

**From:** [Parvati Rotherham](#)  
**To:** [REDACTED]  
**Subject:** RE: LGOIMA Request - Kelson Heights  
**Date:** Thursday, 12 November 2020 2:58:00 PM  
**Attachments:** [Waipounamu Drive 64 comments on noise and vibration control .msg](#)  
[FW Kelson - Enabling Works under RM180513.msg](#)  
[image001.jpg](#)  
[Construction Noise.pdf](#)

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Hi [REDACTED] apologies for the incorrect links, these should be correct now.

<http://iportal.huttcity.govt.nz/Home/Search?Tab=31&query=number:rm170114>

<http://iportal.huttcity.govt.nz/Home/Search?Tab=31&query=number:rm180513>

Regarding Question 2. Attached are emails in relation to the Noise Management Plan. The contractors are required to comply with the noise management plan I previously sent to you. Also attached is our guidance document about construction noise.

Kind regards,

Parvati

**Parvati Rotherham**

Team Leader Resource Consents

Hutt City Council, 30 Laings Road, Private Bag 31912, Lower Hutt 5040, New Zealand  
T 04 570 6926 T 027 807 4290 W [www.huttcity.govt.nz](http://www.huttcity.govt.nz) F [huttcitycouncil](http://huttcitycouncil)

cid:hcccity.jpg



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**From:** [REDACTED]  
**Sent:** Thursday, 12 November 2020 11:37 AM  
**To:** Parvati Rotherham  
**Subject:** Re: LGOIMA Request - Kelson Heights

Good Morning,

Can you please double check those links, they are for a different area.

Question 2 asked for copies of emails. your response does not answer the question.

Regards

[REDACTED]

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**From:** Parvati.Rotherham@huttcity.govt.nz <parvati.rotherham@huttcity.govt.nz>

**Sent:** Thursday, November 12, 2020 11:24

**To:** [REDACTED]

**Subject:** LGOIMA Request - Kelson Heights

You received [3 files](#) from parvati.rotherham@huttcity.govt.nz via kiteworks

Hi [REDACTED]

I'm responding to your emailed LOGIMA request dated 5th November 2020. I provide my responses below.

*1) Copies of any resource consents issued for the 'Kelson Heights' project.*

We have issued 2 consents RM170114 - for bulk earthworks across the site and RM180513 - for earthworks and development known as Stage 1 and 2. Approval documents can be found online here

<http://portal.huttcity.govt.nz/Home/Search?Tab=31&query=number:rm170114>

<http://portal.huttcity.govt.nz/Home/Search?Tab=31&query=number:rm180513>

*2) Copies of any emails sent between the Council and any contractors involved in the work, which relate to Saturday work, disruption on houses or any presumed negative consequences to Kelson properties.*

Construction activities are permitted on Saturdays as long as they comply with the Construction Noise Standard. This means that most construction sites are permitted to operate between 7:30am and 6pm with standard construction work. If works are over the noise limits they are not permitted. I attached a copy of the approved Construction Management Plan and Noise Management Plan.

*3) Dates in which the Council notified properties that would be impacted and if none were notified, why the Council decided not to notify.*

The application was approved non-notified and you can read the reasons why in the decision report available at the link above.

*4) Copies of consultation with local Iwi's about any environmental or other negative effects the construction may cause.*

This site is not a statutory acknowledgment area, therefore, no consultation with iwi is required. Environmental effects are assessed in the decision report available at the link above.

*5) Any meeting notes or emails the Council have created around the possible impacts on traffic within Kelson and at the lights connecting Kelson to the*

*Motorway. If none exist, a reason why the Council has not thought of these impacts.*

Traffic was assessed as part of the application, see the decision report above.

*6) In regards to the letter sent to Kelson residents, has the Council viewed the Letter and does the Council agree that complaints should be raised with the private company first?*

It is a requirement of the consent to liaise with the neighbors and provide a contact for complaints. Should a concerned neighbour not get a satisfactory result, please contact [enforcement@huttcity.govt.nz](mailto:enforcement@huttcity.govt.nz) and we will investigate.

Once you've had a chance to read the information I have supplied I'm happy to answer any more questions you may have.

kind regards,

Parvati

Team Leader Resource Consents.

[MONITORING & ENFORCEMENT - Approved Construction Noise Management plan \(CNMP\) Condition 45.PDF](#)

2.15 MB

[CORRESPONDENCE - Approved Construction Traffic Management and Site Logistics Plan \(CTMSLP\) Condition 38.PDF](#)

142.25 KB

[MONITORING & ENFORCEMENT - Approved Construction Management Plan \(CMP\) Condition 32.PDF](#)

283.77 KB

File links expire: Nov 11, 2021

[Access files](#)

**Noise Control:**

As the duration of this project is around 4 years, I agree that the long –term duration noise limits shall apply as mentioned in section 3.2 of the CNMP.

The following is stated in section 4.O of the CNMP:

For the dwellings close to the subject site, it is reasonable to assume the last two columns of Table 4 would apply for windows closed and open respectively.

Table 4: Daytime noise levels in commercial & industrial buildings and habitable rooms in

External Noise Level (dB LAeq)	Estimated Internal Noise Level (dB LAeq)			
	Sealed glazing	Openable windows (modern building)	Openable windows (older building)	Open windows
75 – 80	45 – 50	50 – 55	55 – 60	60 – 65
70 – 75	40 – 45	45 – 50	50 – 55	55 – 60

The above table shows that noise from the construction works will be between 70 – 80 dB LAeq received at nearby residential properties. Noise from the construction works likely exceeds the maximum long –term duration noise limit 70 dB LAeq received at nearby residential properties from time to time. Therefore noise mitigation and management procedures in the CNMP must be strictly followed by their contractors to ensure the best practical option is adopted to keep noise to reasonable levels.

Noise monitoring procedures in section 8.0 of the CNMP need to be appropriately implemented and **noise monitoring results should be documented**, such as:

- Construction noise levels should be monitored by a suitably qualified and experienced specialist at 1 metre from the most affected building facade.
- Noise monitoring should be undertaken during the first use of high noise equipment, or in response to a reasonable complaint or verify an exceedance.

Council may request a copy of relevant noise monitoring results if we receive a noise complaint.

The CNMP looks ok to me as long as noise mitigation and management procedures in the CNMP are followed by their contractors.

**Vibration control:**

The representative of this project advised me by telephone this morning that vibratory rollers and compactors will not be used in areas within 20 meters of any neighbouring buildings.

Impact pile driving will not be used in areas within 50 meters of any neighbouring buildings.

Any rock breaker only operates in areas more than 80 meters of any neighbouring buildings.

He will send me and you an email to confirm this.

Appropriate vibration control measures should be undertaken by their contractors as the BOP to ensure vibration generated from construction works is less than 1.0mm/s PPV received at the foundation of any neighbouring properties.

**From:** [Trishn Nand](#)  
**To:** [David Tu](#)  
**Cc:** [Pieter Mans](#)  
**Subject:** FW: Kelson - Enabling Works under RM180513  
**Date:** Tuesday, 3 November 2020 3:44:01 PM  
**Attachments:** [image001.jpg](#)  
[image002.jpg](#)  
[Rp 001 20200969 RD Waipounamu Drive CNMP.pdf](#)  
[Earthworks Plans - Overall.pdf](#)

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Hi David

Thanks for the chat earlier today. as you are aware that the Approval of CNMP is only pending item required for full compliance of the RC consent conditions. Our contractors are very keen to get started.

To give you some context – we currently have various consents in place with GWRC & HCC. In approx. 2017 we obtained an earthworks consent to commence the construction of the earthworks. This didn't require a CNMP. We are scheduled to undertake earthworks which consists of approx. 450,000m<sup>3</sup> of cut/fill over the entire site. We have completed approx. 80,000m<sup>3</sup> of 450,000m<sup>3</sup> earthworks already. The area of earthworks is approximately 14ha.

Summary of all grant consents are:

- Greater Wellington Regional Council Consent [34846] [35170] – Stream works
- Greater Wellington Regional Council Consent [34845] [34848] – Earthworks
- Greater Wellington Regional Council Consent [34847] – Reclamation
- Hutt City Council Consent [RM170114] – Earthworks & Vegetation consents
- Hutt City Council Consent [RM1805513] Stage 1&2, Earthworks and Subdivision

All works completed to date is done under RM170114 and we are looking to execute RM1805513.

With the above being said. I have made following notes (and our subsequent response) from our discussions:

1. **Rock breaking** – whilst undertaking work under RM170114 we did not encounter any rock. We have done excavation up to 15.0m in place. I am confident that we will not need a rock breaker. In an unlikely event we do encounter rock, table 3 and section 6.2 of the report will be followed.
2. **Vibrating compaction** – it anticipated that a sheepsfoot roller will be used for the duration of the contract. Should vibrating method be required, then CNMP will be consider.
3. **Pile Driving** - RM1805513 is consented to build houses generally in accordance with NZS3910 (single and two-story) houses with ribraft foundation system. No pile driving is approved.

I have also attached a overall earthworks plan to give you some context of what is proposed on site. As you can, the southern boundary is relatively adjacent to the lots however in the grand scheme of things, most of the works being undertaken will be significantly away from the houses. CNMP is written in a context of 'living document' allows some flexibility to expand and update as construction methodologies and time frames are refined. We intend to do this with our expert during construction.

I trust this email is sufficient response to the concerns raised over the phone. As mentioned earlier, the contractors are now on standby pending the approval of CNMP. Your prompt response on this would be appreciated.

Happy to discuss – please do not hesitate to give us call.

Regards

**Trishn Nand**  
**+64224875171**

---

**From:** Trishn Nand  
**Sent:** Saturday, 24 October 2020 12:30 PM  
**To:** Pieter.Mans@huttcity.govt.nz  
**Subject:** RE: Kelson - Enabling Works under RM180513

Hi Pieter

Please see attached CNMP to satisfy the requirements of Condition 45.

I trust we have provided all the information to satisfy preconstruction requirements for HCC.

Thanks

**Trishn Nand**  
**+64224875171**

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**From:** Trishn Nand  
**Sent:** Thursday, 15 October 2020 7:07 AM  
**To:** [Pieter.Mans@huttcity.govt.nz](mailto:Pieter.Mans@huttcity.govt.nz)  
**Subject:** RE: Kelson - Enabling Works under RM180513

Hi Pieter

Email below bounced back.

Please download attached from the link below

<https://www.dropbox.com/s/7xrylw4uy0hgdlw/More%20info.zip?dl=0>

original email with attachments from the link below.

[https://www.dropbox.com/s/k03gmwi1oly672p/RE\\_%20Kelson%20-%20Enabling%20Works%20under%20RM180513.msg?dl=0](https://www.dropbox.com/s/k03gmwi1oly672p/RE_%20Kelson%20-%20Enabling%20Works%20under%20RM180513.msg?dl=0)

thanks

**Trishn Nand**  
**+64224875171**

---

**From:** Trishn Nand  
**Sent:** Thursday, 15 October 2020 7:03 AM

**To:** Pieter Mans <[Pieter.Mans@huttcity.govt.nz](mailto:Pieter.Mans@huttcity.govt.nz)>

**Subject:** RE: Kelson - Enabling Works under RM180513

Hi Pieter

Thank you for your prompt response. Please see my comments in orange below.

Regards

**Trishn Nand**

**+64224875171**

---

**From:** Pieter Mans <[Pieter.Mans@huttcity.govt.nz](mailto:Pieter.Mans@huttcity.govt.nz)>

**Sent:** Wednesday, 14 October 2020 1:36 PM

**To:** Trishn Nand <[trishn@macroventures.co.nz](mailto:trishn@macroventures.co.nz)>

**Subject:** RE: Kelson - Enabling Works under RM180513

Hi Trishn

Could you please have a look at the following conditions and add or correct them?

Thanks

Pieter

**Condition 7 - Earthworks Management Plan (EMP)**

(b) Earthworks sequencing and placement

This is discussed in ENGEO report (ENGEO 2019.11.12 - Manapouri Grove Earthworks Specification.pdf), section 3 (excavation) and section 4 (fill placement). Please note, I have also included EMP (12652-002 EMP [Final].pdf) that was approved as part RM170114. Fill placement & methodology is addressed in Table 2 (section 3.5).

(c) Management of surface and subsurface water

See below

(f) Erosion and Sediment Control Plan

Surface & subsurface water management is covered as part of our Erosion Sediment Control systems. We currently have two Sediment Retention Ponds on site. These ponds have been approved by GWRC. I have included following relevant in the zip file attached.

1. [1] Approval Memo. Kelson ESCP STAGE 1.pdf
2. [2] Final\_Approval Memo. Kelson ESCP STAGE 2.pdf
3. [7] P0246-SRP Asbuilt.pdf
4. 14219-300-2018 Earthworks-REVC.dpf

**Condition 38 - CTMSLP**

(d) Expected frequency of movements specific to the construction phase, with the hours and days of week; my apologies. I am not to sure what happen in our report here. Please see attached amended report.

**Condition 41 – LMP – see W18001\_Waipounamu\_subdivision\_LMP\_issued 14.10.2020.pdf**

41. Prior to works commencing a Landscape Management Plan (LMP) shall be submitted to the Team Leader Resource Consents. The LMP must take into account recommendations



contained in the peer review of batter slope planting by WSP-Opus dated 23 October 2019 (held on HCC file doc/19/140208) and include, but is not limited to;

- A programme of work – p18. Early spring (Sept, Oct) and Autumn (April, May & June)
- Detailed planting plans for all Reinforced Soil Structures and stormwater ponds. Detailed planting plan as per W18001\_KelsonLandscape\_02.pdf. this has been pervously provided.
- Plant seed collection, application rates and seed mix ratios (noting an increased variety of native species is recommended.)
  - Plant seed collection – p19 (W18001\_Waipounamu\_subdivision\_LMP\_issued 14.10.2020.pdf)
  - Application rate and seed mix ratios as per Enviroblanket specification (Enviroblanket.pdf)
- Detailed specification for the Enviroblanket and Envirossock materials see Enviroblanket.pdf and Enviroblanket and Related Summary.pdf
- Installation procedures as per Enviroblanket.pdf
- Plant establishment and maintenance procedures to 90% canopy coverage at the time of completion noted.
- Confirmation of a temporary water system we anticipate that all water reticulation system will be complete prior to planting to start on a per stage basis. There site has access to a Ø150mm water main at the front and water carts will be used for reticulation should it be required.
- Confirmation of the rope anchors that will be installed to facilitate maintenance on the 1:1 slopes. Yes this will be installed and it is required as part of the general H&S.
- Confirmation that the seed sourcing complies with ‘Eco-sourcing Code of Practice and Ethics’ see W18001\_Waipounamu\_subdivision\_LMP\_issued 14.10.2020.pdf page 25. Eco sourcing district is listed in the LMP and it is from Wellington, Hutt Areas of the Tararua Ecological District.
- Reporting procedures following the micro trial to confirm the planting methodology The trail will be setup and confirmed next year.
- Confirmation that additional planting of small grade native ‘plugs’ into the blanket will be undertaken, to supplement and compensate for unsuccessful seed germination yes. This is allowed for in the planting schedule W18001\_Waipounamu\_subdivision\_LMP\_issued 14.10.2020.pdf page 19
- Adoption of performance standards outlined in the product information 7.01. and 7.03 including 90% canopy coverage at the time of completion. Noted. report process is noted.

**Still need to submit a CNMP as per condition 45 – waiting for Marshall day to finalize.**

#### **45. Construction Noise**

Prior to works commencing a Construction Noise Management Plan (CNMP) must be prepared by a suitably qualified person experienced in Acoustic Engineering or construction management practices (experience TBC) and submitted to the Team Leader Resource Consents. The CNMP must describe the methods by which noise associated with the work will comply in all aspects with the controls set out in NZS 6803:1999 and how all persons undertaking day-to-day activity management will adopt the best practical option at all times to ensure the emission of noise from the site does not exceed a reasonable level in accordance with section 16 of the Resource Management Act 1991. The CNMP must detail how work before 8.30am and after 5.30pm will not occur near boundaries with residential sites to mitigate noise effects. The CNMP must be implemented for the duration of the site works.

Note: Guidance on the preparation of an CNMP can be found in the guidance document enclosed with this decision, and in Annexure E2 of New Zealand Standard NZS 6803:1999 Acoustics— Construction Noise.

**Pieter Mans**

Senior Monitoring & Enforcement Officer

Hutt City Council, 30 Laings Road, Private Bag 31912, Lower Hutt 5040, New Zealand  
T 04 570 6853, M 027 204 7305, W [www.huttcity.govt.nz](http://www.huttcity.govt.nz)



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**MARSHALL DAY**  
Acoustics 

**WAIPOUNAMU DRIVE  
CONSTRUCTION NOISE MANAGEMENT PLAN**

Rp 001 20200969 | 23 October 2020

**Project:** WAIPOUNAMU DRIVE

**Prepared for:** Genesis Residential Ltd  
30 McFarlane Street  
Mount Victoria  
Wellington, 6011

**Attention:** Trishn Nand

**Report No.:** Rp 001 20200969

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<b>Status:</b>	<b>Rev:</b>	<b>Comments</b>	<b>Date:</b>	<b>Author:</b>	<b>Reviewer:</b>
			23 Oct 2020	Richard Deane	Steve Arden

## TABLE OF CONTENTS

1.0	INTRODUCTION .....	4
2.0	PROJECT DESCRIPTION .....	4
2.1	Overview .....	4
2.2	Construction Methodology .....	4
2.3	Contact Details .....	5
3.0	NOISE PERFORMANCE STANDARDS .....	5
3.1	Conditions of Consent .....	5
3.2	Noise Limits .....	6
4.0	NOISE SENSITIVE LOCATIONS .....	6
5.0	PREDICTED LEVELS .....	7
5.1	Noise .....	7
6.0	MITIGATION AND MANAGEMENT .....	8
6.1	Training .....	8
6.2	Equipment Selection .....	8
6.3	General Measures .....	9
6.4	Loading of Trucks .....	9
6.5	Noise Barriers .....	9
6.5.1	Temporary Noise Barriers .....	9
6.5.2	Permanent Noise Barriers .....	10
7.0	ENGAGEMENT .....	10
7.1	Communication .....	10
7.2	Complaints Response .....	10
8.0	MONITORING .....	11
8.1	Noise .....	11

APPENDIX A GLOSSARY OF TERMINOLOGY

APPENDIX B SITE

## 1.0 INTRODUCTION

Marshall Day Acoustics (MDA) has been engaged by Genesis Residential Ltd to prepare a Construction Noise Management Plan (CNMP) for the works associated with the construction of 89 dwellings located at 64 Waipounamu Drive in Kelson, Lower Hutt (the “subject site”). Construction activities associated with this project include earthworks, vegetation removal, civil works, creation of roads, site wide landscaping and staged subdivision.

This CNMP is required to satisfy Consent Condition 45 of consent number RM180513.

This report (Rp 001) identifies the guideline noise performance standards for the Project and sets out best practicable options (BPO) for noise management.

This CNMP should be implemented throughout the earthworks and construction period. It should be considered a ‘living document’ that is expanded and updated as the Project progresses and as methodologies become refined. It is intended to be the primary tool to manage the construction noise effects. The Project Manager is ultimately responsible for implementing this CNMP.

A glossary of terminology is included in Appendix A.

## 2.0 PROJECT DESCRIPTION

### 2.1 Overview

The proposed works comprises of:

- Site wide bulk earthworks (including the installation of retaining walls)
- Vegetation removal
- Civil works including the construction of through roads
- Landscaping
- The construction of 89 dwellings

Site maps identifying the zoning and extent of works are attached in Appendix B.

Bulk earthworks are scheduled to occur for approximately 2.5 years and civil works for 4 years. Therefore, the long-duration construction noise limits apply (see Section 3.2 for details).

As per condition 48 of RM180513, construction works will occur between 7.30am to 6pm, Monday to Saturday with quiet setting up of site from 6.30am. No work is to be carried out on Sundays or public holidays.

### 2.2 Construction Methodology

The construction methodology for this Project is as follows. Note that some of these stages would occur concurrently:

- |                               |                  |
|-------------------------------|------------------|
| • Vegetation removal          | 12 months        |
| • Civil works                 | 4 years (staged) |
| • Landscaping                 | 4 years (staged) |
| • Earthworks                  | 2.5 years        |
| • Retaining wall construction | 2 months         |
| • Building construction       | 4 years          |

## 2.3 Contact Details

Contact details for the relevant personnel are included in Table 1. The Project Manager is ultimately responsible for implementing this CNMP.

**Table 1: Contacts**

Role	Name	Organisation	Phone	Email
Project Manager	Trishn Nand	Macroventures	022 487 5171	trishn@macroventures
Acoustic Specialist	Steve Arden	MDA	04 499 3016	<a href="mailto:steve.arden@marshallday.co.nz">steve.arden@marshallday.co.nz</a>
Public Complaints	<a href="https://conmon.co/kelson-complaint/index.html">https://conmon.co/kelson-complaint/index.html</a>			

## 3.0 NOISE PERFORMANCE STANDARDS

### 3.1 Conditions of Consent

Consent number RM180513, issued by the Hutt City Council, includes the following condition of consent:

45. *Construction Noise*

*Prior to works commencing a Construction Noise Management Plan (CNMP) must be prepared by a suitably qualified person experienced in Acoustic Engineering or construction management practices (experience TBC) and submitted to the Team Leader Resource Consents. The CNMP must describe the methods by which noise associated with the work will comply in all aspects with the controls set out in NZS 6803:1999 and how all persons undertaking day-to-day activity management will adopt the best practical option at all times to ensure the emission of noise from the site does not exceed a reasonable level in accordance with section 16 of the Resource Management Act 1991. The CNMP must detail how work before 8.30am and after 5.30pm will not occur near boundaries with residential sites to mitigate noise effects. The CNMP must be implemented for the duration of the site works.*

*Note: Guidance on the preparation of an CNMP can be found in the guidance document enclosed with this decision, and in Annexure E2 of New Zealand Standard NZS 6803:1999 Acoustics—Construction Noise.*

### 3.2 Noise Limits

The consent condition does not explicitly state any noise limits. However, it does reference NZS 6803:1999 “Acoustics - Construction Noise”. In determining what is considered reasonable under Section 16 of the Resource Management Act, we have applied the noise limits from that standard as a guide.

In New Zealand, construction noise is measured and assessed in accordance with the provisions of New Zealand Standard NZS 6803:1999 “Acoustics - Construction Noise”. The noise limits apply at 1 metre from external façades of occupied buildings.

The duration of the project (over 20 weeks) means the long-term duration noise limits would apply. These limits are summarised in Table 2.

**Table 2: Construction noise levels for activities sensitive to noise<sup>1</sup> (e.g. occupied dwellings)**

Time of week	Time period	Long-term duration <sup>2</sup>	
		L <sub>Aeq</sub> , dB	L <sub>Afmax</sub> , dB
Weekdays	0630 – 0730	55	75
	0730 – 1800	70	85
	1800 – 2000	65	80
	2000 – 0630	45	75
Saturdays	0730 – 1800	70	85
	1800 – 0630	45	75
Sundays and public holidays	0730 – 1800	55	85
	1800 – 0630	45	75

### 4.0 NOISE SENSITIVE LOCATIONS

The closest residential dwellings to the site are located on Major Drive and Kaitangata Crescent, which are immediately adjacent to the subject site. These are as follows:

- 1 to 19 Kaitangata Crescent (odd numbers only)
- 205 to 243 Major Drive (odd numbers only)

Other sites may be affected by noise from the site. However, due to increased distance from activities and (in some cases) screening provided by intervening buildings and topography, noise levels would be less than those identified in this CNVMP.

<sup>1</sup> Activities sensitive to noise are defined as ‘Any dwelling, visitor accommodations, boarding house, marae, Papakainga, integrated residential development, retirement village, supported residential care, care centres, lecture theatres in tertiary education facilities, classrooms in education facilities and healthcare facilities with an overnight stay facility’.

<sup>2</sup> Construction work at any one location with a duration exceeding 20 weeks



## 5.0 PREDICTED LEVELS

### 5.1 Noise

Table 3 provides indicative construction noise levels for the type of equipment, that would be used on this project. It also includes setback distance (in metres) in order to meet the 70 dB  $L_{Aeq}$  noise limit, with and without an effective noise barrier.

Table 3 should be used by the Project Manager (or nominated person) prior to construction to inform what equipment will require mitigation and/or management and when. It should be kept up to date when new information becomes apparent through noise monitoring (Section 8.1) or when equipment is used on site which is not allowed for in Table 3. It is the responsibility of the Project Manager to inform the Acoustic Specialist when Table 3 requires updating.

**Table 3: Indicative noise levels at 1m from a building façade<sup>3</sup>**

Equipment	Sound Power Level (dB $L_{Aeq}$ )	Noise Level (dB $L_{Aeq}$ )			Setback (m)	
		10 m	20 m	50 m	70 dB $L_{Aeq}$	70 dB $L_{Aeq}$ with noise barrier <sup>4</sup>
Excavator (20T)	104	79	73	64	30	10
Dozer	112	87	81	72	60	25
Scrapers	110	85	79	70	50	20
Compactor	110	85	79	70	50	20
Dump Trucks	108	83	77	68	40	15
Water Cart	102	77	71	62	25	10
Loader	103	78	72	63	25	10
Roller	110	85	79	70	50	20
Grader	109	84	78	69	45	15
Rock breaker	121	96	90	81	130	50
Concrete truck/pump	108	83	77	68	40	15
Generator	93	68	62	53	10	5

The noise level received inside a noise sensitive space (e.g. a living room) will depend on the external noise level, sound insulation performance of the façade (particularly the glazing) and room constants (such as the room dimensions and surface finishes). These factors can vary widely.

The Construction Noise Standard (NZS 6803:1999) recommends noise limits assessed at 1 metre from the external façade of a building, assuming a façade sound level difference of 20 decibels. However, 20 decibels is particularly conservative for modern buildings. With knowledge of the façade glazing type, the sound insulation performance can generally be estimated as follows:

- Sealed glazing 30 decibels façade sound level difference
- Openable windows (closed) 20 – 25 decibels façade sound level difference
- Open windows 15 decibels façade sound level difference

<sup>3</sup> In accordance with the requirements of NZS 6803: 1999 inclusive of 3 decibels façade reflection

<sup>4</sup> Assuming 10 decibels shielding from effective noise barriers

Table 4 provides guidance on the effects in noise sensitive spaces during the day depending on the external noise level and façade glazing type. For the dwellings close to the subject site, it is reasonable to assume the last two columns of Table 4 would apply for windows closed and open respectively. This is due to the age of the dwellings.

The potential effects are colour coded as follows:

- Typically acceptable
- Annoyance and reduction in work efficiency for some occupants
- Annoyance and degradation of communication quality for most occupants

**Table 4: Daytime noise levels in commercial & industrial buildings and habitable rooms in dwellings**

External Noise Level (dB LAeq)	Estimated Internal Noise Level (dB LAeq)			
	Sealed glazing	Openable windows (modern building)	Openable windows (older building)	Open windows
90 – 95	60 – 65	65 – 70	70 – 75	75 – 80
85 – 90	55 – 60	60 – 65	65 – 70	70 – 75
80 – 85	50 – 55	55 – 60	60 – 65	65 – 70
75 – 80	45 – 50	50 – 55	55 – 60	60 – 65
70 – 75	40 – 45	45 – 50	50 – 55	55 – 60

## 6.0 MITIGATION AND MANAGEMENT

### 6.1 Training

All staff will participate in an induction training session prior to the start of construction, with attention given to the following matters:

- Construction noise limits (Section 3.2)
- Activities with the potential to generate high levels of noise (Section 5.1)
- Noise mitigation and management procedures (Section 6.0)
- The sensitivity of receivers and any operational requirements and constraints identified through communication and consultation (Section 7.0)

Awareness of current noise matters on, or near active worksites, will be addressed during regular site meetings and/or 'toolbox' training sessions.

### 6.2 Timing of activities

All noisy works should be carried out between 7.30am and 6pm, Monday to Saturday.

Where practicable, works should not be carried out close to boundaries of residential sites before 8.30am or after 5.30pm. As a general guide, a setback distance of 50 metres from the residential boundary should be implemented at these times, or 25 metres where noise barriers are placed between the source of noise and the noise sensitive receivers.

High noise activities, such as rock breaking, should not occur prior to 8.30am or after 5.30pm.

### 6.3 Equipment Selection

When selecting construction equipment, where practicable:

- Prioritise quieter construction methodologies

- Prioritise electric motors over diesel engines
- Prioritise rubber tracked equipment over steel tracked equipment
- Equipment should be suitably sized for the proposed task
- Equipment should be maintained and fitted with exhaust silencers and engine covers
- Avoid tonal reversing or warning alarms (suitable alternatives may include flashing lights, broadband audible alarms or reversing cameras inside vehicles)

#### 6.4 General Measures

Complaints can arise whether or not noise levels comply with the Project limits. To avoid complaints, general mitigation and management measures include, but are not be limited to, the following:

- Avoid unnecessary noise, such as shouting, the use of horns, loud site radios, rough handling of material and equipment, and banging or shaking excavator buckets
- Avoid steel on steel contact such as during the loading of scaffolding on trucks
- Avoid high engine revs through appropriate equipment selection and turn engines off when idle
- Maintain site accessways to avoid pot holes and corrugations
- Mitigate track squeal from tracked equipment, such as excavators (may include tensioning and watering or lubricating the tracks regularly)
- Minimise construction duration near sensitive receivers
- Stationary equipment (e.g. generators) should be located away from noise sensitive receivers and site buildings and material stores used to screen them
- Orient mobile machinery to maximise the distance between the engine exhaust and the nearest sensitive building façade (e.g. excavators)
- Utilise noise barriers where appropriate (Section 6.5)
- Implement specialised mitigation measures for piling
- Ensure advanced communication is complete (Section 7.0) prior to commencing activities that are predicted to exceed the noise performance standards (Section 5.0)
- Undertake monitoring as appropriate (Section 8.0)

#### 6.5 Loading of Trucks

Our experience has shown that loading demolition material onto trucks can provide a significant source of noise, even though it would only occur for a short time period. This is particularly the case with the first loads into an empty tray. The loading points need to be selected carefully, away from the closest noise sensitive buildings. Additionally, the material (particularly the first loads) should be carefully placed into the tray, rather than “dumped” from a height above the tray.

#### 6.6 Noise Barriers

##### 6.6.1 Temporary Noise Barriers

Temporary noise barriers should be used where practicable, and where the barriers would noticeably reduce the construction noise level. They should be installed prior to works commencing and maintained throughout the works. Effective noise barriers can reduce the received noise level by up to 10 decibels.

Where practicable, the following guidelines should be incorporated in the design and utilisation of temporary noise barriers:

- The panels should be constructed from materials with a minimum surface mass of 6.5 kg/m<sup>2</sup>. Suitable panels include 12 mm plywood or the following proprietary 'noise curtains'. Note that for some applications and activities such as rockbreaker operation, the 'noise curtains' can be located close to the noise source (for instance, the breaker bit) to achieve an effective reduction of noise.
  - Duraflex 'Noise Control Barrier - Performance Series' ([www.duraflex.co.nz](http://www.duraflex.co.nz))
  - Soundex 'Acoustic Curtain - Performance Series' ([www.ultimate-solutions.co.nz](http://www.ultimate-solutions.co.nz))
  - Flexshield 'Sonic Curtain with 4 kg/m<sup>2</sup> mass loaded vinyl backing' ([www.flexshield.co.nz](http://www.flexshield.co.nz))
  - Alternatives should be approved by a suitably qualified acoustic specialist because some proprietary noise curtains have insufficient surface mass for general use.
- The panels should be a minimum height of 2 metres, and higher if practicable
- The panels should be abutted or overlapped to provide a continuous screen without gaps at the bottom or sides of the panels
- The panels should be positioned as close as practicable to the noisy construction activity to block line-of-sight between the activity and noise sensitive receivers

Where positioned on the site boundary, additional local barriers should be considered near the activity to ensure effective mitigation for sensitive receivers on upper floor levels.

#### 6.6.2 Permanent Noise Barriers

Permanent boundary fences may be constructed, or existing fences upgraded, to provide effective noise mitigation during construction. However, where required for mitigating noise from future activities (post construction), the panels must be constructed from materials with a minimum surface mass of 10 kg/m<sup>2</sup>, such as 18 mm plywood or 20 mm pine.

## 7.0 ENGAGEMENT

### 7.1 Communication

The most important method of reducing annoyance and complaints associated with construction is adequate communication nearby residents.

Written communication (e.g. newsletter) should be provided to occupiers of buildings within 50 metres of the subject site boundary, prior to the Project commencing. It should acknowledge that some activities are predicted to generate high noise levels that may result in disturbance for short periods. It should include details of the overall works, its timing, duration and contact details where complaints and enquiries should be directed.

Written communication during the works:

- Public site signage should include contact details
- Regular project updates should include details of impending activities that may result in disturbance. It should include scheduled timing and duration of these activities and contact details where complaints and enquiries should be directed

### 7.2 Complaints Response

All construction noise complaints should be recorded in a complaints file that is available to Council on request. For each complaint, an investigation should be undertaken involving the following steps as soon as practicable:

- Acknowledge receipt of the concern or complaint within 24 hours and record:
  - Time and date the complaint was received and who received it

- o Time and date of the activity subject to the complaint (estimated where not known)
- o The name, address and contact details of the complainant (unless they elect not to provide)
- o The complainants' description of the activity and its resulting effects
- o Any relief sought by the complainant (e.g. scheduling of the activity)
- Identify the relevant activity and the nature of the works at the time of the complaint
- If a reasonable complaint relates to building damage, inform the on-duty site manager as soon as practicable and cease associated works pending an investigation
- Review the activity noise levels (Section 5.0) to determine if the activity is predicted to comply with the guideline performance standards (Section 3.0) at the complainants building. Consider attended monitoring to verify the underlying reference level assumptions
- Review the mitigation and management measures in to ensure the activity represents the BPO (Section 6.0). Review the relief sought by the complainant. Adopt further mitigation and management measures as appropriate
- Report the findings and recommendations to the Project Manager, implement changes and update this CNMP as appropriate
- Report the outcomes of the investigation to the complainant, identifying where the relief sought by the complainant has been adopted or the reason(s) otherwise

In most cases, ceasing the activity would provide immediate relief. In some cases, this may not be practicable for safety or other reasons. The complainant should be kept updated regularly during the time it takes to resolve the matter.

## 8.0 MONITORING

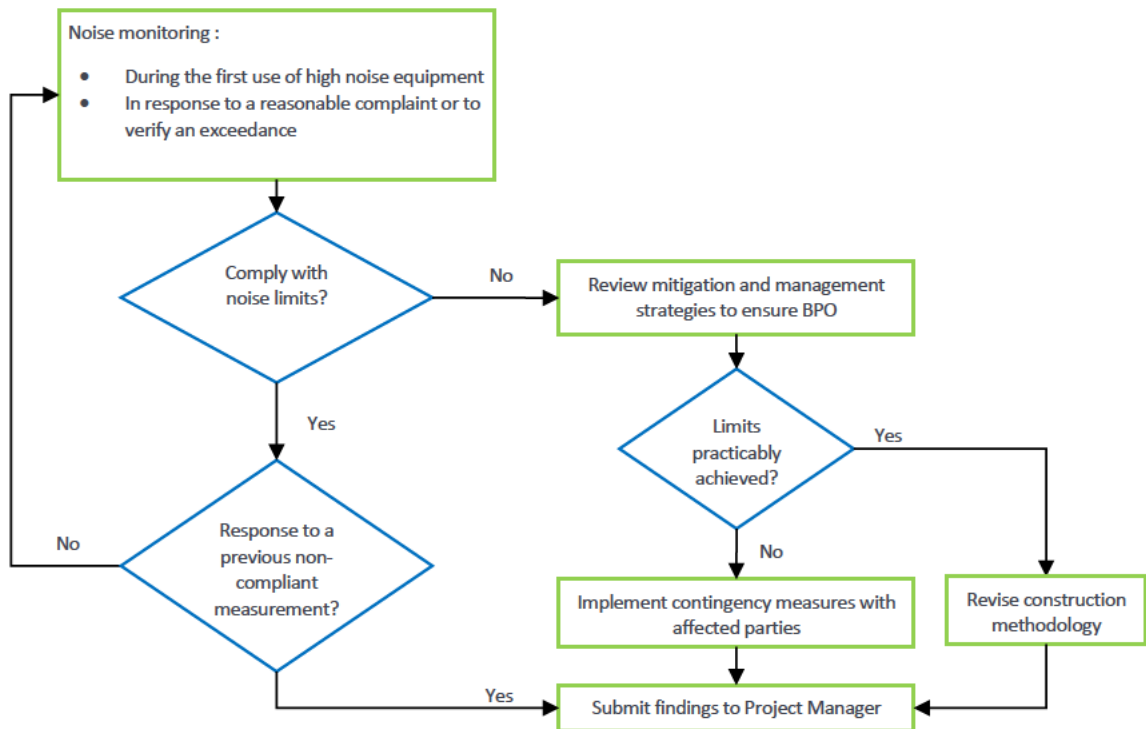
### 8.1 Noise

Construction noise levels should be monitored:

- In response to a reasonable noise complaint (Section 7.2)
- At 1 metre from the most affected building façade, or proxy position and adjusted for distance and façade reflections where appropriate
- By a suitably qualified and experienced specialist (e.g. Member of the Acoustical Society of New Zealand) in accordance with the requirements of New Zealand Standard NZS 6803: 1999 "*Acoustics - Construction Noise*"
- For a representative duration, reported with the measured level (e.g. 65 dB  $L_{Aeq(30min)}$ )
- The results should be used to update Section 5.1 if appropriate

A noise monitoring flowchart is presented in Figure 1.

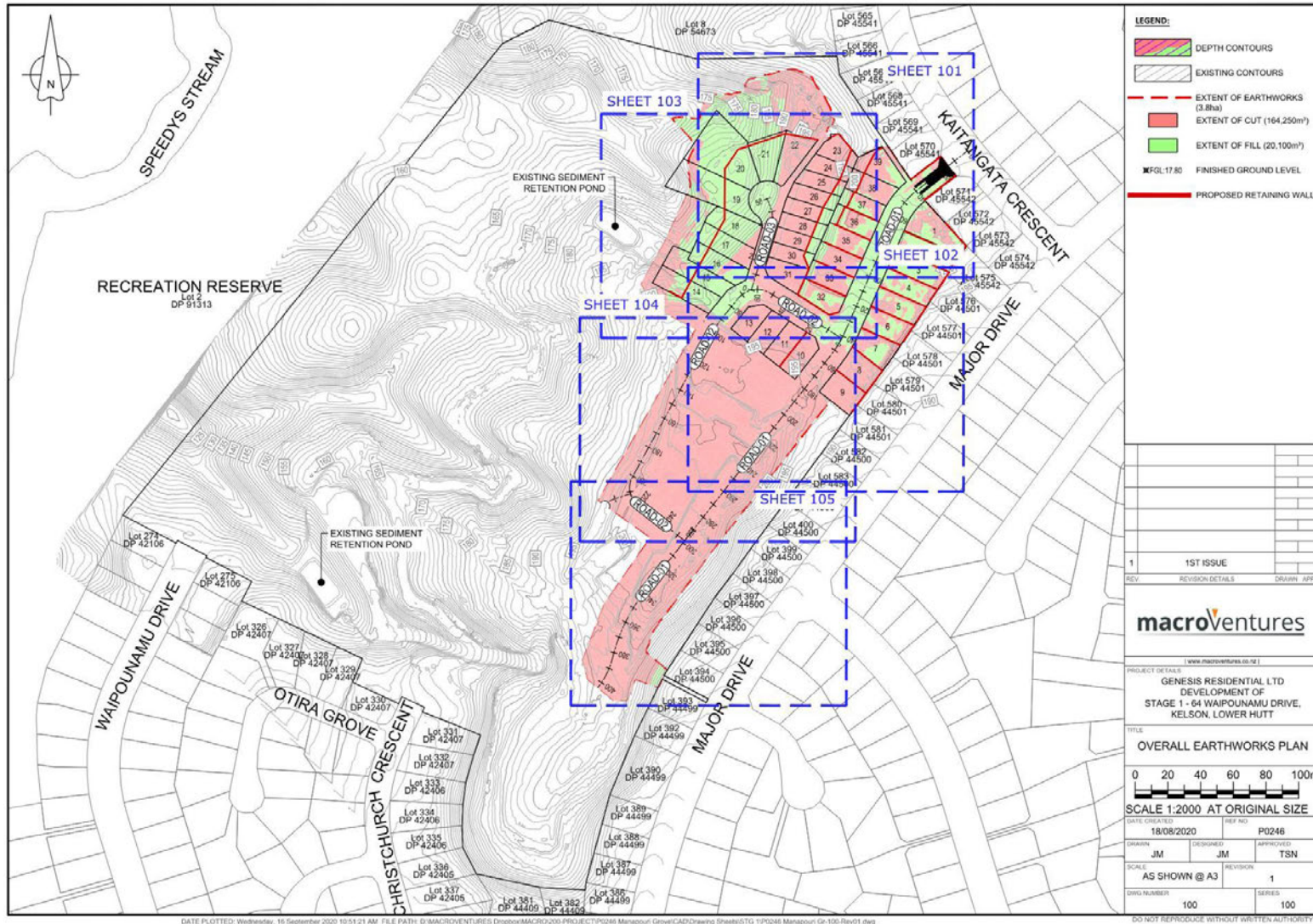
Figure 1: Noise Monitoring Flow Chart



**APPENDIX A GLOSSARY OF TERMINOLOGY**

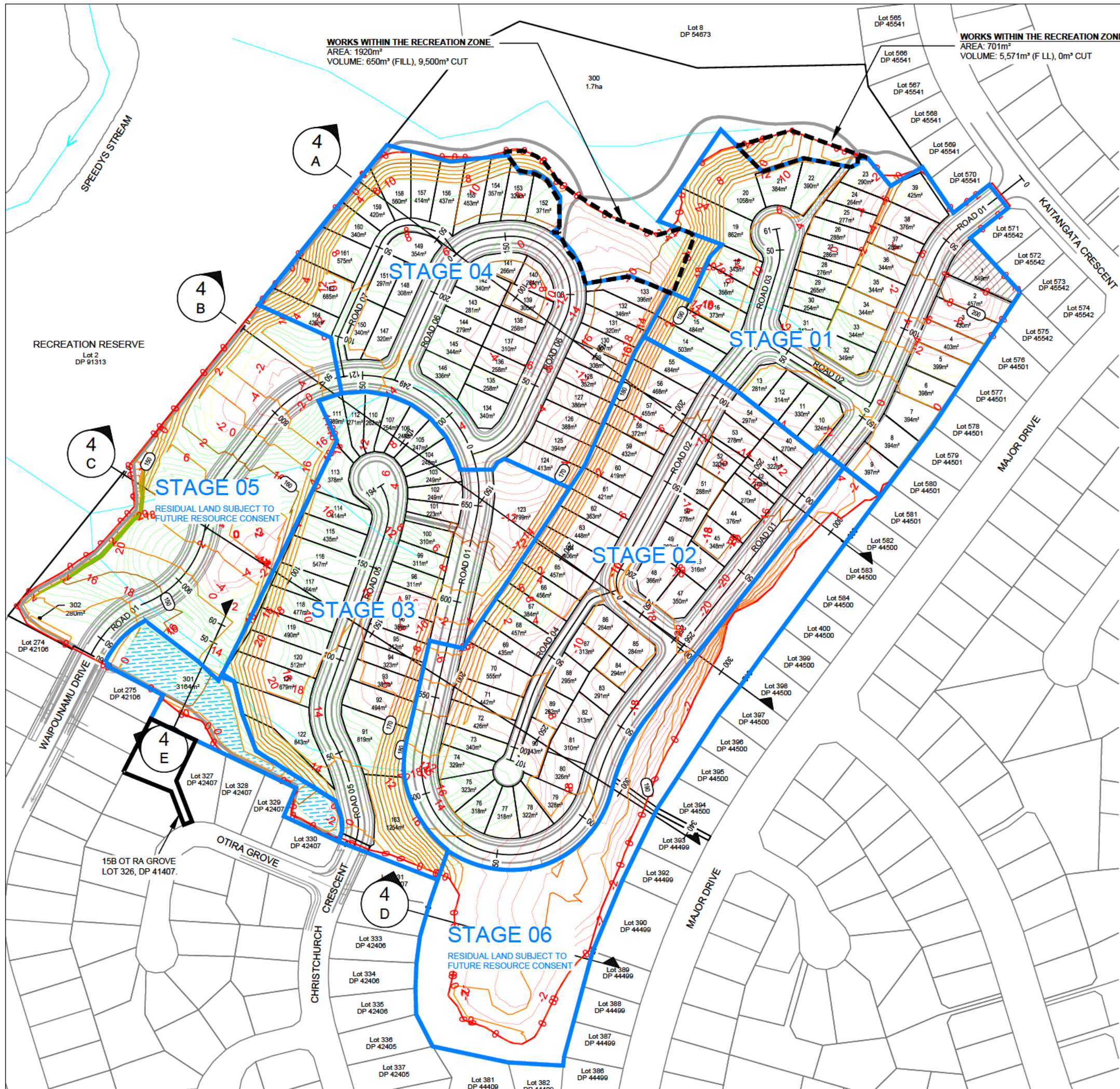
<b>Noise</b>	A sound that is unwanted by, or distracting to, the receiver.
<b>dB</b>	Decibel (dB) is the unit of sound level. Expressed as a logarithmic ratio of sound pressure (P) relative to a reference pressure (Pr), where $dB = 20 \times \log(P/Pr)$ .
<b>dB(A)</b>	The unit of sound level which has its frequency characteristics modified by a filter (A-weighted) to more closely approximate the frequency bias of the human ear. A-weighting is used in airborne acoustics.
<b>L<sub>Aeq</sub>(t)</b>	The equivalent continuous (time-averaged) A-weighted sound level commonly referred to as the average level. The suffix (t) represents the period, e.g. (8 h) would represent a period of 8 hours, (15 min) would represent a period of 15 minutes and (2200-0700) would represent a measurement time between 10 pm and 7 am.
<b>L<sub>AFmax</sub></b>	The A-weighted maximum noise level. The highest noise level which occurs during the measurement period.
<b>NZS 6803:1999</b>	New Zealand Standard NZS 6803: 1999 “Acoustics - Construction Noise”
<b>BS 5228:2009</b>	British Standard BS 5228:2009 “Code of practice for noise and vibration control on construction and open sites, Part 1: Noise,”

**APPENDIX B SITE**









**KEY:**

- CUT CONTOUR
- FILL CONTOUR
- 0 CONTOUR LINE (NO CUT/FILL)
- PROPOSED WETLAND

**QUANTITIES**

TOTAL BULK EARTHWORKS CUT TO FILL = 412,000m<sup>3</sup>  
 TOTAL SITE AREA TO BE DISTURBED AND VEGETATION REMOVED = 11.98 HA  
 STAGE 1 APPROVED AS PART OF STAGE 1 CONSENT IS = 7.19 HA  
 STAGE 2 TOTAL AREA AND VEGETATION REMOVABLE REQU RED = 4.79 HA

B	REV B.	21 JULY 19
A	1ST ISSUE	BY TN
REV.	REVISION DETAILS	DRAWN APP.

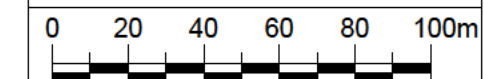
**macroventures**

+64224875171 | trishn@macroventures.co.nz | www.macroventures.co.nz

**PROJECT DETAILS**

GENESIS RESIDENTIAL LTD  
 DEVELOPMENT OF  
 64 WAIPOUNAMU DRIVE

TITLE  
 EARTHWORKS VOLUME



SCALE 1:2000 AT ORIGINAL SIZE

DATE CREATED 16/8/2019	REF NO P1
DRAWN TSN	DESIGNED ---
APPROVED ---	STATUS FOR CONSENT
SCALE 1:2000 @ A3	REVISION B
DWG NUMBER 03	

Noise from construction work can often cause a disturbance to neighbours close to construction sites, particularly when the works occur outside 'normal working hours'.

While it is expected that many construction activities will produce noise that is loud, there are methods of reducing noise levels in order to meet the relevant standard (New Zealand Standard 6803). These include screening of the noise source from affected persons, using quieter alternative equipment, or quietening equipment with additional or more robust mufflers or insulation.

Noise that is deemed 'excessive' by a Council Noise Control Officer must be abated immediately.

Section 16 of the Resource Management Act also requires that every site operator adopt the best practicable option to ensure noise does not exceed a reasonable level. This means that even if the recommended upper limits are not being exceeded, everything should be done on site to minimise noise if it is easily achievable and not cost prohibitive.

All noisy work should, where possible be timed to cause the least annoyance to people living and working close to the site.

The following table is from the relevant New Zealand Standard and provides recommended upper limits for various times and days of the week.

## RECOMMENDED UPPER LIMITS FOR CONSTRUCTION WORK NOISE IN RESIDENTIAL AREAS

### Noise Level (dBA)

Time Period	Weekdays			Saturdays			Sundays and Public Holidays		
	L10	L95	Lmax	L10	L95	Lmax	L10	L95	Lmax
6:30am – 7:30am	60	45	70	*	*	*	*	*	*
7:30am – 6:00pm	75	60	90	75	60	90	*	*	*
6:00pm – 8:00pm	70	55	85	*	*	*	*	*	*
8:00pm – 6:30am	*	*	*	*	*	*	*	*	*

\* At these times the relevant provisions of NZS6802 shall apply. This may mean that no noisy work can take place during these hours.

# RECOMMENDED UPPER LIMITS FOR CONSTRUCTION WORK NOISE IN COMMERCIAL AREAS\*

## Noise Level (dBA)

Time Period [hours between]	L10	L95
7:30am – 6:00pm	75	60
6:00pm – 7:30am	80	N/A

\* *Where the affected premises are hotels, libraries, cultural centres and so on which have more noise sensitive activities, then the limits in the table for residential areas shall apply.*

## NOTICE TO AFFECTED PARTIES

Noise problems can be easily avoided by providing prior notification to affected parties such as nearby neighbours. The attached form can be copied and distributed to potentially affected persons.

For more information about the New Zealand construction noise standard and methods of reducing noise, please contact one of Council's Environmental Health Officers on 570 6666.

# NOTIFICATION OF PROPOSED WORKS

To  <b>The property owner/resident/business</b>
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This is to advise you of nearby construction/road works that will be carried out soon.

Location of work
Description of work
The work is being done for
Expected duration
Hours of work
Any parking restrictions

We regret any inconvenience that may be caused by this work.

If you have a problem, please contact us at the number/s below.

Contractor
Contact numbers

cc The Environmental Inspections office  
Hutt City Council  
30 Laings Road  
Lower Hutt  
Fax 04 570 6855

**From:** [Information Management Team](#)  
**To:** [REDACTED]  
**Subject:** RE: LGOIMA Request  
**Date:** Monday, 9 November 2020 2:41:00 PM

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09/11/2020

[REDACTED]

Dear [REDACTED]

**REQUEST FOR INFORMATION - LOCAL GOVERNMENT OFFICIAL INFORMATION AND MEETINGS ACT 1987: ACKNOWLEDGEMENT OF REQUEST**

I am writing to acknowledge receipt of your official information request dated 5 November 2020 for information regarding the 'Kelson Heights' project.

We received your request on 5 November 2020. We will endeavour to respond to your request as soon as possible and in any event no later than 20 working days after the day your request was received. If we are unable to respond to your request by then, we will notify you of an extension of that timeframe.

If any additional factors come to light which are relevant to your request, please do not hesitate to contact us so that these can be taken into account.

Yours sincerely,

**Euan Kyle**  
Senior Advisor, Official Information and Privacy

Hutt City Council, 30 Laings Road, Private Bag 31912, Lower Hutt 5040, New Zealand  
T 04 570 6702 W [www.huttcity.govt.nz](http://www.huttcity.govt.nz)

**From:** Contact  
**Sent:** Thursday, 5 November 2020 3:06 PM  
**To:** Information Management Team  
**Subject:** LGOIMA Request

**Name** [REDACTED]  
**Organisation**  
**Address**  
**Telephone**  
**Mobile** [REDACTED]  
**Email** [REDACTED]

**Response By** Email

**Information requested** 1) Copies of any resource consents issued for the 'Kelson Heights' project 2) Copies of any emails sent between the Council and any contractors involved in the work, which relate to Saturday work, disruption on houses or any presumed negative consequences to Kelson properties 3) Dates in which the Council notified properties that would be impacted and if none were notified, why the Council decided not to notify 4) Copies of consultation with local Iwi's about any environmental or other negative effects the construction may cause 5) Any meeting notes or emails the Council have created around the possible impacts on traffic within Kelson and at the lights connecting Kelson to the Motorway If none exist, a reason why the Council has not thought of these impacts 6) In regards to the letter sent to Kelson residents, has the Council viewed the Letter and does the Council agree that complaints should be raised with the private company first?

**File upload**

**Urgency Reason** The Kelson community plan to have a group meeting about the project and this information is required to help define claims made in a letter drop to houses in the area I believe that any fees should be waived due to the high amount of public interest in Kelson and the impact that the construction will have on Kelson over the next 4 years

**Invisible CAPTCHA** 2020-11-05 14:53:10