

**BEFORE HEARING COMMISSIONERS APPOINTED BY CANTERBURY  
REGIONAL COUNCIL AND WAIMAKARIRI DISTRICT COUNCIL**

**IN THE MATTER OF**

the Resource Management Act 1991

**AND**

**IN THE MATTER OF**

Applications CRC204106, CRC204107,  
CRC204143 and RC205104 – to establish,  
operate and rehabilitate an aggregate  
quarry at 309 West Belt, Rangiora

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**STATEMENT OF EVIDENCE OF MATTHEW NOON  
FOR TAGGART EARTHMOVING LIMITED**

**19 APRIL 2021**

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## **1. INTRODUCTION**

### **Qualifications and experience**

- 1.1 My name is Matthew Noon. I am a Transportation Planner with a Master's degree in Applied Science (Resource Management) and a Bachelor's Degree in Resource Studies from Lincoln University, and a member of the Chartered Institute of Logistics and Transport.
- 1.2 I work for Abley Ltd as an Associate Director - Transportation.
- 1.3 My 20 years' experience includes work in walking, cycling, public transport and general traffic planning and road safety.
- 1.4 Of particular relevance to the Taggart proposal is my involvement with a variety of integrated traffic assessments, resource consent applications (transport related) and transport planning matters since 2016.
- 1.5 With respect to activities within the Waimakariri District, I have also led the transport planning work, on behalf of Council, for the Rangiora Town Centre Strategy: Blueprint to 2030+.

## **2. INVOLVEMENT IN THE PROPOSAL**

- 2.1 I have been familiar with the proposal which is the subject of this hearing since 2018 commencing with the initial Integrated Transport Assessment.
- 2.2 I am an author of the Integrated Transport Assessment.
- 2.3 I have inspected the site and surrounds repeatedly since a first visit on 24 May 2018.
- 2.4 I scoped and obtained the pedestrian, cycle and traffic counts (undertaken on 16/3/2021 and 18/3/2021) for River Road, approximately 190 metres to the east of the proposed site entrance (at the entrance to the riverbank recreational area) which I will elaborate on within my evidence.

## **3. EXPERT WITNESS CODE OF CONDUCT**

- 3.1 While this is a Council hearing, I acknowledge that I have read and agree to comply with the Environment Court's Code of Conduct for Expert Witnesses, contained in the Environment Court Practice Note 2014. My qualifications as an expert are set out above. Other than where I state that I

am relying on the advice of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

#### **4. PURPOSE AND SCOPE OF EVIDENCE**

4.1 The purpose of my evidence relates to the traffic matters associated with the proposal.

4.2 My evidence focuses on expanding the information as provided in the Integrated Traffic Assessment and addresses:

- Rooding Environment;
- Traffic Generation Assessment;
- Road Safety; and
- Site Access.

Additional matters of concern as raised by submitters:

- The s42A report and consent conditions.

4.3 In preparing this evidence, I confirm that I have read and reviewed the:

- Proposed Rangiora Racecourse Quarry - Traffic Assessment (Abley Consultants) (1 October 2020);
- Assessment of Environment Effects – Gravel Extraction and Backfilling at Rangiora Racecourse (Taggart Earthmoving Ltd) (6 October 2020);
- Public submissions received on the application relevant to traffic matters; and
- S42A report on the proposal including the report by Mr Chris Morahan in relation to transport matters (Appendix 8 of the s42A report).

#### **5. SUMMARY**

5.1 The proposal is for the undertaking of quarrying activities at 309 West Belt, Rangiora.

5.2 Quarried material will predominantly be carted for 1.4 kilometres along River Road and Cones Road to the existing Taggart processing site on Cones Road. On occasion, it may

be directly carted to or from construction sites within the District.

- 5.3 Both River Road and Cones Road are classified as a Collector Road in the Waimakariri District Plan. River Road has also been identified as a heavy vehicle bypass route.
- 5.4 Monitoring undertaken in March 2021 on River Road recorded an average of 1,096 vehicle movements per day, with 15% (168) of the movements by heavy commercial vehicles. An average of 15 on-road cycle movements per day was also recorded, along with an average of 58 off-road pedestrian or cycle movements per day.
- 5.5 Waimakariri District Council traffic count data from 2019 indicated that peak hour traffic volumes range between 98 and 244 vehicles per hour in the morning peak and 115 and 356 vehicles per hour in the afternoon peak for light and commercial vehicles. There were 11 to 15 heavy vehicle movements per hour in the morning and 10 to 14 vehicles per hour in the afternoon peak.
- 5.6 It is my opinion that River Road and Cones Road are suitable for the proposed activity.
- 5.7 The applicant has confirmed that the maximum vehicle movements to or from the site will be 240 one-way trips. This is below the high trip generation rule in the Waimakariri District plan and is therefore a permitted activity.
- 5.8 The timing of truck operations will also be managed to ensure that there are no conflicts with existing Rangiora Racecourse activity. This includes training activities, which occur between 6.00am and 10.00am on weekdays and therefore no truck movements will occur during this period. This means that there will be no traffic movements in the morning commuter or school related travel period.
- 5.9 Based on the operating hours of the quarrying activity and the maximum 240 one-way trips per day, this would equate to a maximum of 32 vehicle movements per hour.
- 5.10 In my opinion the addition of up to 32 vehicle movements per hour is appropriate for this environment.
- 5.11 In my opinion there are no safety issues associated with the road network in the vicinity of the proposal that will be exacerbated by this application.

- 5.12 The proposed site access design is compliant with the requirements of the District Plan. The s42A Officer's report (s42A report) recommends a further upgrade in accordance with the WDC Engineering Code of Practice 'Typical Rural Zone Commercial Access' requirements. This recommendation has been accepted by the applicant.
- 5.13 Due to the site accessway and the truck/trailer vehicle widths, simultaneous vehicle movements into and out of the site will not occur. In addition, vehicle movements to and from the site will be managed through radio transmissions (RT) between drivers, prioritising inbound movements, which will further reduce the potential for any disruption along River Road.
- 5.14 The s42A report has also suggested that the access design should include acceleration or deceleration tapers in order to cater for simultaneous. Due to the designed accessway limitations and the proposed operational measures, this is not required.
- 5.15 In my opinion there are no issues associated with site access that have not been addressed.
- 5.16 The application is compliant with all applicable rules within the Waimakariri District Plan with the exception of Rule 30.6.1.34 – Parking Spaces which stipulates minimum parking space requirements for different activities. As quarrying is not listed as a specified activity type, and given that all vehicles associated with the activity can be managed on-site with no disruption to the operation of the River Road, this rule is not considered applicable for the site and activity.
- 5.17 Public submissions related to transport matters can be grouped into four key areas: Traffic Distribution, Traffic Volume and Safety, Road Degradation and Public Transport.
- 5.18 A number of submitters were concerned about the potential use of West Belt or other residential streets by quarry related traffic. Given that the dominant movement will be between the site entrance and the processing facility on Cones Road, other roads are unlikely to be affected. However on occasion, material may be carted directly to or from construction sites within the District, that may necessitate to the use of local streets. Such movements would be minimised and avoided wherever reasonably practicable.

- 5.19 With respect to traffic volumes and road safety, Waimakariri District Council has recognised River Road as a heavy vehicle bypass. The NZ road guidance, *RTS 16 Guide to Heavy Vehicle Management* notes that a road controlling authority can recommend that heavy vehicles use particular routes for safety and environmental reasons. While submitters may have perceived concerns regarding the appropriateness of heavy vehicles using River Road, given its recognition as a heavy vehicle route and the low volumes of vehicular, pedestrian and cyclist movements that occur in the area, in my opinion these concerns are not warranted.
- 5.20 As the additional proposed traffic volumes are within the expected daily flows for a collector road, and given that the route is recognised as a heavy vehicle bypass, I believe that road maintenance will be appropriately managed through normal activity.
- 5.21 There are no on-road bus stops affected by the proposed route and as public transport operates on a low frequency along River Road, it is my opinion that the vehicle movements related to this application will not negatively affect the operation of these services.
- 5.22 I have reviewed the conditions proposed by the applicant in relation to traffic matters and consider that these are appropriate and reflect my advice. I am comfortable with the wording of the condition recommended by Mr Morahan in paragraph 80 of his report in relation to the design of the access way.
- 5.23 Based on my assessment of the transportation aspects of the proposal, I see no reason why consent cannot be granted from a transport perspective.

## **6. PROPOSAL – TRANSPORT ASPECTS**

- 6.1 The proposal is for the undertaking of quarrying activities at 309 West Belt, Rangiora (Rangiora Racecourse).
- 6.2 The site will be accessed off River Road approximately 300m west from the River Road/West Belt Intersection (an existing accessway). River Road at this location has a posted speed limit of 80kmh. The River Road accessway is proposed to be upgraded and the first 50m into the site will be sealed and a rumble strip installed.

- 6.3 The quarrying activities will be completed in stages, with extraction campaigns. Each stage is expected to require four to five vehicles (truck and trailers or articulated trucks) operating for four weeks at a time. Truck movements are not expected to be generated every day, but only during carting days.
- 6.4 Car parking will be provided on site for the 2-3 staff typically on the site.
- 6.5 Movements to/from the site will not exceed 240 vehicle movements per day. Movements are expected to be primarily between the quarry site and the Cones Road processing site. They will travel 1.4km along River Road to Cones Road.
- 6.6 Movements to/from sites other than the Cones Road processing site may occur (such as for Virgin Excavated Natural Material (VENM) backfill), and the routes involved will vary depending on where the material is sourced from. Lehmans Road and River Road are heavy traffic routes and it is expected that those roads will generally be used by trucks bringing VENM to the site.
- 6.7 The proposed hours of operation are 0700 – 1800 Monday to Friday and 0700 – 1500 on Saturdays.

## **7. THE ROADING ENVIRONMENT**

- 7.1 River Road is classified as a Collector Road in the Waimakariri District Plan. River Road is a two-lane, two-way road located along the northern boundary of the site. Along the frontage of the site, the road carriageway is 7.6m wide.
- 7.2 Cones Road is classified as Collector Road in the Waimakariri District Plan. Cones Road is a two-lane, two-way road that connects River Road and the site of the proposed quarry (via River Road). Taggart's processing site where material will be carted for processing is located off Cones Road.



Figure 1: Location of Proposed Site

- 7.3 The Waimakariri District Plan road hierarchy map is shown in Appendix 1 to my evidence.
- 7.4 Lehmans Road and River Road have also been identified by the Waimakariri District Council as a heavy vehicle route. The New Zealand road guidance *RTS 16 Guide to heavy vehicle management* (Land Transport New Zealand June 2006) notes that *Road Controlling Authorities (RCAs) can recommend that heavy vehicles use particular routes for safety and environmental reasons. The recommended routes can be for: over dimension vehicles and loads; vehicles carrying livestock, vehicles carrying dangerous goods; heavy vehicles generally.*
- 7.5 No sealed walking or cycling facilities are provided on River Road which, due to the rural nature of the location, is not unusual.
- 7.6 Approximately 150m to the west of the West Belt and River Road intersection, an accessway is provided to the Ashley River bank and vehicle parking area for recreational purposes. Between West Belt and the accessway, an informal pedestrian and cycling track is present on the north side of the road which is separated from the carriageway by a grass berm.
- 7.7 A separated pedestrian and cycle path is also present from the western side of the river bank accessway which runs parallel to River Road until the intersection with Lehmans Road.



- 7.8 No pedestrian facilities are provided to assist with crossing River Road in the vicinity of the West Belt intersection, however this is within the 50kmh speed area and has clear sightlines along the road that would support safe crossing activities.
- 7.9 As a matter of clarification, the Assessment of Environment Effects – Gravel Extraction and Backfilling at Rangiora Racecourse (Taggart Earthmoving Ltd) which accompanied the application stated that “Cones Road currently operates slight (sic) above its design capacity of 3,000 vehicles per day”. This was a misinterpretation of the discussion within the Integrated Transport Assessment. Cones Road is classified as a Primary Collector under the One Network Road Classification (ONRC) system. This classification system indicates an average daily traffic threshold that can be expected on a given classification of road but does not refer to its design capacity.
- 7.10 It is my opinion that River Road and Cones Road are suitable roads for the movement of heavy vehicles proposed by this application.

## 8. TRAFFIC SURVEY

- 8.1 To further inform this evidence, I scoped and obtained traffic surveys for Tuesday 16 March and Thursday 18 March 2021 between 7.30am and 6.00pm. The survey days were taken to be representative of normal traffic conditions and the weather was fine on both days.



- 8.2 The survey location was at the entrance to the riverbank recreational area, approximately 190m to the east of the proposed site access. This location was selected as it is close to the proposed quarry entrance and would also provide

information about movements to and from the riverbank parking and access area within the 80kmh speed area.

- 8.3 There was an average of 928 light vehicles movements per day recorded over the two days. The peak hour volume was 140 vehicles and this was recorded between 8.00am and 9.00am on Thursday 18<sup>th</sup>.
- 8.4 There was an average of 168 heavy vehicle movements per day recorded over the two days. The peak hour volume was 23 and this was recorded between 9.00am and 10.00am on Tuesday 16<sup>th</sup>.
- 8.5 30 cycle movements were recorded on River Road in total over the two days, averaging 15 per day. Pedestrian and cycle movements on the off-road paths was higher with an average over the two days of 58 movements/day.

## 9. TRAFFIC GENERATION ASSESSMENT

- 9.1 My assessment of the potential maximum vehicle trip generation was informed through information provided by the applicant. Taggart Earthmoving Limited (TEL) provided data relating to the maximum number of loads that could be expected – these are 120 loads per day, therefore 120 return vehicle trips or 240 one-way trips. As this is below the thresholds within the Waimakariri District Plan Rule 31.23.3 for high trip generation, this complies with the permitted activity rule.
- 9.2 The extracted gravels are proposed to be transported off site for processing at the existing TEL depot on Cones Road, which is 1.4km by road from the proposed quarry site as shown in Figure 2.



Figure 2: Proposed Vehicle Movement Route

- 9.3 The information provided by the applicant has also reiterated that this would be the maximum number of trips to/from the site. Actual movements are dependent on varying operational requirements such as the demand for material, the capacity of the processing equipment, the availability of vehicles and drivers, site related restrictions such as horse training sessions as well as environmental conditions such as the weather or traffic volumes. It is highly unlikely that the maximum number of movements could actually be achieved due these other factors.
- 9.4 The timing of truck operations in and out of the site will also be managed to ensure there are no conflicts with the existing activities of the Rangiora Racecourse. The Racecourse predominately uses the Lehmans Road accessway, while the River Road accessway will be reserved for TEL. As all inbound or outbound truck movements will need to cross the racetrack, no vehicle movements can occur before 10.00am so as not to conflict with racecourse training which occurs Monday to Friday between 6.00am and 10.00am. This means that there are no traffic movements during the morning commuter or school related travel period.
- 9.5 As no vehicle movements will occur before 10.00am, due to race track related activity, and given work will conclude no later than 6.00pm Monday to Friday, this provides for a standard 7.5 hour workday (with a 30 minute break). If the 240 movements are evenly distributed over these 7.5 hours due to operational requirements, this would equate to 32 vehicle movements per hour. TEL have confirmed to me that the frequency of vehicle movements on a Saturday will not change. On Saturdays, activities will cease by 3pm.
- 9.6 Waimakariri District Council traffic count data from 2019 indicated that peak hour traffic volumes on River Road range between 98 and 244 vehicles per hour (vph) in the morning peak, and 115 and 356 vph in the afternoon peak for light and medium commercial vehicles. Heavy vehicle movements ranged from 11 to 15 vph in the morning and 10 to 14 vph in the afternoon peak depending on location.
- 9.7 These figures are consistent with the traffic monitoring undertaken in March 2021. While the monitoring has indicated a minor increase in the total number of heavy vehicle movements being recorded which ranged from 13 to 23 vph in the morning and 10 to 22 vph in the afternoon,

this is to be expected given the identification of Lehmans and River Roads as a heavy vehicle bypass.

- 9.8 In my opinion, addition of the up to 32 vehicle movements per hour proposed is appropriate for this environment (Appendix 2 shows the current and expected traffic counts).
- 9.9 If a situation was to arise whereby excavated material is taken directly from the quarry to a development site (that is, it bypasses the Cones Road processing site) this is likely to result in two outcomes:
  - 9.9.1. A reduction in overall movements on Cones Road due to vehicles routed away from the processing site; and
  - 9.9.2. A reduction in overall movements on River Road as the longer journey time involved would reduce the total potential for vehicle movements. For example, instead of one vehicle being able to make a return trip in potentially 15mins between departing the quarry, unloading at the processing site and returning to the quarry, the overall journey time may be 30 mins or longer – reducing the overall return period and therefore total number of trips possible.
- 9.10 The applicant has also confirmed that extraction activities will generally not occur at the same time as backfilling movements thereby avoiding any potential for excessive trip movements. The exception to this is where a truck which would normally be returning to the quarry empty is diverted to pick up VENM backfill for deposition at the quarry. If such backfill material is available at the Cones Road yard, this would be considered a backload, but would not add additional truck movements.
- 9.11 While in my opinion it is unlikely that the maximum vehicle trip generation proposed would be met or exceeded, this could be effectively monitored using appropriate sensors placed on the accessway to the site should this be considered necessary.

## **10. ROAD SAFETY**

- 10.1 As noted in the Integrated Traffic Assessment (ITA), no safety issues associated with the road network in the immediate vicinity of the proposal have been identified.

- 10.2 As shown in the ITA all movements into and out of the site have been tracked and can be performed safely.
- 10.3 Due to the elapsed time between the original safety assessment being undertaken, as well as any lags in the reporting of accidents in the Crash Analysis System (CAS), the CAS analysis was rerun in February 2021. Only one further accident was recorded as occurring in August 2020 and this was due to a loss of control on a bend on River Road with speed in excess of the limit. All of these incidents occurred approximately 350m to the west of the proposed accessway and were attributed to drivers losing control with inappropriate speed being identified in two of the crash records.
- 10.4 In my opinion there are no safety issues associated with the road network in the vicinity of the proposal that will be exacerbated by this application.

## **11. SITE ACCESS**

- 11.1 It was proposed in the application that the site access would be widened to a maximum of 6m in length in compliance with the requirements of the District Plan. Vehicle movement tracking has been provided showing all inbound and outbound movements can be undertaken safely. Only one truck or truck/trailer unit can enter the site at a time due to the accessway and vehicle widths. Furthermore, the tracking also includes a 0.5m buffer around the vehicle body for additional clearance.
- 11.2 The s42A report, which recommended a further upgrade to the site access in accordance with the WDC Engineering Code of Practice 'Typical Rural Zone Commercial Access' requirements. This recommendation has been accepted by the applicant.
- 11.3 Operationally, the applicant has confirmed that all heavy vehicles exiting the site will be required to wait set back from the access gate until trucks entering the site have cleared River Road. This has been confirmed as occurring through radio transmissions (RT) between the drivers and operational controls and removes the need for heavy vehicles to stop or wait along River Road, thereby reducing the potential for disruption along River Road.
- 11.4 The proposed quarry site would also be accessed only by employees associated with quarrying activities with no

general access by customers or other external parties. All movement to and from the site will therefore be managed exclusively by TEL.

- 11.5 In my opinion there are no issues associated with site access that have not been addressed through the proposal, design of the accessway and compatibility assessments provided.

## **12. COMPLIANCE WITH THE DISTRICT PLAN**

- 12.1 In assessing this application, consideration was given to the Waimakariri District Plan's transportation related rules for developments under Chapter 30.6-30.9 Traffic Management and Chapter 31.21-31.25 Retail Activities and Traffic Matters.
- 12.2 The application is compliant with all applicable rules with the exception of Rule 30.6.1.34 – Parking Spaces which stipulates minimum parking space requirements for different activities.
- 12.3 In respect to parking, quarrying is not listed in the various activity types with the most comparable activity type being Industrial, where parking requirements are related to the gross floor area of the activity. As there is no gross floor area applicable to the development, it would be inappropriate to apply this rule to the proposal.
- 12.4 Due to the nature of the site, the low number of employees expected on site and given that all vehicles associated with the quarrying activity are able to be managed on-site and with no disruption to the normal operation of River Road, this rule is not considered applicable for the site and activity.

## **13. RESPONSE TO S42A REPORT**

- 13.1 My comments in respect of the s42A report and Mr Morahan's report are set out below.
- 13.2 At paragraph 465 of her report, Ms Dawson queries what the existing heavy commercial (HCV) vehicle volumes are for the PM peak commuter period. Using the March 2021 monitoring data, I can confirm that the existing HCV vehicle volumes for the PM peak commuter period (5.00pm–6.00pm) is an average of 6 HCV per hour. Therefore, in my opinion, the impact of additional HCV movements in this period will be minor.
- 13.3 At paragraph 466 of her report, Ms Dawson states that the site could generate more than 32 vehicle movements per hour. As noted in paragraph 9.3 of my evidence, the actual

number of movements per hour are dependent on a number of factors. It is my opinion that 32 vehicle per hour is likely to be the maximum as while the applicant could increase the number of trucks available, the operational processing requirements, such as extraction and vehicle loading equipment as well as the off-loading of material at the processing site, to handle such an increase would not make operational sense.

- 13.4 At paragraphs 17-19 of his report, Mr Morahan summarises actual and potential effects. The effects which he describes in those paragraphs are general in nature, and do not describe this proposal.
- 13.5 At paragraphs 30-32 of his report, Mr Morahan refers to possible future traffic scenarios. I agree with him that these represent a low growth rate over a long timeframe (to 2048) and these do not affect my conclusions.
- 13.6 At paragraphs 33-35 of his report, Mr Morahan discusses the fact that the transport assessment assumes quarrying will not occur concurrently with formal race events. The initial ITA assumed that quarrying would not occur with formal race events due to the potential for on-site, track related disruptions. With respect to external vehicles movements accessing the racecourse, due to the 1.5km distance separating the two accessways, and given that quarry related traffic will be using River Road and not impacting racecourse related movements using the Lehman's Road access, in my opinion there would be little or no impact on existing road users if movements from both activities were to occur concurrently. I therefore agree with Mr Morahan's statement that quarrying activities occurring concurrently with racecourse events would be expected to have little impact on existing road users in the surrounding road network.
- 13.7 At paragraphs 39-45 and 54-56 of his report, Mr Morahan recommends that the access design include deceleration and acceleration tapers in order to cater for simultaneous vehicle movements into and out of the site, and that the applicant provide revised tracking curves to determine the appropriate access widths. He states, in paragraph 54 of his report, that tracking curves suggest that the 6m width of the access way would be constrained, even for one-way movement of truck and trailer units.

- 13.8 Mr Morahan believes there is a safety concern associated with the absence of acceleration or deceleration tapers at the accessway, albeit to allow for simultaneous vehicle movements into and out of the site. The purpose of an acceleration taper however is to allow a truck to get up to speed before merging with through traffic. The technical guidance document governing tapers (Austroads Guide to Road Design Part 4A) indicates that the acceleration lane length for a semi-trailer to accelerate from rest to the posted 80kmh speed limit would be 910 metres. The guidance also notes that where the traffic volume on a road and the number of trucks entering is not high, it may be relatively easy for drivers to perceive the slow movement of these vehicles and to slow for them. Given that overall traffic volumes are low and that the speed limit, in the easterly direction (where acceleration would be required) changes to 50kmh within 330m of the accessway, such an acceleration taper is in my opinion not required.
- 13.9 At 80kmh a vehicle is travelling at 22.2 metres per second. As such, it will take a vehicle approximately 15 seconds to travel from the site accessway to the start of the 50kmh area. Consequently, other road users would also need to start decelerating due to the approaching reduction in the speed limit, further negating the need for the acceleration taper.
- 13.10 For vehicles approaching the accessway in a westerly direction, coming from the 50kmh area, it is also unlikely that they will have accelerated rapidly enough to necessitate a deceleration lane in these circumstances. The applicant has also confirmed that the truck fleet is electronically monitored including for harsh acceleration and braking incidents and that poor driver performance can result in disciplinary action, further reducing the likelihood of any such behaviour. Therefore, in my opinion, a deceleration taper is not required.
- 13.11 The implementation of acceleration or deceleration tapers is, in my opinion not required, nor an appropriate measure to mitigate against simultaneous vehicle movements into and out of the site. As noted above, the accessway and vehicle widths preclude simultaneous movements, and this will be further managed through the proposed operational controls.
- 13.12 Mr Morahan notes that the proposed accessway complies with the District Plan requirements for activities in rural zones regarding obtaining access from non-state highway roads



(paragraph 39). While the provided tracking curves show that the accessway is suitable, it has been recommended that the access is further upgraded in accordance with the WDC Engineering Code of Practice 'Typical Rural Zone Commercial Access' to provide additional manoeuvring space. The applicant has indicated it is willing to comply with this recommendation and I am also in agreement. An upgrade to this accessway specification would include a revised tracking assessment.

- 13.13 At paragraph 47 of his report, Mr Morahan states that he considers that pedestrians and cyclists would benefit from a safety upgrade to the crossing between West Belt and the Ashley Rakahuri, irrespective of this proposal. I agree with Mr Morahan that this is not necessary to mitigate the effects of this proposal. I also note that River Road has been identified by Council as a heavy vehicle bypass, therefore it can be assumed that an increase in traffic movement on that road is anticipated.

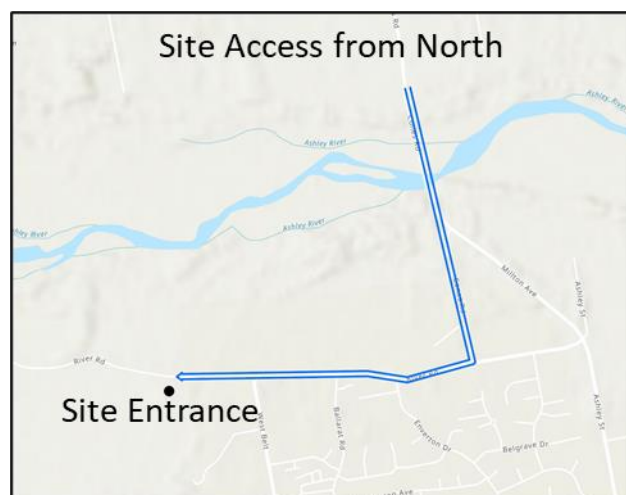
#### **14. RESPONSE TO SUBMISSIONS**

- 14.1 For the purposes of analysing the submissions, I grouped the submissions into thematic areas: Traffic Distribution, Traffic Volume and Safety, Road Degradation and Public Transport.

##### **Traffic Distribution**

- 14.2 A number of submissions indicated concerns regarding the movement of vehicles to and from the proposed quarry site and their potential usage of West Belt or Lehmans Road. As previously stated, the dominant vehicle movement will be between the proposed site entrance on River Road and the processing facility on Cones Road. Other roads such as Lehmans Road, West Belt or Enverton Drive are unlikely to be affected by this proposal. However on occasion, material may be carted directly to or from construction sites within the District, that may necessitate to the use of local streets. Such movements would be minimised and avoided wherever reasonably practicable.
- 14.3 The applicant has stated that the extracted material will be replaced by backfill comprising uncontaminated VENM and the potential sources for this material will vary. However, it can be assumed that this material will either arrive from the:
- 14.3.1. North: via the Ashley River bridge / Cones Road, and then travel onto River Road with no additional

impacts on River Road compared to extraction as the applicant has confirmed that extraction and backfilling will generally take place at different times.

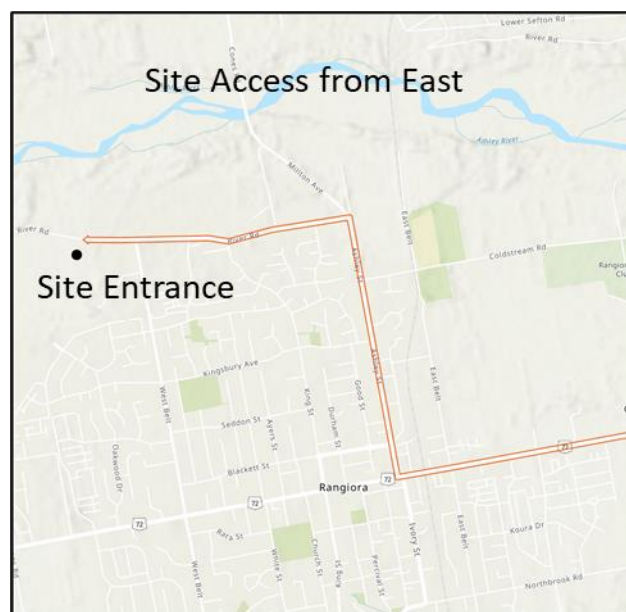


- 14.3.2. West: via Oxford Road and Lehmans Road. Oxford Road is classified as Strategic Road in the Waimakariri District Plan (see Appendix 1) and Lehmans Road which is a Waimakariri District Council identified heavy vehicle bypass corridor. While this will increase vehicle movements along this route, the duration and intensity are unlikely to be significant due to the operational factors noted above.

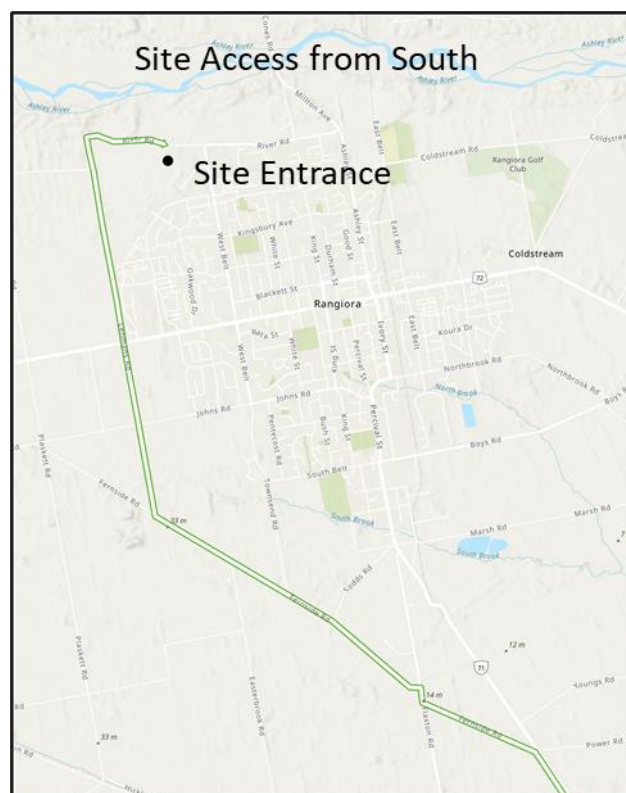


- 14.3.3. East: via Rangiora Woodend Road / Kippenberger Avenue / High Street (Arterial classification) and State Highway 71 / Ashley Street (Strategic Road

classification) before turning right onto River Road. These are appropriate roads for heavy vehicle movements.



14.3.4. South: via State Highway 71 comprising of Lineside Road, Fernside Road, Lehmans Road and River Road.



14.4 While this traffic distribution assessment is based on the limited information available, I believe that this covers all likely routes to and from the proposed quarry location. When

considering routes for heavy vehicle movements, operators and drivers generally prefer to route vehicle movements along higher classification roads such as State Highways, Strategic or Arterial roads as they provide a higher level of service and priority. This generally results in more consistent travel times and smoother vehicle movements as the roads are wider and have priority over lesser roads (i.e. a strategic road would have intersection priority over a local road requiring less stops and starts). Local roads are also likely to be more affected by narrower widths, on-street parking, pedestrian and cyclist movements which will all affect the ease of movement of the heavy vehicle and be an undesirable route choice for drivers.

- 14.5 In my opinion specific movement control measures, such as restrictions on heavy vehicle routes, are not required, due to the need to maintain operational flexibility. For example, planned or unplanned road closures may require traffic diversions to be introduced which would affect traffic movements. Drivers and/or vehicle dispatchers would need to retain the ability to divert vehicles as appropriate.
- 14.6 The applicant has confirmed that their vehicles are all GPS tracked as such, a monitoring and/or tracking system can be deployed that would allow the consenting authority to monitor movements if required to be compliant with any conditions of consent that may be imposed.

#### **Traffic Volume and Road safety**

- 14.7 Submitters also raised concerns regarding the proposed increase in traffic movements particularly in relation to the potential impact on safety outcomes.
- 14.8 As noted in paragraph 6.5 of my evidence, the 240 vehicle movements per day is the maximum number of daily trips that may occur. On an hourly basis, this is expected to equate to a maximum additional 32 vehicles per hour or 16 trips per direction. Given the overall nature of the roading environment and the overall low traffic volumes in this area, I consider this to be appropriate for the environment.
- 14.9 Regarding safety concerns, Waimakariri District Council has identified Lehmans Road and River Road to be a heavy vehicle bypass. In doing so, I have assumed that they have considered the overall network performance and road safety matters prior to that determination being made.

- 14.10 Monitoring undertaken in March 2021 recorded 43 pedestrian and 18 cycle movements occurring on the off-road paths on Tuesday 16 March, and 28 pedestrian and 27 cycle movements occurring on Thursday 18 March. This compares to 14 and 16 on-road cycle movements respectively for the same period.
- 14.11 Furthermore, given the presence of the off-road pedestrian and cycle paths along River Road, between West Belt and Lehman's Road, there is unlikely to be any conflict between heavy vehicle movements, pedestrians and cyclists.
- 14.12 Between the River Road / West Belt intersection and Cones Road, the posted speed limit is 50kmh and there is a formed footpath on the south side of the road, separated by a grass verge from the carriageway. The area to the north of the road is all rural with no residential dwellings. Given the nature of the environment, there is unlikely to be any conflict between active modes and vehicles.
- 14.13 As noted in paragraph 7.8 of my evidence, while no pedestrian facilities are provided to assist with crossing River Road in the vicinity of the West Belt intersection, this is within the 50kmh speed area and has clear sightlines along the road that would support safe crossing activities.
- 14.14 Peak heavy vehicle movements along River Road are also expected to occur outside of the peak commuter traffic times further mitigating any potential issues.

### **Road Degradation**

- 14.15 Submitters also raised concerns about the potential impact of road degradation from additional vehicle movements.
- 14.16 While I cannot comment on the technical design and construction of River Road or Cones Road, with consideration of their classification as collector roads, the total volume of additional proposed traffic is within the expected daily flows for the classification. This would therefore be an expected volume of traffic for the road and, in my opinion, assumed as part of any maintenance regime.
- 14.17 The applicant has also proposed to mitigate the potential for any material to be dropped or tracked onto the public roads through sealing the first 50m of the site access and the installation of a rumble strip to assist in removing any loose material prior to exiting the site.

- 14.18 River Road has also been identified as a heavy vehicle bypass by Waimakariri District Council and, in my opinion, is assumed to be addressed appropriately in the road maintenance regime.
- 14.19 Similarly, Mr Morahan in his evidence (paragraph 53) states that is not considered necessary to consider road maintenance through the resource consent process.

### **Public Transport**

- 14.20 A limited number of submitters indicated concern for the potential impact on public transport services. Two public transport services operate along River Road:
- 14.20.1. 1 Rangiora & Belfast to Cashmere Service. This service has 30-minute weekday frequency that travels along River Road between West Belt and Ashley Street. There is one stop, located in the off-street park and ride facility opposite the intersection with Riverview Road.
  - 14.20.2. 91 Rangiora – City Direct. This is a peak time only service with four morning trips departing the River Road park and ride facility between 6.30am and 8.00am and five afternoon trips arriving between 4.29pm and 6.29pm.
- 14.21 As there are no on-street stops located on River Road and the overall average frequency is low, it is my opinion that the vehicle movements related to this proposal will not negatively affect the operation of these services.

## **15. CONSENT CONDITIONS**

- 15.1 I have reviewed the conditions proposed by the applicant in relation to traffic matters<sup>1</sup> and consider that these are appropriate and reflect my advice. I am comfortable with the wording of the condition recommended by Mr Morahan in paragraph 80 of his report in relation to the design of the access way.

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<sup>1</sup> Proposed conditions 11 and 12, RC205104.

## **16. CONCLUSION**

- 16.1 I was engaged by the applicant to undertake a transport assessment as part of the resource consent applications for this proposal.
- 16.2 Based on that assessment, I believe that the proposal is a complying activity under the Waimakariri District Plan's transportation related rules for developments under Chapter 30.6 – 30.9 Traffic Management and Chapter 31.21-31.25 Retail Activities and Traffic Matters.
- 16.3 The application has one technical non-compliance, related to parking provision, and would be a discretionary activity (restricted). The requirement for parking spaces in accordance with the rules is inappropriate for the actual site usage. Car and heavy vehicle parking will all be fully managed on-site, with no disruption to the normal operation of the frontage road. This rule is therefore considered not applicable for the site and activity, and Ms Dawson agrees<sup>2</sup>.
- 16.4 River Road and Cones Road are classified as Collector roads and in my opinion suitable for the heavy vehicles movements that will be generated by this proposal.
- 16.5 I have reviewed the submissions made and believe that all matters have been considered appropriately.
- 16.6 Based on my assessment of the transportation aspects of the proposal, I see no reason why consents cannot be granted from a transport perspective.

Matthew Noon

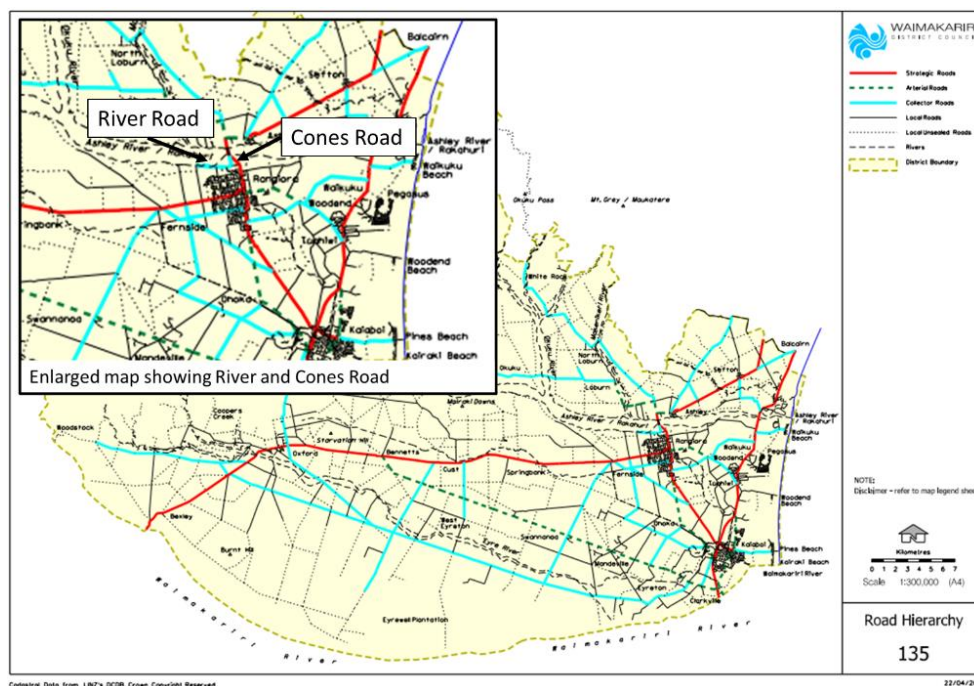
19 April 2021

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<sup>2</sup> s42A report, paragraph 483.

## APPENDIX 1.

The below map shows the roading classification in the vicinity of the proposed quarrying operation at Rangiora racecourse.



The above images were sourced from the Waimakariri District Council's District Plan. Accessed 17 February 2021.  
[https://www.waimakariri.govt.nz/\\_\\_data/assets/pdf\\_file/0013/10354/sht135-dp2005.pdf](https://www.waimakariri.govt.nz/__data/assets/pdf_file/0013/10354/sht135-dp2005.pdf)



## APPENDIX 2.

The current and expected traffic counts for the affected area.

	Count Location	LCV and MCV		HCV	
		Peak Hours (weekday)	Peak Hour Traffic Volume (vph)	Peak Hours(weekday)	Peak Hour Traffic Volume (vph)
Current Traffic Counts (Source Waimakariri District Council 2019)					
1	Cones Road (100m north of River Road)	08:00	292	08:00	13
		17:00	336	14:00	14
2	River Road (200m west of West Belt Road)	08:00	98	09:00	14
		17:00	115	14:00	10
3	River Road (200m east of West Belt Road)	08:00	154	10:00	11
		17:00	219	13:00	10
4	River Road (150m west of Cones Road)	08:00	244	10:00	15
		17:00	356	12:00	14
	Further monitoring was undertaken in March 2021 on River Road				
	River Road (150m west of West Belt Road)	08:00	140	09:00	23
		17:00	131	15:00	22
	Average/hour		98		18
Expected Traffic Counts based on <i>maximum</i> vehicle movements					
1	Cones Road (100m north of River Road)	08:00	292	08:00	13
		17:00	336	14:00	46
2	River Road (200m west of West Belt Road)	08:00	98	09:00	14
		17:00	115	14:00	42
3	River Road (200m east of West Belt Road)	08:00	154	10:00	43
		17:00	219	13:00	42
4	River Road (150m west of Cones Road)	08:00	244	10:00	47
		17:00	356	12:00	46
	Expected traffic count based on March 2021 monitoring (River Road)				
	River Road (150m west of West Belt Road)	08:00	140	09:00	55
		17:00	131	15:00	54

### APPENDIX 3.

The updated collision diagram is shown below, showing all Crash Analysis System recorded accidents from 2015 to 2020.

