

Before the Independent Hearing Panel
Appointed by the Christchurch District
Council

Under The Resource Management Act 1991

In the matter of Plan Change 14 (Housing and Business Choice) to the
Christchurch District Plan

Cashmere Park Limited, Hartward Investment Trust and
Robert Brown

Submitter ID: 593

Evidence of Andrew Francis Leckie

20 September 2023

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Introduction

- 1 My name is Andrew Francis Leckie.
- 2 I have a Bachelor of Engineering (Hons) in Civil Engineering and a Master of Engineering in Transportation, both from the University of Canterbury. I am a Chartered Professional Engineer, and I am a Chartered Member of Engineering New Zealand.
- 3 After graduating I carried out a civil engineering role for Fulton Hogan as part of the Christchurch Earthquake rebuild for two years, following which I have specialised as a transportation engineering consultant for the last nine years. In my current role as a Senior Transportation Engineer with Stantec New Zealand, I am involved in transportation engineering assessment and design for a broad range of landuse activities.
- 4 My relevant experience includes carrying out Integrated Transport Assessments for numerous residential rezonings, primarily through Private Plan Change requests. These have included Plan Changes 75 and 82 in Rolleston which involved traffic modelling assessments of large developments. I also produced supporting transportation assessments for Selwyn District Council's proposed residential rezoning of deferred residential areas in Darfield and Leeston through the District Plan review process.
- 5 I authored an Integrated Transport Assessment report (ITA, dated 2 May 2023) supporting the submission of Cashmere Park Ltd, Hartward Investment Trust and Robert Brown, seeking to rezone the below sites (the **Site**) from Residential New Neighbourhood (**RNN**) and Rural Urban Fringe (**RUUF**) zones to Medium Density Residential Zone (**MDRZ**):
 - (a) 126 Sparks Road (Lot 1 DP 412488)
 - (b) 17 Northaw Street (Lot 2 DP 412488)
 - (c) 36 Leistrella Road (Lot 3 DP 412488)
 - (d) 240 Cashmere Road (Lot 23 DP 3217)
 - (e) 236 Cashmere Road (RS 41613)

(f) 200 Cashmere Road (Lot 1 DP 547021)

6 I am familiar with the Hoon Hay / Cashmere area, and carried out a site visit to inspect the surrounding transport network and observe the existing network performance on 30 March 2023.

7 In preparing this evidence I have considered the following documents:

(a) Section 42A report of Mr Ike Kleynbos and

(b) Section 42A report Mr Chris Morahan.

Code of Conduct for Expert Witnesses

8 While this is not a hearing before the Environment Court, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023 and that I have complied with it when preparing my evidence. Other than when I state I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Scope of evidence

9 I have prepared evidence in relation to the appropriateness of the site for residential development from a transport perspective and the ability of development to be integrated with the surrounding transport network.

10 I have set out my evidence in the form of a summary of the ITA. I comment on any matters from the various s42A reports where relevant, noting that no specific transport-related comment on the proposed rezoning was provided.

11 I have been asked to provide an assessment of the consistency of the proposed rezoning with transport-related policy direction from both the National Policy Statement on Urban Development 2020 (**NPS-UD**) and the Canterbury Regional Policy Statement (**RPS**). This is provided after the ITA summary.

Executive summary

- 12 From a transport perspective, the Outline Development Plan (**ODP**) that has been prepared as part of the rezoning proposal will ensure that development of the Site is well integrated with surrounding existing and zoned residential land.
- 13 A network of walking and cycling connections are proposed throughout the Site, with recreational routes through the stormwater management areas and connections to Cashmere Road, Kaiwara Street and Sparks Road / the Quarryman's Trail Cycleway. This will result in a well-connected development for active mode travel, and the connection from Cashmere Road to Sparks Road and the Quarryman's Trail Cycleway will have benefits to the wider area.
- 14 The Site is well-located for public transport uptake, with most of it within an 800m walk of one of the high-frequency Orbiter bus service bus stop pairs on Rose Street or Hoon Hay Road. Two other bus services nearby provide alternative connections to the nearby Barrington Mall and other destinations.
- 15 I have identified some concerns with the safety and accessibility of the existing pedestrian network between the Site and Hoon Hay Road. I am satisfied that these concerns have been addressed through the proposed ODP text which includes provision for safe and accessible pedestrian routes from the Site to and across Hoon Hay Road. This will ensure safe and convenient walking is possible to key nearby destinations east of Hoon Hay Road, including the bus stops on Rose Street and the Pioneer Recreation and Sport Centre.
- 16 The additional development enabled through the proposed rezoning will be relatively small extensions to existing residential areas and, in my opinion, it will be appropriate for these to be accessed by vehicular traffic via the existing and planned local road network. Existing connections to the arterial road network (Cashmere Road / Leistrella Road and Hoon Hay Road / Leistrella Road) and the proposed new intersection on Cashmere Road will be able to accommodate the relatively small increases in traffic use.

- 17 I conclude that residential development in accordance with the proposed ODP will be well-connected and integrated with surrounding activities, and will be accessible by all travel modes. Accordingly, I support the proposed rezoning from a transport perspective.

ITA summary

Existing environment

- 18 The Site is located in the Hendersons East ODP area in Hoon Hay. It stretches from Cashmere Road to the south to the residential properties along the southern side of Sparks Road and is immediately west of the established residential land west of Hoon Hay Road.
- 19 Nearby activities include two primary schools on Sparks Road and the Pioneer Recreation and Sport Centre / Centennial Park on Lyttelton Street.
- 20 In the northern part of the site, Leistrella Road and Northaw Street extend to the eastern site boundary, while there is an access leg to Sparks Road. In the southern part of the site, a reserve on Kaiwara Street provides an active mode connection to the east, while an existing section of Leistrella Road provides access to Cashmere Road.
- 21 The high-frequency Orbiter bus service runs along Lyttelton Street, Rose Street and Hoon Hay Road (south of Rose Street) to the east of the site. Other local bus services run on Cashmere Road and Sparks Road (east of Hoon Hay Road) in the vicinity of the site.
- 22 There are two off-road cycleways in the vicinity of the site, including the Quarryman's Trail Cycleway which runs along the southern side of Sparks Road past the site, connecting Halswell with the City Centre. The Nor'West Arc Cycleway runs through Centennial Park and continues to the University and other major cycleways.

Proposed rezoning and ODP

- 23 A modified version of the Hendersons East ODP has been developed as part of the rezoning proposal. It allows for Northaw Street and Leistrella Road to extend into the site, a new local road intersection on Cashmere Road and a connection to the zoned residential land west of the site.

- 24 The ODP includes a network of pedestrian / cycle links, including off-road recreational routes through the stormwater management areas, a connection via the existing access leg to the Quarryman's Trail Cycleway on Sparks Road, and other connections to Kaiwara Street and Cashmere Road.

Assessment of accessibility for active mode travel

- 25 In my opinion, the proposed ODP will ensure that residential development of the Site will be very well connected to the surrounding area for active mode travel.
- 26 The connection to the Quarryman's Trail Cycleway will be convenient for recreational and commuting cyclists, as well as pedestrians, including those travelling to the nearby primary schools.
- 27 Development of the Site will also be well connected to existing residential areas to the east for walking and cycling towards destinations including the Pioneer Recreation and Sport Centre, and Cashmere High School.
- 28 I have identified some concerns with the existing pedestrian infrastructure between the Site and Hoon Hay Road. I am satisfied that these concerns have been addressed through the proposed ODP text which includes provision for safe and accessible pedestrian routes through the local road network in this area.

Assessment of accessibility for public transport travel

- 29 The high-frequency Orbiter bus service is the main service in the area. It has bus stop pairs near the Site on Rose Street (east of Hoon Hay Road), on Hoon Hay Road (north of Blakiston Street and north of Cashmere Road). Much of the Site will be within an 800m walk of one of these bus stop pairs, either via Leistrella Road, Blakiston Street and the Kaiwara Street reserve, or Cashmere Road. This is demonstrated by the green lines in Attachment 1, Hendersons ODP Walkability 800m Pedshed Plan.
- 30 Based on this figure, I estimate that approximately 90% of the Site will fall within an 800m walking distance of one of the Orbiter service bus stop pairs. It appears that only an area in the north of the Site will be beyond an 800m walk from the nearest Orbiter service bus stops on Rose Street.

- 31 The Section 42A reports of Mr Ike Kleynbos and Mr Chris Morahan outline the benefits to public transport uptake of having a high-frequency bus route within 800m of a residential area. Based on this, the Low Public Transport Accessibility (**LPTA**) overlay for PC14 has been applied to residential areas beyond this walking distance.
- 32 I understand that the Site has not been considered for the LPTA overlay given it is largely zoned for rural use currently (as opposed to residential use). While strictly there could be a small part of the Site beyond the 800m walking distance from an Orbiter bus stop, my view is that the LPTA overlay would not need to apply to this area.
- 33 I understand there are benefits for developability of the land to have a consistent zoning applied across the Site (rather than having a small section of the Site subject to different standards under the LPTA overlay). I acknowledge the existing residential lots on the southern side of Sparks Road are subject to the LPTA overlay, however the northern part of the Site will be developed with the remainder of the Site and development of the Site will be distinct from these existing residential lots.
- 34 In my view, whether a resident lives 800m or 900m from a bus stop will make a negligible difference as to whether they use the bus service. Also, it is worth noting that micro-mobility travel modes, e.g. scooters, are becoming more prevalent and these would potentially increase the distance someone is willing to travel to a bus stop.
- 35 Mr Kleynbos outlines in his s42A report that other such small areas throughout Christchurch have been grouped with the adjacent land where this is logical and would achieve benefits from retaining a consolidated zoning (rather than having the LPTA overlay applied). In Paragraph 7.1.90, he states that “In drawing the boundary of the QM (what I have described as the LPTA overlay), a pragmatic approach is undertaken whereby the extent of the QM is lessened (i.e. the enabling catchment extended) where doing so would achieve greater integration and continuity of medium density areas.”
- 36 The example in Bishopdale he provides on Page 86 allows for the medium density zoning to continue beyond the 800m walking catchment to the end of several roads. The medium density zoning on Ian Place and Omega

Place extends up to the rear of the properties fronting Sawyers Arms Road and Veitches Road respectively, and this is consistent with what is proposed in Hoon Hay, with the zoning proposed to extend to the rear of the existing Sparks Road properties.

- 37 For the reasons I have outlined above, my opinion is that it would be appropriate for the entire Site to be exempt from the LPTA overlay and this would be consistent with how the LPTA overlay has been applied elsewhere in Christchurch.
- 38 With the large majority of the Site being within 800m of one of the Orbiter route bus stop pairs, I conclude that this location achieves a good level of public transport accessibility.
- 39 I highlight that there are also bus services running along the Cashmere Road frontage (the 44 Shirley / Westmorland service) and on Sparks Road east of Hoon Hay Road (the 60 Hillmorton / Southshore service). These will be within a convenient walking distance for residents in the south and north of the subject area respectively, and both provide a connection to the Barrington Mall, being the local shopping area.

Suitability of local roads to accommodate traffic volume increases

Leistrella Road (west of Hoon Hay Road)

- 40 I have forecast that Leistrella Road (west of Hoon Hay Road) could carry approximately 2,600 vehicles per day (**vpd**) with full development of the existing Hendersons East ODP. With the proposed rezoning, this could increase to approximately 3,550vpd, an increase of approximately 35%.
- 41 My view is that the additional residential areas will be relatively small extensions of existing residential areas rather than new residential areas. Accordingly, it is appropriate for these areas to be served by extensions of the existing and planned local road network, rather than any higher order roads (such as a new collector road).
- 42 Retaining the 9m carriageway width of Leistrella Road and permitting kerbside car parking on both sides of the road, i.e. continuing to treat it as a local road, will help to encourage slow vehicle speeds and it may also

help to achieve the Hendersons East ODP requirement of discouraging the use of Leistrella Road by through (rat-running) traffic.

- 43 When there is no kerbside car parking present, the 9m carriageway width combined with the straight road alignment may not encourage slow vehicle speeds appropriate for the residential environment. The proposed ODP text includes a requirement to protect the safe operation of Leistrella Road, with consideration of traffic calming measures to be made at the subdivision stage. I am supportive of this inclusion and note that traffic calming measures would help to discourage rat-running along this route as required under the existing ODP (and the proposed ODP).

Leistrella Road (north of Cashmere Road)

- 44 The existing formation of the southern section of Leistrella Road will be suitable to accommodate the small increases in use I have forecast as a result of development of the proposed rezoning. In my opinion, the extension of this section of road to the north should include traffic calming measures to discourage through traffic use, as required under the existing ODP.

Rydal Street / Northaw Street

- 45 Traffic volumes on both Rydal Street and Northaw Street will remain relatively low with the additional land developed.
- 46 I have identified a concern with the unconventional layout of the Rydal Street / Northaw Street intersection resulting in priority at the intersection being unclear. I am supportive of the proposed ODP requirement for traffic management measures at the intersection to be considered at the subdivision stage, noting that Give Way signage and marking on Northaw Street may be appropriate.

Traffic access to arterial road network

Hoon Hay Road / Leistrella Road intersection

- 47 Intersection traffic modelling I have carried out indicates that the Hoon Hay Road / Leistrella Road intersection will operate similarly into the future without and with the additional residential development.

- 48 Drivers turning out of Leistrella Road will face acceptable delays during peak times and will be able to wait for appropriate gaps in the passing traffic stream to safely turn into.
- 49 The volume of right turn movements into Leistrella Road will be highest during the evening peak period and I expect that drivers making this movement will regularly face short delays. Such delays could require following drivers to slow and potentially stop momentarily which is typical along corridors such as Hoon Hay Road. I have assessed that this arrangement (as opposed to having space for vehicles to pass a stationary vehicle) generally results in slower vehicle speeds which is preferable in the residential setting.

Cashmere Road / Leistrella Road intersection

- 50 This intersection has been built to a high standard with a right turn bay on Cashmere Road. The intersection layout will remain appropriate with the small increases in traffic volumes anticipated as a result of the proposed additional residential development.

New Cashmere Road intersection

- 51 A new intersection on Cashmere Road approximately 150m west of Leistrella Road is proposed on the ODP to provide local access and connectivity within the new residential area. I consider that a 150m separation between local roads in an urban setting is adequate to ensure that vehicle movements at the intersection / conflict points are suitably separated.
- 52 The design of the intersection and associated upgrades to Cashmere Road will be considered at the subdivision stage.
- 53 It will be preferable for the new local road to connect through to adjacent development, e.g. to Emily Knowles Drive, for local area connectivity and the ODP includes an indicative connection.

Consistency with District Plan Policy

- 54 I have reviewed relevant policies under Objective 7.2.1 'Integrated transport system for Christchurch District' which is the relevant transport objective related to land use and the transport network.
- 55 Development of the Site will be well-connected to the surrounding areas for active mode travel, with a connection from Cashmere Road to the Quarryman's Trail Cycleway being a benefit for the wider area.
- 56 The Site is well served by public transport, with most of it being within 800m of bus stops served by the Orbiter service, being one of Christchurch's high-frequency bus services. There are two other bus services within close proximity of the Site which both provide access to Barrington Mall.
- 57 I have assessed that additional traffic volumes that could be generated will be able to be accommodated on the existing and planned local road network, with some minor upgrade works to the local road network between the Site and Hoon Hay Road to be considered at the subdivision stage.
- 58 Based on the above, I have assessed that rezoning the land as proposed will achieve consistency with the District Plan objectives and policies from a transport perspective.

Other policy assessment

NPS-UD

- 59 I have reviewed the NPS-UD objectives and policies. The objectives and policies relevant to my assessment are:
- (a) Objective 1: New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.
 - (b) Objective 3: Regional policy statements and district plans enable more people to live in... areas of an urban environment in which... the area is well-serviced by existing or planned public transport.
 - (c) Objective 8: New Zealand's urban environments: support reductions in greenhouse gas emissions...

(d) Policy 1: Planning decisions contribute to well-functioning urban environments, which are urban environments that...have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport...

60 In terms of Objective 1 and Policy 1, a well-functioning urban environment from a transport perspective is one which is well-connected with the surrounding areas by a range of travel modes. As I have outlined, I consider that development in accordance with the proposed ODP will be well-connected with the surrounding residential areas and transport network, including significantly the Quarryman's Trail Cycleway on Sparks Road. Walking to nearby activities, including schools, recreation activities and bus stops will be safe and convenient with safe and accessible pedestrian routes from the Site to (and across) Hoon Hay Road to be confirmed under the ODP provisions.

61 On the topic of well-functioning urban environments, the proposed zoning will result in a more consolidated and well-connected local transport network for all travel modes than the existing zoning. Benefits include the active mode connection to the Quarryman's Trail Cycleway, but also the ability to ensure a more connected local road network for vehicles, pedestrians and cyclists. Accordingly, I consider that the proposed zoning is a better outcome from a transport perspective than the current zoning.

62 Objectives 3 and 8 are related to the location of development relative to public transport services and reducing reliance on private vehicle travel. As demonstrated, most of the Site will be within an 800m walk of an Orbiter service bus stop pair on Hoon Hay Road or Rose Street, providing good public transport accessibility. Other nearby bus routes provide alternative options for connecting to the nearby Barrington Mall, among other destinations.

63 I conclude that rezoning the Site as proposed is consistent with the transport related objectives and policies of the NPS-UD.

RPS

- 64 I have reviewed the RPS Chapter 5 Land-Use and Infrastructure and Chapter 6 Recovery and Rebuilding of Greater Christchurch objectives and policies.
- 65 The relevant Chapter 5 policies¹ relate to urban growth being attached to / integrated with existing urban areas, the safety and efficiency of the strategic and arterial road network being maintained, and connectivity for pedestrians and cyclists being provided. Chapter 6 focusses on new residential developments occurring in the planned locations, transport effectiveness and integration of land use and infrastructure.
- 66 Generally, the policies relating to transport are similar to those in the District Plan and the NPS-UD. While the Site is not within a 'greenfield priority area' or a 'future development area' identified on Map A, I have assessed the development against the policies in Chapters 5 and 6 as they remain relevant. I consider that the development will be well connected to the surrounding areas for all modes of transport, will be well served by public transport and will have a negligible impact on the arterial road network.

Conclusion

- 67 The following points summarise why I support the proposed rezoning from a transport perspective:
- (a) Development of the Site in accordance with the proposed ODP will achieve good integration with adjacent existing and zoned residential areas;
 - (b) Convenient walking and cycling connections are proposed throughout, including from Cashmere Road to the Quarryman's Trail Cycleway which will have benefits to the wider area;
 - (c) With the proposed ODP provision for safe walking between the Site and Hoon Hay Road, safe and convenient walking will be possible to

¹ Policies 5.3.1 Regional growth, 5.3.2 Development conditions, 5.3.7 Strategic land transport network and arterial roads, 5.3.8 Land use and transport integration.

key destinations in the area, including bus stops, multiple schools, and recreational facilities;

- (d) Development will be well served by public transport, with the large majority being within 800m of an Orbiter service bus stop pair on Rose Street or Hoon Hay Road;
- (e) The existing and planned local road network will be able to accommodate relatively small increases in traffic volumes and safe and efficient access to and from the arterial road network will be possible; and
- (f) The proposed rezoning will result in a residential area that is better connected to, and provides better connectivity for, the surrounding urban area for travel by all modes, compared to the existing RNN zoned area.

Dated this 20th day of September 2023

Andrew Francis Leckie

Attachment 1

