

RC200343: Land Use Consent

General

1. The activities authorised by this consent shall be undertaken generally in accordance with the information and plans submitted with the application dated 23 October 2020 and with the evidence submitted by the Consent Holder at the hearing. Should there be any inconsistencies between those documents and consent conditions, the consent conditions shall prevail.
2. The lapse date for the purpose of Section 125 shall be 5 years from the date of granting the consent.
3. The annual volume of aggregate material extracted from the Quarry shall not exceed 200,000m³.
4. Activities authorised by this consent shall not give rise to dust or the deposition of particulate matter that causes a noxious, dangerous, objectionable or offensive effect beyond the boundary of the site.

Enabling Works

5. Prior to the commencement of the consented activity, a right turn bay shall be constructed within State Highway 6 at the access to the site.
6. Prior to the right turn bay formation works occurring, the Consent Holder shall submit to Central Otago District Council a copy of Waka Kotahi NZ Transport Agency's approval to undertake works on the State Highway (as detailed in advice notes a - c).

Advice Note:

- a) *It is a requirement of the Government Roadway Powers Act 1989 that any person wanting to carry out works on a state highway first gain the approval of Waka Kotahi New Zealand Transport Agency for the works and that a Corridor Access Request (CAR) is applied for before any works commence. A CAR will be required for the right turn bay formation works within State Highway 6.*
 - b) *Detailed design approval from Waka Kotahi NZ Transport Agency shall be gained by the Consent Holder prior to applying for a CAR. The detailed design shall be prepared by a suitably qualified professional who has been certified by Waka Kotahi. In developing the detailed design, the Consent Holder will need to consult with the Waka Kotahi appointed state highway maintenance contractor for Central Otago (Aspiring Highways) and a Waka Kotahi Safety Engineer.*
 - c) *A Corridor Access Request is made online via www.submitica.co.nz. The CAR needs to be submitted at least 21 working days before the planned start of works. A copy should also be sent to the Waka Kotahi NZ Transport Agency System Design and Delivery Planning Team at EnvironmentalPlanning@nzta.govt.nz. The Corridor Access Request will need to include:
 - i. *The detailed final design for the right turn bay, including both layout and pavement design.*
 - ii. *A Construction Traffic Management Plan that has attained approval from the Waka Kotahi NZ Transport Agency appointed state highway maintenance contractor for Central Otago (Aspiring Highways).**
7. Prior to the commencement of the consented activity, the Consent Holder shall provide to Central Otago District Council correspondence from Waka Kotahi NZ Transport Agency

confirming that works to the State Highway, including the construction of the right turn bay, have been constructed to Waka Kotahi NZ Transport Agency standards.

Bunds – Lot 8 DP 301379

8. Within 12 months of the exercise of this consent, the Consent Holder shall plant or stabilise by other means the existing bunds within Lot 8 DP 301379 and shall plant the new section of bund to be formed within Lot 8 DP 301379 along its boundary with Lot 2 DP 508108 shown in 'Site Plan Rev F' attached as Appendix 1 to this consent. Following the construction of the new section of bund, it shall be immediately stabilised using mulch or another suitable product. As soon as practicable following construction, it shall be planted with native groundcover plant species and thereafter watered to ensure cover is established and maintained. Dust control measures shall be put in place during formation of the bund to ensure compliance with Condition 4 of this consent

Bunds – Lot 3 DP 301379

9. Prior to extraction of Lot 3 DP 301379, perimeter bunding, landscape planting and associated irrigation shall be established on that parcel of land in accordance with the information and plans submitted with the application.
10. Construction of the bunds shall not be undertaken between 1 September and 1 January in any year (bird nesting season). Prior to any physical construction works of the bunds specified in Condition 9, the Consent Holder shall engage with both the Department of Conservation and Kāi Tahu regarding the selection of locally sourced native groundcover plant species, eco-typed to the area.
11. If 30 working days have elapsed and no advice has been provided by either the Department of Conservation or Kāi Tahu as to the plant species to be used for planting of the bunds, the Consent Holder shall choose appropriate local native groundcover plants and submit the details of this to the Central Otago District Council.
12. The perimeter bunding shall include:
 - a) Establishment of 3 metre high earth bunds around the perimeter of that parcel of land, with the exception of site accessways. Where topography varies, a uniform top bund elevation shall be maintained. The outer face of the bund shall have a gradient of 1:3 – 1:5 with an irregular slope profile.
 - b) Following the construction of the bunds, they shall be immediately stabilised using mulch or another suitable product.
 - c) As soon as practicable following construction of the bunds, they shall be planted with native groundcover plant species selected in accordance with Conditions 10 or 11 and thereafter watered to ensure cover is established and maintained. Dead or diseased plants shall be replaced in the next planting season.

Fences

13. The Consent Holder shall rabbit proof all fences around the boundary of the site.

Management Plans

14. At least one month prior to exercising this resource consent, the Consent Holder must prepare a Quarry Management Plan (QMP) for certification by the Consent Authority.
15. The QMP must include, but not be limited to:
 - a) A plan showing the areas of extraction, the location of the screening and crushing plant, and the locations of the aggregate stockpiles;
 - b) The setbacks in the expansion area required by RM.20.360.03 (granted by the Otago Regional Council);
 - c) The contact details of the quarry manager;

Appendix A - Deepening and Expansion

- d) A description of the proposed methods of any enabling works including overburden removal operations, stripping and placement of material;
- e) A description of all relevant site operations and procedures including mobile re-fuelling procedures and spill responses;
- f) A description of all environmental effects, including (but not limited to) noise, dust and visual effects;
- g) All operational traffic aspects;
- h) All consent conditions and any other mitigation measures to be employed to minimise environmental effects and/or adhere to best practice;
- i) Relevant monitoring and reporting requirements.

16. At least one month prior to exercising this resource consent, the Consent Holder must prepare a Dust Management Plan (DMP) for certification by the Consent Authority.

17. The DMP must include, but not be limited to:

- (a) A description of the purpose of the DMP;
- (b) A description of the dust sources on site;
- (c) A description of the receiving environment and identification of sensitive receptors within 250 metres of site boundaries (sensitive receptors being any dwelling and the land within 20m of the façade of an occupied dwelling's notional boundary, and sensitive commercial crops);
- (d) The methods (including dust reduction through design methodologies) which will be employed as necessary to ensure compliance with the conditions of this consent;
- (e) A description of site rehabilitation methodology and associated dust control measures;
- (f) A description of particulate matter and wind monitoring requirements required by RM360.60.03 (granted by the Regional Council);
- (g) A description of procedures for responding to dust and wind condition-based trigger levels set by RM360.60.03 and associated follow up investigations, actions and recording of findings;
- (h) A system for training employees and contractors to make them aware of the requirements of the DMP;
- (i) Names and contact details of staff responsible for implementing and reviewing the DMP in order to achieve the requirements of this consent, and procedures, processes and methods for managing dust outside of standard operating hours;
- (j) A method for recording and responding to complaints from the public;
- (k) A maintenance and calibration schedule for meteorological and particulate matter monitoring instruments;
- (l) Contingency measures for responding to dust suppression equipment malfunction or failures, including wind and particulate matter monitoring instruments;
- (m) A procedure for completing an end-of-day dust control checklist;
- (n) Separate Standard Operating Procedures (SOPs) dedicated to the management of potential dust discharges from specific sources, including but not limited to:
 - (i) Stockpiles;
 - (ii) Site roads – sealed and unsealed;
 - (iii) The conveyor used to convey aggregate from Lot 3 DP 301379 to the processing plant located with Lot 8 DP 301379;
 - (iv) Triggers for the use of water for dust suppression;
 - (v) The use of dust suppressants other than water;
 - (vi) Aggregate excavation and backfilling areas;
 - (vii) Topsoil and overburden stripping and stockpiling;

Appendix A - Deepening and Expansion

- (viii) Bund construction, maintenance and the recontouring of slopes during rehabilitation;
 - (ix) Any automated dust suppression for dust prone areas that can be activated outside of working hours;
 - (x) Location and calibration of particulate matter and meteorological monitoring equipment;
- (o) Environmental information management for recording, quality assurance, archiving and reporting all data required for dust management on the site.
18. The Consent Holder shall carry out its activities in accordance with the QMP and DMP at all times.
19. Works authorised by this consent shall not commence until the Consent Holder has received written certification of the QMP and DMP. Notwithstanding this, the works may proceed if the Consent Holder has not received a response from the Central Otago District Council within 20 working days of the date of the submission of the QMP and DMP.

Hours of Operation

20. The hours of operation for quarry activities other than monitoring and dust suppression are limited to:

Monday to Saturday (excluding public holidays):

- a) Arrival and departure of staff: 0600 - 2000;
- b) Site excavation, processing, dump truck, loader and purchasing truck movements: 0700 - 1900 hours except that no more than twice per week, up to 4 purchasing trucks may enter the site, be loaded and depart the site between 0600 - 0700 Monday to Friday and between 1900 – 2000 Monday to Friday provided that:
 - i. no more than 1 truck shall be loaded in any 15 minute period between 0600 – 0700; and
 - ii. between the hours of 0600 – 0700, no truck shall be loaded with any product larger than 22mm concrete aggregate.

Sundays and public holidays: Dust management activities only.

Noise

21. There shall be no stockpiling or processing of aggregate in the quarry expansion area.
22. Operation of processing plant shall be restricted to the hours of 07:00 to 19:00, Monday to Saturday.
23. Noise from the operation of the quarry shall comply with the following noise limits as assessed at the notional boundary of any dwelling when measured in accordance with NZS 6801:2008 Acoustics – Measurement of environmental sound and assessed in accordance with NZS 6802:2008 Acoustics – Environmental noise. Due to the nature of the proposed activity, no duration adjustment in accordance with NZS 6802:2008 shall be permitted.

Day	Time period	Noise limit
Monday to Saturday	07:00 to 20:00	55 dB L_{Aeq} (15 min)
At all other times		40 dB L_{Aeq} (15 min) and 70 dB L_{Amax}

24. All vehicle reversing alarms on quarry-based equipment or trucks, shall only be broadband reversing alarms.

25. Construction activities shall be managed in accordance with the requirements of NZS 6803:1999 Acoustics – Construction Noise and any noise generated shall comply with the limits given in Table 2 of that standard.
26. For the purposes of this consent “construction activities” means activities associated with the establishment, or rehabilitation of the quarry, such as: site establishment; the construction and removal of bunds, topsoil stripping, creation and removal of the underpass to the expansion area, constructing slope batters and contouring the final land. If ongoing backfilling activity associated with the construction of slope batters occurs at the same time as the quarry is operational, this is not considered to be construction noise and shall comply with the operational noise limits for the site.
27. Compliance monitoring of the daytime noise generated by quarrying activities shall be measured and assessed by a suitably qualified and experienced acoustic consultant as follows:
 - a) once within the first 12 months following the commencement of quarrying within Lot 3 DP 301379; and
 - b) once when quarrying within Lot 3 DP 301379 initially advances to within 200m of the dwelling at 1308 Luggate-Cromwell Road.

The measurements required by this condition shall be undertaken when excavation is occurring at the highest ground elevation and shall include day time noise readings taken at a time when processing machinery is operating simultaneously with quarrying activity within Lot 3 DP 301379.

28. Within 10 working days of each round of monitoring in accordance with Condition 27, a report describing the measurement results and compliance or otherwise with the noise limits in Condition 23 shall be submitted to the Consent Authority. That report shall also address whether compliance with the noise limits in Condition 23 of this consent will be maintained at closer distances to the dwelling at 1308 Luggate-Cromwell Road.

Traffic

29. The activity shall be limited to a maximum of 150 heavy vehicle movements per day.
30. Vehicle and heavy machinery speeds within the site shall not exceed 30 km/h.

Hazardous Substances

31. To minimise the risk posed from Hazardous Substance spills:
 - a) The Consent Holder shall take all practicable measures to avoid spills of fuel or any other contaminant within the site.
 - b) Permanent storage of fuel or lubricants shall only occur within the workshop area identified on ‘Site Plan Rev F’ attached as Appendix 1 to this consent.
 - c) No machinery shall be cleaned, stored or refuelled within 10 metres of any waterbody, water flow channel or stormwater system.
 - a) A spill kit of suitable capacity shall be kept on site at all times.
32. In the event of a spill of fuel or any other contaminants to land, the Consent Holder shall clean up the spill as soon as practicable and take measures to prevent a recurrence.
33. The Consent Holder shall inform the Central Otago District Council and the Amisfield Estate Society Incorporated within 24 hours of any spill event to land greater than 4 litres and shall provide the following information:
 - a) The date, time, location and estimated volume of the spill;
 - b) The cause of the spill;

Appendix A - Deepening and Expansion

- c) The type of contaminant(s) spilled;
- d) Clean up procedures undertaken;
- e) Details of the steps taken to control and remediate the effects of the spill on the receiving environment and an assessment of the risks to the Amisfield Estate Water Supply Bore; and
- f) An assessment of any potential effects of the spill and measures to be undertaken to prevent a recurrence.

Ecology

- 34. No quarrying shall be undertaken, or heavy machinery be used within 50 metres of the Mahaka Katia Scientific Reserve between 1 September and 1 January in any year (bird nesting season).
- 35. Any planting required as part of mitigation for the proposed works shall be accompanied by a pest management plan identifying the control of pest plant and animal species including rabbits that may impact on the viability of the mitigation proposed.
- 36. Control of weed species identified in the 2019 Otago Regional Pest Management Strategy (RPMS) shall be undertaken within the 25 m buffer between the boundary of the Mahaka Katia Scientific Reserve and proposed expansion area identified on 'Site Plan Rev F' attached as Appendix 1 to this consent. Weed species of concern are, exotic broom, gorse, Russell lupin, ragwort, nodding thistle, wilding pine sp. (see RPMS for full list of unwanted organisms).
- 37. Water used in the quarry for dust mitigation shall not directly enter Mahaka Katia Scientific Reserve.

Accidental Discovery Protocol

- 38. In the event of any discovery of archaeological material:
 - a) The Consent Holder shall immediately:
 - i. Cease extraction operations in the affected area and mark off the affected area;
 - ii. Advise the Central Otago District Council of the disturbance; and
 - iii. Advise Heritage New Zealand Pouhere Taonga of the disturbance.
 - b) If the archaeological material is determined to be Koiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the Consent Holder shall immediately advise the office of Kāi Tahu of the discovery.
 - c) If the archaeological material is determined to be Koiwi Tangata (human bones) by Heritage New Zealand Pouhere Taonga, the Consent Holder shall immediately advise the New Zealand Police of the disturbance.
 - d) Work may recommence once Heritage New Zealand Pouhere Taonga (following consultation with Kāi Tahu if the site is of Maori origin) confirms to Central Otago District Council that appropriate action has been undertaken.

Rehabilitation

- 39. At least five years prior to ceasing the extraction activities, the Consent Holder shall submit to the Central Otago District Council a Closure and Rehabilitation Plan for the site.

The Closure and Rehabilitation Plan shall provide for:

- a) Removal of all buildings, other structures and plant from the site;
- b) Recontouring of the land to provide a stable profile;
- c) Management of dust to avoid nuisance beyond the site;
- d) Record keeping requirements of any material to be brought to the site as part of the rehabilitation process;

- e) Re-establishment of topsoil and grass utilising best practice;
- f) Appropriate drainage of the site, to avoid uncontrolled runoff into any water body; and
- g) Leaving the site in a clean and tidy state.

The Closure and Rehabilitation Plan shall be prepared in consultation with adjoining landowners and Kāi Tahu. Feedback received from those persons shall be included for the information of Central Otago District Council.

- 40. Implementation of the Closure and Rehabilitation Plan shall not commence until the Consent Holder has received written certification of that Plan from the Central Otago District Council. Notwithstanding this, the works may proceed if the Consent Holder has not received a response from the Central Otago District Council within 20 working days of the date of the submission of the Plan.
- 41. The Closure and Rehabilitation Plan shall be implemented noting that no construction or earthworks be undertaken within 50 metres of the Mahaka Katia Scientific Reserve between 1 September and 1 January in any year (bird nesting season).

Complaints Register

- 42. The Consent Holder shall maintain and keep a register for complaints regarding all aspects of operations at the site related to the exercise of this consent, received by the Consent Holder. The register shall record:
 - a) the date, time and duration of the event/incident that has resulted in a complaint;
 - b) the location of the complainant when the event/incident (if possible, specify nature of incident e.g. dust nuisance) was detected;
 - c) the possible cause of the event/incident;
 - d) the weather conditions and wind direction at the site when the event/incident allegedly occurred;
 - e) any corrective action is undertaken by the Consent Holder in response to the complaint;
 - f) any other relevant information.
- 43. The complaints register shall be available to the Central Otago District Council on request.
- 44. Complaints received by the Consent Holder that may indicate non-compliance with the conditions of this resource consent shall be forwarded to the Central Otago District Council within 5 days of the complaint being received.

Annual Report

- 45. The Consent Holder shall submit an Annual Report before the end of February each year which addresses the following:
 - a) The volume of material removed from the site in the preceding 12 months.
 - b) Complaints Records for the preceding 12 months.
 - c) Any amendments made to the Quarry Management Plan or Dust Management Plan.

Bond

- 46. Within three months of the commencement of this consent, the Consent Holder shall enter into an enforceable agreement and bond with the Central Otago District Council for a sum of \$200,000.00 (and this shall be adjusted annually on the anniversary of the land use consent to increase the bond amount based on the consumer price index (CPI) or to be reduced on a pro rata basis if areas of rehabilitation have been completed that year). If following the closure of the quarry the Consent Holder defaults on implementing the Closure and Rehabilitation Plan, this bond is to meet the cost of:

Appendix A - Deepening and Expansion

- a) removal of any plant or buildings;
- b) recontouring of the quarry area, respreading of subsoils and topsoil, re-establishing grass, and establishment of drainage sufficient to meet the post quarrying land use; and
- c) leaving the land in a clean and tidy state.

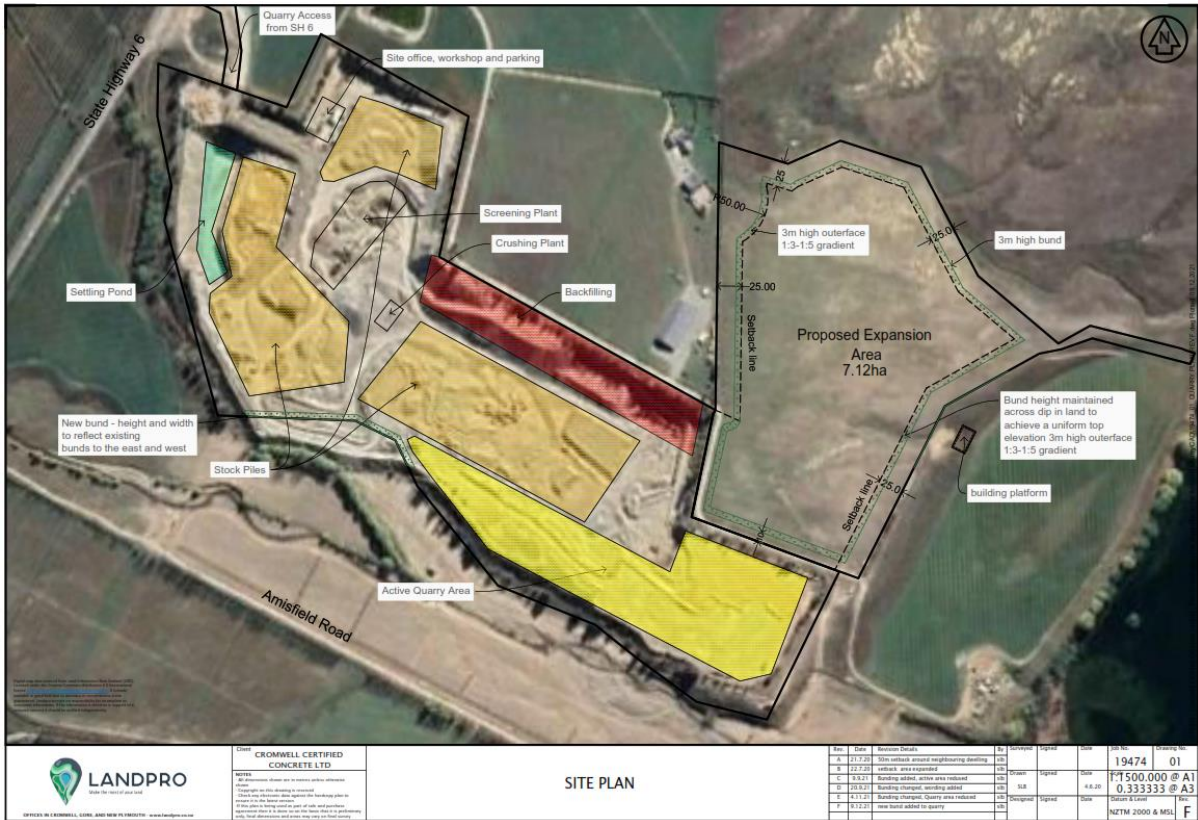
Review

47. In accordance with section 128 of the Resource Management Act 1991, the conditions of this consent may be reviewed on each anniversary of the date of this consent coming into force if:

- a) there is or is likely to be an adverse environmental effect that is greater than minor that results from the exercise of this consent, which was unforeseen when the consent was granted;
- b) monitoring the exercise of this consent has revealed that there is likely to be an adverse effect on the environment that is greater than minor;
- c) there has been a change of circumstances such that the conditions of the consent are no longer appropriate in terms of the purpose of the Act.

DRAFT

Appendix 1: Site Plan referred in Conditions 8, 31 and 36



DRAFT

RM20.360.02: Discharge Consent

DISCHARGE CONSENT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Cromwell Certified Concrete Limited

Address: 810 Great South Road, Penrose, Auckland 1061

Activity: To discharge contaminants to land for the purpose of gravel washing and dust suppression

Term: 25 years

Location of consent activity: 1248 Luggate-Cromwell Road (State Highway 6)

Legal description of consent location: Lots 3, 5 and 8 DP 301379

Conditions:

1. This consent shall be exercised in conjunction with water permits RM16.108.01 and RM20.360.01 (or any permits granted which replace those permits) which authorise the abstraction of water from bores G41/0456 and G41/0127.
2. The volume of water discharged shall not exceed:
 - a) 3,024 cubic metres per day;
 - b) 93,744 cubic metres per month; and
 - c) 846,720 cubic metres per year.
3. No contaminants other than silt and sediment shall be discharged into the Pisa Groundwater Management Zone.

Advice note: for the purpose of this consent, silt and sediment is the natural fine material that results from the crushing and washing aggregate.

4. The discharge treatment system shall be located at approximate map reference NZTM (NZDG2000) E1305493 N5017426 and shall include a primary settlement pond with minimum dimensions of 40 m long, 5 m wide and 1 m depth with an overflow to a larger infiltration/settlement pond. These ponds shall be maintained in effective operating condition at all times, including at least:
 - a) Three monthly inspections; and
 - b) Pond desludging at least 6 monthly or more frequently if required.
5. The Consent Holder shall ensure that there is no direct discharge from the ponds to any surface watercourse.
6. Within six months of this consent being exercised and subject to permission from the owner of Lot 6 DP 301379, a water quality monitoring bore shall be installed on Lot 6 DP 301379 within 25 m of the marked location (map reference NZTM (NZGD2000) E1305256, N5017332) illustrated in Appendix 1 to this consent with the following specifications:
 - a) A minimum depth of approximately 31 m below ground level;
 - b) Bore diameter of approximately 100 mm (to allow for two 50 mm nested piezometers);
 - c) Screened for the bottom two metres and the upper two metres of saturated groundwater, as indicated from the bore log;

Appendix A - Deepening and Expansion

- d) Two nested piezometers shall be installed that provide for separation, via grouting, of the top two metres and the bottom two metres of groundwater to enable depth specific groundwater quality monitoring via the piezometers.
7. The bore drilling and installation of the piezometers required by Condition 6 shall be overseen by a suitably qualified person. A report that demonstrates compliance with the requirements of Condition 6 shall be submitted to the Consent Authority within one month of the installation of the bore.
8. The Consent Holder shall take representative water samples quarterly on the same day, starting within one month of this consent being exercised, from:
- the infiltration/settling pond specified in Condition 4;
 - bore G41/0456;
 - piezometers installed in accordance with Condition 6, subject to access being granted by the bore owner;
 - bore G41/0321 and G41/0220, subject to access being granted by the bore owner; and
 - bore G41/0319, subject to access being granted by the bore owner.
- a. Field sampling shall be undertaken for Temperature, pH, Dissolved Oxygen, Electrical Conductivity and Oxidation Reduction Potential using a calibrated water quality meter. Once the field measurements have stabilised, samples shall be taken for analysis by a laboratory with appropriate IANZ accreditation or equivalent for total petroleum hydrocarbons, total suspended solids, turbidity, major cations and anions (sodium, potassium, calcium, magnesium, chloride, sulphate, nitrate, bicarbonate and carbonate), iron, manganese, copper, chromium, arsenic, zinc and *Escherichia coli*.
- b. The sampling shall be undertaken by a suitably qualified person in general accordance with the National Environmental Monitoring Standards Water Quality Part 1 of 4: Discrete Sampling, Measuring, Processing and Archiving of Discrete Groundwater Quality Data.
- c. If 20 consecutive sampling results from bore G41/0321 show no statistically significant difference in results for total suspended solids or turbidity then the frequency of groundwater testing required of the bores listed in Condition 8 shall reduce to annually until the expiry or surrender of this consent, whichever occurs first.
9. If permission to sample bore G41/0321 is not granted by the owner of that bore, sampling of the new bore required by Condition 6 may be undertaken instead to satisfy Condition 8(c) of this consent. If permission to install and sample the new bore required by Condition 6 is not granted by the owner of that land, sampling of the bores listed in Condition 8 shall be reduced from quarterly to annually after 20 sampling rounds.
10. Before the second anniversary of the exercise of this consent, and every three years thereafter, the Consent Holder shall submit to the Consent Authority (customerservices@orc.govt.nz) a report (undertaken by a suitably qualified water quality expert who has reviewed all the available groundwater quality data) which provides an assessment of whether they consider that the discharge authorised by this resource consent is causing a significant increase in turbidity or total suspended solids concentrations in groundwater from bores G41/0321 or G41/0220. A copy of the report shall also be provided to the owner of bores G41/0321 and G41/0220: Irrigation and Maintenance Limited (highbannockburn@xtra.co.nz).
11. If a report required under Condition 10 concludes that the discharge is causing a significant increase in turbidity effects or total suspended solids in groundwater from bore G41/0321 or G41/0220, the Consent Holder shall within three months of receiving

that report implement additional or alternative sediment treatment/ management measures to reduce the concentration of suspended solids entering the infiltration/settling pond.

- a. The Consent Holder shall report to the Consent Authority as soon as practicable on the completion of any such works; and
 - b. Within 12 months of completion of any additional sediment treatment/management measures, the Consent Holder shall provide a report to the Consent Authority written by a suitably qualified person on the effectiveness of those measures.
12. The Consent Holder shall ensure that the discharge authorised by this consent does not cause any flooding, erosion, scouring, land instability or damage to any adjacent property.
 13. The Consent Holder shall submit an Annual Groundwater Report to the Consent Authority before the end of February each year which includes the results of the groundwater quality monitoring required by Condition 8 of this consent during the previous calendar year
 14. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within 3 months of each anniversary of the commencement of this consent for the purpose of:
 - a) Adjusting the consented rate of discharge under condition 2, should the consented amounts or rates of water take approved under Water Permits RM16.108.01 and RM20.360.01 (or any replacement consents) be reduced; or
 - b) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage (including any adverse effects of the discharge to the ponds on groundwater quality in bore G41/0321 or G41/0220); or
 - c) Ensuring the conditions of this consent are consistent with any National Environmental Standards.

Appendix 1: Area for new monitoring bore (Condition 6 of this consent)



DR

RM20.360.04: Bore Consent

LAND USE CONSENT

Pursuant to Section 104A of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Cromwell Certified Concrete Limited

Address: 810 Great South Road, Penrose, Auckland 1061

Activity: To construct a bore for the purpose of excavating gravel below groundwater

Term: For an unlimited term

Location of consent activity: 1248 Luggate-Cromwell Road (State Highway 6)

Legal description of consent location: Lots 3, 5 and 8 DP 301379

Conditions:

1. If this consent is not given effect to within a period of five years from the date of commencement of this consent, this consent shall lapse under Section 125 of the Resource Management Act 1991. The consent shall attach to the land to which it relates.
2. A new monitoring bore shall be installed within three months of this consent being exercised. This bore shall be located at the downgradient south-eastern boundary of Lot 8 DP 301379 at approximate map reference NZTM(NZGD2000) E1305952 N5016821, as illustrated in Appendix 1 to this consent, and shall be installed under the supervision of a suitably qualified expert. This bore shall be drilled to a depth of approximately 15 m below ground level and shall be screened for at least three metres from the base of the bore.
3. The Consent Holder shall take representative water samples quarterly from bores G41/0456, G41/0111 (subject to permission being granted by the owner of that bore) and the water quality monitoring bore required to be installed by Condition 2 on the same day.
 - a) Field sampling of those bores shall be undertaken for Temperature, pH, Dissolved Oxygen, Electrical Conductivity and Oxidation Reduction Potential using a calibrated water quality meter. Once the field measurements have stabilised, samples shall be taken from each bore for analysis by a laboratory with appropriate IANZ accreditation or equivalent for total petroleum hydrocarbons, total suspended solids, turbidity, major cations and anions (sodium, potassium, calcium, magnesium, chloride, sulphate, nitrate, bicarbonate and carbonate), iron, manganese, copper, chromium, arsenic, zinc and Escherichia coli.
 - b) The sampling required by this condition shall be undertaken by a suitably qualified person in general accordance with the National Environmental Monitoring Standards Water Quality Part 1 of 4: Discrete Sampling, Measuring, Processing and Archiving of Discrete Groundwater Quality Data.
 - c) If 20 consecutive sampling results from the new monitoring bore required by Condition 2 of this consent and bore G41/0111 (provided permission to sample that bore is granted by its owner) show no statistically significant difference in results from each bore for total suspended solids or turbidity, the frequency of sampling of all bores required by Condition 3 of this consent shall reduce to annually until extraction of aggregate on the site has ceased.
 - d) If permission to sample bore G41/0111 is not granted by the owner of that bore, compliance with Condition 3(c) of this consent shall instead be achieved based on the results of sampling from the new bore required by Condition 2 of this consent.

4. Subject to Condition 5 of this consent, results of the water quality sampling required by Condition 3 shall be reported to the Consent Authority and provided to Amisfield Estate Society Incorporated within one week of the sample results being received.
5. Should the measured value of any of the determinants in a sample taken by the Consent Holder in accordance with Condition 3 from bore G41/0111 exceed a NZ Drinking Water Standard Maximum Acceptable Value or Guideline Value (as specified in the New Zealand Drinking Water Standards), then the Consent Holder shall:
 - a) Advise the Consent Authority and Amisfield Estate Society Incorporated within 48 hours of receipt of the sampling results;
 - b) Within one week from the receipt of the sampling results, begin an investigation into the cause of the exceedance. The investigation shall be carried out by a suitably qualified water quality expert and shall include but not be limited to:
 - i. activities at the Amisfield Quarry;
 - ii. activities undertaken in the surrounding area;
 - iii. preceding rainfall; and
 - iv. any additional water quality monitoring that may be required to determine the potential cause of the exceedance.
 - c) Within one month of receipt of the exceedance, submit a report signed by a suitably qualified water quality expert to the Consent Authority and to Amisfield Estate Society Incorporated on the investigation undertaken, the potential causes of the exceedance, the likely cause(s) of the exceedance and recommendations for any remedial measures to be undertaken to mitigate the effects of the exceedance or prevent future exceedances occurring.
 - d) In the event that the report concludes that it is likely that the exceedance was caused by activities at the Amisfield Quarry, the Consent Holder shall provide persons named by Amisfield Estate Society Incorporated who rely on G41/0111 for supply of potable supply with 2000 litres per day of potable drinking water up to a maximum of 25,000 litres in total per day, until such time as at least two samples taken from bore G41/0111 at least two weeks apart demonstrate compliance with the relevant Maximum Acceptable Values or Guideline Values. Quarterly monitoring shall then resume as required by Condition 3.
 - e) All costs associated with provision of the alternative supply of potable drinking water required by Condition 5(d) of this consent shall be borne by the Consent Holder.

Advice Notes:

1. The Guideline Values and Maximum Acceptable Values referred to in this condition are those specified in the publication 'Drinking-water Standards for New Zealand 2005 (Revised 2018)', Ministry of Health. The Guideline Values are the limits for aesthetic determinants that, if exceeded, may render the water unattractive to consumers.

2. Shallow groundwater in this area is vulnerable to contamination from microorganisms and given the agricultural land use in the catchment it is expected that groundwater samples from bore G41/0111 will not always comply with the microbiological drinking water standards.

6. A Quarry Management Plan (QMP) shall be submitted to the Otago Regional Council at least 1 month prior to the exercise of this consent for certification that it documents, as a minimum:
 - a) A plan showing the areas of groundwater extraction and the location of the bores subject to groundwater quality monitoring;

Appendix A - Deepening and Expansion

- b) A description of the groundwater quality monitoring required by the conditions of this consent;
 - c) The contact details of the quarry manager;
 - d) A description of the proposed methods of excavating aggregate within groundwater;
 - e) A description of all relevant site operations and procedures, including mobile refuelling procedures and spill responses;
 - f) A description of all environmental effects, including (but not limited to) discharges to water;
 - g) All consent conditions and any other mitigation measures to be employed to minimise environmental effects and/or adhere to best practice;
 - h) The minimum maintenance frequency for all machinery operated by the Consent Holder and working on the site;
 - i) Relevant monitoring and reporting requirements.
7. Activities authorised by this consent must not commence until the Consent Holder has received written certification of the QMP. Notwithstanding this, the works may proceed if the Consent Holder has not received a response from the Otago Regional Council within 20 working days of the date of the submission of the QMP.
8. Any erosion, scour or instability of the bed or banks of the pit or formed waterbody that exceeds the extent shown in the consent application shall be reinstated or remedied by the Consent Holder. When such reinstatement or remediation is necessary, the Consent Holder shall record the following information and include it in the Annual Groundwater Report required by Condition 12 of this consent:
 - a) The location of the reinstatement or remediation works identified on a site plan;
 - b) A description of the nature of the damage that occurred, including photographs;
 - c) An assessment of the likely causes of the damage, including reference to preceding weather conditions, activities taking place in the area, the angle of the pit slopes etc.
 - d) A description of the nature of the reinstatement or remediation works required and when these were carried out;
 - e) Any changes to be made to site management measures to reduce the likelihood of similar issues arising in future.
9. In the event of a discharge of unauthorised contaminant(s) to water or to land in a manner that may enter water, including but not limited to fuel, hydraulic fluid, overspray of weed killer, contaminated soil or leachate, the Consent Holder shall:
 - a) Undertake all practicable measures as soon as possible to contain the contaminant;
 - b) Ensure that the contaminants and any material used to contain it are removed from the site and disposed of at an authorised landfill;
 - c) Immediately notify the Consent Authority and Amisfield Estate Society Incorporated of the spill or contamination and of the actions taken and to be taken to remediate and mitigate any adverse environmental effects;
 - d) Immediately have a suitably qualified water quality expert assess the risk of the spill to bore G41/0111 (the Amisfield Estate Society Incorporated drinking water supply) and provide recommendations on the measures to be taken to address any identified risk;
 - e) Provide a copy of the risk assessment carried out under Condition 9(d) above to the Consent Authority and Amisfield Estate Society Incorporated within 1 week and implement all recommendations in the risk assessment;
 - f) If requested by the Consent Authority, undertake additional water quality sampling and any other actions necessary to remediate or mitigate any adverse effects on the environment, to the satisfaction of the Consent Authority.

10. The Consent Holder shall ensure that:

- a) All machinery to be operated within exposed groundwater on the site is thoroughly cleaned of vegetation (e.g. weeds), seeds or contaminants at least 10 metres away from any waterbody, water flow channel or stormwater system, prior to entering the site;
- b) All machinery shall be regularly maintained to ensure that no contaminants (including but not limited to oil, petrol, diesel, hydraulic fluid) shall be released into water, or to land where it may enter water, from equipment being used for the works;
- c) All contaminant storage or re-fuelling areas (other than areas where mobile re-fuelling occurs) are bunded or contained in such a manner so as to prevent the discharge of contaminants to water or to land where it may enter water;
- d) No machinery shall be cleaned, stored or refuelled within 10 metres of any waterbody, water flow channel or stormwater system;
- e) Permanent storage of fuel or lubricants shall only occur within the workshop area identified on 'Site Plan Rev E' (dated 4.11.21);
- f) The origin and location of any cleanfill placed within the quarry shall be recorded;
- g) Cleanfill shall not be placed within 10 metres of any waterbody, water flow channel or stormwater system and shall be located above the level of groundwater.

11. The Consent Holder shall maintain a permanent record of any complaints received alleging adverse effects from or related to the works authorised by this consent. This record shall include:

- a) The name and address of the complainant (if provided);
- b) The date and time that the complaint was received;
- c) Details of the alleged event;
- d) Weather conditions at the time of the complaint; and
- e) Any measures taken to mitigate/remedy the cause of the complaint.

This record shall be made available to the Consent Authority on request.

12. The Consent Holder shall submit an Annual Groundwater Report before the end of February each year which includes the following:

- a) Results of the water quality monitoring carried out in accordance with Condition 3;
- b) The identity and expertise of the person(s) who collected water samples in accordance with this resource consent;
- c) Identification of any measures required under Condition 9;
- d) Records kept in accordance with Condition 9(d); and
- e) Copies of the complaints record for any complaints in relation to groundwater quality for the preceding 12 months.

13. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within 3 months of each anniversary of the commencement of this consent for the purpose of:

- a) Adjusting the variables or frequency of the sampling requirements under Condition 3; or
- b) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or

Appendix A - Deepening and Expansion

- c) Ensuring the conditions of this consent are consistent with any National Environmental Standard or National Planning Standard.

DRAFT

Appendix 1: Location of downgradient monitoring bore (approximate map reference NZTM(NZGD2000) E1305952 N5016821)



DRAFT

RM20.360.01: Water Take

WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Cromwell Certified Concrete Limited

Address: 810 Great South Road, Penrose, Auckland 1061

Activity: To take and use ground water for the purpose of gravel washing, irrigation, domestic use and dust suppression

Term: 6 years

Location of consent activity: 1248 Luggate-Cromwell Road (State Highway 6)

Legal Description of land at point of abstraction: Lot 8 DP 301379

Legal Description of land where water is to be used: Lots 3, 5 and 8 DP 301379

Map Reference at point of abstraction: Bore G41/0127 - NZTM 2000 E1305397 N5017068
Bore G41/0456 - NZTM 2000 E1305502 N5017223

Conditions:

1. This permit shall be exercised in conjunction with Water Permit RM16.108.01, Discharge Permit RM20.360.02, and any consents granted in replacement of those permits.
2. If this consent is not given effect to within a period of five years from the date of commencement of this consent, this consent shall lapse under Section 125 of the Resource Management Act 1991. The consent shall attach to the land to which it relates.
3. The combined rate of abstraction from bore G41/0127 and bore G41/0456 shall not exceed 24 litres per second.
4. The rate of abstraction when combined with Water Permit RM16.108.01 shall not exceed 25 litres per second from bore G41/0127 and 45 litres per second from bore G41/456, and the quantity of water abstracted shall not exceed:
 - a) 3,024 cubic metres per day;
 - b) 93,744 cubic metres per month; and
 - c) 846,720 cubic metres per year.
5. The consent holder shall:
 - a) Maintain water meter(s) to record the water take, within an error accuracy range of +/- 5% over the meter(s) nominal flow range, and a telemetry compatible datalogger with at least 24 months data storage and a telemetry unit to record the rate and volume of take, and the date and time this water was taken.
 - b) The datalogger shall record the date, time and flow in litres per second.
 - c) Data shall be provided once daily to the Consent Authority by means of telemetry. The consent holder shall ensure data compatibility with the Consent Authority's time-series database.
 - d) The consent holder shall ensure the full operation of the water meter(s), datalogger and telemetry unit at all times during the exercise of this consent. All malfunctions

of the water meter and/or datalogger and/or telemetry unit during the exercise of this consent shall be reported to the Consent Authority within 5 working days of observation and appropriate repairs shall be performed within 5 working days. Once the malfunction has been remedied, a Water Measuring Device Verification Form completed with photographic evidence must be submitted to the Consent Authority within 5 working days of the completion of repairs.

- e) The water meter(s), datalogger and telemetry unit shall be verified for accuracy within one month from the first exercise of this consent.
 - f) Any electromagnetic or ultrasonic flow meter shall be verified for accuracy every five years from the first exercise of this consent.
 - g) Each verification shall be undertaken by a Consent Authority approved operator and a Water Measuring Device Verification Form shall be completed and submitted to the Consent Authority with receipts of service within 5 working days of the verification being performed, and at any time upon request.
6. The consent holder shall take all practicable steps to ensure that:
- a) There is no leakage from pipes and structures;
 - b) There is no runoff of irrigation water either on site or off site.
 - c) A back flow preventer device is fitted to prevent any contaminants from being drawn into the source of the water.
7. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent for the purpose of imposing aquifer restriction levels, if and when an operative regional plan sets aquifer restriction levels.
8. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent within 3 months of each anniversary of the commencement of this consent for the purpose of:
- a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - b) Ensuring the conditions of this consent are consistent with any National Environmental Standard or National Planning Standard.

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Cromwell Certified Concrete Limited

Address: 810 Great South Road, Penrose, Auckland 1061

Activity: To discharge contaminants to air for the purpose of operating an alluvial quarry

Term: 25 years

Location of consent activity: 1248 Luggate-Cromwell Road (State Highway 6)

Legal Description of consent location: Lots 3, 5 and 8 DP 301379

General Conditions

- 1 The activity shall be carried out in general accordance with information and plans submitted with the application dated 23 October 2020 for resource consent RM20.360.03 and with evidence submitted by the Consent Holder at the hearing. Should there be any inconsistencies between those documents and consent conditions, the consent conditions shall prevail.
- 2 If this consent is not given effect to within a period of five years from the date of commencement of this consent, this consent shall lapse under Section 125 of the Resource Management Act 1991. The consent shall attach to the land to which it relates.
- 3 Aggregate extracted from the site must not exceed 200,000m³ in any 12-month period.
- 4 The discharge shall not give rise to dust or the deposition of particulate matter that causes a noxious, dangerous, objectionable or offensive effect beyond the boundary of the site.
- 5 The Quarry Manager or another nominated person must be available at all times (including outside quarry operation hours) to respond to dust emission complaints and trigger level alerts in accordance with measures described in the Dust Management Plan (DMP).
- 6 The maximum area of unconsolidated land comprising of the excavation area, backfilling areas and rehabilitation area shall not exceed two hectares.

Advice Note: The maximum area of unconsolidated land does not include the haul roads, processing area, stockpiles, areas which are covered with 50mm (or more) of washed gravels or stabilised with a dust suppressant, portacoms or workshops, or the conveyor and its associated service area.

Dust Management Plan (DMP)

- 7 At least one month prior to exercising this resource consent, the Consent Holder must prepare a Dust Management Plan (DMP) for certification by the Consent Authority.
- 8 Works must not commence until the Consent Holder has received written certification from the Consent Authority of the DMP. Notwithstanding this, the works may proceed if the Consent Holder has not received a response from the Consent Authority within 20 working days of the date of the submission of the DMP.
- 9 The DMP must include, but not be limited to:
 - (a) A description of the purpose of the DMP;

Deepening and Expansion

- (b) A description of the dust sources on site;
- (c) A description of the receiving environment and identification of sensitive receptors within 250 metres of site boundaries (sensitive receptors being any dwelling and the land within 20m of the façade of an occupied dwelling's notional boundary, and sensitive commercial crops);
- (d) The methods (including dust reduction through design methodologies) which will be employed as necessary to ensure compliance with the conditions of this consent;
- (e) A description of site rehabilitation methodology and associated dust control measures;
- (f) A description of particulate matter and wind monitoring requirements including:
 - (i) The location of the wind monitoring equipment;
 - (ii) The location of particulate matter monitors between active work areas and sensitive off-site activities;
 - (iii) Details of wind speed trigger levels as set out in Condition 11(a) and associated alarm system. This shall also include the wind direction to be used in fulfilment of Condition 11(b);
 - (iv) Details of the particulate matter trigger levels as set out in Condition 13 and 14 and associated alarm system; and
 - (v) Monitoring instrumentation methodology, setup requirements, maintenance and calibration procedures;
- (g) A description of procedures for responding to dust and wind condition-based trigger levels and associated follow up investigations, actions and recording of findings;
- (h) A system for training employees and contractors to make them aware of the requirements of the DMP;
- (i) Names and contact details of staff responsible for implementing and reviewing the DMP in order to achieve the requirements of this consent, and procedures, processes and methods for managing dust outside of standard operating hours;
- (j) A method for recording and responding to complaints from the public;
- (k) A maintenance and calibration schedule for meteorological and particulate matter monitoring instruments;
- (l) Contingency measures for responding to dust suppression equipment malfunction or failures, including wind and particulate matter monitoring instruments;
- (m) A procedure for completing an end-of-day dust control checklist;
- (n) Separate Standard Operating Procedures (SOPs) dedicated to the management of potential dust discharges from specific sources, including but not limited to:
 - (i) Stockpiles;
 - (ii) Site roads – sealed and unsealed;
 - (iii) The conveyor used to convey aggregate from Lot 3 DP 301379 to the processing plant located with Lot 8 DP 301379;
 - (iv) Triggers for the use of water for dust suppression;
 - (v) The use of dust suppressants other than water;
 - (vi) Aggregate excavation and backfilling areas;
 - (vii) Topsoil and overburden stripping and stockpiling;
 - (viii) Bund construction, maintenance and the recontouring of slopes during rehabilitation;
 - (ix) Any automated dust suppression for dust prone areas that can be activated outside of working hours;
 - (x) Location and calibration of particulate matter and meteorological monitoring equipment;
- (o) Environmental information management for recording, quality assurance, archiving and reporting all data required for dust management on the site.

Deepening and Expansion

- 10 The Consent Holder shall carry out its activities in accordance with the DMP at all times.

Trigger Levels and Dust Mitigation

Trigger Levels

- 11 Quarry activities (except dust suppression measures) within 250 metres of a sensitive receptor location (sensitive receptors being those defined in Condition 9(c)) must not be undertaken when:
- (a) Wind speed reaches or exceeds 7 m/s (10 minute scalar average); and
 - (b) Quarry activities would be directly upwind of a sensitive receptor (10-minute average wind direction); and
 - (c) Less than 1 mm of rain has fallen during the preceding 12 hours.
- 12 If at any time, including outside normal operating hours, visible dust is blowing beyond the site boundary or if the particulate matter monitoring trigger in Condition 13 is breached the Consent Holder must:
- (a) Cease all quarry activities (including loading of purchasing trucks), except dust suppression measures;
 - (b) Continue all dust suppression activities including but not limited to the immediate watering of both active and inactive exposed surfaces;
 - (c) Investigate possible sources of the dust;
 - (d) Only resume quarry activities (other than dust suppression) once there is no longer visible dust blowing beyond the site boundaries and when the monitoring trigger in Condition 13 is no longer being breached; and
 - (e) Notify the Consent Authority as soon as practicable, detailing its cause and the dust suppression actions undertaken.
- 13 The trigger concentration which indicates the potential for excessive quarry derived dust at or beyond the site boundary is a maximum real time PM₁₀ concentration of ≥ 150 micrograms per cubic metre, as a rolling 1-hour average, which shall be updated every ten minutes.
- 14 A pre-trigger concentration alert level shall be specified in the DMP, the purpose of which is to provide an early warning that the trigger concentration in Condition 13 may be reached. This shall be a maximum PM₁₀ concentration value of ≥ 150 micrograms per cubic metre, as a rolling 10-minute average, which shall be updated every 1 minute.
- 15 If the investigation required under Condition 12(c) determines the source of dust is localised to the excavation area only and is only impacting on areas downwind of this source, then activities within the central processing area, including sales of product, can continue. This is contingent on all activities within the existing processing and load out area not causing visible dust blowing beyond the site boundary and their downwind real time PM₁₀ monitors not reaching or exceeding the trigger in Condition 13.
- 16 The Consent Holder shall submit a report by an independent Suitably Qualified and Experienced Practitioner (SQEP) to the Consent Authority 2 years after the exercise of this consent and a further report 12 months after quarrying has commenced on Lot 3 DP 301379 to confirm that the PM₁₀ trigger concentration levels set in Conditions 13 and 14 are not giving rise to a breach of Condition 4 of this consent or if they are set unnecessarily low for avoiding such effects. The report shall contain data on PM₁₀ levels recorded by the monitors from two early summer/late autumn periods (1 October to end of May) and shall identify whether a change is needed to the trigger levels in Condition 13 and 14 to achieve routine compliance with Condition 4 of this consent.
- 17 If the report by an independent SQEP (as required under Condition 16) determines the PM₁₀ trigger concentration should be decreased in order to achieve routine compliance with

Deepening and Expansion

Condition 4, then the revised value as recommended by the SQEP shall be specified within an updated DMP and alarm settings on monitoring equipment shall be adjusted to reflect this revised value within 15 working days of receipt of the SQEP's report.

Mitigation Measures

- 18 The Consent Holder must take all practicable measures to minimise the discharge of dust from quarry activities, including but not limited to:
 - (a) Placing clean reject gravel over extraction areas if they are not being actively used by the Consent Holder. Areas where clean reject gravel cannot be placed will be stabilised using polymers;
 - (b) Assessing weather and ground conditions (wind and dryness) at the start of each day and ensure that applicable dust mitigation measures and methods are ready for use prior to commencing quarry activities;
 - (c) Taking wind direction and speed into account in planning quarry activities to minimise the risk of dust dispersion towards any residential dwellings that are within 250 metres of the site boundary;
 - (d) Water suppression such as using water carts or fixed sprinklers will be applied as required to dampen down disturbed areas and stockpiles. This must occur during dry weather, irrespective of wind speed;
 - (e) Pre-dampening topsoil and overburden with a water cart or sprinklers prior to its extraction and removal.
 - (f) Constructing and maintaining unsealed internal haul roads so that their surfaces consist of a crushed clean aggregate layer that is free of potholes;
 - (g) Using a field conveyor as the primary form of transporting aggregate from the active quarry face within Lot 3 DP 301379 to the processing plant within Lot 8 DP 301379;
 - (h) Minimising drop heights when loading trucks, conveyor hoppers and when moving material;
 - (i) Operating fixed and mobile crushing plant in conjunction with water dust suppression (either sprays or high-pressure fogging system) as necessary to avoid the dust trigger level, as specified in Condition 13 and 14, being reached or exceeded;
 - (j) Undertaking routine onsite and offsite inspections of visible dust emissions and deposited dust throughout each day of quarry activities and electronically logging findings and any dust suppression actions, and making the results of the inspections available to the Consent Authority when requested;
 - (k) Maintaining an adequate supply of water and equipment on site for the purpose of dust suppression at all times;
 - (l) Application of water via watercart or fixed irrigation of dust suppression water onto any section of the external access road shall only be used as a contingency/back up measure.
 - (m) Fixed and mobile crushing and screening plant shall be located in the areas identified on Site Plan Rev F included in Appendix 1 to this consent.
- 19 Land stripping and land rehabilitation shall be carried out during winter months (1st May to 1st September) when ground conditions are damp (or the ground or material to be used for rehabilitation has been thoroughly wetted with a water cart) and winds are below 7 m/s (10 minute average).
- 20 The Consent Holder shall impose a speed restriction on all internal haul and access roads of 30 km/hr.
- 21 The Consent Holder shall maintain the existing seal along the length of the site access road contained within Lot 5 DP 301379.

Deepening and Expansion

- 22 The northeast-southwest aligned section of conveyor within the expansion area (Lot 3 DP 301379) shall be located at least 75 m from the shared boundaries with Lot 2 DP 301379 and Lot 1 DP 508108.
- 23 The height of aggregate stockpiles shall be maintained below the height of existing ground level at the point immediately due northeast of stockpile.

Meteorological Monitoring

- 24 Prior to exercising this consent, the Consent Holder shall install a meteorological monitoring station at the location described in the DMP. The meteorological monitoring station shall be capable of continuously monitoring:
 - (a) Wind speed and direction at a minimum height of 6 m above the natural ground level;
 - (b) Relative humidity; and
 - (c) Temperature.
- 25 The meteorological monitoring instruments shall:
 - (a) Measure wind speed as 1-minute scalar averages with maximum resolution of 0.1 metres per second (m/s), have an accuracy of at least within +/-0.2 m/s, and a stall speed no greater than 0.5 m/s;
 - (b) Measure wind direction as 1-minute vector averages with maximum resolution of 1.0 degree and accuracy of at least within +/- 1.0 degree, and a stall speed no greater than 0.5 m/s;
 - (c) Measure screened temperature with accuracy of +/- 0.5 degree;
 - (d) Measure relative humidity with an accuracy of +/- 1%;
 - (e) Be located on the site in accordance with AS/NZS 3580:14-2014 (Methods for sampling and analysis of ambient air – Part 14 Meteorological monitoring for ambient air quality monitoring applications). If the monitoring station cannot be located in accordance with AS/NZS 3580:14-2014 an alternative location shall be agreed in writing with the Consent Authority;
 - (f) Maintain a data and time stamped electronic record for at least 36 months of meteorological monitoring results, recorded as rolling 10-minute averages, which are updated every one-minute in real-time.
 - (g) Send an alarm to the Quarry Manager (for example via mobile phone) if the wind speed trigger level in Condition 11(a) is reached or exceeded while the rainfall criteria specified in Condition 11(c) are being met.
 - (h) Be maintained and calibrated in accordance with the manufacturer's specifications.
- 26 All meteorological monitoring data shall be made available to the Consent Authority on request.

Particulate Matter Monitoring

- 27 Prior to exercising of this consent, the Consent Holder shall operate and maintain one permanent real-time dust management monitor for continuous monitoring of ambient 10-minute average PM₁₀ concentrations, which shall be installed and operated at a fixed location at the existing quarry's southwest boundary and in accordance with the DMP.

Advice Note: The permanently located real-time dust management monitor shall be an accepted method for general dust management/monitoring purposes, and does not need to be a certified USEPA, or National Environmental Standards for Air Quality (NESAQ) compliant method.

- 28 The permanent monitor shall be installed, operated, maintained and calibrated in accordance with the AS/NZS 3580.12.1:2015 *Methods for sampling and analysis of ambient air – Determination of light scattering – Integrating nephelometer method*, or else an equivalent or superior standard which is approved by the Consent Authority;

Deepening and Expansion

- 29 Prior to the exercising of this consent, the Consent Holder shall operate and maintain at least two mobile real-time dust management monitors for continuous monitoring of ambient ten-minute average PM₁₀ concentrations, whose location changes for different stages of the quarry development and in accordance with the DMP.
- 30 The mobile real-time dust management monitors can be equivalent to that used for the permanently located dust monitor, or else be a lower cost method, on the basis that this can be effectively calibrated against the permanent dust monitor.
- 31 The two mobile dust monitors shall be positioned at different site boundary locations, such that real-time dust monitoring is undertaken at locations which are between active excavation and central processing areas and downwind sensitive receptor locations, when the latter are within 250 m of the dust source.
- 32 All three dust monitors shall:
- (a) Be sited in general accordance with AS/NZS 3580.1.1:2016 Methods for sampling and analysis of air – Guide to siting air monitoring equipment;
 - (b) Have a GPS location service (or similar technology) which enables their locations to be remotely monitored and recorded;
 - (c) Provide and record the results continuously using an electronic data logging system with an averaging time for each parameter of not more than one minute;
 - (d) Record monitoring results in real-time as rolling 10-minute averages in an appropriate electronic format;
 - (e) Be fitted with an alarm system that is able to send warnings and alerts to the Quarry Manager or other nominated person; and
 - (f) Be maintained in accordance with the manufacturer's specifications.

Set backs

- 33 Active quarrying excavations within Lot 3 DP 301379 shall be set back:
- (a) At least 25 m from the boundary of that land apart from along the right of way between Lot 8 DP 301379 and Lot 3 DP 301379 where a 10 m setback is required; and
 - (b) 50 m from the boundary of Lot 3 DP 301379 in the vicinity of the existing dwelling on Lot 2 D301379
- as shown on Site Plan Rev F included in Appendix 1 to this consent.

Video Monitoring

- 34 The Consent Holder shall install and maintain at least two video cameras at locations which provide a clear view of the site activities (i.e. on the boundary bunds looking in). Data collected by the video cameras shall be recorded and kept for a minimum period of six months and supplied to Otago Regional Council on request.

Bund Formation

- 35 When constructing the bunds, the following controls apply:
- (a) The bunds shall be constructed during winter months (1st May to 1st September);
 - (b) Maintain a buffer distance of 250 m when wind speeds are above 7 m/s (10 minute average) in a direction towards the nearest sensitive locations;
 - (c) Material to be excavated must be thoroughly wetted using a water cart, if not already damp, ahead of excavation and wetted thoroughly thereafter;
 - (d) Wind monitoring must be carried out and dust generating activities shall cease when the wind is blowing towards sensitive locations and the wind speeds exceed 7 m/s (10 minute average) in accordance with Condition 11(a);

Deepening and Expansion

- (e) Following the construction of the bunds they shall be immediately stabilised using mulch or another suitable product.
- (f) Vegetated cover shall be established on all new bunds as soon as practicable and maintained to ensure healthy cover during dry months. Bunds within Lot 8 DP 301379 existing as at the date this consent is granted shall be planted and maintained, or stabilised by other means.

Complaints Register

- 36 The Consent Holder shall maintain a Complaints Register for any complaints received. The Complaints Register must include:
- (a) The date and time the complaint was received;
 - (b) The nature and location of where the complaint has originated, if provided;
 - (c) A summary of the complaint;
 - (d) Particulate matter and wind conditions at the time when the dust was observed by the complainant; and
 - (e) Any corrective action undertaken by the Consent Holder to avoid, remedy or mitigate the issue raised.
 - (f) Any amendments made to the DMP in response to the complaint(s).
- 37 The Complaints Register must be provided to the Consent Authority on request.

Annual Report

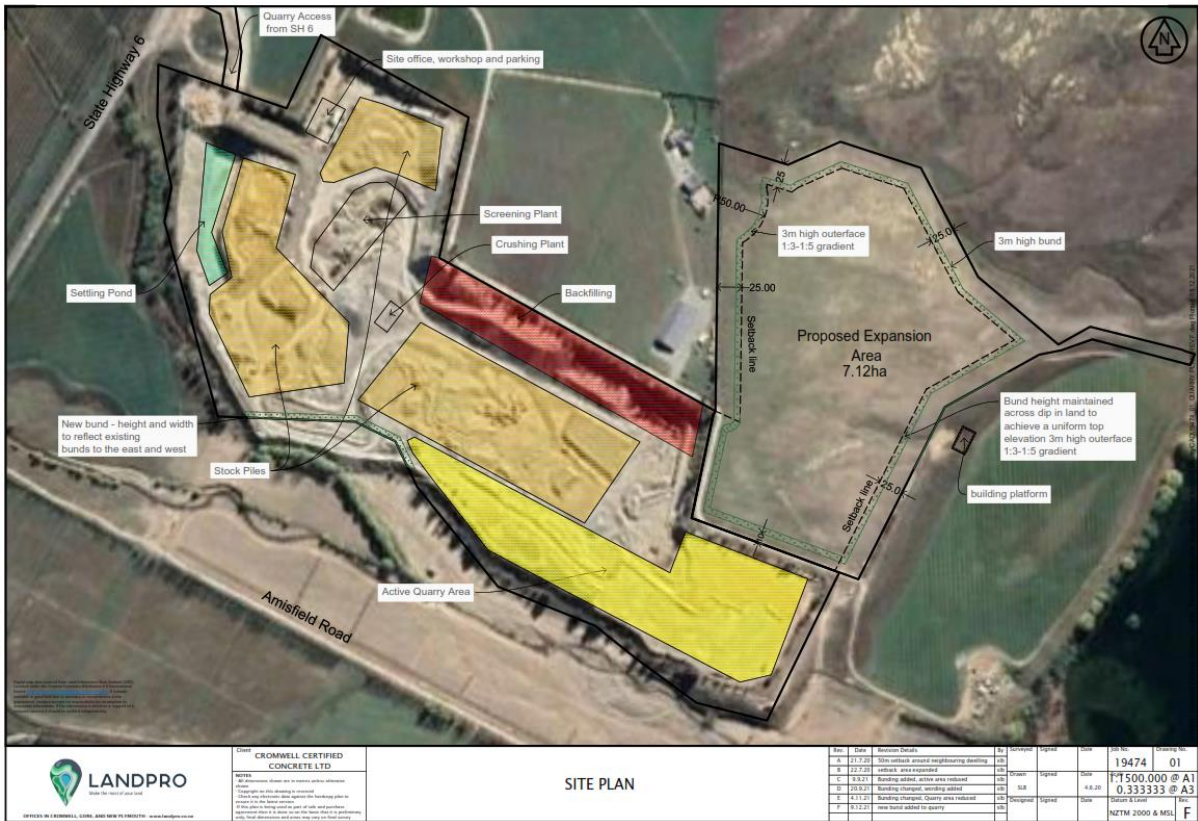
- 38 On the annual anniversary of this consent the Consent Holder shall provide a report to the Consent Authority to include the following:
- (a) The number of occasions that the particulate monitors recorded a breach of the trigger level in Condition 13;
 - (b) Complaints Records for the preceding 12 months;
 - (c) Maintenance and calibration records for the particulate monitors; and
 - (d) Any amendments made to the DMP.

Review

- 39 The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within 3 months of each anniversary of the commencement of this consent for the purpose of:
- (a) To deal with any adverse effect on the environment which may arise from the exercise of the consent that was not foreseen at the time of granting of the consent, and which is therefore more appropriate to deal with at a later stage; and/or
 - (b) To require the Consent Holder to adopt the best practicable option to reduce any adverse effects on the environment resulting from the activity; and/or
 - (c) Ensuring the conditions of this consent are consistent with any National Environmental Standard or National Planning Standard.

Deepening and Expansion

Appendix 1: Site Plan referred to in Conditions 18(m) and 33



		Client: CROMWELL CERTIFIED CONCRETE LTD Notes: 1. All dimensions shown are in metres unless otherwise stated. 2. The plan is for information only and does not constitute a contract. 3. The plan is for information only and does not constitute a contract. 4. The plan is for information only and does not constitute a contract. 5. The plan is for information only and does not constitute a contract.	SITE PLAN		<table border="1"> <thead> <tr> <th>Rev.</th> <th>Date</th> <th>Revision Details</th> <th>By</th> <th>Reviewed</th> <th>Scale</th> <th>Sheet No.</th> <th>Drawing No.</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>11.7.20</td> <td>50m setback around neighbouring dwelling</td> <td>CS</td> <td></td> <td></td> <td>19474</td> <td>01</td> </tr> <tr> <td>1</td> <td>22.7.20</td> <td>setback area expanded</td> <td>CS</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>9.8.21</td> <td>Bundling added, service area reduced</td> <td>CS</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>26.9.21</td> <td>Bundling changed, service added</td> <td>CS</td> <td>SR</td> <td>4:1:20</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>4.11.21</td> <td>Bundling changed, Quarry area reduced</td> <td>CS</td> <td>Proposed</td> <td>As per</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>9.12.21</td> <td>new bund added to quarry</td> <td>CS</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Rev.	Date	Revision Details	By	Reviewed	Scale	Sheet No.	Drawing No.	0	11.7.20	50m setback around neighbouring dwelling	CS			19474	01	1	22.7.20	setback area expanded	CS					2	9.8.21	Bundling added, service area reduced	CS					3	26.9.21	Bundling changed, service added	CS	SR	4:1:20			4	4.11.21	Bundling changed, Quarry area reduced	CS	Proposed	As per			5	9.12.21	new bund added to quarry	CS				
Rev.	Date	Revision Details	By	Reviewed	Scale	Sheet No.	Drawing No.																																																						
0	11.7.20	50m setback around neighbouring dwelling	CS			19474	01																																																						
1	22.7.20	setback area expanded	CS																																																										
2	9.8.21	Bundling added, service area reduced	CS																																																										
3	26.9.21	Bundling changed, service added	CS	SR	4:1:20																																																								
4	4.11.21	Bundling changed, Quarry area reduced	CS	Proposed	As per																																																								
5	9.12.21	new bund added to quarry	CS																																																										

DRAFT