

**PROPOSED ALTERATION TO
DESIGNATION 3800**

**WHAKATAKAPOKAI CARE AND
PROTECTION FACILITY**

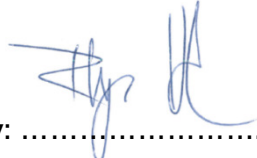
NOISE ASSESSMENT

Report No 19016v2

Prepared for:

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CONTENTS

1. INTRODUCTION	3
2. CRITERIA.....	4
2.1. Designation 3800	4
2.2. AUP	4
3. NOISE LEVELS	6
4. ASSESSMENT OF NOISE EFFECTS	8
5. CONCLUSIONS	9

1. INTRODUCTION

The Residence at 398 Weymouth Road in Weymouth is a designated Care and Protection Facility under the Oranga Tamariki Act 1989 (Act). It currently provides accommodation and care for up to 20 young persons up to, and including, the age of 16. In addition to the residential block there is an administration centre, a gymnasium, an outdoor pool and a multi-cultural centre.

The site is designated¹ within the Auckland Unitary Plan – Operative in Part (AUP). The proposal to alter the designation purpose is to align it with changes to the Act that will become effective on 1 July 2019, along with the future responsibilities of the Chief Executive of Orange Tamariki. The proposed alterations are:

1. To include the ability to provide for young persons under the care of the Chief executive of Oranga Tamariki;
2. To increase the current age limit of the residents on site from 16 years to 19 years inclusive; and
3. To increase the number of young persons from 20 to 30.

No other changes are proposed to the operations at the residence and no new construction is proposed as part of this project in the immediate future. This assessment addresses the potential noise effects from the proposed alterations to the designation.

¹ Designation 3800 - Minister for Social Development, Care and Protection Residential Centre

2. CRITERIA

2.1. Designation 3800

Condition 4 of the current designation requires that:

4. *Activities (other than construction) on the site shall be so conducted as to ensure that noise from the site shall not exceed the following noise limits within the boundary of any neighbouring residential site:*

<i>Monday to Sunday (inclusive)</i>	
<i>7am to 10pm</i>	<i>L₁₀ 55dBA</i>
<i>10pm to 7am</i>	<i>L₁₀ 45dBA</i>
<i>10pm to 7am</i>	<i>L_{max} 75dBA</i>

Noise (other than construction) shall be measured and assessed in accordance with the requirements of the New Zealand Standard NZS 6801:2008 "Acoustic Measurement of Environmental Sound" [sic].

2.2. AUP

Since the original designation, the AUP has become effective which, in terms of noise, has not only resulted in a fully revised suite of rules, but also an update in noise metric from the L10 of the designation to LAeq. As such, consideration has been given to updating the designation noise rule to be consistent with the AUP.

The site is zoned Residential within the AUP as are all surrounding sites, with the exception of an Open Space – Informal Recreation zone to the north, as shown in Figure 1 below.

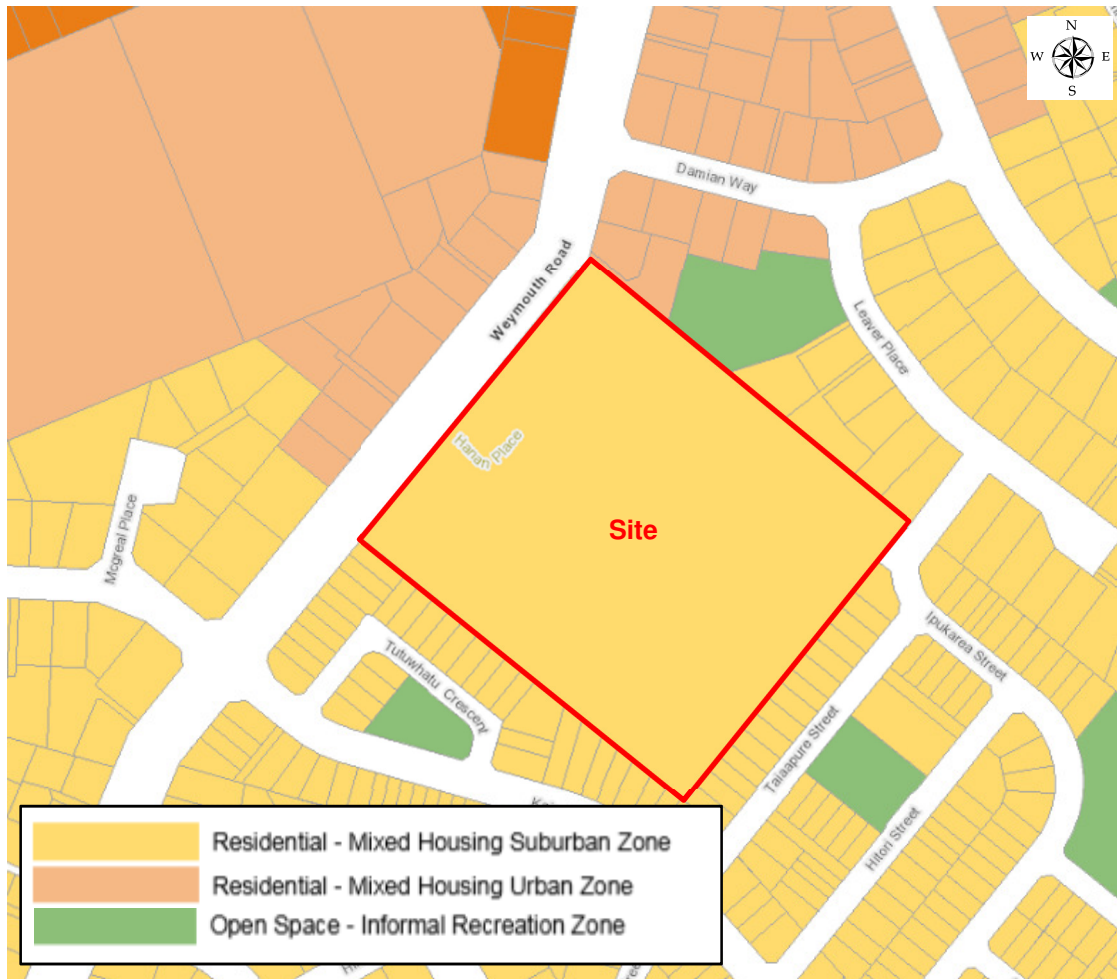


Figure 1. AUP Zoning Map

AUP Rule E25.6.2 provides the noise limits between sites within the residential zone, when measured within the boundary of a site. The AUP also includes a number of specific rules relating to after school care facilities (E25.6.23) and school and tertiary education facilities (E25.6.24). While these specific activities are similar to those undertaken at the residence, they are not the same and, as the underlying zoning of the site is Residential, the planner advises that E25.6.2. Maximum noise levels in residential zones is the most relevant:

Activities (other than construction) on the site shall be so conducted as to ensure that noise from the site shall not exceed the following noise limits at any point within the boundary of any neighbouring residential site:

<i>Time</i>	<i>Noise Level</i>
<i>Monday to Saturday, 7am to 10pm and Sunday 9am to 6pm</i>	<i>50dB L_{Aeq}</i>
<i>All other times</i>	<i>40dB L_{Aeq} and 75dB L_{AFmax}</i>

Noise levels shall be measured in accordance with NZS 6801: 2008 'Acoustics – Measurement of Environmental Sound' and assessed in accordance with NZS 6802:2008 'Acoustics – Environmental Noise'.

The above limits are used by the AUP to describe the expectations of those living in a residential environment and are consistent with the recommendations of NZS 6802: 2008 'Acoustics – Environmental Noise' and AS/ NZS 2107: 2016 'Acoustics – Recommended Design Sound Levels and Reverberation Times for Building Interiors'. Based on this, they are considered appropriate as a condition for the proposed alteration to designation.

3. NOISE LEVELS

The proposed alteration to designation is not expected to result in a noticeable change in noise level to the neighbours. Activities will generally remain the same and while there would be a theoretical increase in level due to the increased number of children on site, that increase would be too small to be noticeable by the average person. To demonstrate that it would be practicable for noise from the activities to comply with the suggested noise limits, the noise from those activities has been predicted to the neighbours. As with any residential facility, the young people at the residence could potentially undertake anyone of a number of activities. Rather than attempt to address them all, several generic activities are considered to demonstrate that they will comply with the proposed designation rules, thereby demonstrating that it will be practicable to manage the activity in accordance with those rules. The generic activities are addressed

below. In each case, noise levels have not been averaged as described by NZS 6802 nor have they been assessed as having a special audible characteristic. The site has an open boarded timber fence to all but the Weymouth Road boundary, any effects of which, have been ignored for the following assessment.

OUTDOOR POOL

Noise from children playing in the pool has been calculated based on people shouting, for which a level equivalent to 81dB L_{Aeq} at a distance of 1m has been assumed. The pool is nominally 30m from the site boundary and, with the assumption that the children will be several metres inside of the pool, the resulting level to the boundary would be 50dB L_{Aeq} , which is compliant with the proposed 50dB L_{Aeq} limit. It would be possible for shouting to exceed the assumed base level, but as this level could not be sustained, it is not considered reasonable to use higher levels for analysis.

OUTDOOR COURTS

There is a paved courtyard in the centre of the site with basketball hoops and paved courtyards outside of the residential block where the children can play, the closest of which is nominally 45m from the residential boundary. Again, assuming the children are playing within the courtyard and using the same base level as for the pool, the upper level to the most exposed residential neighbour will be 47dB L_{Aeq} .

GYMNASIUM

Based on measurements of children playing basketball in a gymnasium and the gymnasium being clad solely with fibre cement sheet on the walls and profiled metal cladding on the roof, the calculated noise level to the closest residential receiver will be 40dB L_{Aeq} and therefore readily complies with the proposed limit of 50dB L_{Aeq} .

MULTICULTURAL CENTRE

Events at the multicultural centre will vary, as will the noise levels. As with any residential situation, activities that require high levels of amplified music have the potential to exceed the AUP limits and would therefore be prohibited. Loud activities associated with cultural events, such as Kapa Haka, would also have to be conducted so as to limit noise levels to the neighbours.

VEHICLES

The main car park is between Weymouth Road and the administration block. At 60m from the closest residential boundary the noise from the relatively slow vehicle movements within this car park will readily comply with the suggested noise limits and the effects therefore will be minimal.

From the main car park, an accessway passes adjacent to the southern site boundary to a 14 space car park to the south western corner of the site with a further 10 spaces midway along the accessway. At the closest point, both the car park and the accessway are approximately 10m from the southern boundary. Assuming a full turnover of both car parks over a 15 minute period, such as might occur at a change of shift, levels to the most affected houses are predicted to be 49dB L_{Aeq} , and therefore compliant with the daytime limit.

During the night time it is understood that due to a hand over meeting and the limited number of staff required at this time, the maximum number of vehicles leaving the site would be 12. Assuming all 12 are located in the south western car park, the resulting levels at the most exposed dwelling would be 39dB L_{Aeq} and 61dB L_{AFmax} , which comply with the AUP limits of 40dB L_{Aeq} and 75dB L_{AFmax} .

4. ASSESSMENT OF NOISE EFFECTS

The above analysis demonstrates that noise from the onsite activities will comply with the suggested noise limits for the proposed alteration to the designation

with the inference being that the resulting noise levels, and therefore effects, will be reasonable to the neighbours.

5. CONCLUSIONS

It is proposed to alter the designation of the existing Care and Protection Facility in Weymouth. The alteration includes an allowance for providing for young persons under the care of the Chief Justice of Orange Tamariki for youth justice reasons, an increase in age from 16 to 19 years (inclusive), and an increase in the number of young persons on site from 20 to 30 with no changes to the daily activities of the site. The existing designation conditions include limits on noise from onsite activities when measured at the neighbouring residential properties. It is proposed that this rule be updated to reflect the current AUP residential noise rule which, it is considered, offers an appropriate level of protection to the neighbouring residential sites. The revised condition would read as follows:

Activities (other than construction) on the site shall be so conducted as to ensure that noise from the site shall not exceed the following noise limits at any point within the boundary of any neighbouring residential site:

Time	Noise Level
<i>Monday to Saturday 7am – 10pm</i>	<i>50dB L_{Aeq}</i>
<i>Sunday 9am – 6pm</i>	
<i>All Other Times</i>	<i>40dB L_{Aeq}</i> <i>75dB L_{AFmax}</i>

Noise levels shall be measured in accordance with NZS 6801: 2008 'Acoustics – Measurement of Environmental Sound' and assessed in accordance with NZS 6802:2008 'Acoustics – Environmental Noise'.

Analysis using typical activities that could occur on site show that the resulting levels will comply with the suggested noise condition for the designation. Based

on this, and the fact that the proposed alteration to the designation will not result in a noticeable change in noise levels, it is considered that the effects of the proposal will be negligible from a noise effects perspective and that the resulting noise levels will be reasonable.