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**Copy via email:** s 9(2)(a)

Dear Pamela

## **KINGS QUARRY STAGE 2 – FAST-TRACK APPLICATION MEMORANDUM**

Further to your instruction, we are pleased to provide this memorandum outlining our initial review comments for Stage 2 of Kings Quarry at Pebble Brook Road, Wainui.

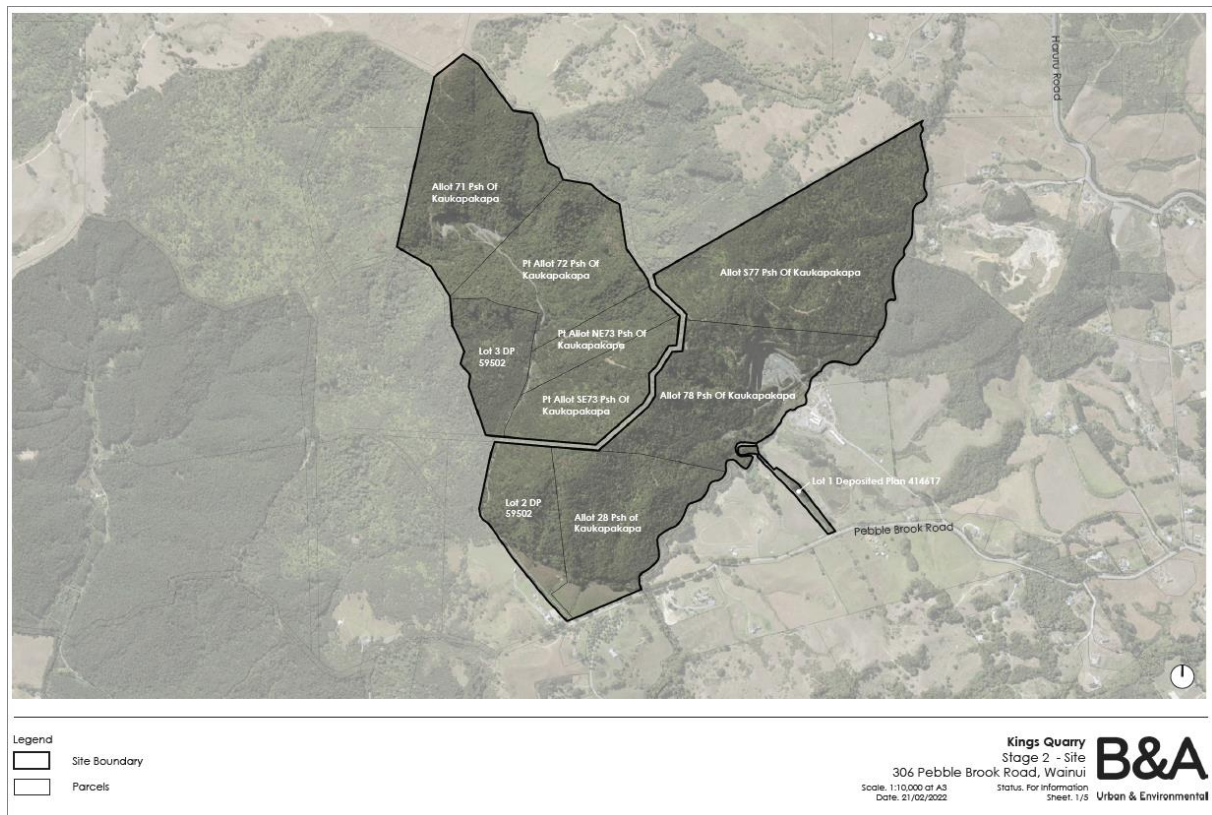
We understand that with respect to the COVID-19 Recovery (Fast-track Consenting) Act 2020, this initial memorandum is required to inform the Minister for the Environment whether to refer the application to an expert consulting panel. If successful, then a more comprehensive assessment would be undertaken to inform the expert consulting panel of the effects of the proposal.

### **1 INTRODUCTION**

The proposal intends to establish Stage 2 of the quarry and is approximately 30ha in size. Some 500,000 tonnes of material will be excavated each year, over a 60-year time period.

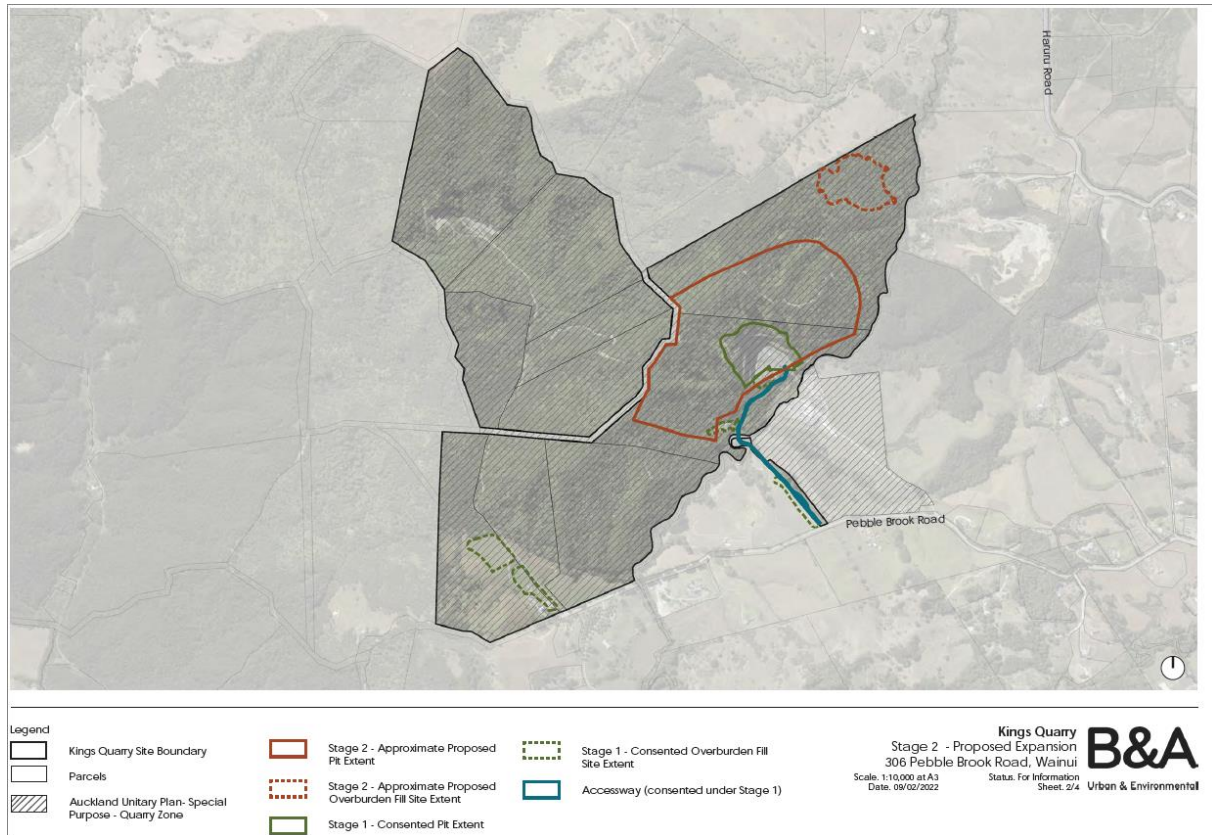
The site is zoned Special Purpose – Quarry Zone in the Auckland Unitary Plan Operative in Part 15 November 2016 (Unitary Plan). Figure 1 shows the overall layout of Kings Quarry.

**Figure 1: Proposed Kings Quarry Layout**



The quarry is located on the northern side of Pebble Brook Road, some 1.5km northwest of the Waitoki Road / Pebble Brook Road intersection. A consent has been granted for Stage 1 of the quarry site, immediately south of Stage 2. The two quarry stages are shown in Figure 2 below.

**Figure 2: Stage 1 and Stage 2 Location Plan**



The Stage 1 quarry consent included a suite of upgrades to the site and the local traffic network, particularly:

- Establishment of new site access to Pebble Brook Road to allow two-way truck movement;
- Establishment of internal site accessways;
- Widening of Pebble Brook Road to allow two-way truck movement along its length; and
- Improvements to the Pebble Brook Road / Waitoki Road intersection, including:
  - Change from Give-Way to Stop controlled intersection;
  - Shifting of the posted speed limit signage 150m to the west. This reduces the speed limit from 100km/h to 80km/h for eastbound vehicles through the intersection;
  - Installation of high friction surfacing for 100m west of the intersection; and
  - Changes to paint markings and installation of truck turning signage.

It is noted that a detailed design Road Safety Audit has been undertaken for the Stage 1 upgrades and therefore additional minor changes may be implemented. The upgrades detailed above are however considered suitable to accommodate quarry traffic.

This report assesses the ability of the traffic network to accommodate the additional Stage 2 quarry traffic.

## 2 TRAFFIC GENERATION

### 2.1 TRIP GENERATION AND EFFECTS

The nearest intersection to the proposed development is the Pebble Brook Road / Waitoki Road intersection and it has been analysed to assess the traffic generation effects of the proposed development. As detailed above, this intersection is being upgraded as part of the Stage 1 consent.

The following information has been provided by the quarry operator with regard to the anticipated trip generation of the site:

- Extraction volume of approximately 30,000,000 tonnes over 60 years;
- Extraction volume of approximately 500,000 tonnes per year;
- Average truck load of 17-20 tonnes;
- Operation 6 days per week (approximately 300 days per year); and
- Average truck access of 11 hours a day.

The above translates to approximately 83-98 trucks per day (166-196 truck movements per day) and approximately 12 truck movements per hour (6 inbound and 6 outbound).

We have undertaken preliminary analysis of the intersection and consider the addition of 6 inbound and 6 outbound truck movements through the intersection to be minimal and readily accommodated.

Given that Pebble Brook Road will be upgraded to provide simultaneous truck movement along its length (between its eastern termination and the site access), and the Pebble Brook Road / Waitoki Road intersection will be upgraded as detailed previously, no further upgrades to the existing local network or intersections are considered necessary, apart from those identified in Stage 1.

### 2.2 TRIP ORIGIN / DESTINATION

The exact destination of the trucks depends on the destination of the quarried materials; however it is noted that the majority of these trips will travel north or south on State Highway 1. Provision is made for all turning movements at the Pebble Brook Road / Waitoki Road intersection. The trucks will turn right into the site and left out of the site from Pebble Brook Road. The local turning movements of the trucks as a result of the origin / destinations are considered acceptable.

## 3 PARKING

Given the size of the quarry, the site can readily satisfy the Unitary Plan rules with respect to provision of heavy vehicle, light vehicle and bicycle parking. The parking provided should also satisfy the dimensional and gradient requirements of the Unitary Plan. All parking spaces will be accommodated on-site.

## 4 ACCESS

### 4.1 SIGHT DISTANCE

The sight distance at the Pebble Brook Road access has been previously assessed under the Stage 1 consent. The assessment found that the access location satisfies relevant requirements.

The sight distance at the Pebble Brook Road / Waitoki Road intersection was also previously assessed as part of the Stage 1 consent, and was found to be deficient to the west. The consented upgrades to the intersection as detailed previously will be implemented to mitigate this shortfall and therefore are considered appropriate.

## 4.2 SITE ACCESS

A new site access to Pebble Brook Road will be constructed to allow two-way truck movement as part of the Stage 1 works and this will also be used for Stage 2. This has been previously tested using vehicle tracking software and is considered appropriate to accommodate the anticipated design vehicles.

The Unitary Plan requires accesses used by heavy vehicles to be no steeper than 1 in 8 (12.5%). Any new haulage roads constructed as part of the Stage 2 development should also comply with this requirement, or provide suitable mitigation where it is not possible. It is considered that this can be addressed through the consent process.

## 5 WIDER EFFECTS

The site gains direct access to Pebble Brook Road, and then to Waitoki Road / Wainui Road or Waitoki Road Kahikatea Flat Road. In this regard, the wider road network provides roading links that cater predominantly for through traffic. These main roads help to facilitate the safe and efficient movement of people and goods between urban and rural centres. With suitable access provided to the arterial road network, the trucks are able to directly access a road which is specifically designed to accommodate large vehicles / goods.

Accordingly, the road network (with the upgrades for Stage 1) is considered suitable in terms of both design and capacity to accommodate the additional trucks. The site / proposal has the following advantages:

- The managed quarry generally generates peak movements outside commuter peaks; and
- The access and local network will be upgraded as part of the Stage 1 consent.

As such, the proposed wider network is considered suitable to accommodate the additional development traffic.

## 6 CONCLUSION

Based on the concept design, and the fundamentals of the proposed development in terms of quarry size, truck movements, proposed parking, and access provisions, we consider the proposed development acceptable and can support the current design moving forward. With the works undertaken on the local network and within the site as per the Stage 1 consent, we do not consider there are any traffic engineering or transport planning reasons why this development should not proceed through the fast-track application process.

`Yours sincerely

**Commute Transportation Consultants**



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**Senior Transport Consultant**

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