STEVENSON AGGREGATES LIMITED

Clevedon Quarry Expansion – s127 Variation to enable standalone Front of House Consent

Transportation Assessment

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5			

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1 INTRODUCTION AND BACKGROUND

Don McKenzie Consulting Ltd has been commissioned by Stevenson Aggregates Limited ("**SAL**") to prepare a Transportation Assessment report to accompany a suite of resource consents for the proposed expansion of the existing Clevedon Quarry located at 546 McNicol Road, Clevedon ("**Quarry**", "**the Site**").

To continue to provide a reliable local supply of aggregate, SAL proposes to progressively expand the Quarry within the SAL landholdings. The total proposed expansion area/Life of Quarry footprint ("**LoQ**") is approximately 74 ha (excluding the approximately 4.6 ha overburden disposal area). The expansion will be developed across five indicative stages, over an approximate 50-year period. It will provide approximately 150 MT of aggregate and approximately 10 MT of overburden while maintaining the current consented annual extraction limit of 3 MT per year, with no increase to existing operational parameters such as truck movements or hours of operation.

To enable the expansion of the Quarry, and support the extraction of aggregate, the project will include the construction of internal haul roads, overburden removal (including the establishment of overburden disposal area to the east of the proposed quarry) and construction of a new wetland water treatment system near the site entrance, to manage water runoff and discharges. Mobile crushing and fixed processing plant(s) within the pit will be the primary infrastructure processing the raw material. Current Front of House ("**FoH**") activities at the Site include mobile processing plant(s), weigh bridges, site offices, parking areas and the Quarry entrance connection to McNicol Road.

The application seeks a variation under section 127 of the Resource Management Act (**"RMA"**) to the existing 2018 Environment Court consent[1] ("**2018 Consent**"), to reduce its scope and extent so that it functions as a standalone FoH consent.

The varied 2018 Consent will authorise only the ancillary FoH activities that support quarry operations, including processing, stockpiling, site access, and the off-site transport interface. All existing transport-related conditions will be retained without modification, including limits on truck movements, routes, and hours of operation. These activities govern the generation of truck movements from the site, as traffic volumes are a function of the processing and dispatch of aggregate from the FoH area. Accordingly, traffic effects are directly linked to the throughput of the FoH activities, rather than the extent of the extraction area.

A separate resource consent application is being sought in parallel to authorise the extraction of aggregate across the proposed quarry expansion area. That consent is proposed to authorise the extraction of raw material (aggregate), which will continue to be

[1] NZEnvC 96 (Council Reference BUN60302442).

transported to, and processed within, the FoH area authorised by the proposed varied 2018 Consent. While limited mobile processing may occur within the extraction area, this does not alter the role of the FoH as the primary processing and dispatch point controlling off site-generated traffic movements. The proposed expansion of quarrying activities will represent an extension to the duration over which these current effects will be generated but will not increase the overall scale or intensity of external traffic effects beyond those already consented.

As shown on **Figure 1**, the FoH consent area (shown in blue) and the extraction area (shown hatched) will operate as complementary but legally distinct components of the overall quarry operation.

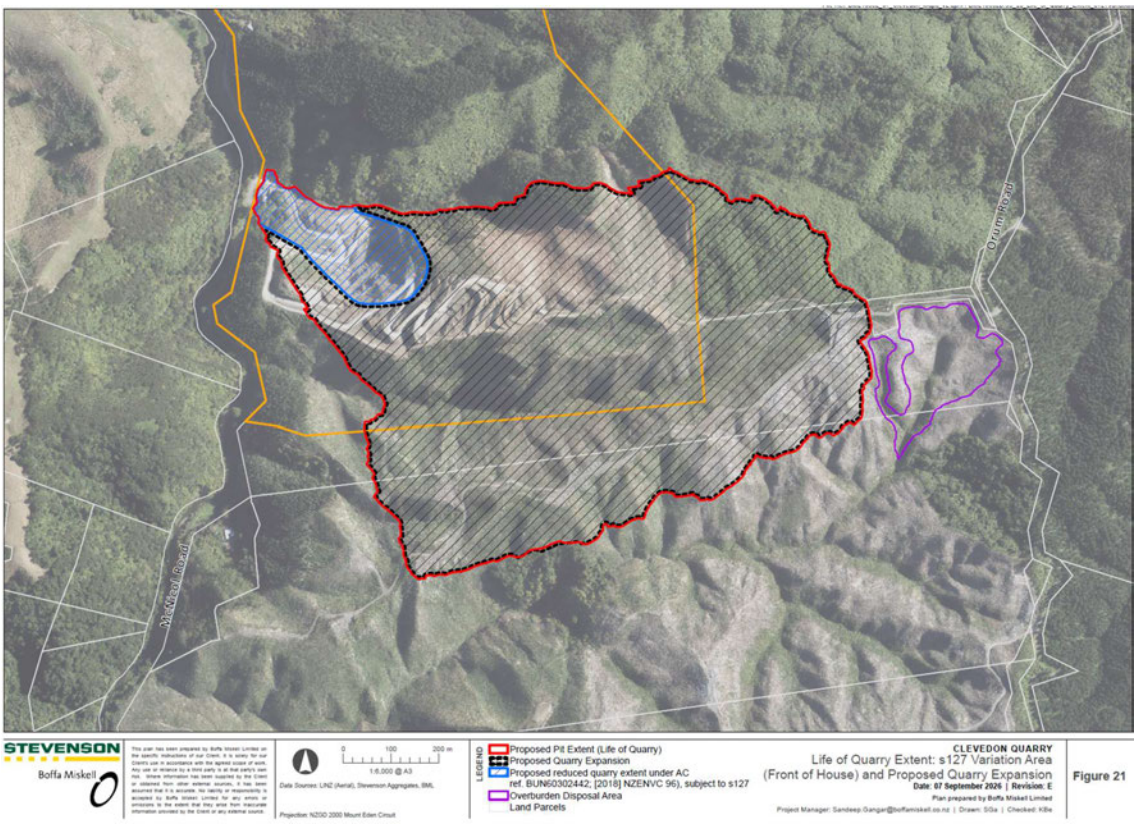


Figure 1: s 127 Variation Area

The FoH consent will authorise the processing and transport interface, while the extraction consent will authorise the supply of raw material to that area. While the activities authorised by each consent are functionally linked, the spatial extent of each consent is distinct and non-overlapping.

Importantly, the proposed s 127 variation does not seek to change or increase the nature or scale of transport activities authorised under the 2018 Consent, nor the associated upgrading and traffic management included within that 2018 consent. As traffic generation is controlled by the throughput of the FoH processing and dispatch activities, there will be

no change in traffic volumes as a result of the quarry expansion with all movement remaining within the existing consented limits.

This report addresses the transport-related aspects of the proposed s 127 standalone FOH consent application and considers:

- the current site and its surrounding traffic environment;
- the form of access and egress serving the Quarry;
- the nature and expected volumes of vehicular traffic generated by the future quarrying operations within the existing consented limits, and;
- compliance with the AUP, its associated standards and requirements.

Accordingly, this Transport Assessment is limited to the effects associated with the s 127 variation to the 2018 Consent (FoH activities only), as no additional or different traffic effects arise from the extraction consent. These and related matters are discussed in detail in the sections that follow.

In summary, the assessment demonstrates that the proposed s 127 variation, that supports the wider extraction activities, can an operate within the existing consented traffic limits resulting in no net change in effects on the function, capacity and safety of the surrounding transport network.

2 Existing Site Context

2.1 Site Location

The Quarry is located near the southern end of McNicol Road, south of Clevedon, with vehicular access to and from the primary road network via McNicol Road, Tourist Road, and Monument Road in the area south of the urban area of Clevedon.

Figure 2 is an aerial photograph indicating the location of the Quarry to the east of McNicol Road and the relationship to the transport routes serving the Site.

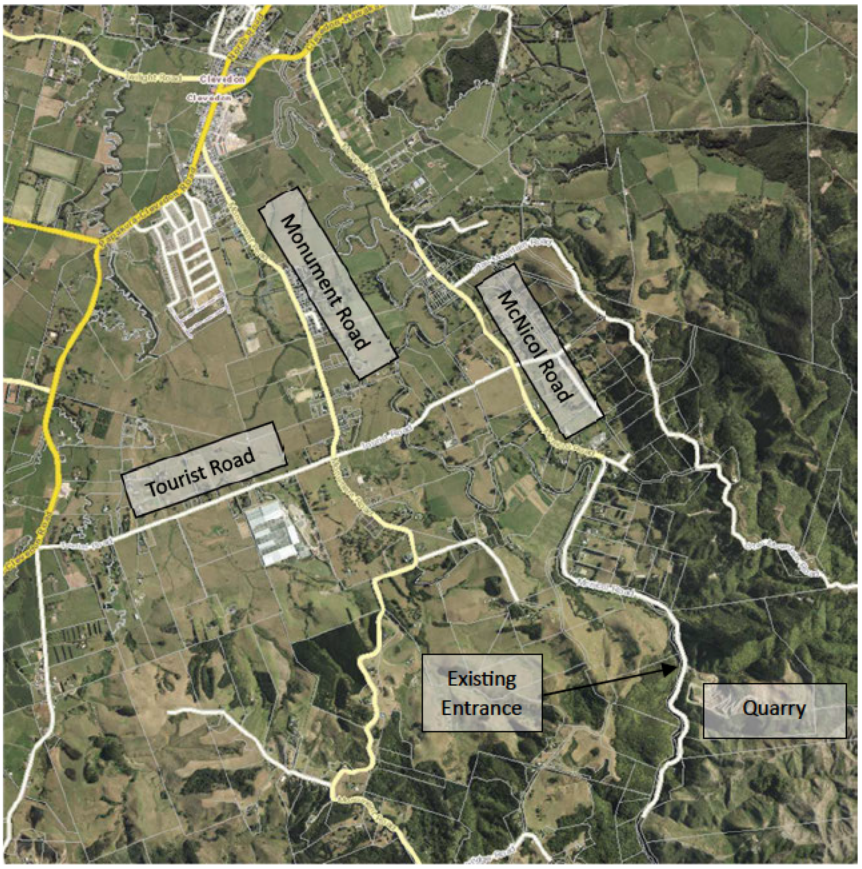


Figure 2: Site Location (Source: Auckland Council GeoMaps)

The Quarry lies immediately to the east of and connects directly to McNicol Road.

Although the local roading network in this part of the Clevedon area provides for a number of potential transport routes options, quarry trucks travelling to and from the Site are and will continue to be restricted under the 2018 Consent conditions[2] to use only the following routes:

[2] NZEnvC 96 (Council Reference BUN60302442), Condition 26.

- McNicol Road between the Quarry gate to Tourist Road, and
- Tourist Road from McNicol Road to Papakura-Clevedon Road.

Quarry-related travel beyond this immediate area is largely dependent on the specific origin and destination of the trips made to and from the Quarry. However, in general, truck movements are directed towards the west and north due to the more substantial urban and peri-urban areas of south and central Auckland.

In this regard, Quarry transport movements are more generally expected on the following roads beyond Tourist Road:

- Papakura-Clevedon Road – from Tourist Road to Mullins Road;
- Mullins Road – from Papakura-Clevedon Road to Alfriston-Ardmore Road;
- Alfriston-Ardmore Road from Mullins Road to Alfriston Road/Brookby Road; and
- Alfriston Road - continues to the west providing connections to the primary regional strategic roading connections including Mill Road, Great South Road and State Highway 1 ("**SH1**") Southern Motorway).

This distribution of transport connectivity to the more significant primary regional routes along Great South Road and SH1, integrates well with the existing and future primary roading infrastructure. The AUP does not provide specific classifications for all roads, rather, it identifies only arterial routes. The nearest arterial routes to the Clevedon Quarry site are:

- Papakura-Clevedon Road;
- Clevedon-Kawakawa Road;
- Twight Road and
- North Road (Clevedon-Maraetai).

In this regard, the proposed expansion of the quarrying activity will continue to operate under the same transport-related consent conditions and traffic limits set by the 2018 Consent, as proposed to be retained under the s 127 variation, which governs off-site-generated traffic movements. For the purposes of this assessment, the existing site context therefore reflects the currently consented and operated FoH activities, which control the generation of traffic from the Quarry and form the baseline against which the effects of the proposed s 127 variation are assessed.

3 Transport Environment

3.1 Site Access

McNicol Road serves as the principal vehicular access route for the current and proposed quarrying activities at the Quarry. It has been the only transport access route for the site since the establishment of the Quarry during the 1970's. Beyond McNicol Road, the transport connections to the arterial and regional transport routes are discussed in Section 2.1 above.

The Quarry entrance at 546 McNicol Road is positioned approximately 3.1km south of the priority control tee-intersection of McNicol Road and Tourist Road. It is in the form of an industrial access driveway with a sealed carriageway extending for approximately 200m inside the site (to a point beyond the weighbridge and wheel wash facilities).

The following photographs depict the general form of the Quarry entrance connection onto McNicol Road.



Figure 3: Quarry entrance McNicol Road (view towards south)



Figure 4: Quarry entrance McNicol Road (view towards north)



Figure 5: Quarry entrance McNicol Road (view into site)

The land-use and activity between the quarry entrance and the McNicol/Tourist intersection is characterised by rural residential developments, with approximately 20 private driveways accesses along this 3 km section of McNicol Road. McNicol Road is a sealed, rural, local route providing primarily for the vehicle access and movements functions of the properties along the route, including the Quarry. It varies in standard between a sealed, two-way width of approximately 6.5 - 7.0m in the section towards the Tourist Road intersection, while the

southern 250m-300m of the route leading towards the quarry involves a sealed width of approximately 4.5-5.5m. Despite this variation, the current road format generally remains between 6.0-6.5m wide.

In this context, the current Quarry entrance arrangement remains appropriate from both an operational and safety perspective. It currently caters for (and will continue to cater for) quarry-related truck and trailer vehicles up to 23m in length. As the proposed expansion will not change the scale or intensity of traffic activity already provided for under the 2018 Consent, no physical changes to the access layout or design are considered necessary. The access will continue to operate subject to the management measures already required by the existing consent conditions.

3.2 Traffic Volumes

Existing traffic volumes presented in Table 1 were obtained using the latest information available from various publicly available sources, including the AT and NZTA traffic count databases and MobileRoads online traffic database.

Table 1: Existing Traffic Volumes

Location	Date of Count	Average Daily Traffic (vpd)	Weekday PM Peak Hour (vph)
McNicol Road (north of Tourist Road)	2025 (est.)	500	80
McNicol Road (south of Tourist Road)	2025 (est.)	460	70
Tourist Road (McNicol Road – Monument Road)	2025 (est.)	720	100
Monument Road (north of Tourist Road)	2024 (est.)	1270	200
Clevedon-Papakura Road (east of Monument Road)	May 2025	5852	586

As can be seen from the above data, the southern section of McNicol Road closest to the quarry carries a daily two-way traffic volume typically around 500 vehicles per day ("**vpd**"), with the busiest hours seeing approximately 80 vehicles per hour ("**vph**"). The volumes carried by the northern section towards the urban area of Clevedon, are approximately 20-30% greater than the volumes south of Tourist Road towards the quarry.

Such volumes, especially those currently handled by McNicol Road (as well as other routes referenced in Table 1 above), remain well within the anticipated ordinary capacity of these routes. For example, a rural access road with one lane in each direction would have a total traffic carrying capacity of approximately 900 vph in each direction[3] and able to

[3] AUSTROADS Guide to Traffic Management Part 3: Transport Study and Analysis Methods, Table 6.1 – Typical mid-block capacities for urban roads with interrupted flow

accommodate daily flows in excess of 15,000 vpd. From an environmental capacity perspective, however, and reflecting the broad expectations of daily volumes along such rural local routes, the broadly expected flows on these roads would be in the range of between 2,000 and 5,000 vpd. The route along McNicol and Tourist Roads, to and from the quarry, is well placed to continue to operate effectively at current and consented levels.

3.3 Quarry Traffic Generation

In addition to the wider road network volumes described above, recent quarry truck movement records have been reviewed to understand current site-generated traffic activity. Across the 2025/2026 period, the busiest days generally recorded peak daily truck movements in the range of 200-250 truck movements per day ("**tmpd**"), with one exception of 280 tmpd. Activity during the latter part of the year generally reduced compared with the busier period earlier in the year, and all recorded activity remained within the truck movement limits established under the 2018 Consent.

The busiest day within the reviewed 12-month period occurred on 12 May 2025, when 280 tmpd were recorded. The single busiest hour across the same period occurred on Friday 27 June 2025 between 10:00am and 11:00am, with 44 two-way truck movements, comprising 22 inbound and 22 outbound movements. The next busiest hourly periods recorded 40 two-way truck movements, occurring on 5 March 2025 at 2:00pm and 12 May 2025 at midday.

These recorded peak daily and hourly movements remain below the relevant operational limits and thresholds established under the 2018 Consent. Condition 22 limits total quarry truck movements to a maximum of 90 truck movements per hour ("tmph") and no more than 900 tmpd, averaged over a 12-month rolling period. In addition, Condition 28(b) limits quarry truck movements to no more than 45 tmph until the road widening and upgrading works identified in Condition 60 have been completed. The recorded peak hourly movement of 44 tmph remains within that interim 45 tmph threshold.

3.4 Road Safety

A search was made of the New Zealand Transport Agency | Waka Kotahi Crash Analysis System for all reported crashes that had occurred within the section of the McNicol Road - Tourist Road between the site and Papakura-Clevedon Road over the latest five (calendar) year period from 2021 - 2025 inclusive.

The following summary of the reported crash events over the five-year period is reported:

- one minor injury, single vehicle, loss of control crash occurred in March 2023 at a point approximately along McNicol Road approximately 1.3km south of the intersection with Tourist Road;
- No reported crashes at the intersection of McNicol and Tourist Roads;

- One minor injury crash involving a motorcyclist losing control while cornering after responding to another vehicle travelling wide through a curve occurred in January 2021;
- Three crashes (one serious, one minor and one non-injury) at the at intersection of Tourist Road and Monument Road across the five-year reporting period involving a range of vehicle and road user manoeuvres such as vehicles crossing at right angles (failure to stop), queuing (rear end stopping for cross-traffic),
- One minor and one non-injury in the section of Tourist Road between the Monument and Papakura-Clevedon Road intersections involving one loss of load from a (non-truck) trailer
- Four crashes (one serious and three minor non-injury) at the at intersection of Tourist Road and Papakura-Clevedon Road across the five-year reporting period involving a range of vehicle and road user manoeuvres such as vehicles crossing and turning through the intersection, and individual vehicle loss of control.

Overall, a total of 11 crash events have been reported over the five-calendar year period ending 31 December 2025 along this nearly 7km transport route. It is of note that there were no events reported involving either quarry-related vehicles (or other heavy vehicles generally) turning at the Quarry entrance on McNicol Road over the past five calendar years of records. Two minor injury crashes involving heavy vehicles were reported – one single vehicle loss of control incident on McNicol Road south of Whiteside Lane, and another at the intersection of Monument Road and Tourist Road where a light vehicle failed to Give Way to a southbound truck travelling along Tourist Road (i.e. not associated with travel either to or from the Quarry site).

Accordingly, there is nothing available within the current road safety record that points to any repeated or specific factors that would adversely affect the continued good road safety record of both the Quarry access connection to McNicol Road and the access route between the site and Papakura-Clevedon Road, associated with this application.

3.5 Walking, Cycling and Equestrians

Cyclists and pedestrians using McNicol Road are currently required to use the road carriageway and roadside grass berms. Typical walking and cycling activity along the road includes local access movements to and from the properties along the route, as well as some limited recreational access to the Wairoa Gorge Scenic Reserve located southwest of the quarry site.

3.6 Current Transport Environment and 2018 Consent

The 2018 Consent conditions provide for and were framed using the following key parameters:

- Annual aggregate and overburden extraction of up to approximately 3 million tonnes ("**MT**");
- The spatial extent of the quarry totalling approximately 29 ha, with an ultimate consented depth of RL -50;
- Six stages of extraction enabling the extraction of approximately 60 MT of material over a 35-year term.

The 2018 Consent established a number of specific transport-related conditions based on the previous baseline and projected transport environment surrounding the Quarry including:

- Where temporary restrictions apply to Tourist Road (for example, closure due to flooding), the number of quarry truck movements through Clevedon Village shall not exceed 200 per day (Condition 28(a)(i));
- No quarry trucks shall use the section of McNicol Road north of Tourist Road, unless they are visiting Clevedon, or are associated with deliveries (in this area or environs beyond) or are required to use this route due to temporary restrictions imposed on Tourist Road (Condition 26);
- The consent holder must take all practicable measures to ensure quarry trucks do not exceed 50 kilometres per hour ("**km/h**") on all of McNicol Road, or on Tourist Road, east of the one-lane bridge (Condition 25);
- The consent holder will take all practicable steps to ensure that quarry trucks do not enter Tourist Road or McNicol Road before 6.30 am, Monday to Saturday (Condition 24);
- No parking of quarry trucks shall occur on McNicol Road north of 530 McNicol Road or on Tourist Road (Condition 27);
- Quarry trucks must not enter Tourist Road or McNicol Road before 6.30am, Monday – Saturday (Condition 24);
- Maximum quarry truck movements of 90 per hour / 900 per day (Mon–Sat), recorded via a weighbridge log (Condition 27), and
- Requirement to maintain a 50 km/h signage and driver induction system under the Cartage Contractors Safety Rules (Conditions 31-33).

In addition, Conditions 60(a)-(f) of the 2018 consent require the consent holder to undertake localised widening works along sections of McNicol Road and to construct an unsealed path for non-vehicle users of the road before the Quarry generates more than 45 quarry truck movements per hour (Condition 28(b)). As will be discussed in Section 5 below, this threshold has yet to be triggered, however the process for upgrade has been advanced.

These transport-related conditions establish the existing consented transport environment for the Quarry and, as proposed under the s127 variation, will be retained within the varied 2018 Consent (FoH consent) without modification.

In this regard, it is considered that the transport environment that was projected (from the baseline established in support of the 2018 Consent) and which is seen from these current patterns and scale of both Quarry and background (i.e. non-Quarry) traffic activity in the surrounding area, is entirely consistent with what was anticipated at the time of the 2018 Consent. Further, the current traffic volumes in the local network between the Quarry, Clevedon village and the Clevedon-Papakura Road are broadly consistent with what existed at the time of the transport assessments leading to the 2018 Consent.

4 Relevance of 2018 Consent Conditions

The majority of the 2018 consent conditions are still relevant and appropriate to accommodate the consented traffic movements on the basis that there have been no noticeable changes to the surrounding transport environment. Several of the conditions were advanced and offered by the SAL on the basis of the Augier principle and included a time-bound delivery of certain works or restriction. As these time bounds have now expired these conditions are no longer relevant.

The 2018 Consent conditions refer generally to the following transport-related matters:

- Access timing restrictions for Tourist Road and McNicol Road (Condition 24);
- Operational speed controls on McNicol Road and Tourist Road (Condition 25);
- Limitation of the use of McNicol Road north of Tourist Road (Condition 26);
- Parking and Quarry traffic restrictions on McNicol Road and Tourist Road (Condition 27);
- Temporary and additional restrictions (Clevedon village) (Condition 28 (b));
- Noise-related driving and associated vehicular measures (Condition 29);
- Contractor communication and compliance (traffic-related) (Condition 31);
- Requirement for preparation of traffic management plans (Condition 33 and 34);
- Localised widening works - McNicol Road to be undertaken once quarry generates >45 quarry trucks per hour (Condition 60(a)-(f))

On the basis of the current and projected future environment surrounding the Site, and the consistency with the transport environment assessed at the time of the 2018 Consent, it is considered that each of the above conditions remain relevant to support the future operation of the Quarry. These conditions are proposed to be retained without modification as part of the s 127 variation to establish the FoH consent and will continue to govern all off site-generated traffic movements.

As will be discussed in the next section, the local road upgrading for McNicol Road is already underway despite the truck generation threshold not yet having been triggered.

5 Update on Roading Upgrades

5.1 2018 Consent Conditions

Based on information available from the Site relating to the movement of trucks to and from the Site, the current Quarry operation does not reach or exceed the hourly volume of traffic movements that triggers the requirement for SAL to undertake the roading upgrades and construction of a path along McNicol Road. Accordingly, it is concluded that the specific trigger requiring completion of these works has not yet been reached. Notwithstanding, engineering plans for these works along McNicol Road were lodged with Auckland Council and Auckland Transport ("**AT**") in March 2024 seeking Engineering Plan Approval ("**EPA**") for these upgrading works. The EPA was initially granted by Auckland Council in December 2025, and then subsequent amendments to detailed design conditions were confirmed in August 2026.

SAL proposes that these works will be delivered along McNicol Road to support the future transport environment serving the Quarry. They will be progressively undertaken by SAL in advance of the trigger of quarry truck generation set out in the 2018 Consent being reached.

6 Conclusion

This report has considered the transport-related aspects of the proposed s 127 FOH consent variation, supporting the quarrying activities at the Quarry site in McNicol Road, Clevedon. The proposed expansion of quarrying activities (facilitated by the parallel extraction consent) will not result in an increase in traffic effects beyond what is already consented and provided for by the 2018 Consent. Current FOH activities at the Site include weigh bridges, site offices, parking areas and the Quarry entrance connection to McNicol Road. The FOH consent variation carries over the general scale and nature of these FOH support facilities, together with all existing transport-related conditions established under the 2018 Consent, without modification.

The consent variation will not result in any changes to off-site traffic generation or result in any increase in traffic generation to warrant any further network upgrades that are not already required under the existing consent conditions. No changes or additions to existing transport-related consent conditions are required.

As the transport-related conditions of the 2018 Consent will be adopted unchanged as part of the current Application, it is considered that there are no additional or alternative transport matters requiring further assessment. Those matters have already been comprehensively addressed through the previous consent process, including the Environment Court's consideration and expert conferencing between the parties, including Stevenson, Auckland Council and Auckland Transport. The 2018 Consent conditions remain relevant and effective from a transportation perspective and will ensure that all potential transport effects are appropriately managed within the existing consented environment. They will continue to govern all off-site generated traffic movements under the varied 2018 Consent /FoH consent.

The proposed consent variation will maintain compliance with the current traffic management framework, ensuring safe and efficient transport operations throughout the life of the consent. While the quarry expansion will extend the duration over which transport effects occur, it will not increase their scale or intensity, and will not result in any additional or different transport effects beyond those authorised by the 2018 Consent.

Although the proposed expansion extends the period over which quarry traffic will continue to occur, the nature and level of those effects remain consistent with the existing consented environment, and are appropriately managed and addressed through the existing transport-related consent conditions within the current 2018 Consent. Given that the receiving transport environment has not materially changed since the granting of the 2018 Consent and its associated transport assessments, this extended duration is not expected to give rise to any greater adverse transport effects than those previously assessed and accepted.

Don McKenzie Consulting Ltd.