Before Independent Commissioners Appointed by the Canterbury Regional Council and Selwyn District Council

In the matter of The Resource Management Act 1991
And
In the matter of Applications by Fulton Hogan Limited for all resource consents necessary to establish, operate, maintain and close an aggregate quarry (Roydon Quarry) between Curraghs, Dawsons, Maddisons and Jones Roads, Templeton

SUPPLEMENTARY STATEMENT OF DONALD GORDON CHITTOCK ON BEHALF OF FULTON HOGAN LIMITED

PLANS AND DIAGRAMS
DATED: 29 JANUARY 2020

Counsel Acting: David Caldwell
Email: david.caldwell@bridgesidechambers.co.nz
Telephone: 64 21 221 4113
P O Box 3180
Christchurch 8013
Introduction

1. My name is Donald Gordon Chittock. I am the National Environment and Sustainability Manager at Fulton Hogan Limited (Fulton Hogan).


3. The purpose of this supplementary evidence is to record the narrative I provided to the Hearings Panel on Day 12 of the hearing addressing various plans and diagrams for the Roydon Quarry proposal.

Roydon Quarry plans and diagrams

4. At the commencement of Day 12 of the hearing I talked to the Hearings Panel about some of the key features of aspects of Roydon Quarry to provide further insight into how parts of the proposed Quarry would operate. Below I summarise my explanation of these features with reference to plans and diagrams which are annexed to this statement.

5. Attached as Appendix A and Appendix B are two diagrams which show (a) the entrance to the proposed quarry site and (b) the quarry site. Both of these diagrams have been updated since the hearing to include additional features. The entrance road diagram, Appendix A, shows:

(a) The location of:

   (i) The driver identification system to operate the barrier arm and divert any non-inducted trucks to the lay-by area;

   (ii) A flashing neon sign to warn non-inducted drivers to pull around into the lay-by area to await further instructions;

   (iii) A barrier arm to stop non-inducted drivers from entering the site;

   (iv) The lay-by area for non-inducted drivers, driver log book breaks and tail door checks;
(v) A kiosk with radio telephone (RT) to communicate with quarry personnel.

(b) The one way movement of heavy traffic around the entry / lay-by oval to the parking area;

(c) The separation of light and heavy vehicles by a median strip and required workplace safety separation or barrier;

(d) Staff and visitor parking, with access for service utes being controlled by a barrier arm between the carpark and the quarry road; and

(e) The observation area which is accessed off the light vehicle road.

6. The quarry site diagram, Appendix B, shows:

(a) The indicative weigh bridge positioning;

(b) The Central Processing and Storage Area (CPSA) which is contained within the ring road;

(c) The road that is sealed – all the road shown in black is sealed. The staff and visitor carpark in the bottom left hand corner (and shown on the entrance diagram) is also sealed;

(d) Road that will have pea metal on it – this is the extraction / cleanfill dark grey area outside the CPSA in the top right hand corner of the diagram. This is the area of road in the site which is most likely to be erosion prone;

(e) The direction of travel of quarry traffic – with two way traffic, separated for light and heavy vehicles, to the ring road and one way traffic around the ring road. The white arrows show the direction of traffic around the ring road;

(f) One way access to the clean fill area – the direction of travel in this area and the wheel and tray washes are shown on yellow arrows;

(g) Where there will be a need for trucks to reverse in the extraction and cleanfill area and at the tray wash. The diagram also records that reversing beepers will be used for approximately 30 to 60 seconds when trucks are reversing;

(h) One way access from cleanfill to wheel wash;
(i) The tray wash; and

(j) The truck wash which will be used by Fulton Hogan trucks and onsite machinery (located undercover by light vehicle park – sealed).

7. Below I discuss some of the key features in greater detail. This follows the explanation I gave at the hearing last year and covers some additional points for clarification.

Central Processing and Storage Area

8. The boundaries of the CPSA are all at least 500 metres from the proposed quarry site boundaries. The conditions of consent proposed by Fulton Hogan provide for a setback of at least 500 metres from the site boundaries for any fixed and mobile processing plant and associated stockpiling (see condition 27 of land use consent RC185627).

Travel in Roydon Quarry and wash areas

9. Following the diagrams in Appendix A, you can see there is provision for two way traffic, separated for light and heavy vehicles by a median strip or barrier, until you get to the ring road. The road rules for one way traffic apply within the quarry. Once a truck exits the ring road, there is two way traffic to the exit. Again light vehicles and heavy vehicles are separated.

10. Using an example of a truck coming into site which is carrying cleanfill. The truck would enter Roydon Quarry passing the driver identification system which operates the barrier arm. The driver identification system will identify drivers who have not been inducted into the Roydon Quarry site. If a driver has not been inducted into site, the driver and truck will be diverted into the lay-by area. The driver identification system will be supported by our in-house truck number plate recognition system. There is a flashing neon sign to warn any non-inducted drivers to pull into the layby area and await further instructions. The induction process has been addressed by Kelvyn Jolly and is also addressed in his supplementary statement dated 29 January 2020.

11. Once a truck is permitted to enter the quarry, it would pass the barrier arm and drive down the entrance road over the weighbridge. At the weighbridge they will provide their details to the weighbridge operator and then proceed around the circumference of the CPSA (in a clockwise direction to the extraction and cleanfill area, located near the extraction area. Once the cleanfill is tipped off the truck, the empty truck then comes back into the
CPSA. Fulton Hogan has changed the configuration of the road around the CPSA so that all trucks coming back from this part of the site will have to go through an automated wheel wash. The diagram now more clearly shows a drive-through wheel wash that activates when a truck drives through it (see the top right hand corner of the quarry site diagram). All trucks that bring cleanfill to the site will go through the automated wheel wash as they re-enter the CPSA after tipping off the cleanfill.

12. In addition to the wheel wash, there is a tray wash area shown on the quarry diagram at Appendix A. The tray wash is for drivers to wash the inside of the tray of the truck. The tray wash may be used for trucks which bring cleanfill onto site. When the cleanfill is tipped off the truck, there is often still material left on the tray of the truck or truck and trailer unit particularly where the cleanfill was compacted into the tray deck. If you put clean processed material from Roydon Quarry onto a tray which has remnants of cleanfill it might impact the specifications of the clean processed material. The tray wash is used to effectively sluice out the cleanfill material from the truck's or trailer's tray so it is ready for the clean processed material. The tray wash is for cleaning the inside of the tray not the outside. Not all trucks will use the tray wash. It depends on the material the truck has bought in, the load they are picking up (if any) and the requirements of the truck's contractor. As discussed below, a truck using the tray wash will need to reverse into it.

13. Once a truck has tipped off cleanfill and been through the tray wash (if required) the truck will come back onto the CPSA ring road.

14. If a truck is picking up material from the CPSA, they have to drive back onto the sealed road, get loaded by stopping in front of the clearly marked stockpile (as shown on the quarry site diagram) from a loader and then move to the weighbridge, via the sealed ring road, before exiting. The truck will then get weighed and provide information about where the truck is going when it leaves the site.

15. Before a truck leaves the Roydon Quarry site, there is a spray bar which applies water to all trucks leaving the site. This is uphill of the weighbridge as shown on the quarry site diagram. The spray bar operates automatically. The water will be applied whether or not the truck leaving the site has a load and irrespective of whether the load is covered.

16. Once a truck exits the weighbridge, they climb up the CPSA incline and travel 500 metres back to the entrance / exit at Jones Road.
17. Based on the proposed configuration, the only places where reversing will be required are:

(a) tipping off cleanfill as either just a truck or truck and trailer unit. Truck and trailer units do not take their trailers off so reversing is required;

(b) in the tray wash which is in the CPSA. A truck would follow the yellow dotted lane shown on the quarry site diagram and reverse back towards the tray wash and then exit the tray wash area forwards; and

(c) tipping off or loading any supplementary processing material or pea metal in the stockpiled areas in the top right hand corner of the CPSA as shown on the quarry site diagram.

18. When a truck is tipping off cleanfill, the reversing beepers will run on average for approximately 30 to 60 seconds while the truck is reversing and tipping off cleanfill or material in the extraction and cleanfill area or the stockpiles. The range reflects the time needed by trucks (approximately 30 seconds) and truck and trailer units to reverse (approximately 60 seconds). For trucks or truck and trailer combinations using the tray wash a similar timeframe for reversing will apply. Fulton Hogan loaders will reverse in the pit floor. All loaders will be fitted with reversing flashing lights not reversing beepers.

19. On the roads on the layout drawings, I have included arrows which show the normal direction of travel. The white arrows show the direction of travel around the ring road and the yellow arrows show how vehicles will move around the extraction and cleanfill area and the wheel and tray washes. These arrows also support the areas shown on the map where reversing will be required.

*Sealed roads*

20. The sealed road is shown in black and labelled on both the quarry site and entrance diagrams. The sealed road starts at the site entry off Jones Road, into the CPSA and the ring road within the CPSA and includes the entry exit to the extraction / cleanfill area, wheel wash and tray wash areas. The sealed road will be a combination of an asphalt road and/or a chip sealed road that can be vacuum swept.

21. Trucks which are not depositing cleanfill which are picking up material from Roydon Quarry will travel on sealed roads and only at the point of loading pull onto the compacted pit floor of the CPSA, before pulling back onto a
sealed road, as shown on the quarry site diagram. For that reason, the trucks do not need to go through a wheel wash. The load will be sprayed with water before it leaves the site (as discussed above at paragraph 15).

**Truck wash**

22. In addition to the wheel wash and tray wash areas discussed above, there is also a separate truck wash area on the left hand side of the quarry site diagram by the light vehicle car park. The truck wash, and other buildings in this area, are proposed to be housed under curved PVC roofs with shipping containers walls on two sides. The truck wash is the area where Fulton Hogan loaders and trucks and trailers will get washed (reversing beepers timeframes are expected to be the same as at the tray wash 30 – 60 seconds), as required and before onsite servicing of loaders.

**Pea metal / reject gravel**

23. Pea metal and reject gravel will be applied to the stockpile floor area of the CPSA (shown in grey in the top left and bottom right of the quarry site diagram, with the kidney shaped stockpiles), the cleanfill / extraction area and the pit floor (as shown on the quarry site diagram). The stockpile floor areas will be compacted pit floor and include pea metal as required. Dust suppression, either water or a chemical suppressant, will still be applied to these areas when required.

**Additives to top course products**

24. At the hearing I was asked a question about whether glass is added to basecourse material. I confirmed that glass is used in basecourse material produced by Fulton Hogan. At the time, I understood glass was used in our topcourse and basecourse material and AP65 products. Since the hearing I checked my understanding and I confirm glass is only used in our AP65 product. That material is blended into the raw material in the CPSA.

**Don Chittock**

29 January 2020
Trucks can call in to park to do final inspection/ lunch before heading on to road way

Barrier arm to stop non inducted trucks from entering site

Flashing neon sign to warn non-inducted trucks to pull around into parking area to await further instructions

Light vehicle road 2 x 3m lanes. (could be single lane with passing lanes if needed)

Heavy vehicle road 2 x 5m lanes.

Observation area accessed off light vehicle road

Medium strip for light and heavy vehicle separation

Driver identification system to operate barrier arm and divert non-inducted drivers to lay by area.

Kiosk with RT to communicate with quarry personal.

Layby area for non-inducted drivers, driver log book breaks and tail door checks.

Heavy vehicle's one way around the oval

Appendix A - Entrance Site diagram
Appendix B - Quarry Site diagram

- Pit floor covered with pea metal for dust suppression
- Observation area (quarry tours)
- One way access to Clean fill area
- Or turn right to deck wash
- Single line plant with two cone crushers
- Indicative only subject to change
- Weigh bridge lay out indicative only as there may only be one automated bridge
- Trucks exiting clean fill will be directed over wheel wash
- Tray wash
- All loaders fitted with reversing flashing lights and reversing beepers
- Reversing beepers running on average for 30-60 seconds when trucks reversing to tip off Clean fill and supplement stock piles
- Pit floor and roads unsealed with pea metal cover to suppress dust
- All traffic is one way only around the centre
- Two way light traffic
- Two way heavy traffic
- Observation area
- Observation area (quarry tours)