration system);
 - iii. shifting the Jacuzzi pump from the pump room to the void area under the Jacuzzi;
 - iv. shifting the water feature piping away from the wall;
 - v. placing additional rubber padding; and
 - vi. shortening the operating hours from 7am – 11pm daily to 9am – 8pm daily.
34. The Respondent also proposed in good faith to shift the water feature pump from the existing location to the balancing tank but this was rejected by the Applicant. Nonetheless, after the Applicant commenced the present application, the Respondent proceeded out of good faith to shift the water feature pump from the existing location on 21 February 2017.
35. The Respondent argues that it is not possible to “*cause an end to the noise emanating from the pump system(s)*” as the noise from the pumps cannot be totally eliminated unless they are shut off or removed. However, this would deprive the other residents of LUMA the enjoyment of the common property and would adversely affect the overall value of the property. The amenities had existed even before the Applicant's purchase of the Unit.
36. The Respondent concludes that by virtue of the above reasons, the application should be dismissed with costs.

BOARD'S DECISION

37. The Board has examined Dr Lim's report and accepts his findings as to the noise level. The Board is also fully aware that the Respondent's witness, Sunny Chang Wah Weng's evidence is based principally on documents within his control for which he had no personal knowledge.
38. From the evidence, the Board finds that the Respondent had acted promptly upon receiving the Applicant's complaints. The Board recognises that the Respondent had taken various steps to reduce the impact of the noise on the Occupier. These include:
- i. sometime around December 2015, pursuant to Hydro Pool's recommendations, the pipes were altered and additional rubber mats were installed;
 - ii. in May 2016, CCC raised the pipes for the Jacuzzi pump away from the floor and connected the water feature pipes to the swimming pool filtration system. The pipes for the water feature were later connected back to the water feature pump as it affected the flow of the water feature connected to the swimming pool filtration system;
 - iii. in August 2016, the Jacuzzi pump was shifted from the existing pump room to a void area under the Jacuzzi and the piping of the water feature was shifted away from the wall. Also, additional rubber padding was placed;
 - iv. on or around October 2016, the Respondent shortened the operating timing of the water feature from its original 7am – 11pm daily to 9am – 8pm daily;
 - v. on 9 November 2016, the Respondent proposed to shift the water feature pump from the existing location to the balancing tank at the Respondent's costs but this was not accepted by the Applicant;
 - vi. on 21 February 2017, the Respondent, subsequent to the mediation session with the Applicant, proceeded to shift the position of the water feature pump at the Respondent's cost.
39. The Board agrees with the Respondent that the Applicant had purchased the Unit with the full knowledge that it is situated directly below the swimming pool and the other amenities. The swimming pool, water features and the Jacuzzi existed even before the Applicant purchased the property. Any reasonable man knows or ought to know that these amenities operate on pumps where noise can be expected. Consequently, the Applicant must expect some noise to emanate from the floor above.
40. It is not disputed that there is a humming noise in the Unit and it is caused by the pump systems. On the evidence, the Board finds that the Occupier is likely to be someone who is particularly sensitive with noise as admitted by her under cross-examination although she clarified on re-examination. Counsel for the Applicant in his submission argues that the Occupier *"did not agree that she was overly sensitive though she may be highly*

observant of noise". The Board finds that there is no difference whether the Occupier is "overly sensitive" or "highly observant" to noise; these are semantics. The Board also notes that no other units on the same floor as the Applicant appear to be affected by the noise.

41. The Board finds that the Occupier is particularly affected by the noise emanated from the pump systems. The Board is also of the opinion that since the pumps are switched off in the night from 8pm to 9am, the Occupier has 13 hours of night time undisturbed by the noise. Hence it can be taken that the Occupier's sleep will not be affected by the noise thereby complying with WHO's guideline. The Occupier does not complain about health issues arising from the noise other than being annoyed by it. By her own admission, she said that she does not feel any tremor or vibration whilst in the Unit. On the other hand, the Respondent's expert witness, Mr Gerard, testified that in addition to hearing a humming sound similar to the sound emitted by a refrigerator, he could even feel the vibration which the Occupier could not. In the circumstance, the Occupier does not appear to be affected by the inaudible low frequency noise which was highlighted by Dr Lim.
42. After some rectification works were done as stated in paragraph 38(iii) and (vi), the range of the readings taken by the Applicant's and the Respondent's experts are consistent and do not differ significantly. All parties agree that there is no prescribed noise limit from within residential property in Singapore. The Board cannot import and apply the American standard. It is for the relevant authorities in Singapore to decide. The noise in this case is not extraordinary and they are within the various available Singapore limits for the purpose of comparison. Further, it must be expected that some noise will be emanated from any pump systems whatever the reasonable solution may be taken.
43. The Board agrees with the Respondent's submission that the Applicant appears to be imposing a subjective standard and/or requiring that all noise be eliminated. The only way to stop the noise completely is to switch off the pumps - which has happened before - but it deprived other subsidiary proprietors from using the swimming pool and the other facilities. This is untenable. The Board is of the view that the reduction of the operating hours of the pumps from 16 hours to 11 hours daily is a good balance between addressing the impact of the noise on the Occupier and permitting the other subsidiary proprietors to enjoy the amenities.
44. The Board also observes that Dr Lim's recommendations involve a substantial cost. Under cross-examination, the Applicant's expert agree that the noise caused by the pump systems will not be entirely eliminated even if his proposal, which costs more than \$42,000, is eventually implemented. Where there is no failure or fault found on the part of the Respondent and such a huge expense is contemplated, there is no basis for

the Board to order that the Respondent implement the proposed solutions; such decisions must be deferred to the condominium's general body to decide.

45. It is also not for the Board to order that "*rectification work and remedial action to be carried out by the Respondent to cause an end to such noise that has been, and is still, causing unbearable annoyance and adverse health effects to the occupants of the Unit.*", given that it is not technically possible to put an end to the noise emanating from the pump systems and it is not conclusive that the Applicant and/or the Occupier would no longer be annoyed by the noise even after installing vibration isolators.
46. For the reasons above, the Board dismisses the application.
47. The Board will hear parties on cost.

MR ALFONSO ANG CHENG ANN
President

MR ZAHIDI BIN ABDUL RAHMAN
Member

MR TONY TAY CHYE TECK
Member

Mr Low Cheong Yeow, Tito Isaac & Co LLP for the Applicant
Mr Murali Pany / Mr Ng Lip Kai, M/s Joseph Tan Jude Benny LLP for the Respondent