



Economic Assessment of Proposed Supermarket, Lincoln Christchurch

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Lincoln Developments



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1. Key Points

The main findings of the report are:

- The proposal will enable a second supermarket to establish in Lincoln. This will improve access to supermarket goods and increase competition in this sector, both of which are a significant benefit to residents.
- There will be sufficient demand to support a second supermarket in Lincoln of the size proposed by 2021. Given the fast rate of population growth there will be ongoing demand for supermarkets in Lincoln.
- The current supermarket expenditure retained in Lincoln is \$26.1m. This is forecast to increase to \$36.0m in 2027 and \$52.8m in 2037. In broad terms the retained supermarket expenditure will double by 2030.
- Supermarkets require a site which meets a range of criteria in order to be suitable for development. These criteria are commercial feasibility, size, and market access.
- The proposal is the only location in Lincoln which satisfies all three criteria and is suitable for development in terms of the sites evaluated in this report.
- The proposal is considered to have significant economic benefits and no economic costs and is therefore recommended for approval.

2. Introduction

2.1. The Proposal

The proposal is for a 1,500m² Fresh Choice supermarket, service station, pharmacy, café, and a community services tenancy located on Birchs Road, Lincoln (the “proposal”).

2.2. Methodology

The economic assessment has three parts, as follows:

1. An assessment of the **supportable supermarket floorspace** in Lincoln (to determine whether the existing supermarket would potentially cease to trade and whether there is demand/need for a second supermarket).
2. An assessment of the **availability of suitable sites** for a supermarket in Lincoln (to determine whether the District Plan makes sufficient provision for a second supermarket).



3. An assessment of **economic costs and benefits**.

3. Study Area Overview

The following figures show the Urban and Rural catchments used in the report. Lincoln township and the surrounding rural area have been divided into East and West catchments along the Liffey stream. The rural map also shows the location of nearby towns for reference.

Figure 1 shows the location of the proposal, the existing New World supermarket, the Lincoln Key Activity Centre (KAC), and the Outline Development Plan 7 centre.

Figure 1: Urban Catchments

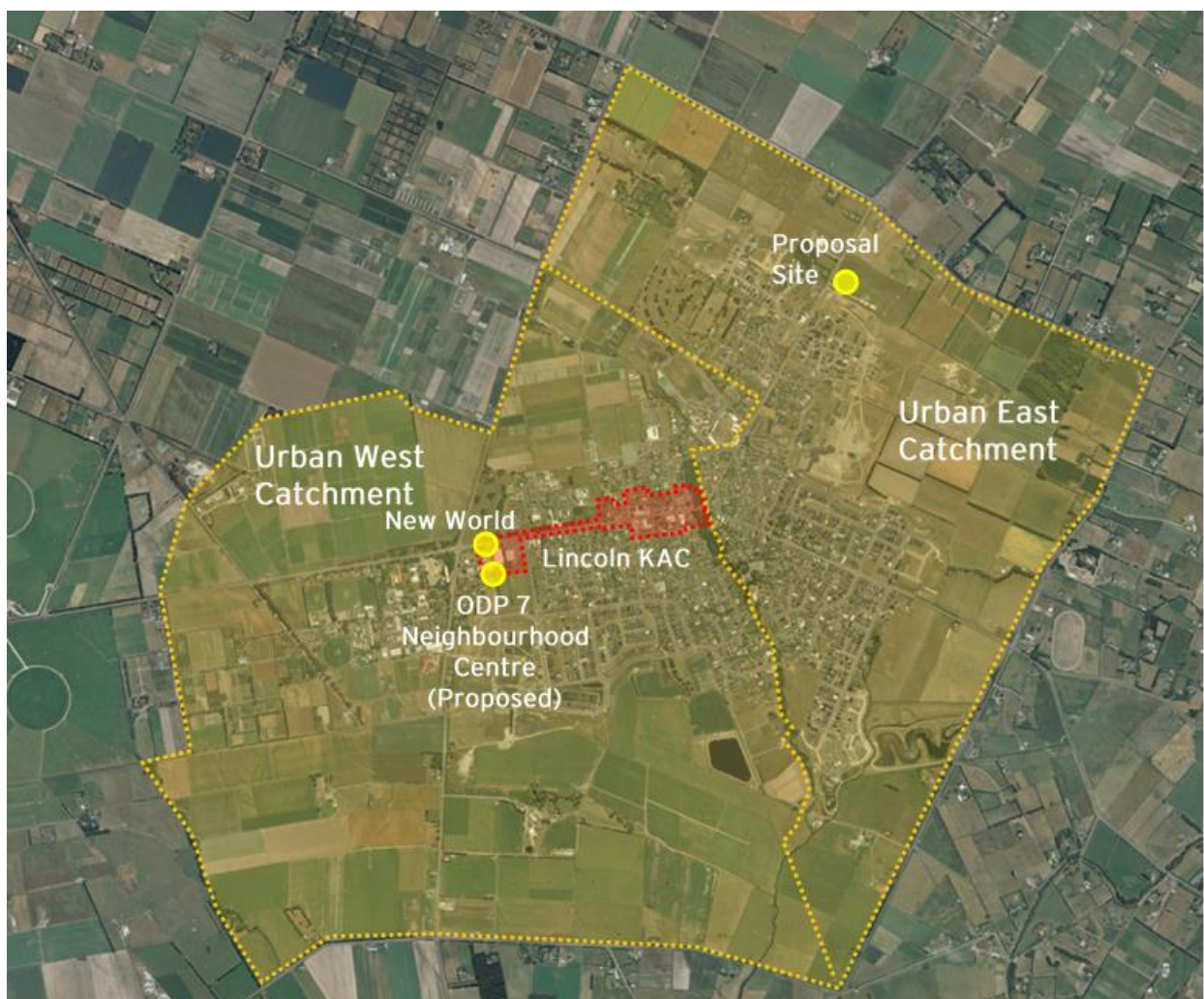
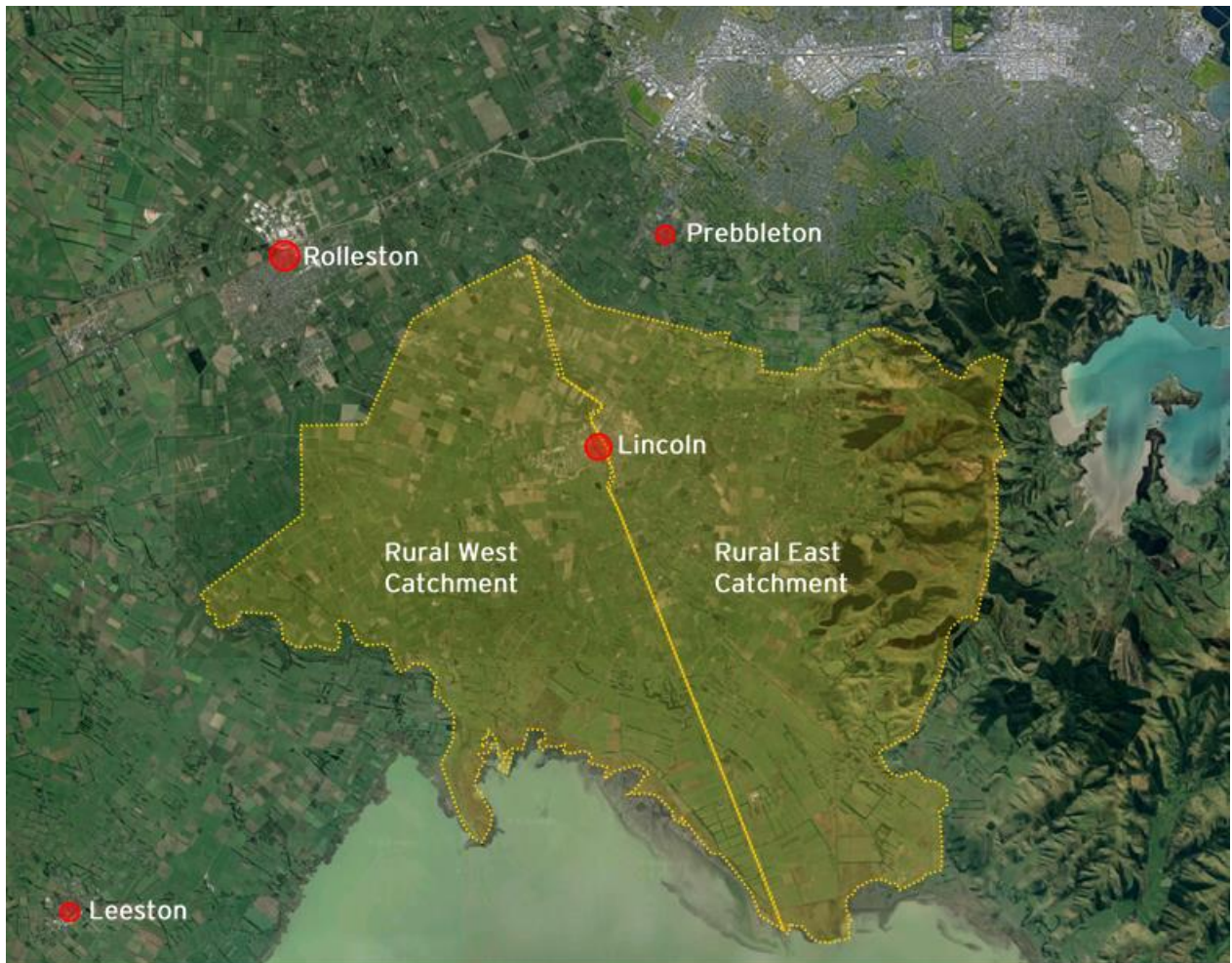




Figure 2: Rural Catchments



4. Household Growth

This section evaluates the current and forecast households for the catchments identified in Figure 1. For the urban catchments, future households have been estimated by counting existing vacant sections on aerial photography and by calculating the development capacity of vacant land using average section sizes for each area. These forecasts are generally consistent with the Statistics NZ forecasts. For the Rural catchments area, Statistics NZ forecasts have been applied.

Figure 4 shows the forecast household figures for the East and West catchments. The key points to note are:

- The Urban East catchment is forecast to increase from 1,250 households currently to 3,210 households in 2037. This is an increase of 1,960 households or 157%.
- The Rural East catchment is forecast to increase from 1,030 households currently to 1,850 households in 2037. This is an increase of 820 households or 80%.



- The Urban West catchment is forecast to increase from 1,030 households currently to 2,330 households in 2037. This is an increase of 1,300 households or 126%.
- The Rural West catchment is forecast to increase from 790 households currently to 1,460 households in 2037. This is an increase of 670 households or 85%.
- The East catchment is currently larger than the west catchment, and is expected to be larger than the west catchment in 2037.

From this analysis, it is evident that both the Urban and Rural areas are forecast to have significant growth over the next two decades. Growth in the Urban East is expected to be higher than in the Urban West, and by 2037 the Urban East is forecast to have 880 more households than the Urban West.

The strong household growth forecast over this period means that there will be correspondingly strong growth for retail goods and services, including growth in supermarket expenditure.

Figure 3: Catchment Household Forecasts¹

	2017	2027	2037	2017-2027	2027-2037	2017-2037
<i>East Catchment</i>						
Urban	1,250	2,230	3,210	980	980	1,960
Rural	1,030	1,450	1,850	420	400	820
<i>Sub-Total East Catchment</i>	2,280	3,680	5,060	1,400	1,380	2,780
<i>West Catchment</i>						
Urban	1,030	1,680	2,330	650	650	1,300
Rural	790	1,060	1,460	270	400	670
<i>Sub-Total West Catchment</i>	1,820	2,740	3,790	920	1,050	1,970
Total	4,100	6,420	8,850	2,320	2,430	4,750

Source: Urban Economics, Statistics NZ

4.1. Lincoln Structure Plan Household Forecasts

The Lincoln Structure Plan 2008 (LSP) projected Lincoln would grow to 3,900 households by 2041. This is lower than the 5,540 households forecast in the above assessment.

Although a lower population is forecast in the LSP based on the above figures, it was estimated in this document that Lincoln would need a new supermarket in the second development phase post 2017, which has now been reached. The LSP also notes that supermarkets typically service catchments of approximately 8,000 people or approximately 2,700 households which has already

¹ Note that for the urban area forecast household figures have been split evenly across the next two decades as the timing for development of future greenfield areas is unknown.



been achieved.

5. Supermarket Expenditure and Floorspace Demand

This section estimates the supermarket expenditure and supportable floorspace for the catchments.

Figures 4 and 5 show current and forecast supermarket expenditure for the Urban and Rural catchments based on average household supermarket expenditure figures. Supermarket expenditure growth comes from both an increase in households and an increase in the real spending power of households.

The figures show that current supermarket expenditure of the Urban catchment is \$24.1m and is forecast to almost double to \$43.9m over the next decade.

For the Rural catchment, current expenditure is \$19.2m and is forecast to increase by \$9.0m or 47% over the next decade.

Figure 4: Urban Catchment Supermarket Expenditure Growth 2017-2037

Year	Supermarket Expenditure per Household	Urban East Catchment		Urban West Catchment		Total Urban Catchments	
		Households	Supermarket Expenditure	Households	Supermarket Expenditure	Households	Supermarket Expenditure
2017	\$10,550	1,250	\$13.2	1,030	\$10.9	2,280	\$24.1
2027	\$11,220	2,230	\$25.0	1,680	\$18.8	3,910	\$43.9
2037	\$11,930	3,210	\$38.3	2,330	\$27.8	5,540	\$66.1
2017-2027	\$670	980	\$11.8	650	\$8.0	1,630	\$19.8
2027-2037	\$710	980	\$13.3	650	\$8.9	1,630	\$22.2
2017-2037	\$1,380	1,960	\$25.1	1,300	\$16.9	3,260	\$42.0

Source: Urban Economics, Statistics NZ

Figure 5: Rural Catchment Supermarket Expenditure Growth 2017-2037

Year	Supermarket Expenditure per Household	Rural East Catchment		Rural West Catchment		Total Rural Catchments	
		Households	Supermarket Expenditure	Households	Supermarket Expenditure	Households	Supermarket Expenditure
2017	\$10,550	1,030	\$10.9	790	\$8.3	1,820	\$19.2
2027	\$11,220	1,450	\$16.3	1,060	\$11.9	2,510	\$28.2
2037	\$11,930	1,850	\$22.1	1,460	\$17.4	3,310	\$39.5
2017-2027	\$670	420	\$5.4	270	\$3.6	690	\$9.0
2027-2037	\$710	400	\$5.8	400	\$5.5	800	\$11.3
2017-2037	\$1,380	820	\$11.2	670	\$9.1	1,490	\$20.3

Source: Urban Economics, Statistics NZ

The above figures show the total supermarket expenditure generated by households in the Urban and Rural catchments. However not all supermarket expenditure will be captured in Lincoln, for example some residents may work in Rolleston or in Christchurch City and may choose to do their



grocery shopping in these locations.

For a town of this size it is reasonable to expect that in the order of 50% of supermarket expenditure to be retained locally, although in some instances this could be as high as 60%-70%.

The key point to note from the following table is that current supermarket expenditure retained in Lincoln is \$26.1m. This is forecast to increase to \$36.0m in 2027 and \$52.8m in 2037. In broad terms the retained supermarket expenditure will double by 2030.

Figure 6: Supermarket Expenditure Retained in Lincoln (50% Retention)

Year	Urban East Catchment	Urban West Catchment	Rural East Catchment	Rural West Catchment	Total
2017	\$6.6	\$5.4	\$5.4	\$4.2	\$21.6
2027	\$12.5	\$9.4	\$8.1	\$5.9	\$36.0
2037	\$19.1	\$13.9	\$11.0	\$8.7	\$52.8
2017-2027	\$5.9	\$4.0	\$2.7	\$1.8	\$14.4
2027-2037	\$6.6	\$4.5	\$2.9	\$2.8	\$16.8
2017-2037	\$12.6	\$8.5	\$5.6	\$4.5	\$31.2

Source: Urban Economics, Statistics NZ

The following figure shows supportable supermarket floorspace in Lincoln. The analysis applies a turnover per sqm of \$6,500/m² to the supermarket expenditure figures. This reflects the lower quartile turnover per sqm for supermarkets and is a rate at which many supermarkets trade successfully.

Based on Figure 7 there will be sufficient demand for supermarket floorspace to support the existing New World and the proposed Fresh Choice by 2021. It is likely the proposal would begin trading in 2020 if approved. It is common for supermarkets to establish 1-2 years ahead of the market to secure the long-term market opportunity.

Figure 7: Supportable Supermarket Floorspace

Year	Supermarket Expenditure	Turnover per sqm	Supportable Supermarket Floorspace
2017	\$21.6	\$6,500	3,330
2027	\$36.0	\$6,500	5,540
2037	\$52.8	\$6,500	8,120

Source: Urban Economics

6. Availability of Suitable Sites

This section evaluates whether there are any suitable sites, or aggregations of sites, for a second supermarket to establish in Lincoln.

The suitability of potential sites for a supermarket are evaluated against the criteria of commercial feasibility, site size and dimension and market access, as outlined under sections 6.1-6.3. All



potential properties are then evaluated against these criteria in section 6.4. The summary results are provided in section 6.5.

6.1. Commercial Feasibility

For a site to be considered suitable it must be commercially feasible for development. This is fundamentally a question of the value of greenfield land or the 'residual land value' of the brownfield land. The residual land value is the price a developer would effectively pay for land if the value of the existing building is included.

As a general principle, development of a supermarket in a location such as Lincoln will only be feasible on sites with a greenfield/residual land value of up to approximately \$400 per sqm. This is supported by the analysis in Appendix 1 which shows that supermarkets in smaller towns typically do not pay more than \$400/m² for land.

Figure 8 shows the residual land value of properties in the Lincoln KAC (B1 and LZ). Figure 9 shows the Lincoln KAC outlined in purple. Retail activities over 350m² GFA are Permitted in the Business 1 Zone inside the KAC (brown area) and are Discretionary in the Living 1 Zone inside the KAC (green area).

In simple terms, the properties that are coloured green have moderate - high development potential, whereas properties coloured in red have low or no development potential. Figure 8 can be interpreted as follows:

Colour	Residual Land Value	Redevelopment Feasibility
Dark Green	\$0-\$200 / m ²	High
Light Green	\$200-\$400 / m ²	Low-Moderate
Yellow	\$400-\$600 / m ²	Low
Orange	\$600-\$800 / m ²	Very-Low
Red	\$800 plus / m ²	Infeasible

It is evident from Figure 8 that many of the properties that comprise the Lincoln KAC and LZ have values that exceed \$600/m² (coloured orange and red). These properties have a very low redevelopment feasibility or would be infeasible for redevelopment.

There are however a small number of properties that are priced in the \$0-\$400/m² range and would therefore have a high or moderate feasibility for development. These properties or aggregations of these properties are assessed in more detail in section 6.4.



Figure 8: Residual Land Value Map



Source: CoreLogic, Urban Economics

Figure 9: Lincoln KAC





6.2. Site Size & Dimension

The proposal is for a supermarket of approximately 1,500m². A supermarket of this size would require a site of at least 4,500m² to enable sufficient room for access and parking.

The dimensions of the site are also important. Square sites are typically preferable to elongated rectangular sites as these can be more difficult to configure to provide sufficient floorspace, parking and delivery access.

6.3. Market Access

The following figures show the location of the New World and the proposal. The figure includes a 1km radius for each existing and proposed supermarket.

The main points to note are:

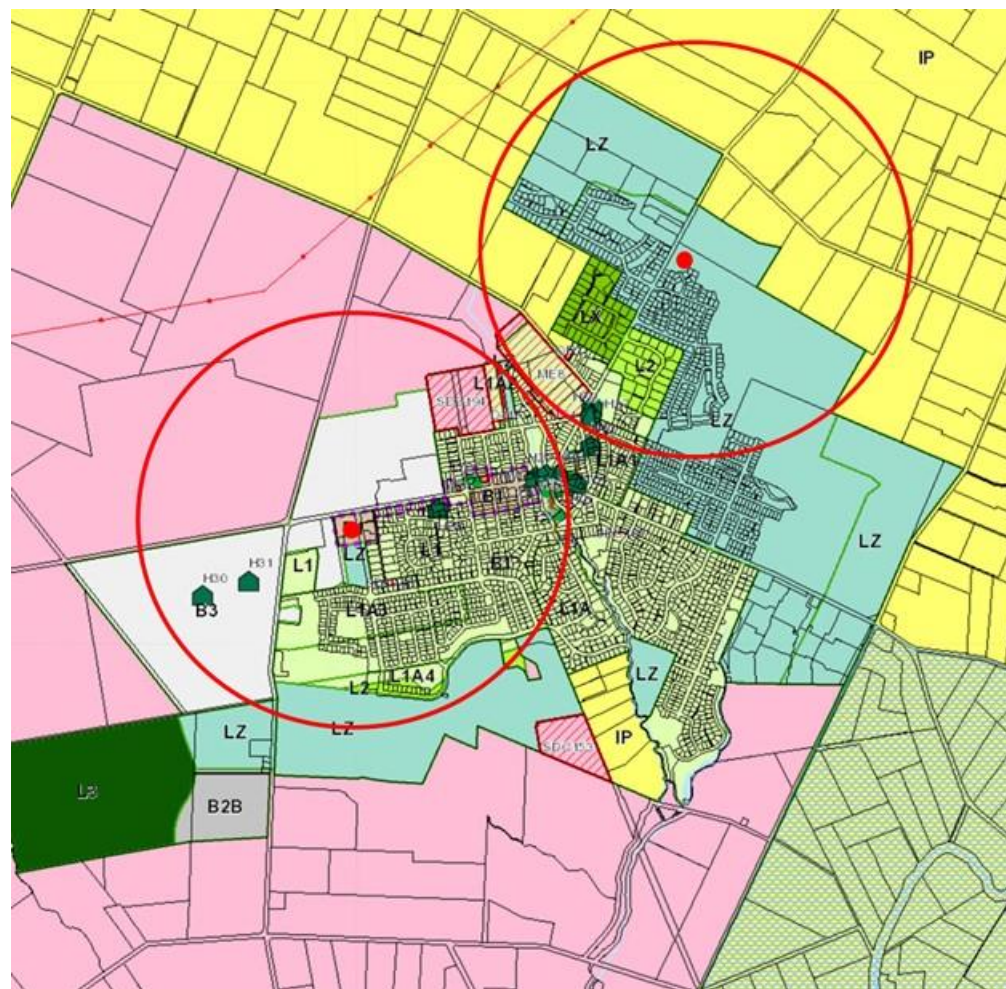
- The existing New World has a strong catchment in the Urban West catchment.
- The Proposal is located on the eastern side of the township and would service a geographically separate primary catchment to the New World. This area is forecast to have 60% of future household growth in Lincoln over the next two decades and has no provision for a supermarket. The proposal location would therefore improve supermarket access for over half of all residents in Lincoln, including the large area of undeveloped Living Z zone land to the southeast of the Proposal. Based on the demand analysis for the eastern catchment, it is concluded that a second supermarket would be feasible in this location.



Figure 10: Catchment Analysis (Aerial Photograph)*



Figure 11: Catchment Analysis (Selwyn District Plan)*





6.4. Site Analysis

The following sites, as identified in Figure 8, are evaluated against the three criteria.

Site 1: Vernon Drive (ODP 7 Neighbourhood Centre)



This site is zoned Business 1 and is identified in Outline Development Plan 7 as a Neighbourhood Centre. The residual land value of the site is \$160/m². This would be commercially feasible for development.

This site has a total area of 4,260m² which is marginally below the required size of 4,500m². The site has an elongated shape, with a proportion of approximately 1:3. The combination of the size and shape are a significant constraint for the development of a supermarket.

The site is currently vacant but is proposed for a mixed-use development including office and retail. This development has not yet been consented but is expected to commence when the adjacent retail centre is complete.

The site is directly adjacent to the existing New World. While competing supermarket brands can in some instances locate close together, this is likely to be a significant constraint on the feasibility of a second small supermarket that aims to compete in a similar market segment (in terms of produce range and price points).

Given these constraints the site is considered to be a very difficult proposition for development.



Site 2: Vernon Retail Centre



The current residual land value of the site is \$150/m². This would be commercially feasible for development. However, this residual land value does not take into account the construction of a retail centre which is due for completion early this year. The residual land value of the centre when fully complete is likely to be much higher than \$400/m².

This site has a total area of 5,100m² which is a sufficient size to accommodate a supermarket of 1,500m².

The site is directly opposite the existing New World. As noted above, supermarkets can locate close together, however this is likely to be a significant constraint on the feasibility of a supermarket.

Based on the constraints due to the development of the site and its location the site is not suitable for a supermarket development.

Site 3: 13-15 W Belt





This site consists of three parcels and has an average residual land value of \$230/m². This would be commercially feasible for development.

This site makes up part of the “Community Centre Site” identified in the Lincoln Structure Plan (LSP) as a location for a supermarket development. The site has subsequently been developed with the Lincoln Library and Service Centre and a restaurant.

The parcels identified in this analysis have a total area of 2,980m². It is therefore significantly smaller than the required minimum site size of 4,500m². The site’s elongated “L shape” also makes it unsuitable, as supermarkets typically require a square site to enable a functional store layout, sufficient parking, and access.

In addition, two of the parcels have been developed as parking for the Lincoln Library and Service Centre and a restaurant. These parcels are therefore unavailable for redevelopment as this would remove a significant number of carparks which service adjacent businesses.

The site is set back from the mainstreet and would have insufficient market profile and visibility to be suitable for a supermarket development.

Based on the site size, location and the current use it is considered to be unsuitable for a supermarket development.

Site 4: 31 Gerald Street



The current residual land value of the site is \$230/m². This would be commercially feasible for development.

The site has a total area of 3,500m². This is too small to accommodate a supermarket of 1,500m².

The site is located on the mainstreet and would have good market profile for a supermarket development.

In addition, the site is owned by the Catholic Diocese of Christchurch. It is understood funds are



currently being raised to rebuild the Church on this site.

Based on the site size and its current use it is considered to be unsuitable for a supermarket development.

Proposal Site (Birchs Road)

The proposal site would be commercially feasible for development because it is greenfield land.

There are no constraints on the size or configuration of the site because it is greenfield land.

The Proposal is located on the eastern side of the city and would service a geographically separate catchment to the New World. This location is within the major residential growth area of Lincoln. As noted in Section 4, the Urban East catchment is forecast to grow by almost 2,000 households over the next two decades. The proposal location would therefore improve supermarket access for over half of Lincoln residents, including the large area of undeveloped Living Z zone land to the southeast of the Proposal.

In addition, the Proposal is located on a busy road at the entrance to a number of residential suburbs. This location enables good store visibility and market access to residents of the area and commuters to Christchurch City (see Appendix 2 for a map of Lincoln commuting patterns).

Based on the demand analysis for the eastern catchment, it is concluded that a second supermarket would be feasible in this location.

6.5. Summary of Criteria Analysis

In order for a site to be suitable for a supermarket it must be commercially feasible, of a sufficient size with correct dimensions, and have sufficient market access. The following table shows a summary of the results of the site assessment in Section 6.4.

It is concluded that only the Proposal satisfies all requirements and is therefore the only site that is suitable for a supermarket development in terms of the sites evaluated in this report.

Figure 12: Criteria Analysis Results

Site	Commercial Feasibility	Site Size and Dimension	Market Access	Suitable for Supermarket Development
Site 1: Vernon Drive	✓	✗	✗	✗
Site 2: Vernon Retail Centre	✗	✗	✗	✗
Site 3: 13-15 West Belt	✗	✗	✗	✗
Site 4: 31 Gerald Street	✓	✗	✓	✗
Proposal Site	✓	✓	✓	✓



7. Other Convenience Activities

In addition to the proposed supermarket there is a service station, pharmacy, café, and a community services tenancy proposed on the site.

The café, pharmacy and community services activities have a convenience function and would service the surrounding catchment in the north east of Lincoln. Providing for several small convenience activities in this location supports the convenience function of the centre by enabling greater access for customers in the north east of Lincoln.

The service station also has a convenience function and would support the function of the centre. As a general note, service stations are typically located outside of town centres because of the cost of land.

8. Economic Cost Benefit Analysis

Economics has a very specific approach to the evaluation of urban land-use policy. It is to identify whether urban policy leads to 'economic efficiency'. There is a basic test for economic efficiency, which is whether there are any 'market failures'. For urban policy there are three possible market failures that should be tested in order to conclude whether a proposal is 'good policy'. These are:

- No significant degree of monopoly
- No significant 'external' public costs
- No significant 'external' private costs

While it may seem paradoxical to non-economists, urban policy can rarely meet these tests as there will always be some degree of monopoly or some external costs. An economist must therefore look to 'weigh up' these matters to determine whether, on balance, an urban policy improves social welfare and therefore meets the test for economic efficiency.

Economists tend to focus more on the monopoly or regulatory tax costs and less on the public and individual costs. However, ideally, an economist would address all possible market failures in order to determine whether a policy met the "good policy" test and was economically efficient.

8.1. Degree of Monopoly (Competitive Land Market)

The proposal site is the only location in Lincoln which is suitable for a supermarket development (in terms of the sites evaluated in this report) and would also improve supermarket access for residents in east Lincoln. Enabling a supermarket in this location would result in greater choice for consumers, reducing the degree of monopoly which in turn reduces the cost of goods for consumers.

Utilising the proposal site for commercial activities is not anticipated to have any effect on the



efficient operation of the residential land market.

8.2. External Public Costs and Benefits

Lincoln is forecast to have strong supermarket expenditure growth over the next two decades and an additional supermarket will be feasible in Lincoln by 2021. Based on this strong growth forecast there is a very low possibility that the existing New World would cease to trade as a result of the proposal. There is also not anticipated to be any flow-on economic effects.

As the proposal would provide access to a supermarket and some convenience retail in a location which is currently lacking in these activities, it is expected to have a significant economic benefit, particularly in regard to transportation costs and additional competition.

8.3. External Private Costs and Benefits

No evidence has been presented that the development would have adverse effects on adjacent properties (it is noted that this is a matter for other experts to evaluate).

9. Lincoln Structure Plan

The LSP identifies that two “full service” supermarkets are required in Lincoln to meet demand (paragraph 7.5.14). The LSP evaluates several sites and identifies two preferred sites, as follows:

1. Community Centre site in the core town centre.
2. Dairy Block Neighbourhood Centre in the south-west.

The Community Centre site has been assessed and is not feasible for a supermarket (refer to Section 6). The Dairy Block Neighbourhood Centre is not identified in the District Plan or the relevant ODP, which were developed after the LSP.

The removal of the Dairy Block Centre is likely due to the establishment of the New World supermarket establishing in a central location within the western catchment.

It is concluded that the LSP provisions are no longer able to meet the supermarket needs of Lincoln and that alternative sites need to be considered.

10. Outline Development Plans

The Outline Development Plans for Lincoln (Operative Date 3.5.16) do not make any provision for a centre which could accommodate a supermarket development.

11. District Plan



The District Plan (“DP”) does not make any specific provision for a second supermarket, however makes provision through the B1 Zone/KAC provisions.

For the reasons outlined in Section 6 it is concluded that the DP provisions do not make sufficient provision for a supermarket and that alternatives need to be considered.

The DP outlines the general approach for retail activity in Lincoln, as follows:

Objective B4.3.8

Commercial growth is primarily focused within the Key Activity Centres of Rolleston and Lincoln in a way and at a rate that:

- (1) Meets the economic needs of commercial businesses, provides for their communities with convenient access to goods and services, and ensures opportunities for employment and social interaction: and*
- (2) Ensures an adequate supply of land to meet commercial and community demands.*

The objective states that commercial activity is “primarily” focused in the KACs. This approach is supported, because there are often situations where a centre does not have sufficient feasible capacity for a particular business. This is reinforced in the Objective in points 1 and 2 which identify the need to meet the “economic needs of commercial business” and ensure an “adequate supply of land to meet commercial demands”. Demand is a function of both quantity and price, and in this instance, there are no suitable sites in respect of price to adequately meet demand. The National Policy Statement – Urban Development Capacity includes a definition of demand that correctly includes both quantity and price.

Section 5 found that there is sufficient demand to support a second supermarket, as also concluded by the LSP.

The lack of suitable sites in Lincoln is evidence that Objective B3.4.8 is not met with respect to points 1 and 2, and therefore alternative non-KAC locations should be considered.

Policy B4.3.11

Provide Neighbourhood and Local Centres, as shown in operative Outline Development Plans, to satisfy the more localised and convenience needs of people and communities, whilst recognising that neighbourhood and local centres are to complement Key Activity Centres which shall remain the primary focus for commercial, social and community activity within that Township.

The proposal is not consistent this policy because supermarkets are not anticipated in outside the KAC, for example in a Neighbourhood Centre such as at Rosemerryn.

The proposal is however not contrary to this policy, because a small supermarket would serve a small localised market area in the same way that smaller retail stores would, such as dairies,



bakeries and butchers. It is no mystery why supermarkets sell the same same range of goods that smaller retailers do from such locations.

Policy B4.3.59

Achieve integration between the rezoning of land for new residential development at Lincoln and associated provisions for utilities, community facilities and areas for business development.

Explanation and Reasons

A study prepared for the Council (Barber, 1999: Demand for Land for Commercial and Industrial Uses in Selwyn District) indicates that if projected residential growth occurs at Lincoln, there will be a shortage of space for associated business activities in the current Business 1 Zone.

Policy B4.3.59 identifies that there is a need to integrate new business land with new residential land and identifies a shortage of B1 zone land. The analysis in this report also finds a shortage of zone land in the town centre. The Eastern catchment is also shown as a significant residential growth area with a need for additional retail businesses that there is at present no provision for.

12. Conclusions and Recommendations

The proposal is considered to have significant economic benefits and no economic costs and is therefore recommended for approval.



13. Appendix 1: Supermarket Land Prices

This section is an assessment of the price supermarkets can pay for land using an analysis of the land value per sqm for 102 supermarkets across New Zealand. The following figure shows the land value per sqm for each supermarket taken from the most recent council ratings valuations.

The location of each supermarket has been classified as “Large Urban Area” for example Auckland, Wellington, Christchurch etc., “Satellite Suburb” for example Pukekohe, Rolleston, Waiuku etc., and “Small Urban Areas” for example Ashburton, Invercargill, Whangarei.

The results show that 57% of supermarkets have a land value less than \$400/m². These tend to be supermarkets in satellite suburbs and small urban areas (red and orange in Figure 13).

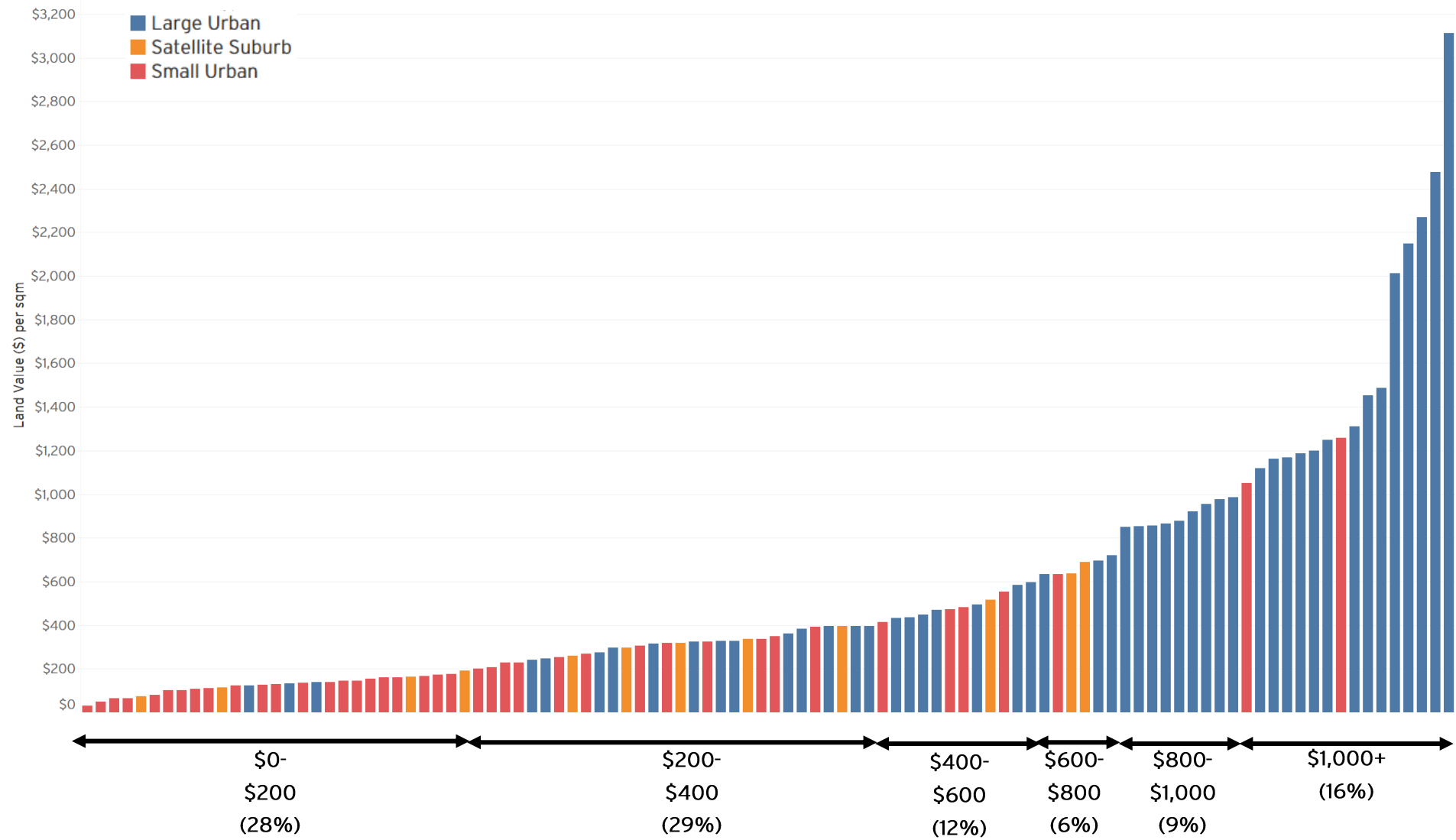
Table 1: Land Values per Sqm of New Zealand Supermarkets by Price Range

Price Range	Large Urban		Small Urban		Satellite Suburb		Total	
	Count	%	Count	%	Count	%	Count	%
\$0-\$200	3	6%	22	54%	4	33%	29	28%
\$200-\$400	13	27%	12	29%	5	42%	30	29%
\$400-\$600	7	14%	4	10%	1	8%	12	12%
\$600-\$800	3	6%	1	2%	2	17%	6	6%
\$800-\$1,000	9	18%	0	0%	0	0%	9	9%
\$1,000+	14	29%	2	5%	0	0%	16	16%
Total	49	100%	41	100%	12	100%	102	100%
Average	\$850		\$270		\$330		\$560	

Source: CoreLogic, Urban Economics



Figure 13: Land Values per Sqm of New Zealand Supermarkets by Location



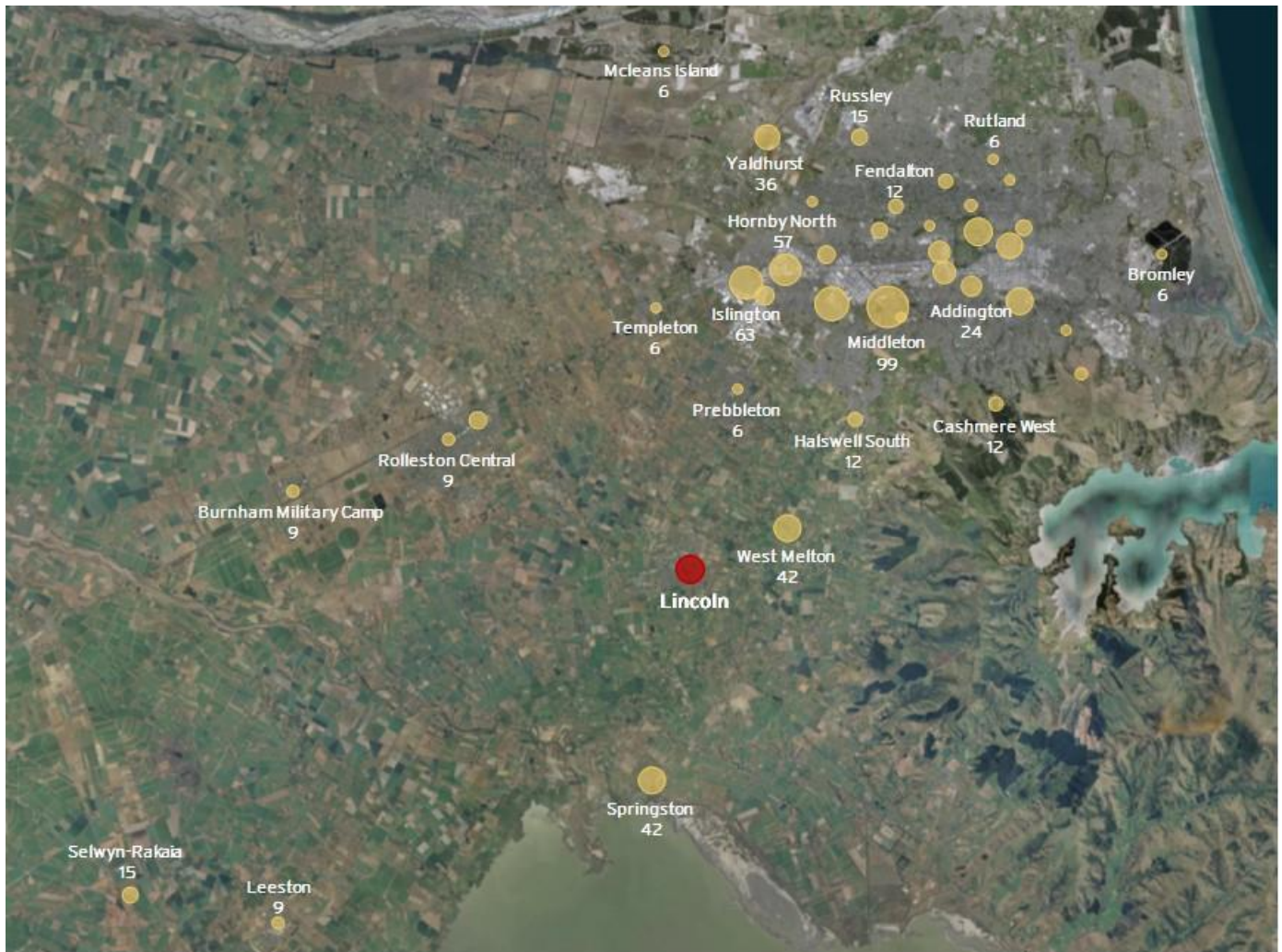
Source: CoreLogic, Urban Economics



14. Appendix 2: Travel Patterns and Commuting

The following figures show the commuting patterns of Lincoln residents. It is evident from the figure that the majority of Lincoln commuters are travelling east into Christchurch City and the surrounding suburbs.

Figure 14: Workplace of Lincoln Commuters



Source: Statistics NZ, Urban Economics

8 April 2019

To Mike Foster,

RE: Addendum to Economic Assessment of Proposed Lincoln Supermarket, Birchs Road, Lincoln.

This document provides an addendum to the initial report *"Economic Assessment of Proposed Supermarket, Lincoln Christchurch"* dated 20 February 2018. The initial report provided an economic assessment of a proposed 1,500m² Fresh Choice supermarket. This addendum evaluates the economic effects of a proposed increase in size of this supermarket to 3,063m².

A 3,063m² Countdown supermarket would, as a result of both its size and branding, tend to be used as a "full-shop" supermarket, whereas a 1,500m² Fresh Choice supermarket would tend to be used predominantly as a "top-up" supermarket.

The provision of two large "full-shop" supermarkets in Lincoln (i.e. the existing New World and the proposed 3,063m² Countdown) is likely to increase the amount of supermarket expenditure retained locally. This is because it is likely to retain a greater proportion of the "full-shop" supermarket expenditure locally.

The following figure shows the amount of supermarket expenditure retained in Lincoln when a range of retention rates are applied. Key points to note are:

- The initial report used a 50% retention rate. This is a conservative rate for a town with two "full shop" supermarkets. Under this scenario \$21.6m of supermarket expenditure is retained in Lincoln. This is forecast to increase to \$36.0m in 2027 and \$52.8m in 2037.
- A 55% retention rate of supermarket expenditure is considered to be a low/moderate retention rate for two supermarkets in a town the size of Lincoln. Under this scenario \$23.8m of supermarket expenditure is retained in Lincoln. This is forecast to increase to \$39.6m in 2027 and \$58.1m in 2037.
- It is considered reasonable to expect that the provision of two "full service" supermarkets may increase the retention rate to 60%. Under this scenario \$26.0m of supermarket expenditure is retained in Lincoln. This is forecast to increase to \$43.2m in 2027 and \$63.3m in 2037.

Table 1: Supermarket Expenditure Retained in Lincoln

Year	50% Retention	55% Retention	60% Retention	65% Retention
2017	\$21.6	\$23.8	\$26.0	\$28.1
2027	\$36.0	\$39.6	\$43.2	\$46.8
2037	\$52.8	\$58.1	\$63.3	\$68.6
2017-2027	\$14.4	\$15.8	\$17.3	\$18.7
2027-2037	\$16.8	\$18.5	\$20.1	\$21.8
2017-2037	\$31.2	\$34.3	\$37.4	\$40.5

Source: Urban Economics, Statistics NZ

The following figure shows supportable supermarket floorspace in Lincoln. The analysis applies a turnover per sqm of \$6,500/m² to the supermarket expenditure figures.

It was concluded in the initial report that there would be sufficient demand to support a second supermarket of the size of 1,500m² Fresh Choice by 2021. This analysis applied a 50% retention rate.

Applying the 50% retention rate to the larger Countdown indicates it would be supportable by 2028. However, it is considered likely that more supermarket expenditure will be retained in Lincoln as a result of the larger “full service” offer of the Countdown.

On the basis of a 60% retention rate it is concluded that there would be sufficient demand for an additional supermarket the size of the Countdown by 2024. This is three years longer than was concluded in the initial report for a 1,500m² Fresh Choice.

Table 2: Supportable Supermarket Floorspace

Year	50% Retention	55% Retention	60% Retention	65% Retention
2017	3,330sqm	3,660sqm	3,990sqm	4,330sqm
2027	5,540sqm	6,100sqm	6,650sqm	7,200sqm
2037	8,120sqm	8,930sqm	9,750sqm	10,560sqm
Year Countdown Supportable	2029	2026	2024	2023

Source: Urban Economics

As an additional note, the initial report did not consider supermarket spending from residents who live outside Lincoln for example students studying at Lincoln University. It is likely that these students would do a portion of their supermarket shopping in Lincoln. This would increase supermarket expenditure further and enable the proposed Countdown to be supportable more quickly.

The revised proposal has provision for a small preschool behind the café building. Preschools primarily service local market areas and have wider economic benefits when located in close proximity to residential areas. This location is considered to be suitable for a preschool given its proximity to Lincoln’s northern residential area.

The main conclusions from this addendum are as follows:

- The proposed 3,063m² Countdown will improve the local supermarket offer, leading to more supermarket expenditure being retained in Lincoln, from approximately 50% to 60%.
- There will be sufficient demand to support a supermarket the size of the proposed Countdown in Lincoln by 2024.
- The increase in the size of the proposed supermarket is unlikely to result in additional significant competitive impacts on the existing New World supermarket.

Based on the foregoing analysis, there is no change to my conclusion in the initial report that the

proposal will have significant economic benefits and no economic costs. The proposed expansion is therefore recommended for approval.

Adam Thompson

08.04.2019