

23 April 2021

Bayswater Marine Holdings Limited
 c/o Shearer Consulting Limited
 103b West Coast Road
 Glen Eden
 Auckland 0602

Attention: Craig Shearer

Dear Craig

BAYSWATER MARITIME PRECINCT – ACOUSTICS: SECTION 92 RESPONSE

Introduction

Marshall Day Acoustics ('MDA') has been engaged by Bayswater Marina Holdings Limited to provide an assessment of acoustic effects for the proposed development of the Bayswater Maritime Precinct located on Sir Peter Blake Parade in Bayswater, Auckland. Auckland Council has reviewed the report and has requested some clarification in a Section 92 request and this letter responds to those queries.

Construction Noise

53. Section 5.2.1 states that the AUP construction noise limit of 70 dB L_{Aeq} will be exceeded. But does not say which receivers will be affected and what the predicted noise levels will be. The MDA report states that all construction work is predicted to comply at the nearest residential dwellings. Please confirm that the exceedance is only at the ferry terminal. Please provide a table of the predicted noise levels at receivers not just the setback distances.

Section 5.2.1 does not say that the noise limits will be exceeded but notes the compliance distance for the principal noise sources. All activities are expected to comply with the construction noise standards at distances greater than 100 m. Potential sensitive buildings within 100 m of the construction works are:

- 12 Marine Terrace
- Bayswater Wharf Ferry Terminal

The predicted noise levels at these two buildings for the various construction activities are:

Activity	Distance (m)	Likely Equipment	Sound Power (LWA)	Screening (dB)	Noise Level (dB L _{Aeq})
12 Marine Terrace					
Demolition of existing infrastructure	65 to 300	Excavator mounted concrete breaker, concrete saw, truck movements	115	5	50 to 67
Bulk Earthworks & Civil Works	60 to 375	Excavator, trucks	107	-	45 to 65

Activity	Distance (m)	Likely Equipment	Sound Power (L _{WA})	Screening (dB)	Noise Level (dB L _{Aeq})
Structural Works	80 to 380	Large piling rig (70 tonnes) Excavator fitted with auger attachment Crane	114	-	52 to 69
Construction of new buildings	70 to 350	Crane, hand tools, truck deliveries	110	-	48 to 66
Ferry Terminal					
Demolition of existing infrastructure	50 to 300	Excavator mounted concrete breaker, concrete saw, truck movements	115	10	45 to 67
Bulk Earthworks & Civil Works	40 to 375	Excavator, trucks	107	-	47 to 69
Structural Works	40 to 380	Large piling rig (70 tonnes) Excavator fitted with auger attachment Crane	114	6	55 to 70
Construction of new buildings	40 to 350	Crane, hand tools, truck deliveries	110	6	48 to 66

Temporary acoustic screening is required for equipment is required for:

- Concrete cutting within 75 m of 12 Marine Terrace and the Ferry Terminal
- Piling within 75 m of the Ferry Terminal
- Use of noisy hand tools such as grinders within 50 m of the Ferry Terminal

With the use of the temporary screening, all construction activities would comply with the construction noise standard.

Proposed Condition

54. We do not support proposed condition (1): "Construction noise shall comply with the following noise limits unless otherwise provided for in the CNMP"

We can not support a no noise limit condition for these works. The appropriate approach is to authorise the level of noise effect that has been assessed and applied for. Please amend the proposed conditions as well as providing a detailed assessment of noise effects as well as noise levels generated by the proposed construction activity.

The predicted noise levels for construction activities are given in the table above.

The acoustic effects for construction activities are summarised in the table below based on the façade noise level from a construction activity and whether windows are opened or closed:

External Noise Level (dB L _{Aeq})	Estimated Internal Noise Level (dB L _{Aeq})	
	Closed windows (25 dBA Reduction)	Open windows (15 dBA Reduction)
65 – 70	40 – 45	50 – 55
70 – 75	45 – 50	55 – 60

< 45 dB L _{Aeq}	Noticeable, but unlikely to interfere with daily activities
45 – 50 dB L _{Aeq}	Typically acceptable, but concentration and communication would begin to be affected
50 – 55 dB L _{Aeq}	Annoyance for some occupants and personal conversations would require a slightly raised voice
55 – 60 dB L _{Aeq}	Generally unacceptable and occupants would actively seek respite for any extended periods

It can be seen that some construction activities would be intrusive with windows open, but all activities would be acceptable inside a room within the dwelling with the windows to that room closed.

An alternative proposed Conditions are given below. These have been agreed with Auckland Council and have been used successfully elsewhere:

1. CNMP

The consent holder shall submit a Construction Noise Management Plan (CNMP) to the Council for certification a minimum of ten working days prior to commencement of any work authorised by this consent. The objective of the CNMP is to determine, and require the adoption of the Best Practicable Option for the management of all construction noise and vibration effects from the enabling earthworks to ensure, as far as reasonably practicable, that construction work will comply with the project standard of 70 dB L_{Aeq}. The CNMP shall address the requirements of Annex E of NZS6803:1999 as a minimum. Construction works shall not commence until certification has been received in writing from the Team Leader Compliance Monitoring Central.

2. Construction noise limits

Noise from any construction work must not exceed a limit of 70 dB L_{Aeq} measured 1m from the façade of any occupied dwelling in accordance with the requirements of NZS6803:1999 without any adjustment for duration as in E25.6.27(3).

3. Temporary noise barriers

Noise barriers shall be installed prior to works commencing and be maintained throughout periods where construction works are predicted to exceed 70 dB L_{Aeq}. Details on barrier construction shall be provided in the CNMP.

Closest residential dwelling

55. *The MDA reports that the closest dwellings are located approximately 100 m to the north. There appears to be residential dwellings closer than 100 m, for example 12 Marine Terrace is less than 70 m. please confirm the distance to the closest residential dwelling and the predicted construction noise and vibration levels.*

We have updated the distances in the noise prediction table above. There will be few activities that occur within 100 m of the residential dwelling and these can be made to be compliant with the noise limits through management of the activity and acoustic screening.

Operational noise

56. The AEE states that the proposal is for 94 terraced houses and 3 apartment buildings (9 apartments in each), offices, marine retail and industry and up to 2 cafes/restaurants. Section 6.3 of the MDA report refers to “cafes with outdoor area and commercial activities”. Please provide more detail on the proposed marine industry that will be located to the north west of the site, including times of operation, main noise sources, and predicted noise levels both to the dwellings within the development and the closest dwelling in the residential zone.”

This application is to enable all of those activities listed above. There are no specific plans for design of buildings, location of commercial or marine activities.

Any activity within the Bayswater Marina Precinct shall not exceed 60 dB L_{Aeq} at an adjacent site within the precinct. Furthermore, that activity shall not exceed 55/45 dB L_{Aeq} at any dwelling located within a Residential Zone.

Finally, any new dwelling constructed within the precinct shall be designed with a façade to ensure a reasonable acoustic amenity for the occupants.

These rules will ensure that the Precinct can operate successfully without giving rise to noise disturbance within the Precinct and to the surrounding Residential neighbourhood.