

**Before the Hearings Panel appointed by
the Christchurch City Council**

Under

the Resource Management Act
1991 (**Act**)

And

In the Matter of

an application under section 88 of
the Act for land use consent to
establish and operate a new
supermarket and associated small
scale retail including signage,
servicing, access, carparking and
landscaping

**Statement of Evidence of
Liam James Jagvik
for Woolworths New Zealand Limited**

Dated: 18 July 2025

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INTRODUCTION

Qualifications and Experience

1. My full name is Liam James Jagvik.
2. I am a Director at Eliot Sinclair and Partners Limited. I hold a Bachelor of Surveying from Otago University and I am a Licensed Cadastral Surveyor. I have a Certificate of Competency from Survey and Spatial New Zealand. I am a full member of Survey and Spatial New Zealand, Consulting Surveyors New Zealand and am a committee member for Survey and Spatial New Zealand's Land Development and Urban Design stream.
3. I have experience working in both Australia and New Zealand over a wide range of projects including residential, commercial, industrial and multi-unit residential land development projects. My role primarily is a project lead which typically includes overseeing project financial assessments, project programming, consenting, civil engineering design and construction, surveying and set-out, and contract and project management.
4. I am involved in a number of other commercial developments for Woolworths New Zealand Limited (**Applicant**) across the South Island primarily providing civil engineering consultancy input.

Background and Involvement

5. I have been involved in the project for a new supermarket and associated retail (**Proposal**) from early concept development through to the preparation of the Infrastructure Servicing Report dated 22 July 2024 (Rev D).
6. I have visited 476-494 Madras Street, St Albans (**Site**) multiple times between 2023 and 2025. I am familiar with the Site and the surrounding environment.
7. I have led the civil engineering assessments with input from others, infrastructure feasibility reviews, and coordinated responses to Christchurch City Council's (**CCC**) requests for further information. The infrastructure servicing report forms the basis of this evidence.

Code of Conduct for Expert Witnesses

8. Although this is not an Environment Court hearing I have read and agree to comply with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023. This evidence is within my area of expertise, except where I state that I am relying on material produced by another person. I have not omitted to consider

material facts known to me that might alter or detract from the opinions that I express.

SCOPE OF EVIDENCE

9. The topics covered in my evidence are as follows:
 - (a) the Proposal;
 - (b) earthworks;
 - (c) stormwater;
 - (d) wastewater;
 - (e) water reticulation;
 - (f) utilities and services;
 - (g) response to submissions;
 - (h) response to Section 42A Report; and
 - (i) proposed conditions of consent.
10. I have read the Section 42A Report prepared by CCC and all accompanying reports.
11. I have read all other evidence prepared for the Applicant. I explain in my evidence where I refer to or rely on that assessment or evidence for the purposes of my evidence.
12. I have also read all submissions lodged on the Proposal.

EXECUTIVE SUMMARY

13. This evidence supports the Proposal to establish a new supermarket and associated retail on the Site and to confirm that the development is appropriately serviced and technically feasible. All key infrastructure including stormwater, earthworks, wastewater, water supply, power, and fibre – can be provided in accordance with CCC, New Zealand Building Code and Environment Canterbury standards, with no network capacity constraints identified. Stormwater management has been carefully considered to address flood management, treatment, and attenuation requirements using a combination of tanks, given the Site's high groundwater levels. Submissions and CCC reports have been addressed, and there are no engineering reasons why consent should not be granted, subject to standard conditions.

THE PROPOSAL

14. The Proposal seeks to develop a full-service supermarket and associated retail tenancies with supporting carparking, servicing areas, and landscaped space at the Site. From an engineering perspective, the Proposal introduces integrated servicing across the Site for water, wastewater, stormwater, power, fibre, and vehicle access networks.

EARTHWORKS

15. The Site has underlying peat and uncertified fill, with shallow groundwater and liquefiable soils.
16. Approximately 5,000 m³ of cut and 6,000 m³ of fill are anticipated.
17. Contaminated soils will be managed in accordance with Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (**NES-CS**) requirements, and any material removed from the Site will be disposed of at an approved facility.
18. Standard erosion sediment dust management plan (**ESDMP**) processes will be followed. The ESDMP will be prepared and implemented in accordance with best practice and the recommendations from Environment Canterbury's "*Erosion & Sediment Control Toolbox for Canterbury*" and any Regional Council consent requirements.

STORMWATER

19. Stormwater management has been prepared to ensure that appropriate stormwater solutions are proposed for the Proposal. The design of the stormwater management system has focussed on addressing any potential concerns relating to network capacity and flood management. Key elements include:
 - (a) Proprietary treatment devices within the Site are proposed for hardstand treatment compliance, and subject to falls it may require pumping. These treatment devices need to be higher than where the water eventually drains, because they rely on gravity to work properly. If CCC's stormwater system is lower than the treated water outlet, then we can't rely on gravity alone. In that case, we may need to install underground tanks to hold the treated water temporarily and use pumps to send it into the CCC's system. Note that the roof water discharge, provided specific roofing materials are used, is not required to be treated.

- (b) CCC has confirmed that the Site requires stormwater attenuation to achieve stormwater neutrality (i.e. no increase from pre to post development site runoff) for the 50-year 24-hour duration event. In simple terms this means that if rain falls on the Site in a large event some of the rain will be infiltrated into the ground and some will be ponded and runoff based on the gravity contour. The Proposal has a greater area of hardstand and roof which means that the concentrated flows cannot penetrate the ground which it would have done in the pre-development state. Therefore the Applicant is required to hold the extra over flow from the pre-development runoff and slowly release this to CCC's network. The proposed solution for providing on-site attenuation storage is a combination of above ground tanks to capture the roof runoff and below ground tanks for the carpark hardstand.
- (c) The above ground tanks will have a trickle feed over time to slowly release the additional flow to ensure that there is no additional runoff from the Site than the pre-developed state. For the carpark hardstand, below ground tanks are proposed to temporarily hold this additional volume of stormwater (after it has been treated) and be pumped to the CCC outfall if the traditional gravity discharge is not possible.
- (d) The Applicant has engaged Engeo to install four ground water monitoring locations on the Site. Engeo's report states *"Monitoring results have depicted groundwater levels varying between approximately 0.8 and -0.1 metres below ground level..."*. This monitoring has been completed over a 6 month period from August 2024 to February 2025. Three of the four ground water monitoring sites are showing consistent water depths at a level of approximately at or around 0.1m below ground level. The highest water level would need to be adopted if a stormwater basin was to be constructed.
- (e) Stormwater basins have been excluded from the consideration as a plausible stormwater treatment and attenuation solution. The invert of a basin would be required to be at or above the highest groundwater level, which in this case is at or around 0.1m below ground level. If a basin was constructed, it would be filled with standing groundwater and not have any capacity for discharges from the Site. Therefore, the practicable solution is to provide tank storage as is proposed.
- (f) Primary stormwater discharge can be facilitated by one of two outfall options, with one potentially requiring an upsized pipe. Any pipe upsizing will be confirmed at the Building Consent design phase which is standard

practice. These options are connection to the existing DN375 pipe to Purchas Street, with a secondary outfall to Madras Street.

- (g) The Site will be shaped so that large rainfall events, referred to as secondary flow, will ensure that existing overland drainage paths are maintained. Secondary flows above the design event will be managed by shaping the Site appropriately to Madras Street.
 - (h) The finished floor level for the building has been set with CCC guidance. Part of the Site is in the Flood Management Area Overlay and therefore the finished floor level incorporates a 400 mm of freeboard above the 1 in 200 year event water level that CCC has modelled.
20. I have relied on input from my colleague Mr Duncan Kemsley (Chartered Civil Engineer) for the technical stormwater assessments outlined in the Infrastructure Servicing Report as this is outside my area of expertise.

WASTEWATER

21. Three feasible discharge options were investigated. A new lateral to the sewer main on Madras Street will be installed to service the Site, which is common for this type of development.
22. CCC has confirmed the receiving network has capacity, and no wastewater attenuation is required.

WATER RETICULATION

23. Potable water will be supplied via a new submain from the DN100 main in Madras Street. CCC has confirmed that the existing infrastructure can service the Proposal.
24. The fire engineer for the Proposal has confirmed that a separate lateral from the DN100 main on Madras Street will be suitable for firefighting purposes.

UTILITIES AND SERVICES

25. Power and fibre will be extended to the Site from the Madras Street berm as advised by the Applicant's utilities consultant, including:
- (a) an Orion transformer for power distribution.
 - (b) fibre network connections via Enable.
26. There is no gas reticulation proposed.

RESPONSE TO SUBMISSIONS

27. Concerns relating to servicing and engineering aspects which were raised in submissions focused on flooding, stormwater treatment adequacy, and contaminated site risks. My response is as follows:
- (a) The stormwater design includes CCC-accepted treatment devices in accordance with CCC's Global Stormwater Operational Phase discharge consent and stormwater neutrality controls. The design proposed complies with both the treatment and attenuation requirements.
 - (b) Site level design will address localised flooding on-site as required by the New Zealand Building Code, CCC infrastructure standards and CCC's requirements as appropriate.
 - (c) CCC has confirmed that there is limited ponding within the existing site based on their modelling during the 10, 50 and 200 year events. This confirms, even for large rainfall events, that the Site does not experience extensive flooding. In circumstances where a proposed site development displaces flood water, CCC requires compensatory volume storage for the equivalent difference. However, for this Site, there is no such requirement as the earthworks design can mitigate the effects associated with the ponding. Furthermore, CCC has confirmed that no compensatory storage for offsetting flooding volumes is required.
 - (d) Contamination of the Site in both the construction and permanent phases will be managed through standard environmental controls, consenting requirements and best practice for managing contaminated soils.
 - (e) CCC has confirmed that there is no water supply or wastewater infrastructure constraints and the existing network has sufficient capacity for the Proposal.

RESPONSE TO SECTION 42A REPORT

28. I have reviewed the following CCC Officer Section 42A Reports:
- (a) Flood Management Advice (Appendix H) prepared by Cindy Asmat. I understand that the CCC Officer has adopted the findings of the Infrastructure Servicing Proposal to confirm that the flooding effects can be appropriately mitigated. There is an apparent inconsistency between the brownfields policy test in paragraph 181 of the Section 42A report and the conclusions reached by the CCC Officer's flood management evidence. The

flood management advice adopts the findings in our Infrastructure Servicing Report. In my experience it is industry standard practice that any surface design associated with the Site requires compliance with the New Zealand Building Code (including CCC's standards) and this specifies what is required for surface design and drainage network design. Standard practice is that the detailed design suitable for construction, and to enable CCC to satisfy themselves to issue a building consent, is dealt with during the building consent phase of the project.

- (b) Stormwater System Advice (Appendix I) by Victor Mthamo. I understand that the author of the Stormwater System Advice has adopted the findings of the Infrastructure Servicing Report. For clarity, stormwater basins have been excluded from the consideration as a plausible stormwater treatment and attenuation solution. The invert of a basin is required to be at or above the highest groundwater level, which in this case is at or around 0.1m below ground level. If a basin was constructed, it would be filled with standing groundwater and not have any capacity for discharges from the Site. Therefore, the practicable solution is to provide tank storage as is proposed.
- (c) Earthworks Advice (Appendix K) by Ian Bochow. I understand that the author of the Earthworks Advice has confirmed that the Site can be appropriately managed provided specific conditions are adhered to. Some suggested earthworks conditions have been suggested and these are considered standard practice for construction projects in CCC.
- (d) Water and Waste Water System Advice (Appendix L) by Alison Tang. I understand that the author of the Section 42A has adopted the findings of the Infrastructure Servicing Report for both water supply (potable and fire fighting) and waste water.

PROPOSED CONDITIONS OF CONSENT

29. I have reviewed the draft conditions relating to infrastructure servicing. These conditions primarily relate to contamination, construction management, stormwater requirements, design and construction certification.

30. Condition 59 states:

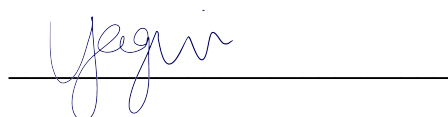
Prior to Council's final completion inspection and acceptance of the assets at the end of the 24 month Establishment Period, the Consent Holder must submit all required completion documentation in accordance with IDS Part 2:2.12 Completion of Land Development Works and the Quality Assurance System, to provide evidence that the work has been completed and maintained in accordance with the agreed standards and conditions of this consent. Where it is not possible to determine the

condition of the assets due to seasonal constraints (e.g. trees not being in full leaf) then the final inspection and final completion may be delayed until the condition of the assets can be accurately determined.

31. I suggest this be reworded to allow for a 12 month defect period which is standard for CCC vested infrastructure.
32. Prior to CCC's final completion inspection and acceptance of the assets at the end of the **12** month Establishment Period, the Consent Holder must submit all required completion documentation in accordance with IDS Part 2:2.12 Completion of Land Development Works and the Quality Assurance System, to provide evidence that the work has been completed and maintained in accordance with the agreed standards and conditions of this consent. Where it is not possible to determine the condition of the assets due to seasonal constraints (e.g. trees not being in full leaf) then the final inspection and final completion may be delayed until the condition of the assets can be accurately determined.

CONCLUSION

33. In my opinion, the infrastructure servicing for the Proposal is appropriate, technically feasible, and capable of being implemented without adverse effects on public infrastructure. The Proposal will meet all relevant CCC engineering standards, New Zealand Building Code requirements and incorporates mitigation for stormwater, contamination, and earthworks risk. From a servicing perspective, it is appropriate for consent to be granted with the proposed conditions.



Liam James Jagvik

18 July 2025