under:the Resource Management Act 1991in the matter of:the hearing of submissions on Plan Change 14 (Housing
and Business Choice) to the Christchurch District Planand:Christchurch International Airport Limited
Submitter 852

Statement of Evidence of Gary Sellars (housing capacity)

Dated: 20 September 2023

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STATEMENT OF EVIDENCE OF GARY SELLARS

INTRODUCTION

- 1 My full name is Gary Russell Sellars.
- 2 I am the Director of Valuation and Consultancy at Colliers Valuation (*Colliers*). I have been in this position at Colliers for 15 years. Prior to that, I was the Managing Director of Fright Aubrey, where I worked for 23 years.
- 3 I am a Registered Valuer, Fellow of the New Zealand Institute of Valuers and a Fellow of the Property Institute of New Zealand. I was registered in 1976 and have been in continuous practice as a Registered Valuer since that time, including four years employed by the Hong Kong Government. I have been involved in the public sector since 1985 in Christchurch in positions with Fright Aubrey and more recently Colliers Valuation. I specialise in commercial, industrial and land development valuation and consultancy within the CBD and suburban locations of Christchurch and major metropolitan areas in the South Island. I complete research on Christchurch office vacancies on an annual basis and regularly complete research on Greater Christchurch residential land and industrial business land supply and take-up.
- 4 I have been involved in the valuation of a number of large residential subdivision developments during the last 35 years including Pegasus Town, Ravenswood, Wigram Skies, Te Whariki, Yaldhurst Park, Karamu, Prestons, Belfast Village and Bellgrove. I have during this period regularly prepared and presented expert evidence before various courts or tribunals in relation to zoning applications and arbitrations.

CODE OF CONDUCT

5 Although this is not an Environment Court hearing, I note that in preparing my evidence I have reviewed the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. I have complied with it in preparing my evidence on technical matters. I confirm that the technical matters on which I give evidence are within my area of expertise, except where relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from my opinions expressed.

SCOPE OF EVIDENCE

6 I have been asked to comment on the relief sought by Christchurch International Airport Limited (*CIAL*) in relation to the proposed Plan Change 14 (Housing and Business Choice) to the Christchurch District Plan (*PC14*).

- 7 My evidence will address:
 - 7.1 A general overview of the Canterbury residential market and my assessment of the availability of Greenfield¹ land in the Christchurch City District, taking into account the Medium Density Residential Standards (*MDRS*) and the impact that the 2023 Remodelled 50dB Ldn Outer Envelope Air Noise Contour (*Remodelled Contour*) and the National Policy Statement for Highly Productive Land (*NPS-HPL*) will have on future housing capacity.
 - 7.2 The impact of the MDRS enabled by PC14 on housing capacity within the urban areas of Christchurch, and the impact of the Remodelled Contour on the additional housing capacity.

SUMMARY AND CONCLUSIONS

- 8 I have examined the impact that the MDRS will have on housing capacity in Christchurch city and in particular, the effect the Remodelled Contour (as a qualifying matter) will have on the MDRS enabled housing capacity.
- 9 Deducting my assessed impact of the Remodelled Contour on Riccarton Central of 3,765 from the TPG feasibility dwelling capacity for Christchurch City of 58,188, results in a net feasible dwelling capacity of 54,423 resulting from MDRS.
- 10 The impact of the Remodelled Contour on Christchurch City is relatively minor when taking into account the location of the feasible capacity assessed by TPG. The most impacted area is Riccarton Central where, due to a number of factors, the impact is to some extent suppressed.
- 11 In addition to the net feasible dwelling capacity resulting from MDRS in Christchurch City of 54,423 there is a Greenfield housing capacity of 8,340 HHU's in the undeveloped suburbs of Christchurch.

GENERAL RESIDENTIAL MARKET OVERVIEW

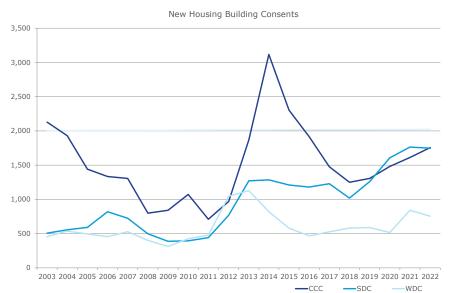
12 New Zealand's residential property market has recently experienced a significant boom, largely driven by historic low interest rates never seen before in New Zealand. After a sustained, strong cyclical period between 2012 and 2016, the Canterbury (including

¹ "Greenfield land" is a term used in this evidence to describe undeveloped land that is potentially suitable for residential development and includes existing residential zoned land, plan change areas and land zoned Rural but considered to be suitable for rezoning to residential.

Christchurch City, Selwyn and Waimakariri Districts) market experienced a slowdown in growth in 2017 and moderate decreases in mid-late 2018. During early 2020 the market began to see growth again, until the emergence of the COVID-19 pandemic and subsequent lockdown in March 2020. During the early stages of the pandemic, the residential market was widely predicted to experience a sharp correction in line with forecasts for the wider economy. Actions taken by the Government and Reserve Bank of New Zealand to support the national economy through the pandemic ultimately contributed to the country's largest residential real estate boom. Primary drivers were historic low interest rates in combination with significant fiscal stimulus and the removal of Loan to Value Ratios.

- 13 In the June to December 2021 period, demand for residential sections was unprecedented. The market locally within Canterbury was appropriately described as 'frenzied' and in my opinion, forming a bubble. Ultimately, due to the shortage of stock of titled sections, land values increased monthly with developers resorting to tendering small tranches of section product shortly prior to titling in the face of strong competition by buyers for scarce product. In some instances, prices more than doubled after New Zealand emerged from its initial COVID-19 lockdown.
- 14 Changes in bank lending criteria due to the Credit Contract and Consumer Finance Act at the end of 2021, increasing interest rates, shortages of building materials and changes in market sentiment, led to demand for residential property coming off its peak levels and increasing supply as 2020/2021 building pipeline continued to deliver product to the market. The current position is that enquiry for housing continues to exist, but in much lower volumes.
- 15 Developers and agents confirm there is very limited demand with marketability reportedly poor for all but titled lots. Off-plans section purchasers are almost non-existent, and although developers are currently holding the line on discounting, resales are occurring at lower pricing levels as some vendors who purchased sections in early to mid-2021 are content to make a modest premium over their original investment and exit at prices below current ex-developer levels.
- 16 Market intelligence research indicates that there remains an element of interest from purchasers, although few are prepared to make a purchase decision in the current market with continued uncertainty on interest rates, building costs, inflation, and the New Zealand economy. As a consequence, the volume of residential section sales has dwindled to a trickle and it is extremely difficult to forecast when the market will commence a return back to business as usual.

- New Dwelling Building Consents Greater Christchurch WDC Year CCC SDC Total # # # # 2003 2,128 507 453 3,088 2004 1,929 554 535 3,018 2005 1.440 590 493 2,523 2006 1,334 819 453 2,606 2007 1,305 724 526 2,555 2008 497 401 798 1,696 2009 840 387 312 1,539 2010 1,071 393 423 1,887 2011 710 439 478 1,627 2012 967 1,045 766 2,778 2013 1,868 1,270 1,127 4,265 2014 3,115 1,284 819 5,218 2015 2,303 1,210 577 4,090 2016 1,914 1,179 465 3,558 2017 1,475 524 3,226 1,227 2018 1,248 1,016 579 2,843 2019 1,305 1,258 587 3,150 2020 1,480 1,605 515 3,600 2021 1,612 839 1,763 4,214 2022 1,755 1,746 753 4,254 Total 30,597 19,234 11,904 61,735
- 17 I have completed analysis on building consents issued for new residential dwellings in the Greater Christchurch area over the last 20 years. The following is a summary table:



Source: New Zealand Statistics – New Dwellings consented by 2023 statistical area 2 (Monthly)

- 18 Following the Canterbury earthquake sequence in 2010 2011, new dwelling consents surged in all three localities in the 2012 2016 period which resulted from demand from relocated red zone owners. Following the earthquake related rebuild, the market returned to business as usual. Since 2019, the volume of new dwelling consents has generally increased in all three localities on the back of the boom in the residential market.
- 19 In the year ending March 2022, the total volume of new dwelling consents in Greater Christchurch was 4,254, at or near the peaks in 2013 2015.
- 20 The significant surge in demand for residential housing and residential sections during 2020-2021 placed stress on the supply of both vacant and improved product resulting in significant price escalation. This market cycle is well publicised and resulted from a mix of low interest rates and constrained supply.
- 21 In some locations at that time, there were few or no vacant residential sections available which resulted in significant price escalation. For example, in Selwyn District, price escalation in Prebbleton, Lincoln and Rolleston ranged between 100% - 145% over a 12 month period. In Rolleston, there were sections of at or around 600 sqm sold in 2020 for \$180,000 and a similar sized section sold in August 2021 for \$435,000, an increase of 142%. This is an extreme example, however it illustrates the constraint in supply of residential sections in Greater Christchurch at the time.

CHRISTCHURCH HOUSING CAPACITY ASSESSMENT

Methodology and Assumptions

- 22 I was provided with a set of Geographic Information System (*GIS*) data prepared by Marshall Day Acoustics on behalf of CIAL which contained the full suite of Air Noise Contours associated with Christchurch International Airport. This GIS data was merged with our Quickmap GIS software to enable accurate identification of relevant land areas.
- 23 The research team at Colliers reviewed the mapping data in association with aerial photographs and a physical inspection on the ground, and identified respective land areas available across Christchurch.
- 24 Where I have identified land that is reasonably suitable to be rezoned for residential development, I have assessed the housing capacity taking into account its location. I have assumed that such land is adequately serviced to allow residential development.
- 25 In arriving at the appropriate housing capacity land yield, I deducted 12.5% of the gross site area for stormwater management

and then multiplied the remaining area by 15 households/hectare (*HHUs/ha*) to determine capacity. This is consistent with the methodology set out in the Canterbury Regional Policy Statement (*CRPS*), Our Space, the HDCA 2021, HDCA 2023, and the Independent Review of Greenfield Densities commissioned by the Greater Christchurch Partnership and undertaken by Harrison Grierson Limited (*HGL*), and allows to some extent the greater capacity enabled by MDRS.

Christchurch City Assessment

26 The following is a summary of comments in relation to Greenfield residential development potential in each geographic area within Christchurch City. The intention of this section is to provide context for consideration of housing capacity in Christchurch City:

North West - Belfast

27 In Belfast, I have identified a total area of 88.0 ha or 1,364 HHU's currently zoned for residential development. This includes land in Belfast Village, and a block named Blue Skies adjacent to Belfast Village.

North West - Harewood

- 28 In Harewood, there is 59.2 ha zoned for residential development which equates to a housing capacity of 887 HHU's.
- 29 The Remodelled Contour in Harewood has moved further to the north west, opening up the opportunity for significant areas of land currently zoned Rural Urban Fringe as suitable to be rezoned for residential development (based on my methodology/assumptions set out above).
- 30 The movement to the north west of the Remodelled Contour has unlocked the potential for 117.7 ha or 1,765 HHU's to be rezoned for residential development. This land is located on the city side of Johns Road (*SH.1*). Some of this land comprising 93.4 ha (1,402 HHU's) falls within the HPL – LUC 2 category. I have therefore excluded this HPL land from the housing capacity. Therefore, the net gain in housing capacity resulting from the movement of the Remodelled Contour excluding the HPL – LUC 2 land is 363 HHU's.
- 31 Combining the existing greenfield zoned residential land with the land identified as potentially suitable for rezoning following the movement of the Remodelled Contour, results in a total housing capacity of 1,250 HHU's.
- 32 There is an additional area of land located on the northern side of SH.1 comprising 19.5 ha, equivalent to 256 HHU's adjacent to Clearwater Avenue and Willowcreek Lane. I have chosen to exclude this land on the basis that it is isolated by SH.1, however this land

could potentially be added to the housing capacity. Although again it is subject to HPL – LUC 2 category.

North East – Redwood / Marshland

- 33 Redwood / Marshland includes the area in and around Prestons Road and further to the east where I have identified 127.4 ha zoned for residential development, which equates to a housing capacity of 1,951 HHU's. Some areas are subject to Flood Ponding Management and High Flood Plain Hazard Management areas. Based on my experience, mitigation measures are possible such that this land can appropriately remain in the housing capacity count.
- 34 In the north east, in particular in Marshland, there is an extensive area of land zoned Rural Urban Fringe, which potentially is suitable for rezoning to residential given its location north of the QEII Drive Expressway, east of the Northern Arterial and bordered by residential to the east and west. This extensive area of land is subject to the HPL – LUC 2 category. No allowance has been made in my housing capacity for this land potential.

North East – Cranford

35 I have identified two blocks of land either side of Cranford Street where there is 29.5 ha zoned for residential development, which equates to a housing capacity of 443 HHU's.

South West – Yaldhurst / Broomfield

- 36 There are four blocks of land in Yaldhurst/Broomfield which includes land at Riccarton Park adjacent to Riccarton Racecourse zoned for residential development, comprising 51.8 ha which equates to 777 HHU's.
- 37 In addition, there is an area of 10.2 ha zoned Rural Urban Fringe which is now outside the Remodelled Contour and immediately adjoins land currently zoned residential. This land area equates to a housing capacity of 153 HHU's. This land is subject to HPL – LUC 2 category, and has therefore been excluded from the housing capacity.

South West – Halswell / Awatea

38 There is significant vacant land zoned for residential development in the Halswell / Awatea and Wigram areas of the city. This area of Christchurch has the most potential for further development in the short to medium term under the current zoning. I have identified 171.4 ha, which equates to 2,555 HHU's. Significant subdivision development has been completed or remains under construction in Halswell which has reduced the housing capacity in this location over the last year.

Conclusion for Christchurch City

39 The following is a summary of the Greenfield housing capacity for Christchurch City:

Colliers Housing Capacity Summary						
	Remodelled Contour #	HPL #	Potential #	Zoned #	Total #	
Christchurch City	1,918	(1,555)	363	7,977	8,340	

- 40 Movement of the Remodelled Contour unlocks potential for an additional 1,918 HHU's, however much of this land (1,555 HHU's) is subject to HPL LUC 2 category, and has therefore been excluded from the housing capacity. The net housing capacity identified is 8,340 HHU's with the movement in the Remodelled Contour producing a net gain of 363 HHU's.
- 41 Christchurch City is relatively constrained in terms of the potential for urban expansion around the periphery on account of the geographic constraints of the Port Hills, Pacific Ocean and HPL restrictions. Offsetting these constraints to some extent is the introduction of more intensification through PC14 in Christchurch City.
- 42 There is land identified on the northern side of Harewood Road in Harewood and, also more significantly, in Marshland where land zoned Rural Urban Fringe has the potential to be rezoned for residential development, however this is likely constrained by the HPL limitations. Land in Marshland will require additional land treatment because of the sub-ground conditions.

PLAN CHANGE 14 AND MEDIUM DENSITY RESIDENTIAL STANDARDS

Introduction

43 PC14 is designed to bring the District Plan in line with government direction that was given via the National Policy Statement – Urban Development (*NPS – UD*) and the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 (*Enabling Housing Act*) to enable more development in the city's existing urban footprint.

Reference Material

- 44 I have reviewed the following reports forming part of the PC14 Section 42A report:
 - 44.1 *Strategic Overview of PC14 –* Sarah Oliver.

- 44.2 *Residential zones including requests for rezoning Qualifying Matters* – Ike Kleynbos.
- 44.3 *Commercial feasibility (High Density Residential)* Ruth Allen.
- 44.4 Strategic Overview Housing demand including specific typologies and affordable housing Ian Mitchell.
- 44.5 *Housing Capacity Assessment strategic overview –* John Scallan.
- 44.6 New Medium Density Residential Standards (MDRS) Assessment of Housing Enabled dated January 2020 – Ruth Allen of The Property Group (TPG).
- 44.7 *High Density Residential Feasibility Assessment* May 2022 TPG.
- 45 I have also reviewed the report named *The Medium Density Residential Standards under the Resource Management Act -Estimates of development impacts at Statistical Area 2 Level –* prepared by PWC.

MDRS – Enabled Capacity

- 46 Mr Mitchell's statement of evidence titled 'Housing Demand and Affordability Projections – Strategic Overview', outlines projected growth in households in Christchurch City at Table 5. His projected growth in the number of households over a 30 year period from 2021 - 2051 was 35,600. Projected growth in the number of households in that same period was also provided by suburb groupings. In the Inner West suburban group comprising Riccarton South, Riccarton East, St Albans West, Addington North, Holmwood, Merivale, Mona Vale, Riccarton Central, Tower Junction, Addington West and Addington East, the projected household demand in the 30 year period from 2021 - 2051 was 830 households. I will refer to this information later in my evidence.
- 47 In Mr Scallan's statement of evidence titled '*Housing Capacity Assessment – Strategic Overview'*, he estimated a city wide feasible capacity at medium density of 51,570 households taking into account all qualifying matters.
- 48 At paragraph 29 of his evidence, he stated 'the desktop analysis indicates that in some areas of Christchurch apartment development may be possible where the costs of developing a site can be balanced by a higher price expectation for a completed dwelling. Spatially, the modelling indicates that apartment development is more likely to be more feasible in the Central City and in the suburbs adjoining the Central City to the west and north west, and

less likely outside of these areas. This outcome is consistent with that set out by Ms Ruth Allen in her evidence'.

- 49 Mr Scallan referenced his previous iteration of capacity assessment and stated 'plan enabled capacity has increased, principally because of the expansion of the High Density Residential Zone and precincts around commercial centres. Feasible development capacity for medium density residential development is lower than for previous assessments, likely because high construction costs and land valuations are not fully being balanced by rising price expectations.'
- 50 Ms Allen prepared a statement of evidence named 'Commercial Feasibility – High Density Residential Development' which I have reviewed in tandem with the report High Density Residential Feasibility Assessment – May 2022 prepared by her company, TPG. In the executive summary of her evidence, she stated 'the findings of the feasibility modelling demonstrate that, despite the increases in density enabled through PC14 provisions, under current market conditions – a key aspect of which relates to recent significant increases in construction costs - it remains challenging for development of buildings above three storeys and up to 12 storeys to be financially feasible in the range of suburban centre locations explored.'
- 51 The TPG report *High Density Residential Feasibility Assessment May 2022* stated in the executive summary that 'under current market conditions it remains challenging for development of buildings above six storeys to be feasible in the range of suburban centre locations explored'.
- 52 The report went on to state 'based on this analysis, it is however considered unlikely that high density residential development (4 storeys and above) within the cities local centres or metropolitan centres will be feasible without a significant shift in the market or significant government intervention. For example, the potential increases in land values that may result from investment and infrastructure such as MRT in these areas'.
- 53 The report under Conclusions, stated that 'the analysis does demonstrate that the city centre (area zoned High Density Residential), and its directly surrounding area (the City centre HRZ Precinct), has some potential for supporting high density residential development into the future. Whilst the results demonstrate that feasibility in the city centre does increase as heights are increased and greater yields are achievable, based on work completed by TPG in other areas within New Zealand, it is estimated that heights allowable would need to increase significantly (for example up to 32 storeys) in the city centre to begin to achieve a viable development currently'.

TPG Report – New Medium Density Residential Standards (MDRS) Assessment of Housing Enabled

- 54 I refer to the report prepared by TPG named "*New Medium Density Residential Standards (MDRS) Assessment of Housing Enabled"* dated January 2022. TPG was engaged by Christchurch City Council to undertake an analysis of the impact of the MDRS on Christchurch City. TPG estimated the total plan enabled capacity, in other words the potential number of new medium density dwellings that could be constructed in Christchurch City. Once that was determined, TPG then narrowed the estimate down to a projected feasibility capacity.
- 55 TPG completed a financial feasibility analysis as part of the assessment which demonstrates that whilst medium density is enabled across the city's residential areas, it is generally more feasible in those areas where residential values are high enough to offset the costs associated with land acquisition and construction.
- 56 TPG referred to a map highlighting feasibility development hotspots on page 5 of their report. TPG stated that the map provided illustrated that based on a review of land values and development costs, current medium density seems to be feasible in those suburbs in close proximity to the central city. The catchments of Addington, Fendalton/St Albans, Greater Hornby, Northlands/Papanui, Riccarton, Shirley/Edgeware, Somerfield, St Martins and Sydenham show the largest capacity for feasible medium density development. These catchments are generally one suburb back from the city located where land values are higher than some of the other surrounding suburbs.

Identification of Development Sites

- 57 The following is a summary of the criteria adopted by TPG to identify development sites in their model:
 - 57.1 Existing vacant sites identification of appropriately zoned vacant sites excluding those designated for an alternative purpose.
 - 57.2 Sites with redevelopment potential identification of sites where the value of existing improvements is low comparative to the land value. Based on a review of recent developments across the city where sites have a land value that makes up to 80% of the capital value, these have been considered as providing a development opportunity. The report stated that previous assessments have identified development potential on sites where land values have been 70% of capital value.
 - 57.3 Sites with infill potential a review of existing residential lots was undertaken to identify where the existing building footprint leaves an adequate area for an additional dwelling/s

and has sufficient road frontage to provide access to the additional development.

- 57.4 Sites with the potential for amalgamation and subdivision a review of identified adjoining development sites that could present an opportunity for subdivision and/or amalgamation based on minimum lot size and land ownership.
- 58 I consider the critical assumption of categorising all residential property where land value is greater than 80% of capital value as providing a development opportunity is arbitrary.
- 59 Application of this criteria across the entire city in my opinion can result in misleading results. For example, a sample of residential properties in Fendalton excluding large superior properties and townhouses, indicates that a significant proportion of standard residential property in Fendalton has a land value to capital value ratio of greater than 80%.

Development Feasibility Testing

- 60 To test development feasibility of the theoretical capacity, TPG completed an analysis of financial feasibility of a range of residential typologies.
- 61 Development feasibility analysis was completed on two properties:
 - 61.1 165 Kendall Avenue, Burnside.
 - 61.2 162 Clarence Street, Riccarton.
- 62 In both cases, two options were tested.
- 63 The Kendall Avenue options produced a development profit of -8.1% and -75.6%.
- 64 The two options tested at 162 Clarence Street produced a development profit of +6.6% and +18.6%.
- 65 At page 29 of the TPG report, the following statement was made: 'Based on the results of the feasibility assessment, the relative land values required to achieve a feasible medium density development have been established. A 'theoretical land value tipping point' of \$1,000 per sqm has been identified to achieve a feasibility medium density development. This has been reviewed against the findings of the market assessment and is indicative of where medium density is occurring.'

Development Capacity

66 The following is a summary of the defined areas excluded from the capacity analysis outlined on page 30 of the TPG report:

- 66.1 All zones where MDRS does not apply.
- 66.2 Greenfield development sites, as the outcome for medium density development in these areas will differ from that which is covered by the MDRS.
- 66.3 High flood risk.
- 66.4 Tsunami inundation.
- 66.5 Extreme Liquefaction Management Zone.
- 66.6 Slope hazard/land instability.
- 66.7 Port influence.
- 66.8 Noise boundaries.
- 66.9 Community facilities.
- 66.10 Sites of cultural significance.
- 66.11 Airport protection.
- 66.12 Heritage and character sites.
- 66.13 Areas of ecological significance.
- 66.14 Natural landscapes.
- 66.15 Protected vegetation.
- 66.16 Red zone.
- 66.17 Contaminated sites.

66.18 Areas within flight path restrictions or within the utility buffer requirements given in the Operative District Plan.

- 67 At page 32, a table was produced which provides a summary of the theoretical dwelling capacity and the feasible dwelling capacity for each catchment.
- 68 In the following catchments, the entire theoretical dwelling capacity was considered to be feasible:
 - 68.1 Addington
 - 68.2 Fendalton/St Albans

- 68.3 Greater Hornby
- 68.4 Northlands/Papanui
- 68.5 Riccarton Central
- 68.6 Shirley/Edgeware
- 68.7 Somerfield
- 68.8 St Martins/Waltham
- 68.9 Sydenham Central
- 69 The total theoretical dwelling capacity was assessed at 222,478 dwellings whereas the feasible development dwelling capacity was assessed at 58,188 dwellings.
- 70 I am surprised that in some suburbs there is virtually no feasible dwelling capacity, with some of these locations considered to be desirable. Examples include the following:

Catchment	Theoretical Capacity	Feasible Capacity
Avonhead/Ilam	5,006	35
Burnside/Russley	4,263	200
Bush Inn/Ilam	2,909	11
Wigram	6,971	2

71 Bush Inn/Ilam immediately adjoins the western boundary of Riccarton Central which will form the focus of my evidence relating to the impact of the Remodelled Contour on intensification. The Bush Inn/Ilam catchment is only impacted to a very limited degree by the Remodelled Contour and includes the Bush Inn/Church Corner commercial centre and the Canterbury University Ilam Campus. Riccarton Road passes through the centre of this catchment and is part of the proposed MRT route. The TPG theoretical capacity is 2,909 dwellings which reduces to a feasible capacity of 11.

Concluding Comments

72 The TPG report was completed in January 2022 prior to the release of the Remodelled Contour and also prior to the introduction of the High Density Residential Zone (*HRZ*).

PWC Report – The Medium Density Residential Standards Under the Resource Management Act – Estimates of Developing Impacts at Statistical Area 2 Level

- 73 The report was prepared for the Ministry of the Environment and is dated 14 July 2022. The purpose of this report was to provide a spatial estimate of the development impacts of MDRS.
- 74 The report provides estimates of the additional new dwelling consents in residential areas subject to MDRS policy during the 8 years following policy enactment for various local authority areas in New Zealand. Additional dwellings are defined as those dwellings over and above what would be expected to have otherwise occurred without MDRS.
- 75 The methodology adopted by PWC was to build on a proprietary spatial-econometric model originally developed for the cost-benefit analysis that supported the Enabling Housing Act during its parliamentary process. PWC achieved this by using existing parcel level redevelopment probabilities to simulate 1,000 likely outcomes for each urban area.
- 76 Their analysis of development impact relies on a spatial econometric model to generate forecasts for Auckland, and then adapts the model to data from the wider urban areas of Christchurch, Wellington, Hamilton and Tauranga for application in those cities. The modelling is based on a standard theoretical framework, calibrated to the housing market in each city to arrive at a forecast.
- 77 The estimates arrived at by PWC are based on various assumptions and a custom metric called quality score. The quality score incorporates the interaction between zone and demand characteristics. PWC assumed that the average rate of participation in the development market among homeowners, including participants by selling to developers (holding the model variable constant), is similar over time between cities. In addition, wider factors that are not included in the modelling, such as capacity of the construction sector, will influence the actual number of additional dwellings that are realised in this timeframe.
- 78 The following is a summary of the 5 8 year additional dwelling added by forecast for Waimakariri District, Christchurch City and Selwyn District:

PWC 5 – 8 Year Additional Dwellings Added Forecasts				
Territorial Authority	y Mean Median 25 th 75			
Impact Impact Percentile ²				

² The 25th percentile is the value that 25% of all estimates lie below, or 75% of all estimates lie above.

				Percentile ³
Waimakariri District	269	255	45	476
Christchurch City	9,419	9,350	7,521	11,232
Selwyn District	669	661	447	880

- 79 For Christchurch City, the mean impact over a 5 to 8 year period was an additional 9,419 dwellings, and in the case of the median impact, 9,350 dwellings.
- 80 I have adopted PWC mean estimate of development impacts for Christchurch City of 9,419 dwellings.

Development Capacity Reconciliation

81 Quantifying housing capacity enabled by MDRS is extremely difficult. The following is a summary of the estimated feasible capacity from various sources:

Estimated Feasible Capacity			
Source	Feasible Capacity		
	Dwellings		
John Scallan	51,570		
TPG – January 2022	58,188		
PWC	9,419		

- 82 The PWC criteria specifically states that the additional dwelling capacity is over and above what would be expected to have otherwise occurred without MDRS. I suspect this may partially explain the significant difference between the estimates provided by Mr Scanlon and TPG and those in the PWC report.
- 83 In Mr Mitchell's *Housing Demand and Affordability Projections Strategic Overview* evidence, the estimated growth in the number of households in the 30 year period from 2021 – 2051 is 35,600. This estimate is for all of Christchurch City and also includes greenfield land.

Impact of Remodelled Contour on Medium Density Residential Standards (*MDRS*)

- 84 The Remodelled Contour updates the Operative Contour in suburban Christchurch. In terms of existing residential development, the Remodelled Contour affects the western residential suburbs.
- 85 I have examined the impact that the Remodelled Contour will have on the suburbs in terms of the new MDRS.

 $^{^3}$ $\,$ The 75th percentile is the value that 75% of all estimates lie below, or 25% of all estimates lie above.

86 Apart from the detailed analysis on theoretical dwelling capacity and feasible dwelling capacity provided by TPG, there appears to be no other readily accessible data to assist in analysis.

Catchment	2018	Dwellings	Residential	Area	Theoretical	Feasible
	Рор.	#	Density	ha	Dwg	Dwg
			per ha		Capacity	Capacity
Avonhead/llam	15,552	5,514	32.09	484.64	5,006	35
Bishopdale	10,653	4,023	18.93	562.76	2,154	0
Burnside/Russley	14,343	4,989	26.17	548.07	4,263	200
Bush Inn/Ilam	18,360	5,127	37.67	487.39	2,909	11
Fendalton/St	27,879	10,770	35.66	781.80	15,807	15,807
Albans		4 74 9	40.47		22.424	4.0
Northwood/Belfast	12,477	4,713	10.17	1,226.84	22,101	18
Riccarton Central	12,615	4,113	44.55	283.16	5 <i>,</i> 679	5,679
Total					57,919	21,750

87 The following is a summary of the catchments affected with the relevant data from the TPG report included:

- 88 Attached at **Appendix 1** is an extract of the TPG hotspot map with the Operative and Remodelled Contours imposed.
- 89 Given that the Avonhead/Ilam, Bishopdale, Burnside/Russley, Bush Inn/Ilam and Northwood/Belfast catchments are considered to have minimal feasible dwelling capacity identified by TPG, I have not completed analysis on these catchments. In the case of Fendalton/St Albans, the Remodelled Contour only just encroaches the very southern tip of this catchment. I have not completed analysis on this catchment either.
- 90 The catchment most impacted is Riccarton Central.
- 91 I do not have the benefit of access to the TPG GIS platform, therefore the only methodology available is to complete a simple area apportionment to determine the loss in MDRS capacity caused by the Remodelled Contour.
- 92 The total residential land area including roads but excluding schools, parks, commercial and industrial land in the Riccarton Central catchment area has been estimated at 271.88 ha by Colliers. This compares with the analysed TPG area of 283.16 ha. According to my calculations, the Remodelled Contour encroaches over 180.3 ha or 66.3% of the total area.
- 93 The following is a summary of my calculation of the loss in feasible dwelling capacity adopting the TPG model in Riccarton Central if

Feasible Development Category	Area	Proportion	Feasible
	ha	%	Dwg Cap
Total Area	271.88	100.00	5,679
Remodelled Contour Area	180.30	66.3	3,765
Unaffected	91.58	33.7	1,914
Feasibility Loss			3,765

MDRS development inside the Remodelled Contour remains at the status quo:

- 94 Therefore, the loss in feasible dwelling capacity adopting the TPG model in Riccarton Central is estimated at 3,765 HHU's.
- 95 The TPG New Medium Density Residential Standards (MDRS) Assessment of Housing Enabled report was prepared in January 2022 prior to the release of the proposed PC14 which incorporated HRZ into the zoning framework for Christchurch, in particular in Riccarton Central. I refer to the comment made by Ms Allen in the report named 'High Density Residential Feasibility Assessment – May 2022', which stated that it was considered unlikely that high density residential development (4 storeys and above) within the cities local centres or metropolitan centres will be feasible without a significant shift in the market or significant government intervention. Therefore, the previously outlined TPG feasible capacity for Riccarton Central is considered to remain relevant.
- 96 I have completed similar analysis adopting the PWC SA2 ID areas for Riccarton Central. The following is a summary of the mean impact for the six statistical areas in Riccarton Central:

PWC Development Capacity Analysis – Riccarton Central				
SA2 – ID	SA2 – ID Geographic			
	Name	Impact		
352,200	Riccarton East	1		
324,200	Riccarton Central	0		
324,400	Riccarton South	1		
323,300	Riccarton West	61		
322,400	Deans Bush	189		
323,200	Mona Vale	10		
Total		262		

97 The PWC development capacity analysis produces a mean impact of 262 dwellings which is considerably less than the total TPG feasibility capacity of 5,679. I have preferred to adopt the results of the TPG generated results for land affected and unaffected by the Remodelled Contour.

Riccarton Central Overview *Existing Zoning*

- 98 The three principal existing residential zones in Riccarton Central are Residential Suburban Zone (*RS*), Residential Suburban Density Transition Zone (*RSDT*) and Residential Medium Density Zone (*RMD*). The north western component of Riccarton Central is principally zoned RS which provides for low density standard residential development with a maximum height limit of 8.0m and a minimum lot size of 450 sqm.
- 99 The RSDT zone is located in two areas, in the north east just to the west of the South Island Main Trunk Railway and north of Riccarton Road, and in the south west principally between Wainui Street and Wharenui Road, south of Riccarton Road and through to Blenheim Road in the south. The maximum building height in this area is 8.0m, although it provides for medium density housing.
- 100 The remainder of Riccarton Central residential area is zoned RMD which provides for a maximum height of 11.0m permitting three levels, subject to specific height limit overlays such as in Deans Avenue where the maximum height is 20.0m and Central Riccarton where it is 8.0m.
- 101 A significant component of Riccarton Central along the Riccarton Road spine is zoned either Commercial Mixed Use (*CMU*) at the eastern end and along the railway line adjacent to Mandeville Street or Commercial Core (*CC*) through the Riccarton commercial centre.

PC14 Zones

- 102 Under proposed PC14, there are three residential zones in Riccarton Central. There is the RS Zone which comprises the land located under the Operative Contour line by virtue of it being a qualifying matter. The other two zones are HRZ and MRZ.
- 103 The RS Zone rules remain unchanged. The HRZ enabled height limit is 20.0m (six levels), and the MRZ enabled height is 12.0m or three levels with provision to go to 14.0m in certain circumstances.
- 104 CIAL is seeking through its submission on PC14 the inclusion of the Remodelled Contour as the spatial extent of the Airport qualifying matter.
- 105 Attached at **Appendix 2** is the PC14 zone plan with the Remodelled Contour outlined together with the Operative Contour.

Predominant Development Pattern

106 The residential built environment in the Riccarton Central catchment is unusual in that there are two distinct residential character differences, essentially on either side of Riccarton Road. Riccarton Road is a major slow traffic arterial and is partially framed on both sides by the most substantial suburban commercial district in Christchurch, supported by a mixed use area to the south east adjacent to the South Island Main Trunk Railway Line in Mandeville Street with the remainder of Riccarton Road dominated by motel accommodation and service commercial activities. The residential area to the north of Riccarton Road, blends into the upmarket Fendalton suburb and is characterised by steady regeneration of older character homes into infill standalone townhouses and large residential dwellings on small sites. Good quality improved residential property in this area of Riccarton Central sells in a value range of between \$1.5m - \$4.0m.

- 107 Land to the south of Riccarton Road through to Blenheim Road is of significantly lower value in terms of residential building stock, where a substantial volume of medium density residential development has occurred, mostly comprising two level multi-unit residential apartments. Within this area, the block between Riccarton Road and Blenheim Road bordered to the east by Wainui Street and to the west by Wharenui Road, accommodates a significant component of government owned social housing dating back from the 1950's although Kainga Ora is replacing housing in this block with medium density multi-unit development.
- 108 Historically, purchasers of property north of Riccarton Road have been prepared to outbid medium density developers in order to secure land for infill standalone townhouses or large residences. In my opinion, this has and will continue to exclude high density residential development in the foreseeable future in this location.
- 109 This has resulted in the majority of medium density multi-unit development occurring in the block between Riccarton Road and Blenheim Road, and the block in the north eastern corner of Riccarton Central between Matai Street East and Riccarton Road between Hagley Park and South Island Main Trunk Railway Line.
- 110 My research team at Colliers completed a simple survey of residential sites in Riccarton Central in the following areas:
 - 110.1 North East Riccarton Central from Matai Street East to the north, Deans Avenue to the east, Riccarton Road to the south, and Mona Vale Avenue to the west; and
 - 110.2 South Riccarton Central from Riccarton Road to the north, Deans Avenue to the east, Blenheim Road to the south and Wharenui Road to the west.
- 111 In the north east area, there are 360 sites of which 44 (12.2%) have been developed with medium density residential buildings of two or three levels.

- 112 In the South Riccarton Central area, there are 1,243 sites, of which 261 (21.0%) have been developed, with medium density residential buildings of two or three levels. Within this sample there were only 4 three level developments with the balance 257 being two level.
- 113 Out of the total area surveyed, there were 1,603 sites of which 305 (19.0%) have been developed with medium density residential buildings of two or three levels.

PC14 REMODELLED CONTOUR IMPACT ON MDRS

Remodelled Contour Impact on Zones – Riccarton Central				
Proposed Zone	Inside	Proportion	Total Area	
	Remodelled	%	ha	
	Contour			
	ha			
HRZ	71.64	52.2	137.12	
MRZ	53.56	68.1	78.66	
RGA ⁴	3.24	100.0	3.24	
RS	52.86	100.0	52.86	
Total	181.30	66.7	271.88	

114 The following table summarises the land areas for the various proposed zones in PC14 located under the Remodelled Contour.

- 115 The MRZ zone is the most impacted with 68.1% of the land area located under the Remodelled Contour. Most of the MRZ land is located north of Riccarton Road in the area discussed earlier where a large proportion is situated within the Fendalton suburb and value levels are at a level which essentially precludes medium density housing proposed by PC14. Accordingly, the imposition of the Remodelled Contour over this part of Riccarton Central in my opinion will have very limited actual impact on the loss of potential medium density housing.
- 116 The HRZ zone is impacted to a greater degree. The area where medium density housing was likely to have occurred and has already started is in the block north of Riccarton Road, between the South Island Main Trunk Railway Line and Deans Avenue (Hagley Park). The land zoned HRZ, located north of Riccarton Road, west of the South Island Main Trunk Railway Line through to Straven Road to a large degree fits within the Fendalton value influence, and therefore the impact is only considered to be minimal.

⁴ RGA is the Residential Guest Accommodation zone which relates to the large hotel block at the intersection of Kilmarnock Street, Deans Avenue, Matai Street East.

- 117 Land to the south of Riccarton Road impacted by the Remodelled Contour is located to the south and west of the commercial centre (Commercial Core Zone). Included within the land under the Remodelled Contour is the Shands Crescent Residential Character Area which is a qualifying matter. The total land area for the Shands Crescent Residential Character Area is approximately 7.01 ha.
- 118 The residual HRZ land unaffected by the Remodelled Contour located south of Riccarton Road, is ideally suited to HRZ development. This area of Riccarton Central is zoned RMD in the operative Christchurch District Plan which allows building heights of between 8.0m 11.0m depending on exact location. This part of Riccarton between Riccarton Road and Blenheim Road has been subject to intensification over the last 10 years which has resulted from a mix of medium density zoning, location close to main traffic arterials and a major suburban commercial centre, together with proximity to amenities and work places. I am of the opinion the proposed HRZ will encourage further intensification in this location.
- 119 The impact of the Remodelled Contour on Christchurch City is relatively minor when taking into account the location of the feasible capacity assessed by TPG. The most impacted area is Riccarton Central where, due to a number of factors, the impact is to some extent suppressed.

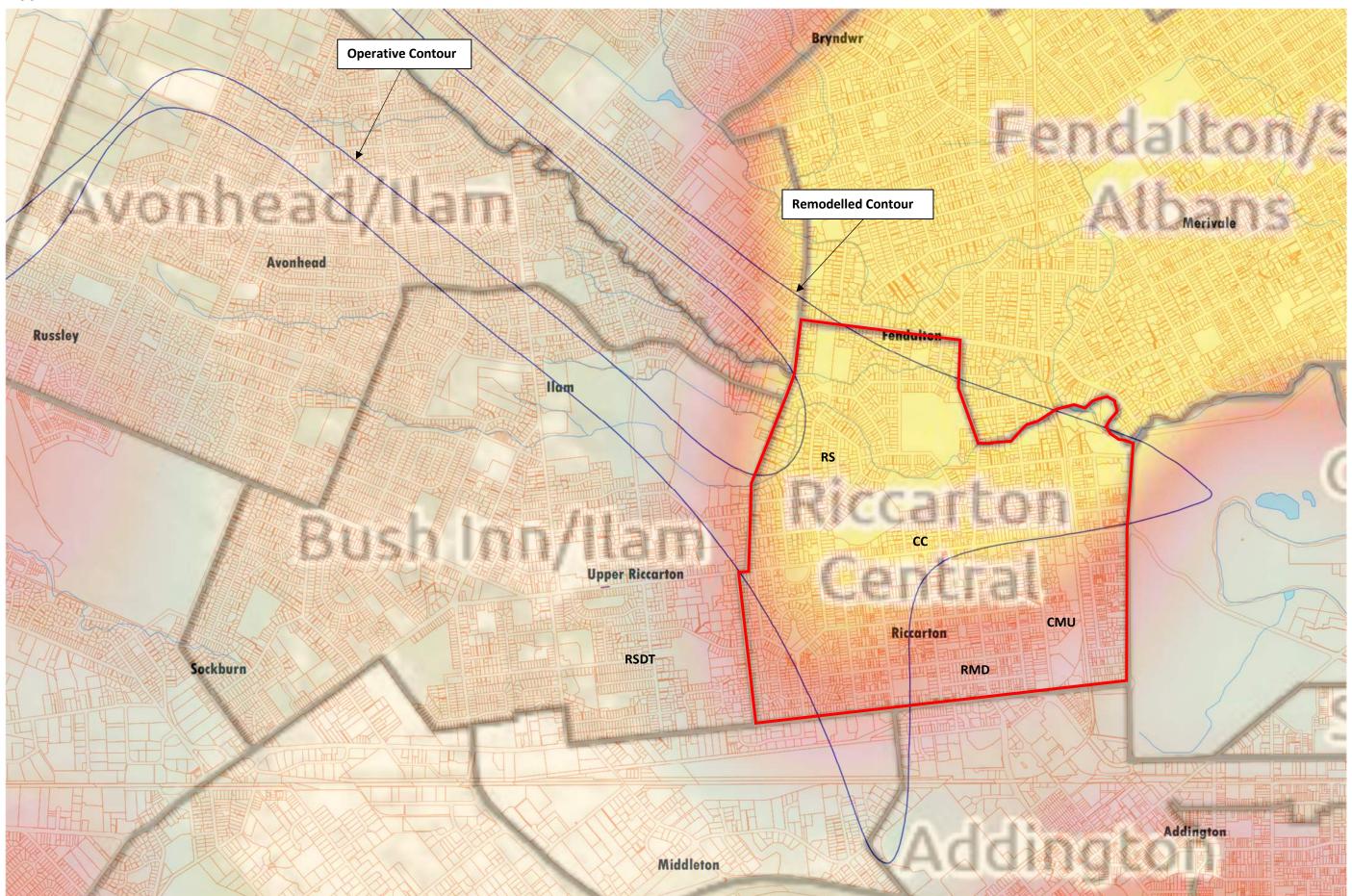
CONCLUSIONS

- 120 Deducting my assessed impact of the Remodelled Contour on Riccarton Central of 3,765 from the TPG feasibility dwelling capacity for Christchurch City of 58,188, results in a net feasible dwelling capacity of 54,423 resulting from MDRS.
- 121 The impact of the Remodelled Contour on Christchurch City is relatively minor when taking into account the location of the feasible capacity assessed by TPG. The most impacted area is Riccarton Central where, due to a number of factors, the impact is to some extent suppressed.
- 122 In addition to the net feasible dwelling capacity resulting from MDRS in Christchurch City of 54,423 there is an additional Greenfield housing capacity of 8,340 HHU's in the undeveloped suburbs of Christchurch.

Gary Sellars

20 September 2023

Appendix 1



Appendix 2

