## Ryans Road Industrial Development - Reply to CCC

To: Tim Carter, Carter Group Limited (CGL)

From: Greg Akehurst, Director, Market Economics Ltd

Date: 31/10/2025

#### 1. Introduction

ME prepared the *Economic Assessment* in support of the Ryans Road Industrial Development application (FTAA-2504-1054), lodged under the Fast-track Approvals Act 2024 ("the application") by CGL. The assessment addressed the economic rationale for the proposed industrial development, including analysis of industrial land demand, supply, and the potential economic effects associated with the project.

Carter Group Limited (CGL) have asked me to provide a response to Economic matters contained in written comments on the Ryans Road Industrial Development application from persons invited by the Panel to comment under section 53 of the Act. In particular, I address:

- a. Comments by Christchurch City Council (CCC) on the economic effects of the proposal;
- b. The Council's Growth Model Memorandum prepared by Aimee Martin (Appendix 2); and
- c. The independent peer review of the economic assessment undertaken by Formative Limited (Appendix 3).

#### 2. Context of the Economic Assessment

Following lodgement of the application, CCC provided comments in the form of independent expert reports. These reports were prepared to assist the Council in its consideration of the economic and planning implications of the proposal.

Two of the Council's technical inputs are of direct relevance to the ME assessment:

- Appendix 2 Council Growth Model Memorandum: Prepared by Aimee Martin, Senior
  Research Analyst, this memorandum outlines the structure, assumptions, and functioning of
  the Council's growth model. It clarifies how growth projections are generated and applied
  within the Council's policy and planning framework, and provides context for interpreting
  the demand projections referenced in ME's Economic Assessment.
- Appendix 3 Peer Review by Formative Limited: The Council engaged Formative Limited to
  undertake an independent peer review of the economic material accompanying the
  application, including ME's Economic Assessment and related valuation and real estate
  reports. The review assesses the adequacy, methodology, and conclusions of ME's analysis in
  relation to industrial land demand, supply sufficiency, and wider economic effects.



This memorandum responds to the matters raised in CCC's planning report and supporting technical reviews, focusing particularly on the interpretation and application of the Council's growth model and the economic peer review undertaken by Formative. The document is structured to provide a clear and comprehensive response.

Section 3 presents an overview of the Ryans Road proposal and the updated subdivision plan. Section 4 provides a detailed response to CCC's Growth Model (Appendix 2), addressing key terminology and labelling issues, revisiting the Business Development Capacity Assessment (BDCA) 2023 results, and comparing these with the Council's most recent demand projections. Section 5 responds directly to the Formative peer review (Appendix 3), examining matters related to the definition of the airport catchment, industrial land supply and sufficiency, the relevance of the National Policy Statement for Highly Productive Land (NPS-HPL), and the treatment of transfer effects such as displacement and additionality.

Finally, Section 6 presents an integrated Cost-Benefit Analysis (CBA) of the Ryans Road development. This section evaluates the construction and operational economic effects, transport outcomes and associated greenhouse gas emissions, infrastructure costs and funding sufficiency, and the implications of developing Highly Productive Land. The memorandum concludes with a summary of the overall net economic benefits, demonstrating that the benefits of the proposal substantially outweigh its costs.

#### 3. Ryans Road Proposal and Subdivision Plan Overview

The 104 Ryans Road site comprises approximately 55.5 ha of land located primarily at the corner of Ryans Road and Grays Road on the western fringe of Christchurch. The proposal also includes an adjoining area east of Grays Road to accommodate a stormwater basin and grassed area for stormwater management purposes.

The site is currently zoned Rural Urban Fringe Zone under the Christchurch District Plan and adjoins the Special Purpose Airport Zone (SPAZ) to the west, placing it immediately adjacent to the Christchurch International Airport operations area.

The proposed development will be delivered in two stages, providing a range of industrial lot sizes to support a mix of industrial and logistics activities. The final subdivision plan differs from the indicative layout submitted with the initial Fast-track application, providing greater detail and refinement of lot configuration and staging.

- Stage 1 will release 65 lots, covering 17.47 ha.
- Stage 2 will add 61 lots, covering 32.36 ha.
- Together, the two stages will deliver a total of 126 industrial lots (approximately 114 smaller lots under 3,000m² and 12 larger lots over 1 ha).

Table 1: Subdivision Plan Summary

Stage	Total Lots	Area (ha)	Small Lot Distribution (<3,000m²)	Large Lot Distribution (>1ha)
Stage 1	65 lots	17.47 ha	20 lots (1,000–1,499m²) 25 lots (1,500–1,999m²) 14 lots (2,000–2,999m²)	5 lots (1–1.49 ha) 1 lot (1.7 ha)
Stage 2	61 lots	32.36 ha	14 lots (1,000–1,499m²) 20 lots (1,500–1,999m²) 21 lots (2,000–2,999m²)	4 lots (3–3.63 ha) 2 lots (4–4.76 ha)
Total	126 lots	≈55.5 ha	114 lots <3,000m <sup>2</sup>	12 lots >1ha

Table 1 illustrates the breakdown of lot sizes and staging across the subdivision. The subdivision design reflects a balanced approach to industrial land provision, supporting a range of potential occupiers. The smaller lots (<3,000 m²) are suitable for light industrial, trade, and service-based activities, providing opportunities for smaller operators and businesses with lower land and building space requirements that are none the less, still focused on Christchurch Airport and logistics activities. In contrast, the larger lots (>1 ha) are designed to accommodate larger scale logistics, warehousing, and other space-extensive operations that benefit from proximity to Christchurch International Airport and freight corridors.

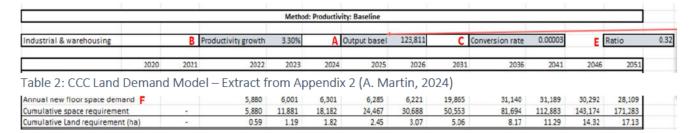
Although larger lots (over 1ha) constitute only 10% of the total number of lots, they account for almost 60% of the total land area (i.e. approximately 29.6 ha, compared with 20.2 ha for lots under 3,000 m<sup>2</sup>). This refined subdivision plan directly addresses strong regional demand for warehousing and logistics, while the inclusion of smaller lots provides the flexibility needed to serve the local market and respond to evolving demand patterns within the Airport environs.

### 4. Response to Appendix 2 – Council Growth Model Memorandum

#### Overview of the CCC's Growth Model and Terminology Issues

Appendix 2, prepared by Aimee Martin (Senior Research Analyst, CCC), provides a description of the structure, assumptions, and operation of the Council's growth model used to estimate industrial and commercial land demand. The memorandum explains that:

"The model first calculates the associated demand for space (D) based on the output baseline (A), productivity growth (B), and the conversion rate (C). The floor area ratio (E) is then built into the annual new floorspace demand (F). From here, there is a simple



conversion of the annual new floorspace demand to hectares. As such, there is no need to apply the ratio again in the conversion of new space demand from square metres to hectares."

Based on this description and the table provided (replicated above as Table 2), ME agrees that the mathematical process is internally consistent. The numbers in this revised version of the model, and the processes described do not match those presented in the BDCA 2023 report upon which developers and decision makers base their decisions. In addition, several issues with terminology and labelling within the model create potential for confusion or misinterpretation when reviewing the results.

- 1. Ambiguity in "Associated demand for space (D)"
  - o The term does not specify whether "space" refers to floor area (m²) or land area (m²).
  - o In the model structure described, (D) represents total floorspace demand, not land area. Clarifying this distinction is essential to avoid double applying the floor area ratio (FAR).
- 2. Misleading label for "Annual new floor space demand (F)"
  - The term "annual" is inaccurate, as the time series is only annual between 2020 and 2026, then moves to five-year increments thereafter.
  - o Moreover, because the FAR(E) is applied at this stage, the output (F) represents additional land area demand (m²), not floorspace.

#### BDCA 2023 Results Revisited

It stated above, Aimee Martin's memorandum did not examine the actual BDCA tables. Even with the clarification of the methodology provided in Appendix 2, ME considers that the published BDCA results remain incorrect and are inconsistent with the method as described.

Table 3: Projected industrial demand for Christchurch City – original Table 9 from 2023 BDCA

Period	2021	2024	2031	2051
Employment	21,446	24,990	24,543	23,363
Associated demand for space	96,883	105,694	126,126	229,837
Annual new floor space demand		8,811	20,432	103,711
Cumulative space requirement		105,694.4	126,126.1	229,837.5
Cumulative total land requirement (ha)		10.57	12.61	22.98
Cumulative total land requirement with competitiveness margin		12.68	15.14	26.43

The relevant BDCA table for projected industrial demand in Christchurch is reproduced in Table 3, which also has the same terminology issues identified above. More importantly, the "annual new floor space demand" of 8,811 m² for 2024 is simply the difference in associated demand for space between 2021 (96,883 m²) and 2024 (105,694 m²), without applying the FAR of 0.32.

After applying the FAR of 0.32, the resulting additional land area demand (excluding any competitiveness margin) should equate to:

- 27,534 m<sup>2</sup> (2.75 ha) in 2024 (short term),
- 63,850 m<sup>2</sup> (9.14 ha) in 2031 (medium term), and
- 324,097 m<sup>2</sup> (41.55 ha) in 2051 (long term).

Table 4: Projected demand for warehousing and logistics in Christchurch City – original Table 10 from 2023 BDCA

Period	2020	2024	2031	2051
Employment	24,814	26,170	28,445	34,909
Additional Floor Space Demand		47,351	123,773	635,459
Cumulative space requirement		47,351	171,124	806,584
Cumulative Land requirement (ha)		4.74	17.11	80.66
Cumulative total land requirement with competitiveness margin		5.68	20.53	92.76

In terms of BDCA results for projected demand for warehousing and logistics in Christchurch City (as shown in Table 4), it is more difficult to verify whether the FAR has been correctly applied, as the *Associated demand for space* input has not been provided as part of the table.

Based on the above findings, ME considers that Aimee Martin's criticisms of ME's approach are unfounded. The points raised largely reflect terminology and labelling inconsistencies within the BDCA results itself, rather than any misinterpretation by ME. Specifically, the memorandum suggests that ME may have double-applied or misunderstood the FAR in translating floorspace to land area demand. However, ME's calculations explicitly followed the same logic described in the growth model, that the FAR is applied once, at the stage of converting floorspace demand into land area demand. The apparent discrepancies identified in the published BDCA results (e.g., between "associated demand for space" and "annual new floorspace demand") arise from errors or ambiguities in how those datasets were labelled and presented, not from ME's interpretation of them.

#### Updated CCC Projections and Comparison

At the time ME prepared the supporting Economic Assessment for the Ryans Road Fast-track application, the BDCA 2023 represented the most up-to-date information available. However, the issues identified above, particularly around terminology, time-step inconsistencies, and the application of the floor area ratio, raise questions about the reliability and accuracy of the published BDCA data as a basis for industrial land demand analysis. These inconsistencies create uncertainty as to whether the published results accurately reflect the methodology described in Appendix 2 or the true underlying demand for industrial and logistics land.

As noted by Formative in their peer review, CCC has since produced updated demand projections for warehousing and logistics land. These new projections estimate total demand of 49-81 ha over the next 10 years, or 58-97 ha when the National Policy Statement on Urban Development (NPS-UD)

competitiveness margin is included. The most recent CCC projections further estimate total demand for industrial, warehousing, and logistics land combined at 71-122 ha over the next 10 years, or 85-147 ha including the competitiveness margin.

By comparison, the earlier BDCA 2023 projections indicated much lower levels of growth:

- Warehousing and logistics demand: approximately 5.68 ha (short term), 20.53 ha (medium term), and 92.76 ha (long term); and
- Industrial demand: approximately 12.68 ha (short term), 15.14 ha (medium term), and 26.43 ha (long term).

These figures show that the new CCC projections are significantly higher than those in BDCA 2023, particularly in the short- to medium-term period. ME will adopt these updated CCC projections as the basis for the quantitative analysis presented in the remainder of this memorandum, as they represent the most current and internally consistent demand estimates available.

## 5. Response to Appendix 3 - Formative Peer Review

ME acknowledges that both CCC and Formative are broadly supportive of the Ryans Road site's suitability for industrial and logistics activity. Both reviews recognise the site's strategic location adjacent to Christchurch International Airport, with direct access to freight corridors and proximity to existing infrastructure and services, making it well positioned to accommodate industrial growth and airport-related logistics operations.

Formative's peer review explicitly notes that the site is well placed for industrial activity, including warehousing and logistics uses associated with the Airport, and that its development would contribute to meeting Christchurch's future industrial land needs. The Council's planning report similarly acknowledges that the proposal will add to the supply of serviced industrial land in a location consistent with the city's wider growth strategy.

Both CCC and Formative further agree that the proposal will generate positive economic benefits for Christchurch and the Canterbury region. These include increased employment opportunities during both the construction and operational phases, greater competition and choice in the industrial land market, and enhanced efficiency of freight and logistics operations linked to the Airport.

However, while both reviewers were broadly supportive, several aspects were identified requiring further clarification. The remainder of this section focuses on a number of key areas highlighted by Formative.

#### Airport Catchment

The local market catchment defined by ME is based on Statistics NZ's Statistical Area 2 (SA2) boundaries. Formative has suggested that ME adopted a narrow catchment definition, focused on SA2s near the Airport, thereby excluding major nearby industrial areas such as Islington and Hornby.

Formative also noted that logistics demand is likely to be distributed across the wider Christchurch area, not confined to the Airport environs.

It is important to clarify that the catchment defined in ME's analysis refers to the Airport land supply catchment, not a demand catchment. In other words, it delineates the geographic area surrounding the Airport that is most suitable for accommodating warehousing and logistics activities, given its locational advantages, infrastructure connectivity, and land-use context. This approach is consistent with spatial economic assessment practice, which distinguishes between the spatial distribution of demand (where businesses originate) and the spatial concentration of supply (where those businesses are most efficiently located).

Industrial, warehousing, and logistics demand will arise from across the wider Christchurch area and beyond, reflecting the regional and national significance of the Airport and its role within the broader South Island freight network. The Airport precinct represents a strategic node within this wider system, attracting activities that rely on airfreight services, just-in-time distribution, or integrated logistics operations. From an industrial land sufficiency perspective, the Airport environs form a distinct and functionally important submarket within Christchurch's overall industrial land supply.

### Industrial Land Supply around Airport

Quoting from the BDCA 2023, ME says that within the SPAZ there are approximately 112 ha of industrial land, of which 96 ha are partly vacant<sup>1</sup> and 16 ha are wholly vacant. It is also noted that the majority of these sites are owned by Christchurch International Airport Limited (CIAL) and are of leasehold tenure. ME also acknowledged the Colliers "Harewood Christchurch Industrial Land Market" report (Valuers Assessment), which provides a slightly different estimate of vacant land within the SPAZ due to methodological differences. The Valuers Assessment identifies 90.2 ha of vacant land, most of which is CIAL-owned and leasehold, with only 8 ha being non-CIAL (freehold) land. Unlike the BDCA, the Colliers assessment does not distinguish between partly and wholly vacant sites, which affects the comparability of results.

In Formative's review, ME's choice of vacant land capacity was questioned, noting that:

"the Economic Assessment acknowledges the Valuers Assessment research on vacant land but then adopts the older data from the CCC vacant register. The Colliers research suggests that there is 90.2 ha of vacant land at the Airport, which is more than 19 ha<sup>2</sup> of wholly vacant land in the CCC vacant register."

<sup>&</sup>lt;sup>1</sup> It is often the case that a site may appear partly vacant where there is no building on part of the parcel; however, the open space may be integral to the operation of the existing business and therefore not truly available for development.

<sup>&</sup>lt;sup>2</sup> The reference to 19 ha appears to be a typographical error, the correct figure is 16 ha.

The claim that ME adopted the CCC vacant register's older and lower vacant land value is not valid. ME considers that both datasets (i.e. the CCC vacant register and the Colliers Valuers Assessment) provide valuable insights and should be considered together to gain a comprehensive understanding of industrial land supply and demand trends. However, simply combining partly and wholly vacant parcels in capacity assessments tends to overestimate the true developable capacity of industrial land. Similarly, ignoring the leasehold tenure of CIAL-owned land will overstate its effective market potential, as such sites do not represent a realistic substitute for the Ryans Road development, which provides freehold, developable land suitable for businesses requiring ownership certainty and operational flexibility. When applying these stricter criteria, only around 8 ha of land within the SPAZ are both vacant and freehold.

2 3 **Harewood North Harewood East** Address Area ha Zone Tenure Address Area ha Zone **Tenure** Johns Road 5.0000 Freehold Wairakei Road 656 4.9675 Sawyers Arms Road - Front 0.6000 IH 750 Wairakei Road 3.0390 IP Freehold Sawyers Arms Road - Rear 1.2080 IH 570 Russly Road 0.8292 IP Freehold Greywacke Road 0.5754 IH Freehold 48 63 Stanleys Road 2.8960 IP Freehold 7.3834 Total Freehold 69 Stanleys Road 2.2205 IP 75 Stanleys Road IP Freehold 1.7500 79 Stanleys Road 2.4550 IP Freehold 95 Stanleys Road 2.4280 Freehold Zone Summary Russlely Road 560 4.5939 IP Freehold 96 Zone Area ha 580 Russley Road 3.4690 IP Freehold Industrial Heavy 7.3834 13.8% 2 Sir Angus Tait Drive 0.4992 IP Freehold Industrial General 1.9585 0.6102 Sir Angus Tait Drive IP Freehold Industrial Park 44.0111 82.5% IG Freehold Stanleys Road 1.9585 6 Total 53.3530 100.0% 32 Stanleys Road 2.2511 IP Freehold Stanleys Road 2.0234 Freehold 66 Stanleys Poad 4.3299 IP Freehold 253 Wooldridge Road 1.6633 IP Freehold 257 Wooldridge Road 2.2587 IP Freehold Wooldridge Road Freehold 279 1.7272 Total 45.9696

Figure 1: Harewood Vacant Industrial land breakdown by Zone and Tenure

As part of Formative's peer review, a vacant industrial land supply of 143.6 ha was identified. This figure is drawn from the Valuers Assessment, combining 90.2 ha within the SPAZ (as discussed above) and 53.4 ha within the Harewood Industrial Market. The breakdown of the 53.4 ha is presented in Figure 1, which includes three tables providing a hierarchical overview of vacant industrial land in the Harewood market area of Christchurch, moving from a summary view (Table 1) to detailed property-level listings (Tables 2 and 3).

Table 1 (Zone Summary) in the figure above, presents the high-level summary, showing the total vacant land area of 53.35 ha broken down by zoning type. Of this, 82.5% of the vacant land is zoned Industrial Park (IP). The Industrial Park Zone is intended for high-technology and similar industries that prefer a high-amenity environment, typically characterised by extensive landscaping and open space. Activities within this zone often generate higher traffic volumes than other industrial uses but are expected to have minimal effects in terms of noise, odour, or the use and storage of hazardous substances. However, due to the lack of wastewater servicing capacity, the IP-zoned land in Harewood is not suitable for general industrial, warehousing, or airport-related logistics activities.

Tables 2 (Harewood North) and 3 (Harewood East) provide the detailed parcel-level data underpinning the summary in Table 1. The Industrial Heavy zoned land (7.38 ha in total) identified in the summary comes entirely from the four properties listed in the Harewood North table, of which only approximately 0.58 ha are freehold, with the remainder being leasehold. The Industrial General zoned land (1.96 ha in total) is derived from one property in Harewood East, and this land is freehold. Therefore, within the Harewood Industrial Market, only around 2.54 ha (0.58 ha + 1.96 ha) of land is both vacant and freehold, and thus realistically suitable for general industrial, warehousing, or logistics activities.

When this is combined with the 8 ha of vacant and freehold land within the SPAZ, the total amount of available, developable, freehold industrial land in the Airport environs equates to approximately 10.54 ha, i.e. around 7% of the total 143.6 ha of "vacant" land identified by Formative. This demonstrates that while the headline supply figure appears large, the quantum of land actually available to the market for industrial and logistics development is extremely limited, reinforcing the need for additional freehold capacity such as that provided by the Ryans Road development.

#### Industrial Land Sufficiency

Formative's review compares the available industrial land supply within the Airport environs with the most recent CCC projections for warehousing and logistics land demand across the entire Christchurch area over the next ten years. Their analysis identified that, under the upper demand estimate (including the 20% NPS-UD competitiveness margin), up to 68% of the vacant land in the Airport environs (i.e., excluding the Ryans Road development) would need to be developed to meet demand. On this basis, Formative concluded that there is no insufficiency at the localised level, as the available industrial land around the Airport is considered sufficient to cater for city-wide warehousing and logistics demand.

As noted in Section 3.3, ME agrees with and has adopted the latest CCC demand projections as the appropriate basis for analysis. However, as discussed in the previous section, the available supply of suitable industrial land within the Airport environs has been significantly overestimated, primarily due to the omission of leasehold tenure considerations and zoning constraints. Formative's assessment includes all industrial-related zonings and does not distinguish between freehold and leasehold tenure or between wholly and partly vacant parcels.

While this approach may provide a broad overview of general industrial land trends across Christchurch, it is less meaningful for assessing supply constraints within specialised submarkets such as the Airport environs, where land tenure and functional suitability play a critical role in determining actual market availability. When these practical constraints are applied, only 10.54 ha of freehold, vacant, and appropriately zoned industrial land within the Airport environs are realistically available for development. This reflects land that is both developable and accessible to the open market, excluding leasehold and partially occupied sites that cannot be readily redeveloped.

Using CCC's latest demand projections, this adjusted supply position reveals a significant shortfall in industrial land capacity in the Airport submarket, as shown in Table 5 and

#### Table 6 below.

Table 5: Warehousing and Logistics Land Sufficiency - Short-Medium Term (10 Years)

Scenario	Demand (ha)	With NPS-UD 20% Margin (ha)	Available Supply - Airport Environs (ha)	Sufficiency (ha)
Higher intensity	48.7	58.4	10.54	-47.9
Baseline-standard density	81.1	97.3	10.54	-86.8

Table 6: Total Industrial, Warehousing and Logistics Land Sufficiency - Short -Medium Term (10 Years)

Scenario	Demand (ha)	With NPS-UD 20% Margin (ha)	Available Supply - Airport Environs (ha)	Sufficiency (ha)
Higher intensity	71.5	85.8	10.54	-75.3
Baseline-standard density	122.3	146.8	10.54	-136.2

These results demonstrate that when effective supply (i.e. freehold and developable land) is considered, the Airport environs face a clear insufficiency of industrial land in both the baseline and higher-intensity scenarios. The degree of shortfall, ranging from approximately 48 to 136 ha depending on the scenario, illustrates that the nominal "vacant" land identified by Formative is not reflective of land that can actually be delivered to the market.

When the Ryans Road development is incorporated into the analysis, adding approximately 29.6 ha of land for warehousing and logistics and 20.2 ha for smaller industrial activities, the overall industrial land sufficiency position within the Airport environs improves substantially. However, even with this additional capacity, the total available supply remains below the projected short- to medium-term demand for Christchurch as a whole. As shown in Table 7 and Table 8 below, while the Ryans Road development helps narrow the gap between supply and demand, significant shortfalls remain, particularly under the baseline growth scenario.

Table 7: Warehousing and Logistics Land Sufficiency - Short-Medium Term (10 Years) - Including Ryans Road Development

Scenario	Demand	With NPS-UD 20% Margin	Available Supply	Sufficiency
	(ha)	(ha)	(ha)	(ha)
Higher-intensity use of land	48.7	58.4	40.1	-18.3
Baseline	81.1	97.3	40.1	-57.2

Table 8: Total Industrial, Warehousing and Logistics Land Sufficiency - Short-Medium Term (10 Years) - Including Ryans Road Development

Scenario	Demand (ha)	With NPS-UD 20% Margin (ha)	Available Supply (ha)	Sufficiency (ha)
Higher-intensity use of land	71.5	85.8	60.34	-25.5
Baseline	122.3	146.76	60.34	-86.4



Nonetheless, even if one accepts that the generalised approach adopted by Formative is sufficient for the purposes of NPS-UD monitoring, it is important to note, as acknowledged by both CCC and Formative, that the sufficiency requirements under Clause 3.3 of the NPS-UD represent a minimum threshold, not an upper limit. In other words, the NPS-UD requires councils to ensure there is at least enough development capacity to meet projected demand for housing and business land, but it also recognises that additional capacity may be appropriate where it contributes to a well-functioning urban environment.

Accordingly, there is no doubt that the Ryans Road development plays a valuable and complementary role by enhancing the flexibility, responsiveness, and resilience of the industrial and logistics land market in Christchurch. The proposal introduces additional capacity within a strategically significant submarket (i.e. the Airport environs), where freehold, serviced, and appropriately zoned land is in critically short supply. By providing a diverse mix of lot sizes and uses, the development will accommodate both large-format logistics operators and smaller industrial or service-based businesses, improving market efficiency, competitiveness, and choice.

Even if the existing industrial land supply were deemed nominally "sufficient" under the minimum NPS-UD test, the provision of additional, high-quality industrial capacity at Ryans Road represents a positive and enabling outcome. It advances the objectives of the NPS-UD by contributing to a well-functioning urban environment, supporting economic productivity, and ensuring Christchurch can respond proactively to future growth and structural changes in the industrial and logistics sectors.

## Implication of National Policy Statement for Highly Productive Land

As part of its review, Formative considers that NPS-HPL is relevant to the Ryans Road Fast-track proposal, as the site contains Class 1 and Class 2 soils that qualify as Highly Productive Land under the NPS-HPL framework. Formative criticises that ME provides only a high-level commentary on HPL and does not include a full assessment under Clause 3.6, which sets out the specific tests for urban rezoning or development on HPL.

Formative argues that such an assessment is necessary to properly determine the significance of the loss of HPL and to inform a balanced evaluation under section 85(3)(b) of the FTAA, which requires consideration of whether the project's adverse effects are out of proportion to its regional or national benefits.

However, CCC has confirmed that Clause 3.6 of the NPS-HPL is not directly relevant to this application, relying on the legal advice of Cedric Carranceja of Buddle Findlay. ME agrees with this position, noting that the NPS-HPL does not strictly apply under the Fast-track Approvals Act pathway. Nevertheless, ME acknowledges that, even if the "avoid" provisions of the NPS-HPL were to be considered, any inconsistency with those provisions would be treated as an adverse effect rather than a matter of non-

compliance, to be weighed alongside the project's broader economic and planning benefits under section 85(3)(b) of the FTAA.

#### Transfer effects - Displacement and Additionality

Formative observes that the Economic Assessment assumes all GDP and employment effects from both the construction and operational phases are net additional to the region, whereas in reality some proportion of this activity might otherwise have occurred elsewhere within Christchurch or Canterbury. ME acknowledges this as a valid consideration in economic impact analysis, as substitution or displacement effects can, in some cases, reduce the overall net gains from development, particularly when measured at a regional or national scale. However, in the context of the Ryans Road proposal, ME considers that the assumption of predominantly net additional effects remains reasonable and appropriate.

While some labour and resources will be drawn from within the existing Christchurch market, this does not imply a direct substitution of other activity. The construction sector in Canterbury has demonstrated sufficient flexibility and cyclical variation to accommodate multiple large-scale developments concurrently. Evidence from recent years suggests that the sector often operates below full capacity, with intermittent underutilisation of skilled labour and subcontractors between major projects. The Ryans Road development will therefore serve to stabilise workloads, support employment continuity, and enhance productivity within the sector. These effects are best understood as largely net additive, rather than displacing other construction activity.

In the operational phase, ME recognises that a portion of the businesses locating at Ryans Road may represent relocations from other sites within Christchurch. However, several factors indicate that the majority of the resulting economic activity will be genuinely additional to the regional economy. First, there is a well-documented shortage of freehold, serviced, and appropriately zoned industrial land within the Airport environs. Without the Ryans Road development, some logistics and warehousing operations would likely be constrained or locate outside Christchurch altogether, leading to economic leakage from the region. Second, growth in freight, logistics, and related sectors reflects structural shifts in the regional economy driven by e-commerce, air freight expansion, and supply-chain modernisation, representing new demand rather than simple relocation. Third, even where relocation occurs, firms moving into modern, purpose-built facilities typically achieve higher productivity and operational efficiency. Such productivity gains is legitimate sources of net economic benefit, even if overall employment numbers remain constant.

Overall, while some limited transfer effects may occur within Christchurch, ME considers that the quantified GDP and employment impacts can reasonably be interpreted as predominantly net additional at the regional level, and fully additional within the Airport-environs submarket. The project both unlocks new industrial capacity and enhances the efficiency of existing operations, contributing materially to regional economic growth and resilience.

#### 6. Cost-Benefit Analysis

As part of the peer review process, both Formative and CCC raised comments regarding the approach used to evaluate the economic costs and benefits of the Ryans Road proposal. Formative acknowledges that the development would likely generate significant economic benefits at the regional level, but recommends that a formal CBA, following the standard framework applied by the New Zealand Treasury for major public investments and policy assessments, should have been undertaken to verify that the quantified benefits outweigh the associated costs. Formative notes that applying a CBA framework would enable clearer quantification and comparison of the project's economic, social, and environmental effects, and would provide a more robust evidential basis for determining whether the adverse impacts of the proposal are out of proportion to its benefits, as required under section 85(3)(b) of the FTAA.

Similarly, CCC accepts that the Ryans Road proposal is likely to have positive economic effects, particularly in contributing to the supply of industrial land within Christchurch and the wider Canterbury region. However, CCC notes that the net economic benefits remain uncertain in the absence of a formal CBA. The Council's position is that a comprehensive cost-benefit assessment would be required where significant adverse impacts are identified, to assist the panel's consideration under section 85(3)(b) of the FTAA. Given that the loss of HPL is recognised as an adverse impact under the FTAA framework, rather than as a matter of non-compliance with the NPS-HPL, this effectively confirms that a CBA is warranted in this case, to ensure that the relative magnitude of costs and benefits is appropriately weighed.

ME acknowledges both Formative's and CCC's suggestions for adopting a Treasury-style CBA framework and agrees that such an approach can be helpful in demonstrating the proportionality of costs and benefits within the FTAA context. In the remainder of this section, ME presents a CBA assessment building on the existing Economic Assessment, incorporating refinements to the underlying land-use mix, applying the Treasury's CBAx framework, and extending the analysis to include wider economic, infrastructure, and transport-related effects.

#### **Construction Effects**

Following updates to the subdivision design and associated land-use mix, the construction and operational effects of the Ryans Road development have been reassessed to reflect the refined layout and typologies. After excluding land within the airport designation, roading, and related infrastructure areas, and assuming an average site coverage of 40%, the total gross floor area (GFA) yield of the developable area is estimated at approximately 168,780 m<sup>2</sup>.

The initial land preparation and enabling works are estimated to cost approximately \$60 million, which includes site works, earthworks, and servicing. Beyond this initial phase, the overall construction investment reflects the building typologies and lot configuration set out in the updated subdivision plan. The assumed building typology mix has been revised to better align with the distribution of smaller and larger lots across the two development stages.



Table 9: Updated Building Typology and GFA Distribution

Typology	Share of Total GFA	SQM GFA
Warehouse, under 20m clear span.		
Colorsteel® cladding	6%	10,127
Warehouse, under 20m clear span.		
1200mm high precast or block walls,		
Colorsteel® cladding above	8%	13,502
Warehouse, over 20m clear span.		
1200mm high precast or block walls,		
Colorsteel® cladding above	7%	11,815
Factory or Warehouse with		
administration office of up to 2		
storeys attached. 30% admin, 70%		
high stud warehouse	25%	42,195
Cold Store. Internal height—10m	14%	23,629
Light Industrial Workshop	20%	33,756
Heavy Industrial Workshop	20%	33,756
Total	100%	168,780

Applying indicative average build cost estimates per square metre for each typology<sup>3</sup> produces a total construction sector injection of approximately \$289 million over the construction period.

<sup>&</sup>lt;sup>3</sup> Extracted from QV CostBuilder database, March 2025. Cost estimates represent typical mid-range construction rates (excluding land, professional fees, and financing) for industrial and warehousing developments in Canterbury.



Table 10: Estimated Construction Costs by Building Typology

Typology	Cost per sqm GFA		Total Cost
Warehouse, under 20m clear span.			
Colorsteel® cladding	\$	1,350	\$ 13,671,200
Warehouse, under 20m clear span.			
1200mm high precast or block walls,			
Colorsteel® cladding above	\$	1,425	\$ 19,241,000
Warehouse, over 20m clear span. 1200mm			
high precast or block walls, Colorsteel®			
cladding above	\$	1,250	\$ 14,768,300
Factory or Warehouse with administration			
office of up to 2 storeys attached. 30%			
admin, 70% high stud warehouse	\$	1,950	\$ 82,280,400
Cold Store. Internal height—10m	\$	1,750	\$ 41,351,200
Light Industrial Workshop	\$	1,650	\$ 55,697,500
Heavy Industrial Workshop	\$	1,825	\$ 61,604,800
Total			\$ 288,614,400

Table 11: Construction of 104 Ryans Road Development Direct and Total Effects on Christchurch Economy,  $(\$m \text{ and } MEC^4)$ 

	١	Non Res		Civil		Construc.	Total	
		Build	C	Construc.	Services		iotai	
Direct Effects								
Employment		240		147		309	695	
Gross Output	\$	173.2	\$	88.7	\$	86.6	\$ 348.4	
Value Added	\$	26.5	\$	29.7	\$	34.7	\$ 90.9	
Total Effects								
Employment		1,078		463		529	2,070	
Gross Output	\$	423.0	\$	190.7	\$	153.4	\$ 767.1	
Value Added	\$	128.7	\$	71.4	\$	63.2	\$ 263.3	

The construction phase of the Ryans Road development generates a wide range of economic effects across multiple sectors of the economy. The initial ("direct") impact occurs as construction firms employ staff, purchase materials, and engage contractors to undertake site preparation and building works. These activities stimulate further ("indirect") impacts across the supply chain, as the industries that provide goods and services to the construction sector—such as manufacturing, transport, and professional services—expand their own output to meet increased demand.

 $<sup>^4</sup>$  Modified Employee Count – It takes Stats NZ Employee Count and adds working proprietors who are not employees. It produces a more accurate measure of physical employment.

Beyond this, additional ("induced") impacts arise when employees and business owners who receive income from the project spend part of their earnings within the wider economy on goods and services such as retail, hospitality, and housing.

Together, these direct, indirect, and induced effects represent the total economic impact of the development's construction phase. These interlinkages are captured using backward linkage multipliers, which quantify how initial spending in one sector flows through to other sectors in the economy. The resulting effects are expressed in terms of employment (FTE jobs), gross output (total spending), and value added (contribution to GDP), as shown in Table 11.

In summary, the development of 104 Ryans Road is expected to generate a substantial economic stimulus during its construction phase. Excluding land purchase costs, the project represents a total construction-related output of approximately \$348 million, comprising non-residential building works, civil construction, and construction services. This level of activity is estimated to directly sustain around 695 full-time equivalent (FTE) jobs across the construction sector during the build period. The direct value-added contribution to the Christchurch economy is estimated at \$90.9 million in GDP, reflecting wages, profits, and other returns generated through on-site construction and immediate supply-chain activity.

When the broader economy-wide (indirect and induced) effects are taken into account, the total impacts increase significantly. Once backward linkages are fully captured, the development is expected to support approximately 2,070 FTEs for one year, generating around \$767 million in total output and contributing \$263 million to Canterbury's GDP, with the majority of benefits accruing within Christchurch City.

Although the construction activity represents a one-off investment spread over multiple years, it constitutes a meaningful addition to Christchurch's construction and supporting service sectors. The industry relies on a steady pipeline of developments such as Ryans Road to maintain capacity, employment, and business continuity. While no single project sustains the sector indefinitely, collectively these investments underpin a resilient, well-functioning construction economy that supports regional employment and productivity.

Overall, the Ryans Road development provides a significant and positive short- to medium-term boost to both the Christchurch and Canterbury regional economies, reinforcing construction sector performance and contributing materially to regional GDP growth.

## 6.1 Operational Effects

Given the nature of the site and the types of buildings expected to be developed as modelled in the preceding construction impact assessment, it is reasonable to assume a diverse mix of activities will establish within the Ryans Road industrial precinct once fully operational. The analysis adopts an indicative activity mix comprising 15% wholesaling, 45% transport, storage, and logistics, and 40%

general industrial activities. This mix reflects both the site's location within the Airport environs and its design balance between smaller and larger lots.

Direct employment estimates are based on average employment density assumptions of approximately 250 m² per worker for smaller lots (under 1 ha) and 500 m² per worker for larger lots (over 1 ha). Under these parameters, the development is expected to accommodate approximately 1,249 on-site employees when fully developed and operational (see Table 12). The breakdown by activity shows 562 employees in transport and storage (logistics operations), 187 in wholesaling, and 499 in industrial activities. Applying Christchurch-specific productivity and output factors, these onsite businesses are estimated to generate annual gross output of \$390 million, contributing around \$165 million directly to Christchurch's GDP through wages, profits, and other returns to capital.

Table 12: Economic Effects on Christchurch of Operational Phase – 104 Ryan Road development (\$m and MEC)

Economic Effects	Who	lesale	Transport and Storage		· ·		Industrial		Total
Direct Effects									
Employment		187		562		499	1,249		
Gross Output	\$	45.3	\$	172.1	\$	172.8	\$ 390.3		
Value Added	\$	22.4	\$	84.0	\$	58.6	\$ 164.9		
Total Effects									
Employment		317		1,081		1,878	3,276		
Gross Output	\$	86.9	\$	334.2	\$	349.0	\$ 770.1		
Value Added	\$	38.8	\$	151.8	\$	130.0	\$ 320.7		

When multiplier effects are taken into account, the total economy-wide impacts increase substantially. Once indirect and induced effects are incorporated, the Ryans Road development is expected to support approximately 3,276 FTE jobs across Christchurch and the Canterbury region, generating \$770 million in total output and contributing approximately \$321 million to regional GDP on an ongoing annual basis.

To illustrate scale, the annual turnover of the fully developed site (\$390 million) will exceed the total cost of development (\$348 million) within roughly two years of full operation. While construction effects are significant in the short term, the long-term benefits of the Ryans Road development stem from its ongoing role in facilitating airport-focused and logistics-intensive businesses, supporting regional productivity, and enabling supply-chain efficiencies.

Furthermore, given the previously discussed shortfall in available land for warehousing and logistics activities in and around the Airport, the estimated turnover of the Ryans Road site provides a measure of the potential economic opportunity cost of not providing this development to meet demonstrated demand.

Once the effects of all supplier industries and employee spending are considered across the economy, the Ryans Road development helps sustain the equivalent of over 3,200 full-time jobs every year,

reinforcing its significance as a long-term contributor to Christchurch's industrial base and wider regional economy. In addition, this level of direct, indirect, and induced activity contributes almost \$321 million to Christchurch City's GDP each year, representing a significant development generating substantial economic benefits for both the Christchurch and Canterbury economies.

### 6.2 Transport Outcomes and Greenhouse Gas Emissions

The Ryans Road development will have implications for local transport outcomes, with corresponding impacts on greenhouse gas (GHG) emissions. CGL commissioned Lumen Limited to undertake a high-level assessment of GHG emissions for the proposed Ryans Road industrial development (Appendix 25). Within the cost-benefit assessment framework, transport outcomes and emissions are relevant to determining whether potential environmental effects are outweighed by the broader economic and social benefits.

From an emissions perspective, Lumen identified several key considerations and observations relevant to the proposal.

Firstly, industrial and logistics activities inherently generate greenhouse gas emissions from construction, operation, and associated transport movements. The Ryans Road site's strategic location, immediately adjacent to Christchurch International Airport and in close proximity (approximately 2km) to the Dakota Park logistics hub and key arterial routes, means that businesses operating here are likely to experience shorter average travel distances for freight movements. This proximity facilitates strong co-location benefits by minimising the distance for goods movement between warehousing, freight forwarding, and airfreight operations.

A key feature of the development will be its concentration of freight and logistics activity, with the assessment anticipating 792 heavy vehicle movements per day. However, when considered in context, the emissions from this activity are likely to be lower than those from an equivalent level of industrial and logistics activity dispersed across less well-connected sites elsewhere in Christchurch. These locational efficiencies could contribute directly to lower fuel consumption and reduced freight-related emissions, while also supporting indirect benefits such as shorter travel times and lower logistics costs.

Secondly, by utilising the existing road corridors along Ryans and Grays Roads, the development minimises the need for new roading construction, thereby reducing embodied emissions typically associated with large-scale infrastructure works. The site's flat topography and favourable ground conditions further limit the extent of earthworks and the concrete required for foundations, resulting in a comparatively lower embodied carbon footprint than many alternative industrial locations.

Thirdly, emissions will also arise from travel associated with employee commuting. The report notes that the majority of employees are expected to commute by private vehicle in the short to medium term, as current public transport connections are absent and cycling is discouraged by the State Highway 1 barrier, with no dedicated cycle lanes provided. While the site is 3–3.5 km from suburbs like Russley and Avonhead, the report identifies this vehicle dependency as a key source of emissions,

offset by the future potential of EV uptake. The potential for a future public transport extension is noted as an opportunity. Customer travel is anticipated to be minimal, as most businesses will be industrial or logistics-oriented with limited client visitation. Consequently, emissions from customer trips are expected to be negligible.

Lumen recommends integrating low-carbon transport initiatives, including EV charging infrastructure, advocating for future public transport, and encouraging energy efficiency, to mitigate operational emissions and enhance the development's long-term sustainability.

In terms of overall findings, Lumen's assessment concludes the proposed development will support a reduction in greenhouse gas emissions and does not result in significant adverse effects in this context. The report argues the site's transport efficiency and lower emissions profile contribute to both direct environmental benefits (through avoided GHG emissions) and indirect economic benefits (through reduced logistics and infrastructure costs).

### 6.3 Infrastructure Costs and Funding Sufficiency

A key consideration in the economic assessment is whether the infrastructure costs associated with the Ryans Road development will be fully funded through developer contributions, or whether there is potential for a cross-subsidy from the wider Christchurch community.

The main infrastructure required to service the site includes local roading (internal roads and upgrades to Ryans and Grays Roads) and three waters services (i.e. water supply, wastewater, and stormwater management). The Infrastructure Report prepared by Capture Land Development (Appendix 14) confirms that all essential services can be provided either within or immediately adjacent to the site, with all works to be constructed in accordance with CCC's Construction Standard Specifications (CSS).

In particular, the existing Ryans Road and Grays Road intersection will be upgraded and widened to accommodate large vehicle movements associated with industrial and logistics activities. This work will include the vesting of a small portion of land (approximately  $18\,\mathrm{m}^2$ ) as road to support the widened carriageway and turning movements. Internal roading and utility networks will be vested to Council upon completion, ensuring long-term integration with the city's infrastructure network.

Stormwater from the proposed road reserve and upgraded road surfaces will be managed through new conveyance and treatment systems designed to meet CCC standards. Lots will be required to install private on-site stormwater management systems to control runoff and maintain overall hydraulic neutrality. For wastewater, the development will be serviced via a new low-pressure sewer reticulation network connecting to the existing public wastewater system. Capture Land Development's analysis confirms that there is sufficient capacity within the existing network to accommodate the projected wastewater flows from the development.

The water supply will be provided through a new reticulated network constructed within the subdivision, to be vested in CCC as public infrastructure. The system will connect to the existing water supply network and meet Council's standards for flow, pressure, and fire-fighting capacity.

In terms of funding, all internal infrastructure (including roads, water, wastewater, and stormwater networks) will be constructed and funded directly by the developer before vesting to Council. External network connections and minor intersection upgrades will also be delivered by the developer in coordination with CCC. Future operation, maintenance, and renewals will be funded through normal rating mechanisms applied to future property owners within the subdivision, consistent with other industrial areas in Christchurch.

Based on the information available, and given the absence of any large-scale off-site capital works required from Council, it is reasonable to conclude that there will be no material cross-subsidy from the wider community. The combination of developer-funded infrastructure, development contributions, and future rates revenue from industrial activities is expected to be sufficient to cover both the capital and ongoing servicing costs of the development.

From a cost—benefit assessment perspective, this means that infrastructure provision is effectively fiscally neutral — the associated costs are internalised within the project rather than imposed on ratepayers. Consequently, the net economic benefits generated by the Ryans Road development can be viewed as a genuine gain to the Christchurch and Canterbury economies.

#### 6.4 Loss of HPL

CCC has confirmed, following legal advice from Cedric Carranceja of Buddle Findlay, that Clause 3.6 of the NPS-HPL is not directly applicable to the Ryans Road proposal under the FTAA. ME concurs with this interpretation, recognising that the NPS-HPL provisions do not have binding effect within the Fast-track process. Even so, ME acknowledges that if the "avoid" provisions of the NPS-HPL were to be taken into account, any inconsistency would properly be viewed as an adverse environmental effect, rather than a breach of policy. This potential adverse effect must then be considered alongside, and balanced against, the project's broader economic, social, and planning benefits in accordance with section 85(3)(b) of the FTAA.

The principal economic cost associated with developing the Ryans Road site relates to the opportunity cost of converting highly productive rural land to industrial use. The site comprises approximately 55.5 ha of Land Use Capability (LUC) Class 2 land, classified by Manaaki Whenua – Landcare Research as "arable land with very good multiple-use potential, slight limitations, and suitable for cropping, viticulture, berry fruit, pastoralism, tree crops and forestry."

To quantify this opportunity cost, ME has drawn on national and regional benchmarks for arable farming gross margins, which typically range from \$1,500 to \$2,000 per hectare for grain crops and \$2,000 to \$4,000 per hectare for seed crops. Applying these returns to the 55.5-hectare site results in estimated foregone gross margins of approximately \$83,000 to \$222,000 per year. However, as noted in Formative's review, these figures reflect only farm-level gross margins and do not account for wider economic activity associated with agricultural production, such as direct employment, input purchases, and induced expenditure within the broader economy. When these indirect and induced effects are

considered, the total economic activity associated with continued farming of the site would likely be higher.

Adjusting to reflect wider economic linkages, the total annual value added from potential agricultural use of the site is estimated to range between approximately \$156,000 and \$417,000 per year. This provides an indication of the opportunity cost associated with converting the land from agricultural to industrial use. However, the economic potential unlocked through industrial development on this strategically located site far exceeds the value of its current or potential farming returns.

The Ryans Road site presents a rare opportunity to deliver freehold, serviced industrial land immediately adjacent to Christchurch International Airport and State Highway 1, an area experiencing critical supply constraints. This location confers significant economic advantages by enhancing logistics efficiency, supporting industrial co-location, and improving regional connectivity.

The loss of agricultural output from this 55.5-hectare site would have a negligible impact on Canterbury's extensive and diversified farming economy, even if the land were permanently removed from production. In contrast, its transition to industrial and logistics use will generate enduring benefits in terms of employment, productivity, and regional GDP, representing a substantially greater and more sustainable economic contribution.

## 6.5 Summary

This section summarises the combined effects of the proposed Ryans Road industrial development, integrating the quantified and non-quantified impacts identified through the preceding analysis. The assessment follows the principles of the New Zealand Treasury's CBAx framework, which distinguishes between quantified and non-quantified (qualitative) impacts to ensure that both measurable and broader societal effects are taken into account.

Table 13 and Table 14 summarise the outcomes of the assessment for the Ryans Road development.

Table 13: Quantified (Monetised) Costs and Benefits

Category	Description	Indicative Magnitude / Direction
Construction Phase Impacts	Construction of industrial buildings and supporting infrastructure generates significant one-off benefits through direct, indirect, and induced activity. The project supports approximately 2,070 FTEs for one year and contributes around \$263 million to Christchurch GDP.	Large positive (short-term)
Operational Phase Impacts	Once developed and fully occupied, ongoing business operations will sustain around 3,300 FTEs annually and contribute approximately \$320 million per year to regional GDP.	Large positive (ongoing)
Loss of Agricultural Production (HPL)	Conversion of 55.5 ha of LUC 2 land to industrial use displaces agricultural activity generating ~\$0.16–0.42 million p.a. in value added.	Small negative (ongoing)



Table 14: Non-Quantified (Qualitative) Benefits and Costs

Category	Description	Direction
Land Market	Increases the supply of freehold, serviced industrial land in a	Strong
Efficiency	constrained sub-market, improving competition, choice, and responsiveness within the Christchurch industrial land market.	positive
Urban Function and Spatial Efficiency	Reinforces a strategic industrial node within the Airport environs, consistent with UDS and NPS-UD objectives for a well-functioning, consolidated urban form.	Strong positive
Resilience and Economic Diversification	Supports regional resilience by providing modern, flexible industrial land for logistics, manufacturing, and export-oriented firms.	Moderate positive
Transport Outcomes and Emissions	Co-location near SH1 and Christchurch Airport reduces average travel distances for freight and employees, lowering vehicle-kilometres travelled (VKT) and associated emissions per unit of output. Incorporation of EV-ready infrastructure and potential mode-shift measures further enhance long-term sustainability.	Moderate positive
Infrastructure Efficiency	The development leverages existing transport and servicing infrastructure (Ryans and Grays Roads, and nearby water/wastewater networks), minimising the need for major new public investment. Development contributions and rates are expected to fully cover local infrastructure costs, avoiding cross-subsidy from the wider community.	Moderate positive
Loss of Primary Production / Rural Amenity	Reduces the area of productive rural land and rural character around the Airport environs. The effect is small relative to Canterbury's overall agricultural base.	Small negative

The quantified impacts of the Ryans Road development capture those effects that can be expressed in measurable economic terms. The construction-phase benefits reflect a significant short-term stimulus, with an estimated \$348 million in total output supporting around 2,070 FTE jobs and contributing approximately \$263 million in value added to the Christchurch economy during the build period. Once operational, the development will sustain around 3,200 FTEs annually and contribute roughly \$321 million per year to regional GDP, reflecting the ongoing productivity and employment benefits generated by the site.

In contrast, the only material quantifiable cost is the opportunity cost of converting 55.5 ha of HPL (LUC 2) from agricultural to industrial use. When adjusted to reflect wider indirect and induced linkages, the forgone value added is estimated at between \$0.16 million and \$0.42 million per year, a negligible amount when compared with the scale of regional industrial benefits. These quantified results confirm that the measurable economic benefits of the proposal vastly outweigh the direct economic costs.

In addition to the quantified outcomes presented earlier, several important non-monetised benefits further strengthen the overall value proposition of the Ryans Road development. The project delivers substantial gains in land market efficiency by introducing freehold, serviced industrial land within a submarket that is currently dominated by leasehold holdings. This diversification enhances flexibility, ownership certainty, and competition, supporting a more efficient and responsive industrial land market in line with the NPS-UD objective of maintaining a well-functioning urban environment.

The proposal also contributes positively to urban function and spatial efficiency. Its strategic location adjacent to Christchurch Airport and the Johns Road (SH1) arterial corridor enables the consolidation of industrial and logistics activity in an area already equipped for such uses. Concentrating development in this location reduces the pressure for fragmented industrial growth elsewhere, encourages a more compact urban form, and strengthens the integration between land use and transport. This efficient spatial pattern helps to optimise existing infrastructure investment and supports regional growth management objectives.

From a resilience and diversification perspective, the development enhances the capacity of the Christchurch economy to adapt to changing market conditions. By accommodating a range of industrial and logistics activities across different lot sizes, the Ryans Road project provides for both large-scale operators and smaller service industries. This mix of activity strengthens the resilience of the industrial base, supports supply-chain reliability, and contributes to sustained regional competitiveness.

Transport outcomes and GHG emissions are also important considerations within the cost-benefit framework. The co-location of warehousing, freight forwarding, and airport-related operations reduces freight distances and vehicle kilometres travelled, leading to lower transport-related emissions per tonne-kilometre. The site's proximity to key transport infrastructure minimises the need for new road construction and associated embodied emissions, while also reducing congestion on peripheral routes. Although the subdivision design primarily supports vehicle movements, the inclusion of EV-ready infrastructure and potential for active-mode and public-transport connectivity will enhance sustainability and reduce operational emissions over time.

Infrastructure efficiency represents another key benefit. By leveraging existing service corridors, particularly Ryans and Grays Roads, the project makes effective use of existing infrastructure and limits the need for new public investment. All essential three-waters and transport services can be provided within or adjacent to the site, consistent with Christchurch City Council's infrastructure standards. These works will be funded through development contributions, rates, and direct developer investment, ensuring no cross-subsidy from the wider community.

The main cost associated with the proposal relates to the loss of primary production and rural amenity. While the site's Class 1 and 2 soils are highly productive, the overall scale of agricultural loss is minor in the regional context, representing only a small fraction of Canterbury's total agricultural output. The transition of this land from farming to industrial use is appropriate in light of its strategic urban fringe location and proximity to major infrastructure. When considered against the enduring employment, productivity, and market-efficiency benefits generated by the development, the economic opportunity cost of maintaining the site in agricultural use is minimal.

Taken together, the Ryans Road development delivers large, sustained, and well-distributed benefits, both quantified and qualitative. The limited adverse effects are not out of proportion to these gains. In accordance with section 85(3)(b) of the FTAA, the overall cost–benefit balance clearly demonstrates

that the proposal will make a net positive contribution to Christchurch's economy, infrastructure efficiency, and environmental performance.

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