



Christchurch City Council

RICCARTON/WIGRAM COMMUNITY BOARD

TRANSPORT AND ROADING COMMITTEE AGENDA

FRIDAY 24 OCTOBER 2008

AT 8.00AM

AT SOCKBURN SERVICE CENTRE

**IN THE BOARDROOM,
149 MAIN SOUTH ROAD, CHRISTCHURCH**

Community Board: Mike Mora (Chairperson), Helen Broughton, Jimmy Chen, Beth Dunn, Judy Kirk, Peter Laloli and Bob Shearing.

Community Board Adviser

Liz Beaven

Telephone: 941-6501

Email: liz.beaven@ccc.govt.nz

PART A - MATTERS REQUIRING A COUNCIL DECISION

PART B - REPORTS FOR INFORMATION

PART C - DELEGATED DECISIONS

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1. APOLOGIES
2. DEPUTATIONS BY APPOINTMENT
3. CORRESPONDENCE
4. BRIEFINGS

5. NEATHWEST ROAD KINTYRE DRIVE INTERSECTION

| | |
|-------------------------------------|--|
| General Manager responsible: | General Manager City Environment Group, DDI 941 8608 |
| Officer responsible: | Asset and Network Planning Unit Manager |
| Author: | Weng Kei Chen, Asset Policy Engineer |

PURPOSE OF REPORT

1. This report is in response to the request of the Board at its 1 July 2008 meeting "That no further work be undertaken on Stage 2 until staff carry out a safety audit to the provision of a roundabout and traffic calming measures at the Kintyre Drive and Neathwest Avenue intersection similar to the modified plan and report back to the Board via the Transport and Roothing Committee".

EXECUTIVE SUMMARY

2. The original report to the Transport and Roothing Committee on 20 June 2008 (Clause 8) did advise the Board that "the small roundabout was considered, and was not a preferred option". The report recommended the option of a Tee intersection at the junction of Neathwest Road and Kintyre Drive. The concern of a roundabout option was also raised in a further report to the Board on 1 July .2008 (Clause 7 (b)). Both of these reports are attached as **Attachment 1** and **Attachment 2** respectively.
3. **Attachment 3** shows a possible location of a roundabout. The location is considered to be the best fit within the confined existing road boundaries. Some technical deficiencies in this location have been identified and these issues are also supported by the Developer's traffic consultant. The report of the traffic consultant is **Attachment 4**.
4. The technical deficiencies identified are:
 - (a) The limited space available for pedestrian refuges in the two approach islands and the visibility of traffic travelling from Masham intersection at Kintyre South, which will create safety concerns for traffic as well as pedestrians using the crossing point.
 - (b) Residents at numbers 1, 2 ,4, 6 and 10 Kintyre Drive will experience some inconvenience, particularly when accessing and egressing from their properties.
 - (c) Safety to cyclists will be compromised.
5. The location of the roundabout at close proximity to the State Highway intersection will create potential storage issues for commuters.
6. There were two further issues raised by the Community Board and these concerned the retention of the platform in close proximity to the Masham Road intersection and the further introduction of additional speed control measures on Neathwest Avenue. The platform has the potential to give pedestrians a false sense of security as well as increasing local noise, but has the nominal advantage of some measure of speed control. This type of treatment would not normally be expected on the approach to a development from a State Highway and is not an engineering tool that staff would recommend.
7. The introduction of road calming devices on Neathwest Avenue is not supported as the local residents have not expressed any desire for such measures. Traffic speeds along the new section of Neathwest Avenue will be influenced by the proposed street environment with trees and other road features as part of the subdivision proposals.

FINANCIAL IMPLICATIONS

8. The change to the intersection is a condition of the subdivision, therefore Council will not incur any construction cost.

5. Cont'd

LEGAL CONSIDERATIONS

9. The works on the road are generally a Council responsibility and the approvals for work on local roads have been delegated to the Community Board.

ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS

10. The issues described in this report coincide with the core activities in both Plans to manage the roading network.

ALIGNMENT WITH STRATEGIES

11. The nature of the work proposed at this intersection is in accordance with the strategies to safely manage the roading network.

CONSULTATION FULFILMENT

12. This report is in direct response to the Board's request following consultation process and feedback from residents.

STAFF RECOMMENDATION

It is recommended that the Committee recommends to the Board:

- (a) That a "T- intersection" be constructed as per **Attachment 5** with a Stop control at Kintyre Drive.
- (b) That the stopping of vehicles, be prohibited at any time, on the western side of Kintyre Drive (southern leg) commencing at the intersection of Neathwest Avenue and extending in a southerly direction for a distance of 15 metres.
- (c) That the stopping of vehicles, be prohibited at any time, on the southern side of Neathwest Avenue commencing at the intersection of Kintyre Drive (southern leg) and extending in a westerly direction for a distance of 15 metres.
- (d) That the stopping of vehicles be prohibited at any time, on the eastern side of Kintyre Drive (southern leg) commencing at the intersection of Kintyre Drive (eastern leg) and extending in a southerly direction for a distance of 17 metres.
- (e) That the stopping of vehicles be prohibited at any time, on the southern side of Kintyre Drive (eastern leg) commencing at a point 17 metres from the intersection of Masham Road (SH 1) and extending in a westerly direction for a distance of 35 metres.
- (f) That the stopping of vehicles be prohibited at any time, on the northern side of Kintyre Drive (eastern leg) commencing at a point 16 metres from the intersection of Masham Road (SH 1) and extending in a westerly direction for a distance of 46 metres.

20. 6. 2008

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5. MASHAM ROAD AND KINTYRE DRIVE – INSTALLATION OF 'STOP', CYCLE LANE AND NO STOPPING RESTRICTION

| | |
|-------------------------------------|--|
| General Manager responsible: | General Manager City Environment, Jane Parfitt DDI 941-8608 |
| Officer responsible: | Asset and Network Planning Unit Manager |
| Author: | Weng-Kei Chen, Asset Policy Engineer Malcolm Taylor, Traffic Engineer |

PURPOSE OF REPORT

1. The purpose of the report is to seek the Committee:-
 - (a) recommendation to the Board and the Council for the installation of no stopping restrictions, cycle lane along Masham Road, Kintyre Drive and Neathwest Avenue as shown in **Attachment 1** (which indicates the long term proposals). There is already an existing "Give Way" control on Kintyre Drive at Masham Road intersection.
 - (b) recommendation to the Board to review the future traffic control priorities at the intersection of Neathwest Avenue/Kintyre Drive as a result of changing traffic conditions.

EXECUTIVE SUMMARY

2. The transport requirements to serve the recent rezoned land in Masham Block are the construction of three accesses located at Buchanan Road, Masham Road and Yaldhurst Road.
3. The construction of Buchanan Road access has now been completed and a subdivision consent was recently granted for the development by Enterprise Home Ltd with access from Masham Road.
4. The existing Neathwest Avenue, Kintyre Drive and Masham Road intersections will require alterations to accommodate the traffic as a consequence of the new planning zone. The proposed plan as shown in the attachment has been approved by Transit NZ who controls Masham Road.
5. A consultation plan showing the extent of the proposed work was delivered to residents and 29 submissions were received with 20 of the submitters indicating their support and also they raised some of their concerns.
6. The proposed change to existing Masham Road and Kintyre Drive consists of:
 - (a) widening of Masham Road to accommodate a left turning lane to Kintyre Road.
 - (b) widening of Kintyre Drive to accommodate cycle lanes and traffic lane for entry; cycle lane and two traffic lanes for exit.
7. The intersection of Kintyre Drive and Neathwest Avenue currently has priority for traffic on Kintyre Drive. Initially it is proposed to retain this priority arrangement, but, as a result of the completion of the proposed new development or as a result of changing traffic conditions, it is proposed that the existing vehicles rights of way be revisited by the Board.
8. The option of a small roundabout at Kintyre Drive and Neathwest Avenue was considered and is not a preferred option. This option will create safety concerns for accesses to the existing properties at No's 4, 6 and 8 Kintyre Drive. It will compromise safety to cyclists using the proposed cycle lanes and the efficiency of the network when the projected traffic demands on Neathwest Avenue exceed that of Kintyre Drive.

FINANCIAL IMPLICATIONS

9. This work is being carried out by the developer and at no cost to Council.

5 Cont'd

Do the Recommendations of this Report Align with 2006-16 LTCCP budgets?

10. Yes.

LEGAL CONSIDERATIONS

11. The Land Transport Rule provides for the installation of traffic controls, cycle lane and no stopping restrictions and these require Council and or Board delegated approvals as set out in Councils by laws and delegations.

Have you considered the legal implications of the issue under consideration?

12. Yes as above.

ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS

13. The issues being considered are consistent with the Councils objectives in the LTCCP page 152 'Street and Transport Objectives' – to provide a sustainable network of streets which distribute traffic between neighbourhoods and connect to major localities within and beyond the city.

Do the recommendations of this report support a level of service or project in the 2006-16 LTCCP?

14. Yes.

ALIGNMENT WITH STRATEGIES

15. This action is consistent with the traffic objectives in the City Plan.

Do the recommendations align with the Council's strategies?

16. Yes.

CONSULTATION FULFILMENT

17. 29 submissions were received and they are summarised in **Attachment 2**.
18. Further discussion was also held with owners of the property at 10 Kintyre Drive and their request for an extra parking space along Neathwest Avenue can be accommodated by extending the proposed intended parking.

STAFF RECOMMENDATION

It is recommended that the Committee recommends to Board:

- (a) That the Board monitors the likely changes to the intersection of Kintyre Drive and Neathwest Avenue as a consequence of the development of the new residential area with the view to change the existing priority at the intersection if required.
- (b) 'No Stopping' of vehicles to be prohibited outside 10 Kintyre Drive at anytime on the Western side of Kintyre Drive commencing at the intersection of Neathwest Avenue extending in the Southerly direction for a distance of 15 metres.
- (c) 'No Stopping' of vehicles to be prohibited outside 1 Kintyre Drive at any time at a point 8.5m north of the South West corner of 1 Kintyre Drive extending in the northerly direction along the eastern kerb and channel of Kintyre Drive for a distance of 17 metres.

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5 Cont'd

It is recommended that the Committee recommends to Board to recommend to Council:

- (a) 'Cycle Lanes' to be installed along Kintyre Drive and Neathwest Avenue on both sides of these roads commencing from Masham Road extending in the Westerly direction for a distance of 110 metres. Their implementation will also prohibit stopping of vehicles along these roads except where parking bays are provided.
- (b) 'No Stopping' of vehicles to be prohibited along the left turn lane to Kintyre Drive commencing from southern corner of Masham Road and Kintyre Drive intersection extending in the southerly direction for a distance of 70 metres.

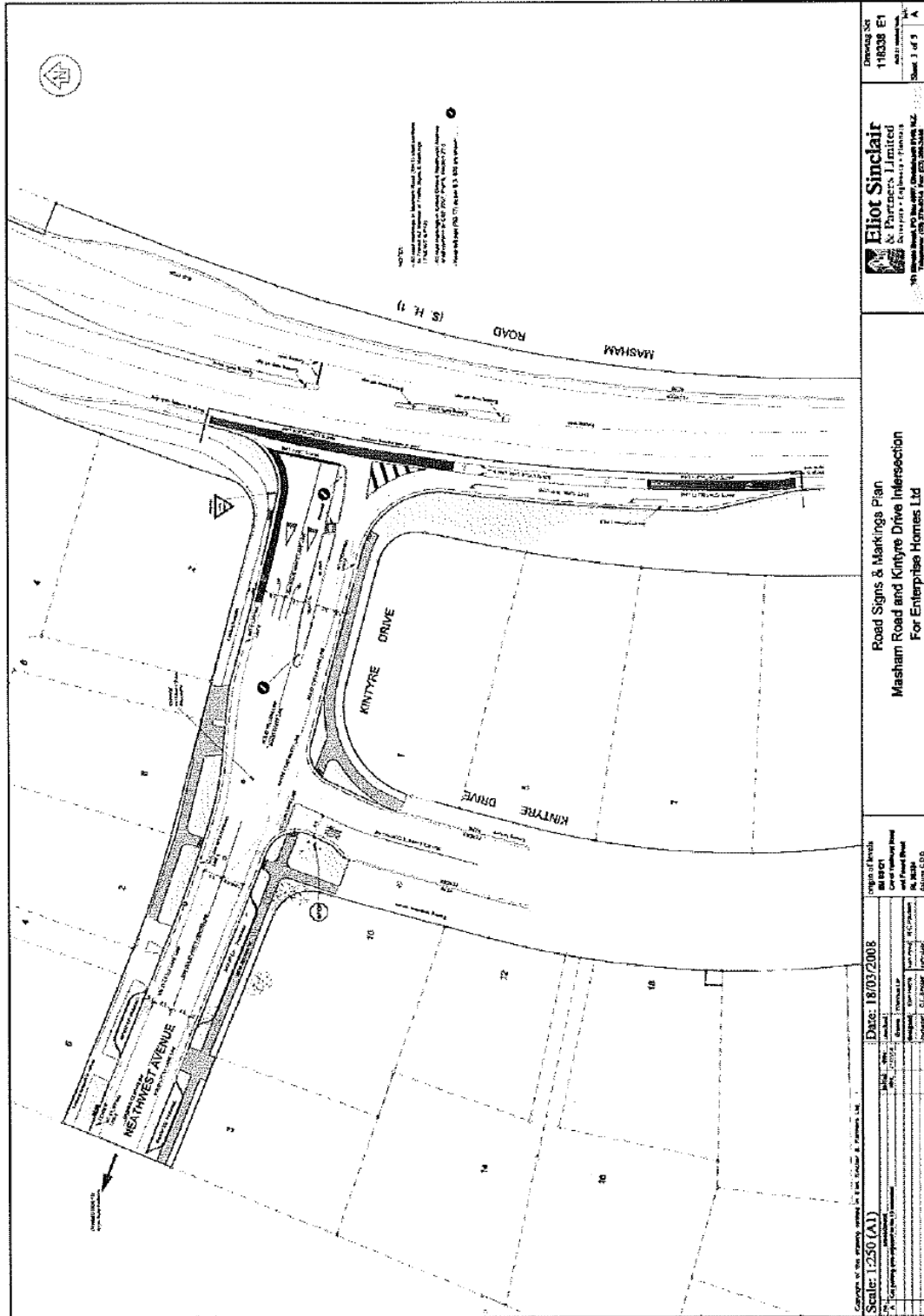
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Clause 5 - Attachment 1

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Clause 5 - Attachment 2

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14 May 2008

«Title» «Name» «Surname»
«Company»
«Street»
«Address_1»
«Suburb»
«TOWN» «POSTCODE»

Dear Sir/Madam

NEATHWEST AVENUE – PROPOSED STREET IMPROVEMENTS

I thank you for the time and effort you put in for your submissions to the above project. The Council received 29 submissions and they are summarised as follows:

- 20 submissions indicate support to the changes with some concerns.
- 9 submissions indicate their opposition.

The 20 supporting the changes raised a number of issues and they are as follows:

- Signage and numbering of properties.
- Delay for right turner to Masham Road.
- Suggest roundabout instead of Tee intersection.
- Increased traffic to the area.
- Pedestrian Crossing to be better defined.

The 9 submissions not supporting the changes for the following reasons:

- Yaldhurst Road entry to be constructed first.
- Do not support no stopping restriction along Neathwest Avenue.
- Stop sign will cause delay at Kintyre Drive.
- Delay for right turner to Masham Road with increased traffic.
- Do not want change.
- No change to existing median.
- Need right turn lane to Kintyre Drive at Masham Road to be extended.
- No to 'Stop' sign at Kintyre Drive losing priority to new residents.

By way of background Masham Road access is one of the three accesses required to serve the zone change from 'Rural' to 'Living' for the Masham block. The other two accesses are at Buchanan Road and Yaldhurst Road.

The anticipated traffic growth requires alteration to the existing road network and this proposal has the approval of Transit NZ that manages the state highway and Masham Road is a part of the network.

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Clause 5 - Attachment 2

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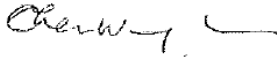
The proposal plan (see attached) provides the following:

- Widening of Masham Road to provide a left turning lane for entry into Kintyre Drive and maintaining two north bound traffic lanes.
- Widening of Kintyre Drive at Mashams Road intersection to provide a right turn lane, a left turn lane and a cycle lane for traffic coming out of Kintyre Drive and likewise for a free left turn lane into Kintyre Drive. The provision of marked cycle lane also provides a no stopping restriction to that part of Kintyre Drive.
- A tee-intersection at Kintyre Drive and Neathwest Avenue with a Stop control at Kintyre Drive. A 'Stop' control is appropriate due to the existing boundary fence that will create a slight inadequacy for sight distance for traffic from Masham Road.
- In replacing the current landscaping at the existing median island, Council is requiring the developer to provide landscaping features at Kintyre/Neathwest intersection. These works will be carried out in consultation with the affected properties frontage.

The changes to the road network is funded by the developer and the construction is to commence soon. The staff will be preparing a report to the June Riccarton and Wigram Community Board for their consideration on 'stop', 'Give Way', Cycle Lane, and no stopping restriction at intersections and lanes.

I thank you again for your interest in this project.

Yours faithfully



Weng Kei Chen
ASSET POLICY ENGINEER
CITY ENVIRONMENT GROUP

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CLAUSE 5- ATTACHMENT 2

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RICCARTON/WIGRAM COMMUNITY BOARD
1 JULY 2008

A meeting of the Riccarton/Wigram Community Board
was held on Tuesday 1 July 2008 at 5pm

PRESENT: Peter Laloli (Chairperson), Helen Broughton, Jimmy Chen,
Beth Dunn, Judy Kirk, Mike Mora, and Bob Shearing

APOLOGIES: Nil

The Board reports that:

PART A - REPORTS REQUIRING A COUNCIL DECISION

1. KINTYRE DRIVE/NEATHWEST AVENUE/MASHAM ROAD IMPROVEMENTS

| | |
|-------------------------------------|--|
| General Manager responsible: | General Manager City Environment, Jane Parfitt, DDI: 941-8608 |
| Officer responsible: | Asset and Network Planning Unit Manager |
| Author: | Weng-Kei Chen, Asset Policy Engineer Malcolm Taylor, Traffic Engineer |

PURPOSE OF REPORT

1. The purpose of this report is to inform the Council of the background to the residential zoning and to advise of a course of action as a result of public submissions to works that have commenced at the intersections of Masham Road and Kintyre Drive, and Kintyre Drive and Neathwest Avenue.

EXECUTIVE SUMMARY

2. On 20 June 2008 the Riccarton/Wigram Rooding and Transport Committee considered a report titled Masham Road and Kintyre Drive – Installation of 'Stop', Cycle Lane and No Stopping Restriction.
3. That report sought approval of no stopping restrictions and a cycle lane, and is attached (**attachment 4**). During the consideration of the report, the Committee asked that further information be provided at its Board meeting on 1 July 2008. The following report replaces the information contained in attachment 4.
4. The subdivision development of the Masham Block, which is generally that area between Masham Road, Buchanans Road and Yaldhurst Road, is as a consequence of an application to rezone the land and the Council decision not to support it. This decision was appealed and a decision to develop the land was given by the Environment Court on the 21 August 2006. The decision, an 83 page of the decision document included the following clause on the intersections:

"Alteration to road layout for safe access to and from Masham Road, Kintyre Drive, Neathwest Avenue and Buchanans Road

- (a) *The extent and cost of works and land required to alter the existing road layout to accommodate the safe and efficient movement of all road users along and through these roads and intersections:*
 - (i) *The Masham Road/Kintyre Drive intersection;*
 - (ii) *Kintyre Drive;*
 - (iii) *The Kintyre Drive, Neathwest Avenue intersection;*
 - (iv) *Neathwest Avenue;"*

The Environment Court decision was incorporated into the City Plan and in particular under the City Plan appendix 3n.1 outlines the key structuring elements and appendix 3q has diagrams setting out the movement network for roads and cycle routes.

Report of the Riccarton/Wigram Community Board to the Council meeting of 14 August 2008

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Riccarton/Wigram Community Board 1.7.2008

1 Cont'd

5. As a consequence of public submissions and concerns expressed to different Board Members about the works on Kintyre Drive, it is now proposed to carry out these improvement works in Kintyre Drive in two stages, as outlined below:

- (a) Stage 1;

Generally the works associated with the Masham Road - Kintyre Drive intersection.

These works are required in order to permit the developer of the new Masham development to safely gain access to the subdivision site as well as improving access and egress for local residents. The proposals provide for the provision of a deceleration lane on the State Highway, the provision of a cycle lane and an additional turning lane onto Kintyre Drive. These works require the modifications and changes to the traffic island and road humps in Kintyre Drive to allow two approach lanes to the State Highway. Also to be included are partial changes to the intersection of Kintyre Drive/ Neathwest Avenue intersection to allow new kerblines and landscaping to be completed at the cost of the developer by the developer.

- (b) Stage 2

Generally the works associated with the Intersection of Kintyre Drive and Neathwest Avenue

This includes the works associated with the change of priority at the Kintyre Drive/ Neathwest Avenue intersection and the provision of cycle lanes. These works can be planned with the rate of development of the new subdivision site, which will influence future traffic patterns. Included with these works is the provision of cycle lanes.

6. The works on the existing road reserve do require the approval of the Board. The provision of cycle lanes, the extent of no stopping, together with support for the works on the State Highway requires the separate approval of both the Board and the Council.

7. Two issues are apparent as a result of the consultation with residents. They are:

- (a) An appreciation of both the extent and nature of the proposed subdivision development.

The proposed new residential development is to be centred on a main spine road running between Buchanans Road and Yaldhurst Road where it is proposed to introduce a roundabout or other similar traffic control at both these junctions. The connections described from the Enterprise subdivision to the other parts of the wider subdivision is a requirement of the Environment Court decision to ensure integration between the existing and new communities. Until such time as these connections are provided, the development on the Enterprise block, which will have direct access from Kintyre Drive/ Neathwest Avenue, is limited to 200 houses. Residents have not generally been made aware of the alternative connections of these future roads. In addition there is some commercial development planned within the subdivision.

- (b) The provision of the long term method of control at the junction of Kintyre Drive and Neathwest Avenue.

The second issue was the proposed alternative methods of control for the Kintyre Drive/ Neathwest Avenue intersection. A variety of alternatives have been discussed and considered but each of these has presented particular issues or problems. The aim of the design as outlined in the initial report to the Committee provided for what was considered the safest long term solution which reflected the future changes to the major movements of traffic through the intersection and the ability to direct them safely. The overall traffic environment on Neathwest Avenue at full development is unlikely to result in major capacity problems at the this intersection. Overall delays are likely to be low, so the change in priority should have only a minor effect on travel times for residents in Kintyre Drive, but is important for safety.

14. 8. 2008

Riccarton/Wigram Community Board 1.7.2008

1 Cont'd

- With a roundabout, there is limited ability to provide equal deflection to each of the movements and to adequately provide for safe movements and access to private driveways
- Keeping the current status quo in terms of priority would not lead to an effective traffic management system as traffic movement's increase, with the majority of the traffic wanting to continue straight on at the intersection
- To provide a standard treatment reflecting the unique character of the locality.

The residents however have been correct in expressing their concerns as there may be a more appropriate time to introduce priority changes to the intersection. While the priority changes will still be warranted in the long term as and when the subdivision development occurs. It is proposed that the intersection design for the short to medium term be such that it provides for the current priority hierarchy. This amendment to the proposals would be subject to a safety audit to ensure that the residents are provided with a safe intersection. It is further proposed that the intersection be monitored and the future priority changes be made as different traffic patterns occur.

FINANCIAL IMPLICATIONS

8. Under the decision of the Environment Court, the initial modifications to the two intersections are associated with the development of the adjacent land and therefore at the cost to the new development. However, there is the potential for claims to the Council if there is unnecessary delay to the proposed works.

Do the Recommendations of this Report Align with 2006-16 LTCCP budgets?

9. The works are not associated with the LTCCP funding categories

LEGAL CONSIDERATIONS

10. The works on the road are generally a Council responsibility and the approvals for work on local roads have been delegated to the Community Board. The Council interest has been determined by the Environment Court decision and the eventual need to include cycle lanes once significant development has occurred.
11. A separate report to the Board will be required when the traffic conditions at the intersection of Kintyre Drive and Neathwest Road significantly alter and there is a need to change the existing intersection priorities or to enable the intersection to operate safely.

ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS

12. The report is in alignment with Council core function to manage the roading network.

ALIGNMENT WITH STRATEGIES

13. The nature of the work proposed at this intersection is in accordance with the strategies to safely manage the roading network.

CONSULTATION FULFILMENT

14. This report is in direct response to the consultation process and the feedback from residents.

14. 8. 2008

Riccarton/Wigram Community Board 1.7.2008

1 Cont'd

STAFF RECOMMENDATION

It is recommended that the Council:

- (a) Request staff to provide an information leaflet to the residents of Kintyre Drive and Neathwest Avenue informing them of the extent and nature of the subdivision development, its future connection to the existing roading network and possible timings of the development.
- (b) That the changes to the roadways in the locality take place in two stages:

Stage 1

- 1. The layout of the intersection of the Kintyre Drive and Masham Drive is laid out generally in accordance with the attached plan. **(Attachment 1)**
- 2. Recommend to the Council that they support the submission to Transit NZ that the provision of cycle lanes and no stopping parking restriction as illustrated in the attached plan be implemented. **(Attachment 1)**
- 3. That the intersection of Kintyre Drive/Neathwest Avenue be constructed to its final formation **(Attachment 1)** with any works necessary to safely maintain the existing priority at this stage.
- 4. That the temporary delay to the proposed works is uplifted to allow the works at the Kintyre Drive / Masham Road to continue.

Stage II

- 1. That the Council request that traffic monitoring of the intersection traffic flows is undertaken by staff as the subdivision development occurs, and as the traffic patterns change, to enable the priority arrangements at the intersection to be reviewed, in conjunction with local residents, before being changed to its final formation.
- 2. That the Council reconsider the need for cycle lanes in Neathwest Avenue following completion of the construction of the balance of the street.

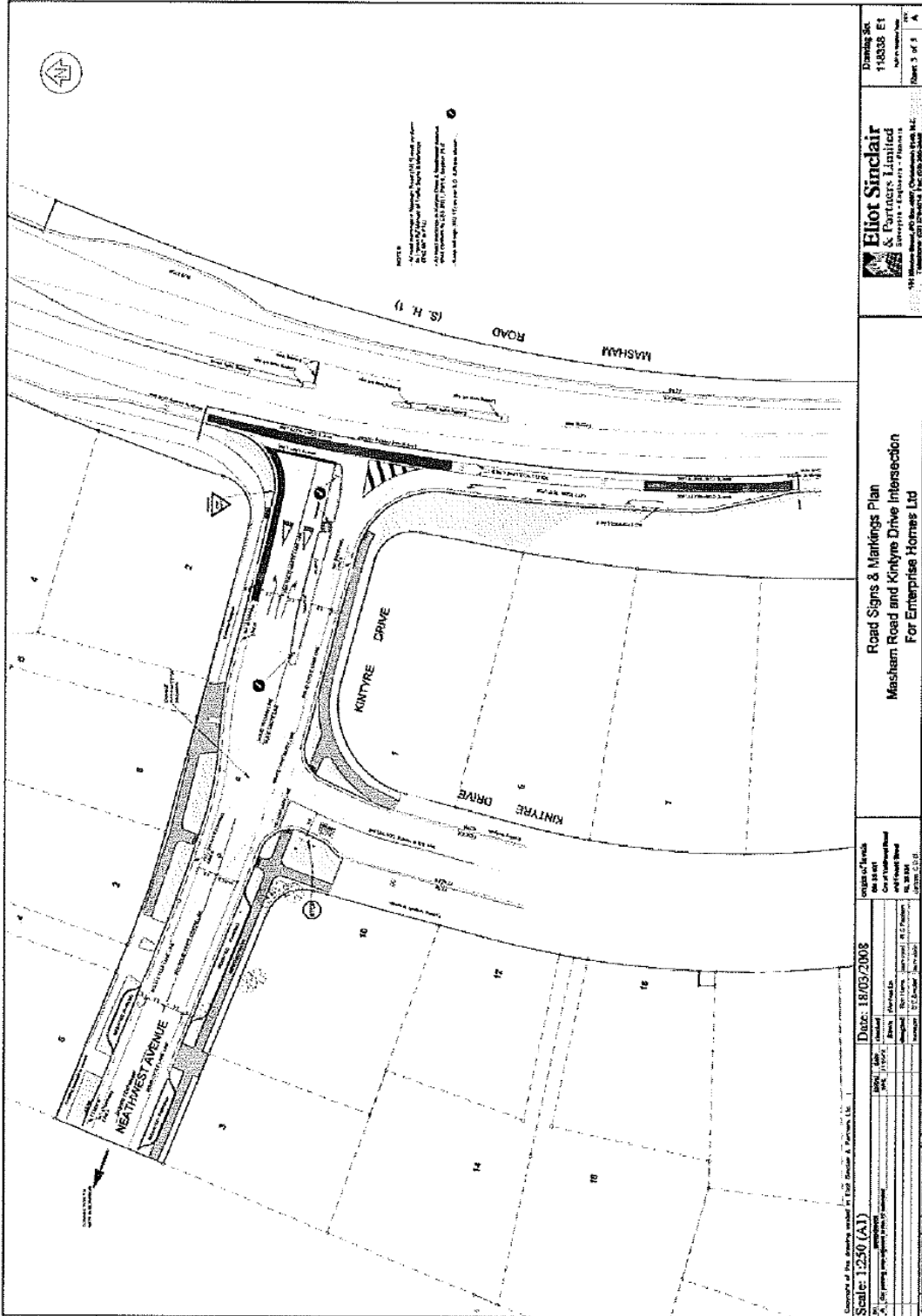
BOARD RECOMMENDATION

That the Council:

- (a) Subject to the final approval of the sub-division, approve the completion of the works identified as Stage 1 (Masham/Kintyre Drive Intersection) on the modified plan. **(Attachment 2 – Board Modified Plan)**
- (b) That the Council make representation to Transit New Zealand on the concerns expressed by residents on Masham Road and Kintyre Drive intersection.
- (c) That no further work be undertaken on Stage 2 until staff carry out a safety audit on the provision of a roundabout and traffic calming measures at the Kintyre Drive and Neathwest Avenue intersection similar to the modified plan and report back to the Board via the Transport and Roothing Committee.

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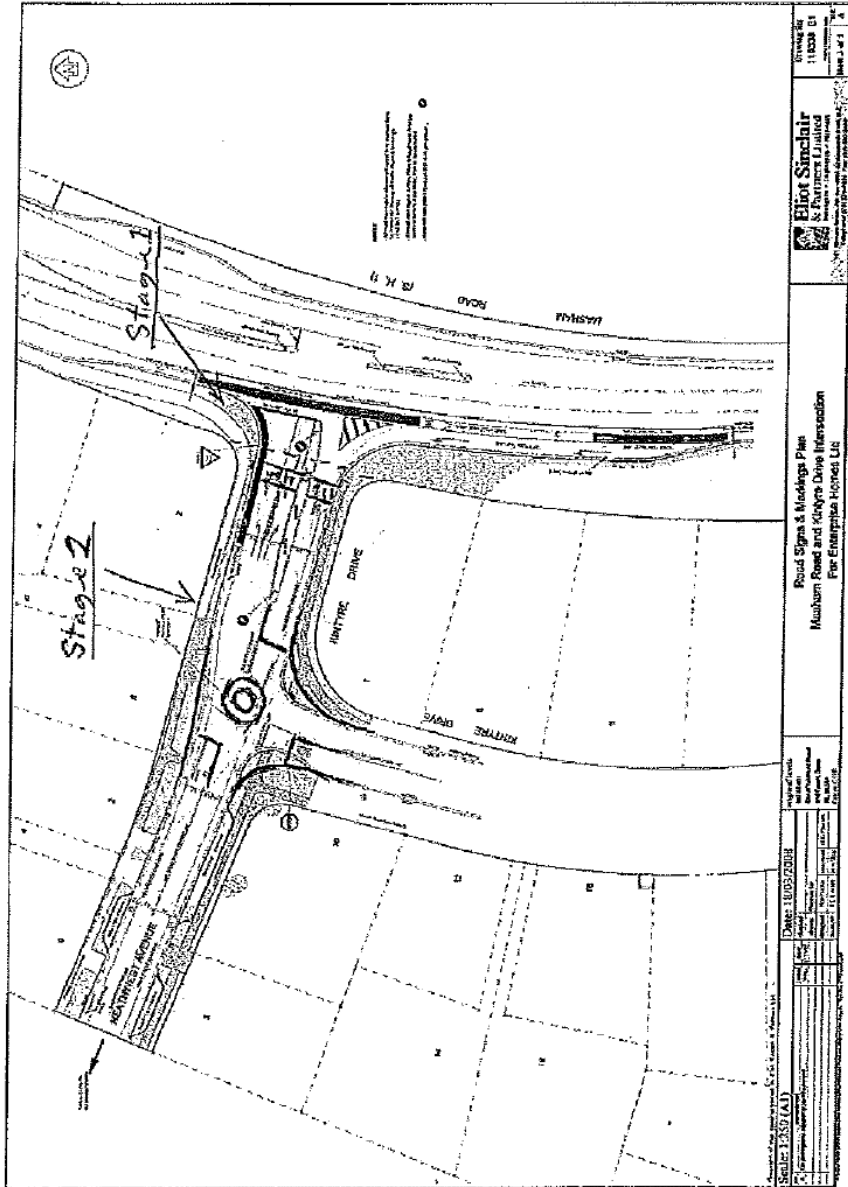
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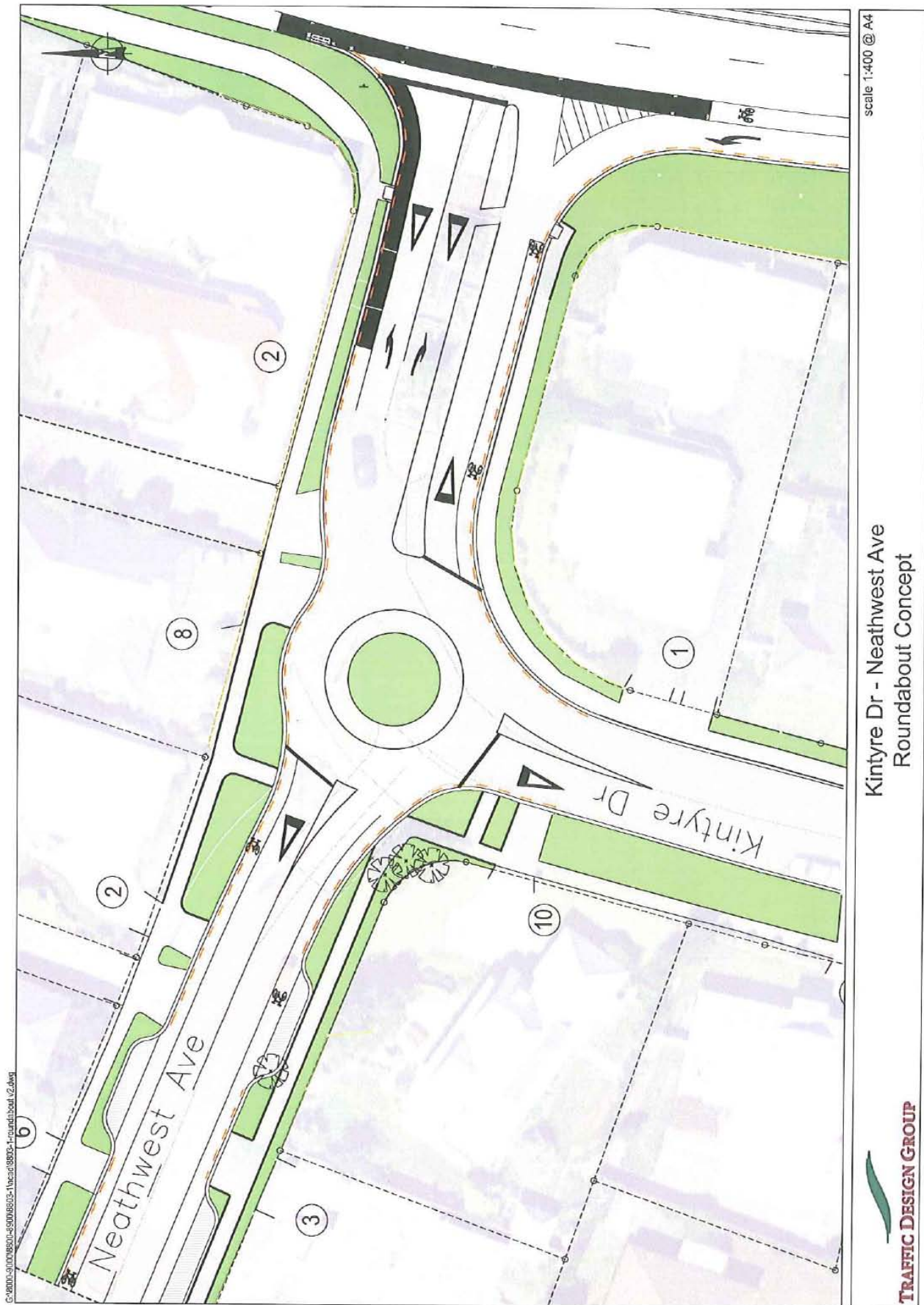
Clause 1 - Attachment 2

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Riccarton/Wigram Community Board 1.7.2008

RICCARTON WIGRAM COMMUNITY BOARD MODIFIED PLAN







TRAFFIC DESIGN GROUP

8803/2
8 September 2008

Mr Bruce Sinclair
Director
Eliot Sinclair and Partners Ltd
PO Box 4597
CHRISTCHURCH

Dear Sir

DESIGN REVIEW – NEATHWEST AVENUE / KINTYRE DRIVE

As requested, we have reviewed the proposed intersection treatments for the Neathwest Avenue / Kintyre Drive intersection at Masham in light of the requests from the Riccarton/Wigram Community Board to investigate further an option of a roundabout for the intersection. Our report that follows briefly outlines the reasoning behind the proposed stop intersection control, and an assessment of a roundabout control at the intersection.

With Neathwest Avenue to be extended as a connection for the Masham Park subdivision our objective was to ensure that the proposed subdivision transport network integrated with the surrounding transport network safely and efficiently. This required consideration of:

- The capacity of the Masham Road / Kintyre Drive intersection and whether improvements were necessary;
- Whether alterations were necessary at the Kintyre Drive / Neathwest Avenue intersection;
- Any other changes to integrate the subdivision with the existing transport network.

1. BACKGROUND TO PROPOSED DESIGN

1.1 Masham Road / Kintyre Drive Intersection

As a result of extensive analysis of the Masham Road / Kintyre Drive intersection, it was determined that the Kintyre Drive approach had to be widened to provide for separate left and right turn lanes, thereby ensuring delays at the intersection would remain at an acceptable level. These alterations require the reconstruction of the central island on Kintyre Drive. The NZ Transport Agency (then Transit NZ) also required the installation of a separate left turn lane from the Masham Road south approach so that disruption to through traffic would be minimised.

1.2 Kintyre Drive / Neathwest Avenue

Analysis of the future traffic patterns show that the through traffic on Neathwest Avenue between the 200 lot Masham subdivision and the Masham Road intersection will be about 1,600vpd, almost twice as high as the traffic volume of 850vpd on the Kintyre Drive south approach

Traffic Design Group Limited
127 Armagh Street PO Box 13 835 Christchurch
Phone +64 3 379 2404 Fax +64 3 379 3406

Traffic Engineering Transportation Planning



associated with the existing residential area. In the future, when the Masham Subdivision network connects to the remainder of the Living G zone transport network, there is likely to be a further small increase in through traffic. The natural orientation of the intersection is such that combined with the expected traffic patterns, a change of priority to the intersection is warranted in accordance with standard traffic engineering practice for the purpose of network legibility, overall network performance, and intersection safety.

An analysis of the intersection performance with the Stop control confirms that the traffic volumes at the intersection are low enough that vehicles subject to the Stop control turning right from Kintyre Drive will experience negligible delays. The small amount of delay expected will be primarily related to the Stop control, rather than the delay resulting from waiting for opposing traffic on Kintyre Drive-Neathwest Avenue.

1.3 Neathwest Avenue Cycle Lanes and Indented Parking

The Living G zone movement networks in the City Plan requires cycle lanes on the Neathwest Avenue connection, and these have been incorporated into the design of the alterations. In order to provide the cycle lanes, it is necessary to install indented parking bays to maintain parking for existing residents.

1.4 Summary

The design proposed is considered to provide a safe, efficient and cost effective solution that is consistent with the type of traffic management controls utilised at similar intersections throughout the city. The design proposed was then discussed with the New Zealand Transport Agency (then Transit NZ), the Christchurch City Council's traffic engineers, and Elliot Sinclair & Partners Ltd. All those parties agreed that the design put forward was an appropriate engineering solution for the proposed works. On this basis the design was taken forward for public consultation and then Community Board approvals.

2. Alternative Roundabout Control

During public consultation and subsequent Community Board meetings, a roundabout intersection control at the Kintyre Drive / Neathwest Avenue intersection was put forward as a possible alternative. Traffic Design Group Ltd undertook a review of the roundabout option suggested by residents and confirmed the Council officer's view that there are standard design elements that would be compromised if a roundabout is located at this intersection providing a degraded level of service for pedestrians, cyclists, and motorists utilising the intersection and accessing adjacent properties. A summary of the potential issues are provided below:

- The roundabout places the pedestrian crossing points on the Kintyre Drive south approach in a position that is less visible to turning traffic. This is exacerbated by the constrained location not enabling splitter islands on two approaches to the roundabout;
- The continuity of the cycle lane facilities is broken through the roundabout controlled intersection;
- The roundabout island is offset from the centreline of Neathwest Avenue, such that through traffic vehicle speeds from Neathwest Avenue are not physically controlled to the normal extent expected of a roundabout;
- The intervisibility between Neathwest Avenue and Kintyre Drive is lower than desirable giving less time for approaching drivers to react. There is a risk that combined with the



inability of the roundabout to physically control eastbound speed, there could be conflict with traffic turning right out of Kintyre Drive;

- Direct access to properties on the north side of Kintyre Drive is compromised by the roundabout;
- Removal of one of the on-street parking spaces on Neathwest Avenue.

A roundabout control in a local environment is normally desirable for speed control and to reduce conflicts at cross road intersections. Given the T-type intersection arrangement, a standard Stop controlled intersection will operate safely, and with the close proximity to the Masham Road intersection it is considered that there is no need for the roundabout to act as a speed control device in this location.

Compared with a Stop controlled intersection, the roundabout delays all of the through and turning movements reducing performance for the intersection as a whole. This is because all approaches (including the left turn into Kintyre Drive) are subject to a sign control, and due to its size a roundabout takes longer to negotiate than a standard tee intersection. As a result, the provision of a roundabout with its Give Way control has no noticeable improvement in efficiency for Kintyre Drive residents.

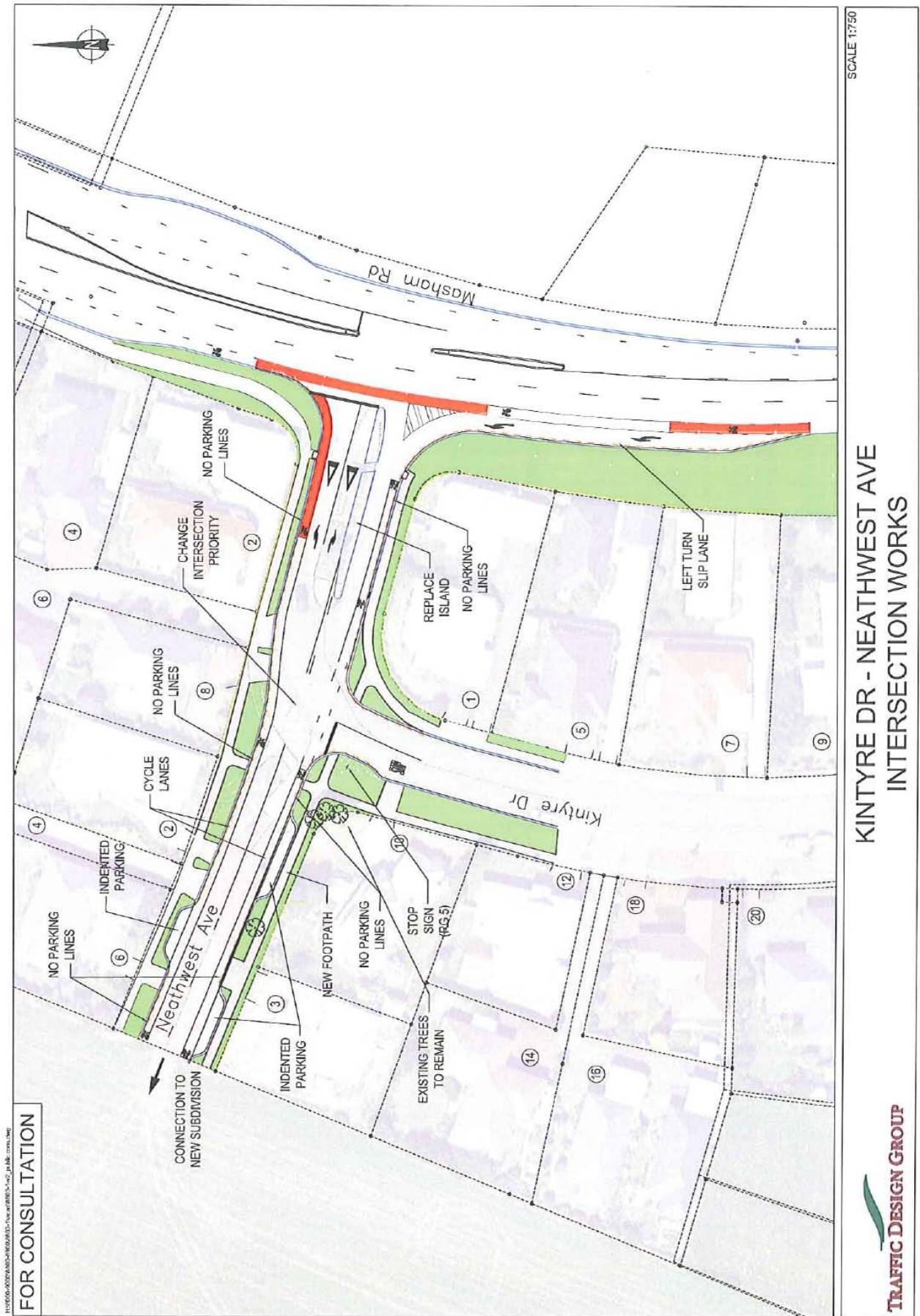
On balance, it is considered that a roundabout is not the most efficient or safe intersection treatment at this location. We therefore recommend that the original layout with a Stop control should be installed.

I trust that this letter appropriately outlines the design matters associated with works proposed on Neathwest Avenue and Kintyre Drive associated with the Masham Park subdivision. If you have any queries, please do not hesitate to contact me.

Yours faithfully
TRAFFIC DESIGN GROUP LTD

A handwritten signature in black ink, appearing to read "Andrew Metherell", written in a cursive style.

Andrew Metherell
PRINCIPAL TRANSPORTATION ENGINEER



24. 10. 2008

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6. UPDATE ON CURRENT TRANSPORT ISSUES

7. ELECTED MEMBERS INFORMATION EXCHANGE