

Appendix 22

IN THE MATTER

MoE Proposed closure of
Redcliffs School

BETWEEN

Darren Fidler

AND

Andy Carr

JOINT STATEMENT OF TRANSPORT PLANNING WITNESSES

DATED 11 MARCH 2016

INTRODUCTION

1. This is a joint witness statement produced following conferencing by the following transportation planning witnesses:
 - (a) Darren Fidler (DF), on behalf of Redcliffs School Board of Trustees (BoT)¹
 - (b) Andy Carr (AC) of Carriageway Consulting, a consulting traffic engineer engaged by the Ministry of Education (MoE)²
2. DF was the author of Appendix D: "Transport Impact Assessment of Closure" of the 30th June 2015 BoT submission in response to Hon Hekia Parata's proposal to close Redcliffs School.
3. AC was commissioned by MoE to undertake a review of the BoT submission on the proposed closure of Redcliffs School ("*the review*"). The scope of this review was to:
 - a. Review the methodology and assumptions in section 4.4 and Appendix D of the Board's submission, and provide a review of the conclusions.
 - b. Complete an assessment of the travel distance for students in the event of closure.
 - c. Assess the comparative life safety risk of closure compared to a return to the Main Road site.
4. AC set out his conclusions in a report dated 11 September 2015.
5. Witness conferencing between the named witnesses took place on Monday 7th March 2016. The conferencing was unfacilitated.
6. Each transportation witness confirms that he has read the Environment Court of New Zealand Practice Note 2014, and particularly Appendix 3 – Protocol for Expert Witness Conferences. Each agreed to comply with the Practice Note in

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² Mr Andy Carr BSc MSc MBA CPEng MIPENZ IntPE(NZ) is director of Carriageway Consulting, a Chartered Professional Engineer, a full member of IPENZ, a member of the IPENZ Transportation Group, an Associate Member of the NZ Planning Institute, and a member of the national committee of the Resource Management Law Association.

undertaking the witness conferencing and subsequent preparation of this Joint Statement.

7. In this regard, and in order to comply with paragraph 7.2(b) of the Practice Note, DF declares an interest in the outcome of the proceeding, in that his children attend Redcliffs School.

POTENTIAL SCALE OF EFFECTS

8. The transport experts agree that there will be an increased travel distance should students of Redcliffs School have to travel to Mt Pleasant or Sumner school sites. The transport experts agree that on average, the additional distances that students would have to travel compared to travelling to Redcliffs School will be approximately 0.9km for Sumner School and approximately 1.8km for Mt Pleasant School. For clarity, these are one-way distances only (ie home to school).
9. The transport experts agree that allowing for 1.5 students per vehicle, a range in the total cost of additional travel time for caregivers is between \$36,900 and \$66,350 per annum (see AC review para 3.4.3), and this equates to between \$0.51M and \$0.92M over a 40 year appraisal period, calculated on the same basis as the BoT submission. For clarity, this value is found by a simple ratio of the figures in the BoT submission, where an additional annual travel cost of \$47,000 was set out to be \$0.65M over a 40-year period (last bullet point, page 48 of the submission).
10. The transport experts agree that for students relocating to Mt Pleasant School it is not possible to confirm whether the caregivers of the student would be commuting by car to the city following the school drop off. The census data shows that 75% of households within the Moncks Bay area unit currently make a journey by motor vehicle in the direction of Christchurch city centre for work purposes (see AC review para 3.3.5). The data is not available for an in-depth assessment of whether each trip to school would be a commuting journey which would be made irrespective of the school drop off and that will divert to drop the child off at the school, or a trip made solely for the purpose of the school drop off.
11. The transport experts agree that a proportion of the additional students travelling by car to both Mt Pleasant and Sumner schools would add to the peak direction traffic flow on Main Road, and therefore potentially to delays, due to the two-way nature of the trip. By way of example, a trip made to

Sumner school before the caregiver returns home would introduce an additional vehicle movement travelling from the school to home (the peak direction of flow on Main Road). Conversely, a trip made to Mt Pleasant School as part of a diverted, existing commuter trip would not introduce any additional vehicle movements on Main Road.

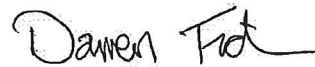
12. The transport experts agree that overall, current Redcliffs School students are less likely to walk or cycle to school should the proposed school closure occur. DF has used the NZ Transport Agency Economic Evaluation Manual (EEM) methodology to calculate the additional cost to society of the mode shift away from active modes (walking and cycling). He has assumed that 50% of students currently walk and 50% currently cycle due to increased propensity for students of Redcliffs School to walk or cycle highlighted in the "Greater Christchurch School Travel Sustainability Potential (2014 Update), QTP, October 2014" with these reducing to 0% if Redcliffs School was to close. This results in a calculated disbenefit over a 40-year period of \$2.8M. AC considers that it is more appropriate to use data from the NZ Household Travel Survey which indicates that for a typical primary school around 3% of students would be expected to cycle and 27% would be expected to walk. Using the same methodology as DF if these both reduced to 0%, then it would result in a calculated disbenefit over a 40-year period of \$1.27M.
13. The transport experts agree that there is the potential for disruption to students having to travel via Main Road past Peacocks Gallop or Moa Bone Cave should these roads close due to rock fall in a future event. AC notes that this is not specific to the school – rockfall on these sections of the road would adversely affect travel for all purposes in the immediate area.
14. The transport experts agree that the NZTA EEM divides the economics of roading schemes into two parts – travel time costs/savings and vehicle operating costs/savings. The BoT submission only included a calculation of travel time costs, but it would have been open to the trustees to also include additional vehicle operating costs as well.
15. The transport experts agree that the potential future Mt Pleasant and Sumner School enrolment zones³ mean that vehicles containing students travelling to Sumner School by car from Bay View Road, Wakatu Avenue and Cave Terrace (Moncks Spur Road) would need to turn right onto Main Road, whereas they would turn left if travelling to the Redcliffs School site. In

³ <http://shapingeducation.govt.nz/wp-content/uploads/2014/04/Appendix-9-Potential-Future-Mt-Pleasant-and-Sumner-School-Enrolment-Zones.pdf>

general, right turns have a higher road safety risk than left turns due to the need to turn across two or more traffic lanes within the same movement.

16. The transport experts agree that it is appropriate and prudent to review the levels of transportation infrastructure at Mt Pleasant and Sumner Schools prior to any transfer of students from Redcliffs School, to ensure that no adverse safety or efficiency effects will arise as a result of the increase in vehicle numbers (see para 5.4.1 of AC review).

DATED at Christchurch this 11th day of March 2016



Darren Fidler



Andy Carr