

Your Comment on the Ōhoka Residential Subdivision

Please include all the contact details listed below with your comments and indicate whether you can receive further communications from us by email to substantive@fasttrack.govt.nz.

1. Contact Details			
Please ensure that you have authority to comment on the application on behalf of those named on this form.			
Organisation name (if relevant)	NZ Transport Agency Waka Kotahi		
First name	Carly		
Last name	Cushman		
Postal address			
Home phone / Mobile phone		Work phone	
Email (a valid email address enables us to communicate efficiently with you)			

2. We will email you draft conditions of consent for your comment			
☒	I can receive emails and my email address is correct	☐	I cannot receive emails and my postal address is correct

Please provide your comments below, include additional pages as needed.

NZ Transport Agency Waka Kotahi comments

Thank you for the opportunity to comment on the application by Carter Group Limited for the proposed Ōhoka Residential Subdivision. NZ Transport Agency Waka Kotahi (NZTA) has reviewed the application insofar as it relates to the potential effects on the state highway network and provides the following comments.

The applicant has not undertaken any pre-application engagement with NZTA in relation to this proposal since an earlier iteration of the proposal was assessed between 2022 and early 2024. NZTA has reviewed the transport information provided for the proposed Ōhoka Residential Subdivision. The proposal is expected to generate approximately 624 vehicle movements in the AM peak hour, 715 vehicle movements in the PM peak hour and 6,046 vehicle movements per day at full development. A material proportion of these trips is expected to use the State Highway 1 (SH1) / Tram Road interchange.

Further information requested

Before the Panel determines the application, NZTA requests that the applicant provide the following further information to the Panel and NZTA for review. This information is required because the material presently available does not adequately demonstrate the effects of the proposal on the safe and efficient operation of the SH1 / Tram Road interchange or establish whether those effects can be appropriately avoided, remedied or mitigated:

- Revised intersection modelling that is calibrated and validated against recent observed traffic volumes, queues, delays, detector activations and signal operation. The modelling should represent the existing off-ramp detector and queue-management logic and test the proposed signal-phasing changes under representative AM and PM peak periods, including school-term weekdays and credible worst-case operating conditions. The modelling should clearly report any consequential effects on Tram Road traffic and the wider interchange.
- For each assessment scenario and development stage, provide table-based and plan-based outputs identifying average and 95th-percentile queues and delays, level of service for each interchange approach, detector activation frequency, available off-ramp storage, and the distance between forecast queues and the SH1 mainline. Also identify the frequency and duration of any forecast queue spillback and explain the implications for the safe and efficient operation of SH1 and Tram Road.
- Provide sensitivity testing for the presence and removal of the T2 lane, development staging and build-out, traffic generation and distribution, background and cumulative traffic growth in the wider Ōhoka and Waimakariri area, and credible incident or abnormal operating conditions. The assessment should state and justify all assumptions and identify the scenario relied on for determining the need, timing and form of mitigation.
- A clearly defined baseline against which development effects and mitigation performance are to be assessed. The baseline should identify the assessment year, network configuration, signal operation, traffic demands, development assumed to be in place, status of the T2 lane, growth assumptions, assessment periods and modelling methodology.
- Measurable performance criteria for determining when mitigation is required and whether it is effective. These criteria should address, at a minimum, level of service and average control delay for each interchange approach, 95th-percentile queue lengths, available queue storage, detector activation, the risk of queues extending to the SH1 mainline, and any consequential effects on Tram Road. Where an approach has a baseline level of service of F, the criteria should include a specified control-delay threshold because a further level-of-service grade reduction cannot occur.
- Updated traffic-generation evidence based on recent surveys undertaken during representative school-term weekdays and AM and PM peak periods. If West Melton or another proxy site is relied on, the applicant should demonstrate its comparability with the proposed development in terms of location, dwelling mix, occupancy, public transport accessibility and travel behaviour. The assessment should explain whether, and to what extent, the June 2022 West Melton survey may have been affected by post-COVID-19 travel patterns or seasonal conditions and should provide a documented technical justification for the adopted trip-generation rates.

Conditions required if approval is granted

If the Panel determines the application without first obtaining and resolving the further information identified above, NZTA requests that any approval include conditions that ensure that no development stage proceeds beyond the point at which the SH1 / Tram Road mitigation is required until the relevant modelling has been completed and the detailed signal design and phasing, implementation methodology and commissioning plan have been prepared and approved. The applicant should fund all investigation, design, approval, implementation, monitoring and remediation costs associated with works required to address the development's effects on the state highway network.

Conditions should also require pre and post-implementation monitoring, including queue lengths, delays and signal performance; and a review and remediation mechanism if agreed performance criteria are not achieved or if queues create an unacceptable risk of extending towards the SH1 mainline.

Any signal changes affecting the state highway will be subject to NZTA's separate approval and must not be assumed to be accepted through the fast-track approval. Appropriate staging triggers should be tied to measurable transport outcomes and should ensure that any necessary local-road and state-highway mitigation is approved, implemented, commissioned and demonstrated to be effective before the relevant development stage is occupied or otherwise begins generating traffic.

Proposed new conditions

Underlining identifies proposed additions, while strikethrough identifies proposed deletions.

State Highway 1 / Tram Road modelling and mitigation

[X1]. Prior to either:

- (a) the issue of any section 224(c) certificate that would enable more than 310 residential dwellings or units, or prior to the occupation of more than 150 retirement village units within Lot 9001, whichever occurs first; or
- (b) a reduction of one or more level-of-service grades attributable to traffic generated by the development, in the performance of any approach to the State Highway 1 / Tram Road interchange during either the AM or PM peak period;

The consent holder should submit to the Waimakariri District Council for certification an updated State Highway 1 / Tram Road interchange transport assessment prepared by a suitably qualified and experienced transport engineer. The updated assessment should:

- (a) model the existing off-ramp queue detector and associated signal queue-management logic;
- (b) assess the proposed signal phasing under representative AM and PM peak conditions, including school-term weekdays;
- (c) report average and 95th-percentile queues and delays, available off-ramp storage, the distance between forecast queues and the State Highway 1 mainline, detector activation frequency, and the level of service for each interchange approach;
- (d) test scenarios with and without the existing T2 lane;

- (e) test sensitivity to development staging, traffic generation, route distribution, background and cumulative growth, and credible incident or abnormal operating conditions;
- (f) identify consequential effects on Tram Road and the wider interchange;
- (g) use traffic-generation data from current surveys undertaken during representative school-term weekdays and AM and PM peak periods, or provide a documented technical justification for any alternative adopted rates; and
- (h) include evidence of consultation with NZ Transport Agency on matters (a) to (g) and identify how NZ Transport Agency's comments have been addressed.

[X2]. Where the updated assessment certified under Condition [X1] identifies that mitigation is required to maintain the safe and efficient operation of the State Highway 1 / Tram Road interchange, and avoid queues creating an unacceptable risk of extending to the State Highway 1 mainline, the consent holder should, at its cost:

- (a) prepare all detailed designs, signal phasing, implementation, commissioning and monitoring plans;
- (b) obtain all separate approvals required for the detailed design, signal phasing, implementation methodology, commissioning plan and monitoring plan;
- (c) implement and commission the approved mitigation, and demonstrate through commissioning that the certified performance criteria are achieved, before either threshold in Condition [X1] is exceeded.

No further section 224(c) certificates should be issued, and no further retirement village unit should be occupied, above the applicable threshold in Condition [X1] unless the required mitigation has been approved, implemented and commissioned in accordance with this condition.

[X3]. The consent holder should undertake baseline monitoring for at least three months before commissioning any mitigation at the State Highway 1 / Tram Road interchange and post-commissioning monitoring immediately following commissioning, at three, six and 12 months after commissioning and within three months after completion of each development stage that results in additional traffic using the interchange.

Monitoring should be undertaken during representative school-term weekdays and AM and PM peak periods in accordance with a monitoring plan prepared by a suitably qualified and experienced transport engineer and submitted to the Waimakariri District Council for certification.

The monitoring should compare observed performance with the baseline conditions, the assessment certified under Condition [X1], the commissioning results and the certified performance criteria, and should include, as relevant:

- (a) traffic volumes,
- (b) signal performance,
- (c) average and 95th-percentile queue lengths,
- (d) delays,
- (e) detector activations; and,
- (f) the operation of the off-ramp, Tram Road approaches and any T2 lane.

[X4]. Monitoring reports should be provided to the Waimakariri District Council within 20 working days after completion of each monitoring period. If monitoring identifies that the mitigation is not operating as anticipated, differs materially from the assessment or commissioning results, or that queues create an unacceptable safety or operational risk to State Highway 1, the consent holder should, within 20 working days, submit to the Waimakariri District Council for certification a remedial action plan prepared by a suitably qualified and experienced transport engineer. The remedial action plan should identify the required remedial measures, responsible parties, implementation timeframes, interim risk-management measures and further monitoring.

The consent holder should implement the certified remedial measures within the specified timeframes and should meet all associated investigation, design, approval, implementation and further-monitoring costs.

Where the identified issue creates a serious safety risk or a risk of queues extending to the State Highway 1 mainline, no further section 224(c) certificate should be issued and no further retirement village unit should be occupied above the applicable threshold in Condition [X1] until the certified interim or permanent remedial measures have been implemented.

Requested amendment to condition 7 consent notice

7. The following condition must be recorded pursuant to Section 221 of the Resource Management Act 1991 in a consent notice registered on the titles of all lots in any balance land left at the completion of each stage of the subdivision:

No building consent should be issued for development that would result in the total number of constructed residential units exceeding 310, ~~and~~ or retirement village units exceeding 150 within Lot 9001, unless:

- a. the Flaxton Road / Threlkelds Road intersection has been upgraded in accordance with an engineering design approved by the Waimakariri District Council and is operational, or
- b. b. a developer agreement has been entered into with the Waimakariri District Council providing for the funding and delivery of the intersection upgrade; and
- c. the updated State Highway 1 / Tram Road interchange transport assessment required by Condition [X1] has been certified, and any mitigation required under Condition [X2] has been approved, implemented and commissioned. Compliance with 7(a) or 7(b) does not remove or postpone compliance with 7(c).

Conclusion:

NZTA does not oppose the proposal in principle from a state highway network perspective. However, NZTA is not presently satisfied that the information supplied demonstrates that the effects on the SH1 / Tram Road interchange can be adequately managed by the proposed signal-phasing change alone. The applicant's modelling identifies the SH1 southbound off-ramp right-turn movement as operating at Level of Service F and over capacity in the AM peak before

mitigation. NZTA is concerned that the reported reduction in average delay from approximately 123 seconds to approximately 40 seconds through signal-phasing changes may not adequately account for the interchange's existing queue-management arrangements.

In particular, a detector part way down the off-ramp reallocates green time from Tram Road to the off-ramp when queues become large, reducing the risk of queues extending back towards the SH1 mainline. This intervention may increase delay for Tram Road traffic and affect the modelled performance of the proposed phasing. Performance may also vary depending on whether the existing T2 lane remains. NZTA has no current committed or funded proposal to upgrade the interchange, and the interchange does not form part of the Belfast to Pegasus project. The application should therefore not rely on a future NZTA upgrade to address effects generated by the development. These matters are the basis for NZTA's request that the applicant provide the further information identified above and, if approval is granted, that the proposed conditions and amendment to Condition 7 be imposed to ensure any necessary mitigation is identified, approved, implemented and demonstrated to be effective before the relevant development thresholds are exceeded.

Thank you for your comments