

In the matter of the Resource Management Act 1991

And

In the matter of an application for Resource Consents by Road Metals Company Limited to extend quarry operations onto adjoining land and operate an aggregate processing activity.

**STATEMENT OF EVIDENCE OF DAVID JOHN COMPTON-MOEN
FOR ROAD METALS COMPANY LIMITED**

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INTRODUCTION

- 1 My full name is David John Compton-Moen. I hold the position of Urban Designer / Registered Landscape Architect at DCM Urban Design Limited where I am the Director. I started DCM Urban in August 2016. The company focuses its services on urban development and assessment work. Our office is based in Christchurch, but we work throughout New Zealand on urban design and landscape projects.
- 2 I hold the qualifications of a Bachelor of Landscape Architecture (hons) and a Bachelor of Resource Studies (Planning). I am a Registered Landscape Architect of the New Zealand Institute of Landscape Architects, since 2001, a Full member of the New Zealand Planning Institute, since 2007, and a member of the Urban Design Forum.
- 3 I have worked in the landscape assessment, urban design, and planning fields for approximately 20 years, here in New Zealand and in Hong Kong. During this time, I have worked for both local authorities, and private consultancies, providing expert evidence for urban design, landscape and visual impact assessments on a wide range of major infrastructure and development proposals, including the following relevant projects:
 - Earlier this year, I provided Urban Design, Landscape and Visual amenity evidence for QLDC on an application on Industrial land in Frankton Flats. The proposal was for a large warehouse type building with visitor parking immediately adjacent to SH6, commercial signage and a large planted landscape bund;
 - Last year I was working with QLDC on the development of a master plan for Ladies Mile. The plan involved developing a set of guiding design principles which would assist in providing additional residential accommodation for Queenstown under the HASHA while maintaining areas of Outstanding Natural Landscapes;
 - In 2015, I was employed by the Christchurch City Council to provide urban design and visual impact advice for the Memorial Avenue Investments Limited Business Park as part of the Christchurch Replacement District Plan;

- In 2008, I provided Landscape and visual evidence for the extraction of gravel from the Kowai River and creation of a new processing plant for Winstones Limited;
 - In 2007, I provided Landscape and visual evidence for a 14km long hydroscheme on the Rakaia River for the Ashburton Water Community Trust.
- 4 I have been engaged by Road Metals Limited to prepare Landscape and Visual Evidence for the proposed extension to their current quarry at 394 West Coast Road, Yaldhurst, Christchurch City. I am familiar with the site and surrounding area and have visited the site relating to the formulation and evaluation of the potential effects of this application for land use consent.

CODE OF CONDUCT

- 5 While this is a Council Hearing, I acknowledge that I have read and am familiar with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014, and agree to comply with it. I confirm that this evidence is within my area of expertise, except where I state that this evidence is given in reliance on another person's evidence. I have considered all material facts that are known to me that might alter or detract from the opinions I express in this evidence.

SCOPE OF EVIDENCE

- 6 The scope of my evidence is to assess the potential landscape and visual effects resulting from the proposed extension of the existing Road Metals' quarry into paddocks close and adjacent to Buchanans Road. It includes:
- a. Effects on Landscape Character
 - b. Effects on Rural Amenity
 - c. Visual Effects
 - d. Recommended Mitigation Measures

e. Conclusions

- 7 To assist with the assessment of likely effects, I use the following matrix in Table 1 below which I have prepared based on the NZILA Best Practice Guide – Landscape Assessment and Sustainable Management (02.11.10) with a seven-point scale to determine the magnitude of change being:

TABLE 1: EFFECTS MATRIX

		SENSITIVITY OF RECEPTOR (landscape / urban character, visual amenity or visually sensitive receptor)		
		LOW (industrial workers, travelers)	MEDIUM (commercial workers, travelers)	HIGH (residents, recreational users)
MAGNITUDE OF CHANGE (Effect / Impact)	NEGLIGIBLE	INDISCERNIBLE	INDISCERNIBLE	INDISCERNIBLE
	VERY LOW	INDISCERNIBLE	LESS THAN MINOR	LESS THAN MINOR
	LOW	LESS THAN MINOR	MINOR	MINOR
	MODERATE	MINOR	MINOR / MORE THAN MINOR	MORE THAN MINOR
	HIGH	MORE THAN MINOR	MORE THAN MINOR	SIGNIFICANT
	VERY HIGH	SIGNIFICANT	SIGNIFICANT	UNACCEPTABLE
	EXTREME	SIGNIFICANT	UNACCEPTABLE	UNACCEPTABLE

EXECUTIVE SUMMARY

- 8 My key observations and conclusions are:

- 8.1 The area immediately to the north of the proposal, along Old West Coast and Buchanans Road, is rural residential in character with lots ranging in size from 2ha to 6ha but with the majority of lots being closer to 2ha. Lots are generally surrounded by well established shelter belts and contain a single residential dwelling with auxiliary buildings. The character is less open with views generally restricted by substantial planting on property boundaries. Open views are still possible along the road corridors. Past the properties fronting Old West Coast Road, the character becomes more open with large grass paddocks and few shelter belts.

- 8.2 The area to the south of the proposal, and West Coast Road is generally characterised by larger lots and has a more open character than to the north but also contains several institutional facilities. Paddocks are larger, and the character is more open with views possible across to the Port Hills. Christchurch Men's' Prison is located to the southwest of the site, approximately 1km away with direct access from West Coast Road. Christchurch Women's' Prison is 2.5km away, also to the southwest but with access from Newtons Road. To the south, approximately 2km from the site is the Ruapuna racecourse and speedway.
- 8.3 To the west there are several existing quarries, including other sections of the Road Metals quarry, forming part of the receiving environment.
- 8.4 Overall, I consider that the receiving environment has a Low to Medium level of sensitivity to change, with a high absorption level for development, due to the flatness of the area combined with the existing landuses in the receiving environment. I do not consider that the proposal is of a scale that it will erode the 'sense of place' of the Canterbury plains as any effects can be successfully mitigated by the proposed grass bunds, retention of existing shelter belts and eventual re-grassing of the quarry pit as has been completed for area RM1. I consider the residual effects on Landscape Character to be Less than Minor.
- 8.5 Except for the existing quarries and associated bunds, topography in the area is flat with no notable features. This allows views into the site to be easily mitigated through the retention of existing vegetation and construction of relatively low bunds.
- 8.6 The parties potentially most affected by the proposal, in terms of visual amenity, have provided written consent for the application and have therefore not been included in the assessment of effects. The other affected parties who have not given consent to effects, in visual terms are 622 Buchanans Road, 105 Old West Coast Road, passing motorists on Buchanans Road, visitors to Yaldhurst cemetery who will all experience a Very Low magnitude of change, resulting Less than Minor residual visual effects. All other Visually Sensitive Receivers (**VSR's**) are considered to experience a Negligible magnitude of change with Indiscernible Effects.

- 8.7 In terms of Rural Amenity, I consider the receiving environment to have a medium sensitivity to change with the well-established shelter belts providing aesthetic coherence to several different landuse types. The shelter belts provide a high level of absorption for development. The proposed quarry extension will have negligible effects on the Rural Amenity values.
- 8.8 The retention of existing shelter belts on the proposal's Buchanans Road boundary is an important aspect to mitigate potential visual effects from Buchanans Road. The existing screening will provide softened views of the proposed bund, and as shown in the appended figures, will block views into the quarry when combined with the bund. The installation of the bund, due to its relatively low form, is not considered to have adverse effects on either VSR's or the rural-residential character of the area.
- 8.9 The creation of 3m high, 13m wide grassed bunds surrounding the edges of the quarry areas is the most effective method to achieve screening of the works combined with the retention of all existing shelter belts where possible.
- 8.10 Given the duration of the works, it is not considered that new plantings alone will be effective as a temporary mitigation measure given known growth rates. For this reason, it is proposed to rely on retaining existing vegetation and the installation of grassed bunds.
- 8.11 The proposed reinstatement works reusing existing, stockpiled topsoil from the site, and some imported topsoil, to a depth of 300mm will allow suitable grass and tree establishment.

EVIDENCE

9 Effects on Existing Landscape Character

- 9.1 The area to the north of the proposal, along Old West Coast and Buchanans Road, is rural-residential, as opposed to rural, in character with lots ranging in size from 2ha to 6ha but with the majority of lots being closer to 2ha in size. Lots are generally surrounded by well-established shelter belts, typically taller than 5m in height using a mix of species including pine, poplar, macrocarpa and cedar and contain a single residential dwelling with auxiliary buildings.

The sites are very much compartmentalised into smaller lots by these shelter belts, often solid, and fences creating distinctly separate sites from each other as opposed to a landscape character where sites flow into each other. In this respect the character of these rural-residential lots is not open, with boundary treatments designed to create pleasant internal vistas within a site rather than retaining a sense of openness. The style of houses varies but includes large single and two storey buildings with auxiliary buildings. The stewardship of properties also varies with some of a high standard and others which are used to store old vehicles, boats and farm equipment. However, open views are possible along road corridors.

- 9.2 The area to the south of the proposal, and West Coast Road is generally characterised by larger lots, contains some institutional facilities and has a more open character. Paddocks are larger, and the character more open with views possible across to the Port Hills. Christchurch Men's' Prison is approximately 1km southwest of the site, partially screened from West Coast (SH73) by a large stand of Pine trees but deer fencing, security gates and signage is clearly visible from the road (SH73) Christchurch Women's' Prison is 2.5km away, also to the southwest but with access from Newtons Road. Both facilities consist of multiple buildings and internal courtyards surrounded by security fencing and lighting. To the south, approximately 2km from the site is the Ruapuna racecourse and speedway. SH73 is a significant road corridor with a 100km/hour speed limit and flashing variable speed limit signs for when vehicles are travelling through the SH73-Buchanans Road intersection. The proximity of these institutions and the busy nature of SH73 influences the rural character of the receiving environment, from one which is purely rural to one which has a mix of activities, of which rural is one. These elements also influence the baseline rural amenity of the area, reflecting a receiving environment which is on the edge of a major urban settlement.
- 9.3 Except for the existing quarries and associated bunds, topography in the area is flat with no notable features. The quarries themselves, immediately to the west of the site, form part of the existing baseline and have an effect on the topography's sensitivity to change. I consider that the topography has a low sensitivity to change as it is possible for any effects to largely be internalised, as highlighted by the existing quarries which are not visible until being at an elevated location. This allows views into the site to be easily mitigated

through the retention of existing vegetation and construction of relatively low bunds. This is evident with existing grass bunds along West Coast Road where views into the existing quarries are restricted except at entry/exit points or where the tops of larger cranes can be seen. The proposal does not include any new access point(s) which would potentially open up views into the internals of the quarry.

- 9.4 Overall, I consider that the receiving environment has a Low to Medium level of sensitivity to change due to the flatness of the area combined with the existing landuses in the receiving environment. The proposed extension to the quarry is a relatively small area when compared to the existing quarry and can be visually contained within the development footprint. I do not consider that the proposal is of a scale that it will erode the 'sense of place' of the Canterbury plains as any effects can be successfully mitigated by the proposed grass bunds, retention of existing shelter belts and eventual re-grassing of the quarry pit. The existing character of the receiving environment has a high level of absorption, and while the topography will be permanently altered, the residual effects are Less than Minor.

10 Effects on Rural Amenity

- 10.1 In terms of Amenity Values, focusing on aesthetic coherence, the receiving environment has a medium sensitivity to change. As described above in the Landscape Character, the area is characterised by a low density-built form, but of a scale more characteristic of a rural-residential area than purely rural, particularly on Buchanans Road and Old West Coast Road. It is the well-established shelter belts which I consider provide the aesthetic coherence to the area, allowing an eclectic group of landuses (residential houses, amenity plantings, cemetery, prisons and quarries) to be located close to one another without greatly affecting the area's visual coherence or people's amenity. The receiving environment is dominated by vegetation, but not openness for the most part, and is a modified rural-residential element with few natural character elements.
- 10.2 A good comparison in terms of Rural Amenity is the land to the north of the lots fronting Old West Coast Road, approximately 500m from the site, which has an open character, few buildings and where the old river channels can

clearly be seen in aerial photos. I would consider this area, in comparison has higher rural amenity values and less ability to absorb change than the subject site and immediate surrounds.

- 10.3 While traffic is not a landscape issue, the movement of cars and the scale of road infrastructure in the immediate area is, having a significant effect on aesthetic coherence and rural amenity values. Road markings, increased lane width, hard road shoulders, signage and lighting all contribute to reduce the 'ruralness' of an area and a direct effect on people's appreciation of pleasantness. Traffic movements on both SH73 and Old West Coast Road are high, used by large trucks, lowering the 'pleasantness' of the receiving environment.
- 10.4 The proposal will not increase the number of dwellings in the immediate area and there will still be significant visual separation between neighbouring properties. This will not change. I would be concerned if an accessway and/or additional signage were to be installed on Buchanans Road, but the proposal is an extension of the existing quarry, not requiring any access or signage from this location. Overall, I consider that the proposal to extend the quarry will have a negligible magnitude of change, resulting in Indiscernible residual effects on the rural amenity values of the receiving environment.

11 Visual Effects and Amenity

- 11.1 The visual effects on neighbouring properties and passing motorists have been assessed to determine the magnitude of change each Visually Sensitive Receiver (VSR) will experience in terms of amenity. Each Visually Sensitive Receiver type is considered to have the following sensitivity to change, based on the duration of views, frequency of the views and whether they have a choice in viewing the proposal:

- Surrounding residential dwellings High sensitivity
- Passing motorists Low sensitivity
- Workers in surrounding quarries Low sensitivity

- Visitors to the cemetery Medium sensitivity
- Air travellers Low sensitivity

- 11.2 The highest potential visual effects will be experienced by the residents at 622 Buchanans Road and 105 Old West Coast Road whose dwellings are approximately 30m and 60m away respectively from the proposal, across Buchanans Road. Views of the site are not possible due to a dense macrocarpa and pine hedge, estimated to be 5-6m high, along the boundary of both properties fronting Buchanans Road. The front boundary of 619 Buchanans, where excavation works are proposed, is planted with a single row of cedars, estimated to be 4-5m in height. The magnitude of change for these VSRs is considered to be Low, reducing to Very Low with the implementation of the proposed bunding and retention of existing planting restricting views into the site, and the eventual reinstatement of the site. There will be no loss of 'openness' with the proposed bund. All other nearby residential VSR's will experience less change, with magnitudes of change being Very Low or Negligible due to intervening vegetation and distance. The residual visual effects are Less than Minor.
- 11.3 Passing motorists have a low sensitivity to change due to the temporary nature of views and the option to choose alternative routes if they do not like the view. Motorists would be able to see partial views of the excavation works over the tennis court at 619 Buchanans Road, and if the existing vegetation were to be removed and if the bunds were not constructed. With the retention of the shelter belt and the proposed 3m high bunds, the magnitude of change for motorists is Very Low, resulting in Indiscernible residual visual effects.
- 11.4 Workers in the surrounding quarries have a low sensitivity to change as workers tend to be focused on the work which they are undertaking as opposed to taking in views or relaxing. In some instances, they will have open views of the works but will be viewed adjacent to existing excavations, in context, resulting in a Very Low Magnitude of Change, resulting in Indiscernible residual visual effects.

- 11.5 Visitors to the cemetery are considered to have a Medium sensitivity to change given they are usually visiting the site to reflect on a family member's or friend's life, often seeking a tranquil environment. Visitors will have partial views of the quarry works through existing large oak trees. Once the bunds are constructed views into the site will not be possible with any effects on visual amenity mitigated if visible dust emissions beyond the site boundaries are managed during excavation. The magnitude of change is Very Low, resulting in Less than Minor residual visual effects
- 11.6 Air travellers, both arriving and departing, have open views of the existing quarry and will have views of the proposed extension area. From this elevated vantage point the extension will be viewed in context with the existing quarries. It is also possible to see how well the rehabilitation works have established on the RM1 area to mitigate any visual effects. The magnitude of change is considered Negligible from this viewpoint, resulting in Indiscernible residual visual effects

12 Recommended mitigation Measures

- 12.1 The creation of 3m high, 13m wide grassed bunds surrounding the edges of the quarry areas is the most effective method to achieve screening of the works combined with the retention of all existing shelter belts where possible. It is possible to construct a 3m high grass bund within a 13m wide strip, using a steeper gradient, 1:1 (45°) on the inside slope covered with a compost blanket/topsoil and white cover mix or similar, combined with a shallower slope on the outside. As suggested by Ms Dray, the outer slope could be softened to a shallower gradient 1:2.333 (23°), more in keeping with a natural slope. This would achieve the desired result for both parties.
- 12.2 CCC have proposed bund conditions that I feel will require additional maintenance. In my opinion the same outcome can be achieved by a clover mix to cover the bund to reduce maintenance costs compared with Rye grass which would require regular mowing. The photo below provided by Red Tree Environmental Solutions (photo credit: Andrew Cumming, Redtree) shows a slope which was treated using a Compost blanket to establish and maintain growth on a slope near to 45° in the Port Hills Red zone. The photo was

taken after 9 months of growth.



- 12.3 Existing shelter belts are to be retained as shown on the plans provided in the application, prepared by Golders. Additional plantings have not been included in the proposed mitigation measures as they are not considered necessary given the scale of the bund, the location of sensitive receivers, the amount of existing vegetation already present, and the temporary nature of the works. However, if planting is still suggested as a consent condition adjacent to the cemetery boundary, it is recommended smaller 600mm high, fast growing species are planted at 2.5m centres as opposed to larger specimen trees. Large, fast growing species are not typically available in the marketplace and as shown in the photo below, species such as *Eucalyptus* will establish relatively quickly from a small size. The photo below taken recently (March 2018) shows some existing plantings implemented as part of the Pines Wastewater Treatment Plant near Rolleston. A mix of native and exotic tree species were selected to provide a substantial screen and contain irrigation spray. The plants were planted in early 2011 and the landscape works included an irrigation system for the first two years of establishment. The plants currently range in height from 2-10m but this is after 7 years growth and there are still large gaps in the screen. The larger trees are *Eucalyptus cordata* at 16m centres.

- 12.4 The rehabilitation works to provide 1 in 3 grassed slopes down to the finished ground level of the quarry are considered acceptable methods of mitigation. As described in the application document, the rehabilitation of the site will

involve the re-spreading and contouring of the stored overburden materials. Topsoil and subsoil materials which have been stored following site preparation will be used in the site rehabilitation to provide a final topsoil layer. The depth of this topsoil should reflect the existing topsoil depth which is estimated to be 300mm.



- 12.5 On rehabilitation, I understand the boundary fences between the current ownership titles will be reintroduced enabling the lots to be sold for rural residential activities. The dwelling and curtilage will be maintained and accessed directly off SH 73 or Buchanan's road with the views being across a sunken paddock to the west. The rehabilitated quarry land will offer a feeling of space, with the land gently falling away from the house site to the quarry floor. Views to the west, will have a sense of openness which is not currently available at the site due to the current fencelines and plantings which compartmentalise the existing lots. With amenity plantings dotted throughout the rehabilitated space future views from the dwellings will have a high level of amenity, potentially higher than existing views of flat paddocks.

13 Conclusions

- 13.1 Overall, I consider that with the implementation of the proposed mitigation measures that the extension to the road metals quarry will result in the following residual effects:

- Effects on Landscape Character will be Less than Minor
- Effects on Rural Amenity will be Indiscernible
- Residents at 622 Buchanans Road and 105 Old West Coast Road, and visitors to the Yaldhurst Cemetery will experience Less than Minor residual effects. All other visual effects are considered Indiscernible.

David Compton-Moen
Landscape and Amenity

15 March 2018