BEFORE AN INDEPENDENT HEARINGS PANEL IN CHRISTCHURCH

TE MAHERE Ā-ROHE I TŪTOHUA MŌ TE TĀONE O ŌTAUTAHI

UNDER	the Resource Management Act 1991 (the **RMA**)
AND	
IN THE MATTER OF	of the hearing of submissions on Plan Change 14 (Housing and Business Choice) to the Christchurch District Plan

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STATEMENT OF REBUTTAL EVIDENCE OF ANNE HEINS ON BEHALF OF CHRISTCHURCH CITY COUNCIL

CYCLE PARKING REQUIREMENTS – QUANTITY AND DESIGN MATTERS

Dated: 9 October 2023

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EXECUTIVE SUMMARY

1. My rebuttal evidence outlines my support, in response to submitters' evidence, for residents' cycle parking supply rates in both Transport Chapter 7 and in Comprehensive Residential Developments under Chapter 15, Commercial, as notified in PC14.

2. I also support Christchurch NZ's submission that supply rates of visitor cycle parking for Comprehensive Residential Developments should be doubled, and agree with Christchurch NZ's submission that cycle parking should be weatherproof, secure, at-grade and accessible from the street, and easily accessible from residences. Finally, I comment on the question of whether standard 240 volt charging points should be required within communal cycle parking facilities, which is an issue that requires further review and input from fire risk experts.

INTRODUCTION

3. My name is **Anne Heins**. I am employed as Community Travel Advisor at Christchurch City Council (the **Council**).

4. I prepared a statement of primary evidence on behalf of the Council dated 11 August 2023, addressing issues of quantity, quality, security, provision of e-mobility charging points and design matters relating to cycle parking for new residential developments arising from the submissions and further submissions on Plan Change 14 to the Christchurch District Plan (the **District Plan**; **PC14**).

5. I have the qualifications and experience set out at paragraphs 3, 4, 7 and 8 of my primary evidence and I repeat the confirmation that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023, and that my evidence has been prepared in compliance with that Code.

SCOPE OF REBUTTAL EVIDENCE

6. In preparing this rebuttal statement, I have read and considered the evidence filed on behalf of submitters, as that evidence relates to my primary evidence. In this evidence I respond to the following issues, primarily in response to Mr Shaun Hardcastle's statement of evidence on behalf of Christchurch NZ:

(a) residents' cycle parking supply rate;

(b) visitor cycle parking supply rate;

(c) design of cycle parking; and

(d) e-mobility charging facilities.

RESIDENTS' CYCLE PARKING SUPPLY RATE

7. I agree with Mr Hardcastle in his support of the proposed rate of 1 cycle parking space per bedroom as an appropriate minimum for Comprehensive Residential Developments, as per the draft of the Mixed Use Zone rule 15.10.2.9.j Chapter 15, Commercial. As such, we both agree with the current proposal in Chapter 15.

8. This is higher than the cycle parking rate for the rest of the city, which in my opinion is justified in light of the onsite car parking **maxima** of 0.1 car park per standard residential unit in a Comprehensive Residential Development. I would expect developments with a maximum of 1 car par per ten residential units to create higher demand for cycling and other micromobility as a regular transport mode for residents, justifying the higher rate of cycle parking required. Further, the three proposed locations for Comprehensive Residential Development zones are generally well-connected to the major cycleways network and in close proximity to key employment and retail destinations, making cycling and e-mobility a viable mode choice for many trips.

9. A brief case study I conducted of a central city development, Atlas Quarter, at 36 Welles St, Christchurch Central shows that for its 113 residential units (comprising 199 bedrooms in total), 107 cycle parks are provided, as well as 101 car parks. The cycle parking facilities are consistently oversubscribed by residents, and demand needs to be very actively managed by the Body Corporate. If cycle parking rates of 1 cycle park per bedroom had been applied to this development, 92 additional cycle parks would have been provided, alleviating the oversubscription problem. I consider that cycle and micromobility demand in Comprehensive Residential Developments in future is likely to be higher again than that experienced in Atlas Quarter, because there would have been a maximum of 11 car parks under Comprehensive

Residential Development proposed rules, as opposed to the 101 car parks provided.

10. Mr Hardcastle supports the cycle parking rate in Council's submission seeking amendments to Appendix 7.5.2 – cycle parking facilities, which is that for the rest of the city (i.e. residential developments that are not Comprehensive Residential Developments), 1 cycle parking space per 1-2 bedroom unit, and 2 cycle spaces per 3+ bedroom units are required, for dwellings without a private garage. This rate is higher than what is in the operative District Plan (which is for *"1 residents' space/ dwelling without a garage"*), but lower than for Comprehensive Residential Developments. On present data available I consider this lower rate justified, because I would anticipate that a higher level of car parking would usually be provided in general developments, however new Christchurch data on household cycle ownership is anticipated to be available by February 2024, so if possible I would like to review this data before making my final recommendation.

VISITOR CYCLE PARKING SUPPLY RATE

11. I agree with Mr Hardcastle's evidence to increase the 'Visitor Cycle Parking' requirement to 1 space per 10 units for Comprehensive Residential Developments (Chapter 15: Commercial), as opposed to the rate across the rest of the city in Transport Chapter 7 of 1 Visitor Cycle Park per 20 residential units. While I am unaware of any data to show use rates or demand for visitor cycle parking, my opinion is that requiring, in practice, 5 Sheffield bike stands (parking 2 cycles each) per 100 residential units is not onerous, and would provide a better level of service.

DESIGN OF CYCLE PARKING

12. Mr Hardcastle and I agree that cycle parking should be fully enclosed, secure, at-grade and accessible from the street and easily accessible from residences, in order to provide convenient transport choice, minimise the risk of bike theft, and be accessible for the widest possible range of bicycle types and people including those with mobility constraints or injuries, by ensuring that bicycles do not need to be lifted up steps, or onto vertical or hanging cycle racks. These suggested design requirements are addressed in the main by Council's submission seeking amendments to Appendix 7.5.2 – cycle parking facilities and I would recommend these amendments are accepted.

13. Where Mr Hardcastle and I disagree is on whether cycle parking facilities should be integrated with the residential building. I consider that as long as the cycle parking is easily accessible from residences, it need not be integrated. I consider that requiring integration unduly restricts a developer, and there may be good reason from a site layout perspective to separate the two, depending on the specifics of the site and design. The second reason I believe integration should not be required is that there are fire safety advantages in having the cycle parking facility as a separate building. Should a battery fire of an e-mobility device occur, the risk of the fire spreading to the residential part of the building will be lower if the cycle parking facility is separate.

E-MOBILITY CHARGING FACILITIES

14. In my primary evidence, I supported the inclusion of an Advice Note encouraging, but not requiring, the provision of standard 240 volt electrical points within cycle parking facilities at a suggested rate of 1 charging point per 5 cycle parks. On consideration of submissions, and further consideration of the significant and growing proportion of the e-mobility fleet, I have amended my opinion as outlined below.

15. Mr Hardcastle and I agree in principle that standard 240 volt charging points should be required for **communal** cycle parking facilities, (i.e. cycle parking accessible for more than 1 residence) in both Comprehensive Residential Developments and the wider city, to enable and encourage the use of e-mobility devices such as e-bikes and e-scooters. However my agreement is subject to further fire and electrical expert guidance on the safety implications of this requirement. My considerations include that providing charging points within communal cycle parking facilities:

    (a) would give residents the option of conveniently charging their e-bikes and other e-mobility devices in the cycle parking facility, enabling low-carbon transport choices in the context of the effects of the removal of minimum car parking requirements by Policy 11 of the National Policy Statement on Urban Development, and the increasing urban density it enables;

    (b) would avoid the need to take e-mobility batteries into living spaces to charge, where the risk to life would likely be higher in the event that a battery were to ignite;

(c) would avoid the need for residents to take e-scooters into living spaces to charge, (the majority of e-scooters do not have a removable battery, so can pose a trip and fire hazard within living spaces, as well as the risk of blocking fire egress if placed near an exit to charge);

(d) would minimise the likelihood of residents running charging cables across footpaths, accessways etc within developments to charge their e-mobility device, which could constitute electrical and trip hazards. Furthermore, the charging of e-mobility devices out in the weather can pose a fire risk in the event of water intrusion into the battery;

(e) would ensure that e-mobility devices can be charged on hard surfaces that would dissipate any buildup of heat, rather than on a flammable carpet for example; and

(f) on the 'con' side of the ledger, devices put on to charge within a bike parking facility would be more likely to be kept on charge for far longer than needed, overnight for example, rather than being unplugged once the battery is fully charged as recommended by Fire and Emergency NZ.

16. In my primary evidence, I supported the suggested rate in an Advice Note of 1 charging point per 5 cycle parks. I have since reconsidered this, partly on reconsideration of the swift growth of e-mobility devices, and the fact that as devices age, they will require more frequent charging as battery capacity wanes. Furthermore, advice from Fire and Emergency NZ raised that if insufficient charge points are provided to meet demand, residents may use multi boards to increase the number of e-mobility devices able to be charged. Potentially overloaded multi boards add another element of electrical fire risk.

17. My final advice on this matter is unable to be provided at time of writing, as I am still working with Council's Building Consents team and Fire and Emergency NZ on whether this proposal can be supported from a fire safety perspective.

Anne Heins

9 October 2023