Before an Independent Hearings Commissioner appointed by the Kāpiti Coast District Council

Under	the Resource Management Act 1991 (Act)	
In the matter	of an application under s 88 of the Act by Kāpiti Retail Holdings Limited for the construction and operation of a Countdown supermarket at 160 Kāpiti Road, Paraparaumu (RM210151)	

Statement of evidence of Michael Nixon on behalf of Young Supermarkets Limited and Modern Merchants Limited

Date: 15 March 2022



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INTRODUCTION

Qualifications and Experience

- 1 My full name is Michael Ian Nixon. I am a transport engineer and I am employed as a Principal Transport Consultant at Commute Transportation Consultants. I have worked in this role since October 2015.
- 2 I am a Chartered Professional Engineer and hold the degree of Bachelor of Engineering (Civil) from the University of Auckland, which I obtained in 2001. I am a Chartered Member of Engineering New Zealand (CMEngNZ) and am an International Professional Engineer (IntPE(NZ)).
- 3 I have around 21 years' experience as a specialist traffic and transportation engineer and I frequently provide advice to private and public-sector clients on a wide range of traffic engineering and transportation planning matters. Prior to joining Commute Transportation Consultants, I worked at Traffic Design Group (now Stantec) and Flow Transportation Specialists.

Background and Involvement

- 4 I have been engaged to provide expert advice to Young Supermarkets Limited and Modern Merchants Limited on the traffic and transportation effects of Kāpiti Retail Holdings Limited's (**KRHL**) application for resource consent in respect of the construction and operation of a Countdown supermarket and two trade retail tenancies (**Proposal**) at 160 Kāpiti Road, Paraparaumu (**Site**).
- 5 Both of these submitters are involved in the operation of New World Kāpiti at 159 Kāpiti Road, Paraparaumu (**New World Kāpiti**). New World Kāpiti is located within Kāpiti Landing, a business park comprising a variety of retail activities. New World Kāpiti is on the opposite side of Kāpiti Road from the Site, and is served by the same road network.
- 6 As part of my involvement with the Proposal, I have visited the Site on 24 February 2022, reviewed the Integrated Transport Assessment dated July 2021 (**ITA**) and s 92 information prepared by Tim Kelly of Tim Kelly Transportation Planning Limited, reviewed the Kāpiti Coast District Council (**KCDC**) transport specialist evidence prepared by Neil Trotter dated 10 February 2022, and reviewed the KCDC s 42A report dated 1 March 2022. I have also reviewed the recent evidence lodged by KRHL, with a focus on the transport evidence of Mr Kelly dated 24 February 2022, and the planning evidence of Kay Panther Knight dated 8 March 2022.

Code of Conduct

I have read the Code of Conduct for Expert Witnesses in the
 Environment Court Practice Note 2014. Despite this not being an
 Environment Court hearing, I agree to comply with this code of conduct.
 The evidence in my statement is within my area of expertise, except

where I state that I am relying on the evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express in my statement.

SCOPE OF EVIDENCE

- 8 My evidence is structured as follows:
 - 8.1 Overview of the transport issues raised in the Young
 Supermarkets Limited and Modern Merchants Limited
 submissions dated 10 November 2021 (Submissions);
 - 8.2 Comments on KCDC's transport evidence;
 - 8.3 Comments on KRHL's transport evidence;
 - 8.4 Discussion of resolved and unresolved transport issues raised in the Submissions;
 - 8.5 Comments on proposed conditions;
 - 8.6 Conclusions.

SUBMISSIONS

- 9 Submissions were prepared by both Young Supermarkets Limited and Modern Merchants Limited dated 10 November 2021. The Submissions opposed the application based on transportation effects (the identified effects were identical for both submissions), with the key concern being that the application may adversely affect the operation of the road network that serves New World Kāpiti, including the operation of the Kāpiti Road / Friendship Place roundabout (**Roundabout**).
- 10 I comment on each of the specific transportation issues raised in the Submissions in Table 1 below.

Issue		Comment
11.1	The traffic modelling supporting the ITA appears to consider existing traffic volumes based on traffic counts commissioned in June 2018.	While the counts from 2018 are older, these were undertaken prior to the effects of Covid- 19 (which reduced background traffic volumes) and as such, I consider these are appropriate for assessment purposes. I have applied a similar philosophy in other developments I have assessed.
11.2	It is unclear that the traffic modelling reflects the existing environment. In particular, it is unclear that the traffic modelling has considered consented, but not yet constructed, development in the vicinity (including within Kāpiti Landing).	Based on the statements of evidence of KCDC's transport specialist (Mr Trotter) and KRHL's transport specialist (Mr Kelly), it appears that the traffic modelling undertaken has accounted for consented developments at Kāpiti Landing.

Table 1: Overview of Transport Issues

Issue		Comment
11.3	Traffic growth is mentioned in the ITA, however it is unclear whether that has been applied to the traffic modelling.	Traffic growth of 1.4% per annum has been applied to the Weekday PM data for a 2026 design year (Table 2.2 of ITA). This is considered appropriate based on the data in the ITA.
		Based on historic data, KRHL's transport specialist (Mr Kelly) originally assessed a negative growth rate of -1.5% per annum for the 2026 Saturday peak hour. KCDC subsequently requested a sensitivity test of 0% growth to understand effects. As will be discussed later in my evidence in more detail, with 0% growth, mitigation works to <u>both</u> Friendship Place and Kāpiti Road (north- western approach) are required.
11.4	The ITA explains that the traffic modelling shows poor performance of the Roundabout without mitigation.	I agree with this statement and I have replicated the results of KRHL's transport specialist (Mr Kelly) demonstrating LOS F for the Friendship Place approach <u>without</u> mitigation. For the avoidance of doubt, my modelling uses the traffic volumes summarised at the end of paragraph [7.1] of the statement of evidence of KCDC's transport specialist (Mr Trotter). My conclusion is that mitigation works are required on Friendship Place for the weekday PM peak hour, and if 0% growth is assumed for the Saturday peak hour, then mitigation works are required to <u>both</u> Friendship Place and Kāpiti Road (north-western approach).
11.5	The ITA proposes mitigation in the form of a short (10m) additional approach lane on the Friendship Place approach to the Roundabout (Proposed Mitigation).	The ITA proposes mitigation to the Friendship Place approach to the Roundabout. I agree with this in principle. I have reviewed the 29 September 2021 s 92 response by KRHL's transport specialist (Mr Kelly) and specifically, the mitigation works proposed in that response. I consider that layout is a better design solution compared to the current layout shown in the 9 December 2021 s 92 response. I do not understand the reason for the change in design however it was likely to ensure the mitigation works are located within road reserve. As will be discussed, my recommendation is to develop a conventional 'left turn' lane treatment in accordance with Austroads and MOTSAM standards (noting that this will require the co- operation of the parties at this hearing, which include the owner of the land within Kāpiti Landing, Templeton Kapiti Limited).

Issue		Comment
11.6	The ITA indicates that 'Space appears to be available to enable this modification [the Proposed Mitigation] with minor physical works to reposition the footpath and kerbline on the northern side of the Friendship Place approach [to the Roundabout].'	Further to the above, the recommended mitigation works to Friendship Place will require land from within Kāpiti Landing.
11.7	It is unclear that the Proposed Mitigation is able to be completed entirely within the Friendship Place road reserve - the detailed plans in support of the Application do not appear to show the full extent of the Proposed Mitigation.	As discussed above, the works as currently proposed (refer drawing in 9 December 2021 s 92 response) can fit within road reserve. However, in my opinion, that is a non-standard solution and I consider the layout shown in the 29 September 2021 s 92 response to be more appropriate. I note however that requires the co- operation of the parties at this hearing, which include the owner of the land within Kāpiti Landing, Templeton Kapiti Limited.
11.8	It is unclear that the Proposed Mitigation is adequate or appropriate, and in particular it is unclear that the length of the 10m additional approach lane is adequate or appropriate.	To be clear, I can replicate the traffic modelling results of KRHL's transport specialist (Mr Kelly) even with a very short left turn lane (as shown in the 9 December 2021 s 92 response). However, traffic models are an analysis tool only, and in my opinion should not be used to justify what I consider to be non-standard geometry. As will be discussed later in my evidence in more detail, typically for an additional lane approaching a roundabout I would design for the estimated queue storage length plus a taper length of 30m.
11.9	It is unclear that the Proposed Mitigation is adequate or appropriate if the traffic modelling needs to be updated to consider consented, but not yet constructed, development in the vicinity (including within Kāpiti Landing).	In addition to the response to Item 11.2 in this table, I am unaware of any consented but not yet constructed development that needs to be considered.

Issue	Comment
11.10 It is unclear whether the appropriateness of allowing right turn entry from Kāpiti Road to the secondary access to the Site has been considered by the Applicant, which may have some benefit in terms of reducing pressure on the Friendship Place roundabout (both to outbound Friendship Place vehicles and to eastbound Kāpiti Road vehicles).	It was my view that some of the pressure at the Roundabout could have been alleviated by allowing right turn <u>entry</u> movements at the secondary access (in addition to left turn movements). However, I agree with the safety rationale for preventing right turn <u>exit</u> movements at this access. Despite my views, it is ultimately at the discretion of KCDC what it considers acceptable as the Road Controlling Authority (RCA) and I note KCDC's transport specialist (Mr Trotter) agrees with KRHL's transport specialist (Mr Kelly) that the secondary access should be a left in/left out arrangement only.

11 Based on the above, the only outstanding issues raised by the Submissions in my view are:

- 11.1 The extent of the mitigation work on Friendship Place (KRHL seeks a short left turn lane as outlined in the 9 December 2021 s 92 response, while I consider the original layout shown in the 29 September 2021 s 92 response is more appropriate).
- 11.2 The mitigation works potentially required on Kāpiti Road (north-western approach), and how that can be addressed through a condition or otherwise.

KCDC'S TRANSPORT EVIDENCE

- 12 I have read the evidence of KCDC's traffic specialist (Mr Trotter) and generally agree with his conclusions. The area of focus for this hearing should be the matters identified in paragraphs [7.1] to [7.12] of his statement of evidence, which generally relate to the impact of the Proposal on the Roundabout. Based on the traffic volumes shown at the end of paragraph [7.1] of Mr Trotter's statement of evidence, I have prepared my own SIDRA traffic models and conclude the following:
 - 12.1 PM model I have replicated the PM peak hour SIDRA results presented by KRHL. For the Friendship Place approach to the Roundabout, I modelled a change from LOS F without mitigation to LOS B with mitigation. Mitigation is therefore necessary in my opinion. It should be noted that the short left turn lane currently proposed by KRHL does provide the required mitigation when inputted into the model. However, as I explain further below, I consider that a more conventional additional left turn lane treatment on Friendship Place would be more appropriate.
 - 12.2 SAT model I have also replicated the SAT peak hour
 SIDRA results presented by KRHL (as outlined in paragraph
 [42] of Mr Kelly's statement of evidence). Based on my
 analysis, mitigation will be required to <u>both</u> Friendship Place

(as per PM peak hour model) and the north-western arm of Kāpiti Road. There appears to have been some uncertainty in what volumes should be used for assessment (count data shows reducing volumes, while the modelling conservatively assumes 0% growth). I understand that a monitoring condition (Condition 28) is now proposed (see Appendix D of the s 42A report and paragraph [120] of Ms Panther-Knight's statement of evidence) to address the need for mitigation works if necessary.

I generally agree with the intention of proposed Condition 28 (note I am yet to see any specific wording amendments proposed by KRHL), however I would find it unusual for traffic volumes in the Saturday peak hour to reduce over time (even with proposed road network improvements as outlined in paragraph [4.2] of Mr Trotter's evidence). As areas become more developed (additional land use activity), peak hour traffic volumes typically increase over time. I do acknowledge however that if the road network capacity is constrained, traffic volumes may not increase and instead remain relatively static. At best, I consider the volumes will remain static, and under that scenario (0% growth), mitigation is required. On that basis, I recommend the mitigation works are done immediately rather than monitored. I also understand that the proposed condition has some legal issues, to be addressed by legal counsel at the hearing.

14 From my analysis, the performance of exit movements from Friendship Place is related to the Friendship Place mitigation works only. Whether or not the Kapiti Road mitigation works are undertaken has no substantial effect on exit movements on Friendship Place (based on my modelling, Friendship Place operates at LOS B for both scenarios). Despite that, eastbound movements i.e. entry movements to KRHL and Kāpiti Landing developments from the west, as well as general eastbound traffic toward the SH1 interchange etc, are affected if the volumes do not reduce over time on Kāpiti Road (LOS F). As such, in my opinion any condition to address this should be robust, and enable works to occur in a timely manner. Specifically, if a condition is pursued (rather than requiring mitigation works immediately, which is what I recommend), I recommend any condition require works to be undertaken within a significantly shorter timeframe, which will ensure that it will not be necessary to wait until the completion of up to two years of monitoring before mitigation works are progressed.

15 In my view, if a need for the Kāpiti Road mitigation works to be completed arises before the end of the monitoring period, the mitigation works should be required to be completed before the end of the monitoring period. I note that amendments to proposed Condition 28 will be required to enable this.

KRHL'S TRANSPORT EVIDENCE

16 I have read the evidence of KRHL's transport specialist (Mr Kelly) and consider that the key areas of disagreement relate to the following:

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- 16.1 The form of the left turn lane mitigation on Friendship Place, and
- 16.2 The wording of Condition 28 to ensure potential effects of the Proposal are appropriately mitigated.

RESOLVED AND UNRESOLVED TRANSPORT ISSUES

- Following on from the above analysis, the transport issues not fully resolved in my opinion are those outlined in paragraph [16.1] and [16.2] above. Below I discuss my views on these unresolved issues in more detail.
- 18 Regarding the proposed Friendship Place mitigation works, the additional left turn lane is very short. There is no specific standard for additional left turn lanes at roundabouts but good practice is to design for the queue storage length anticipated (as per Austroads design guidance), plus a 30m taper to tie into the adjacent lane (as per MOTSAM urban lane taper requirements).
- 19 I reiterate the point raised earlier in my evidence that while I can replicate the traffic modelling results of KRHL's transport specialist (Mr Kelly) even with a very short left turn lane, traffic models are an analysis tool only, and in my opinion should not be used to justify what I consider to be non-standard geometry.
- 20 I consider there is a risk that a safety audit (Condition 24) may recommend that the currently proposed left turn lane treatment needs to be lengthened.
- 21 For these reasons, I would like to see at this hearing some agreement between that parties that there is flexibility to achieve a more conventional additional left turn lane treatment on Friendship Place (as shown in the 29 September 2021 s 92 response). In this regard I note my earlier observations that the parties include the owner of the land within Kāpiti Landing, Templeton Kapiti Limited, and that the better design solution may require some of the works to be outside of the current road reserve on Templeton Kapiti Limited land. For clarity, the layout shown in the 29 September 2021 S 92 response is shown in Figure 1 overleaf.



Figure 1: Friendship Place Mitigation Works – 29 September 2021 S 92 Response

- 22 Regarding the Kāpiti Road mitigation works (north-western approach), in my experience, I consider that a reduction in traffic volumes on Kāpiti Road is unlikely. At best, I consider traffic volumes will remain static and under this scenario, the mitigation works on Kāpiti Road are required to avoid LOS F on that approach (noting that poor performance on this approach will adversely affect entry movements to Kāpiti Landing from the west).
- As such, I recommend that the works are done immediately rather than rely on a monitoring condition.
- If however, the commissioner appointed by KCDC considers a monitoring condition appropriate, in my opinion there is a need to ensure mitigation works can be undertaken as soon as adverse effects are identified rather than potentially wait two years for the monitoring period to conclude, plus any additional time required for detailed design approval processes (including safety audits) to be completed. In my opinion, there being delays of more than two years to implement Kāpiti Road mitigation works would be inappropriate from a transportation effects perspective.

CONDITIONS

25 I have reviewed Appendix D of the S 42A Report and the Proposed Condition Amendments outlined in Appendix 1 of the evidence of Ms Panther-Knight. My comments are as follows:

- 25.1 The amended Condition 24 is acceptable in my opinion, however where the advice note refers back to the proposed works in Condition 1, I recommend these refer to drawing 21-005-SK001 Rev. B (this is the Friendship Place layout shown in the 29 September 2021 s 92 response); and
- 25.2 If a condition is proposed to address potential mitigation works on Kāpiti Road, I recommend that any potential adverse effects on entry movements to Friendship Place can be mitigated as soon as the effect is identified. I understand that this issue will need to be discussed in detail at the hearing.

CONCLUSIONS

- 26 Overall, my conclusions are that the effects of the KRHL development have been appropriately assessed, subject to the following observations:
 - 26.1 I have replicated the modelling undertaken by KRHL's transport specialist (Mr Kelly) and agree with his conclusions that mitigation is needed for Friendship Place (based on PM peak hour analysis) and that mitigation works are required on Kāpiti Road (north-western approach) <u>if</u> reductions in traffic volumes do not eventuate on Kāpiti Road (SAT peak hour analysis with 0% growth);
 - 26.2 Regarding the mitigation works on Friendship Place, I consider the layout shown in the 29 September 2021 s 92 response is more appropriate than the layout shown in the 9 December 2021 s 92 response. I acknowledge this will need the co-operation of various parties at this hearing in order to achieve this outcome, however without those works then I have residual concerns about the appropriateness of the design, the effectiveness of the mitigation, and the ability of it to pass through the required safety audit;
 - 26.3 I consider that a reduction in traffic volumes on Kāpiti Road in the Saturday peak hour is unlikely and as such, would recommend that the works are required immediately rather than monitored. If however, a condition approach is progressed, then I recommend that any changes or amendments to the proposed condition ensure that access effects to Kāpiti Landing from the east can be appropriately mitigated, with any works required to be implemented immediately rather than waiting for a potentially lengthy monitoring period and works approval process to conclude.

Michael Ian Nixon 15 March 2022