

## Consultation summary - Ilam Middleton Riccarton intersection safety improvements

### Consultation process

Pre-consultation meetings were held with representatives from the University of Canterbury and Ilam, Kirkwood and Middleton Grange Schools, resulting in project team response to specific questions. Police and emergency services were sent the plans for early input. There were no requested changes, and the Police, Fire Service and St John responded with their approval.

Have Your Say consultation on the Council web site was open for community comment from 13 February to 11 March 2019. Approximately 1,400 booklets were hand delivered to the project area and surrounding streets, and approximately 600 posted to owners and stakeholders including libraries and service centres along with an extensive email list.

Members of the project team delivered booklets to key affected businesses at the start of consultation, responding during this period to questions and concerns including site meetings in response to specific concerns.

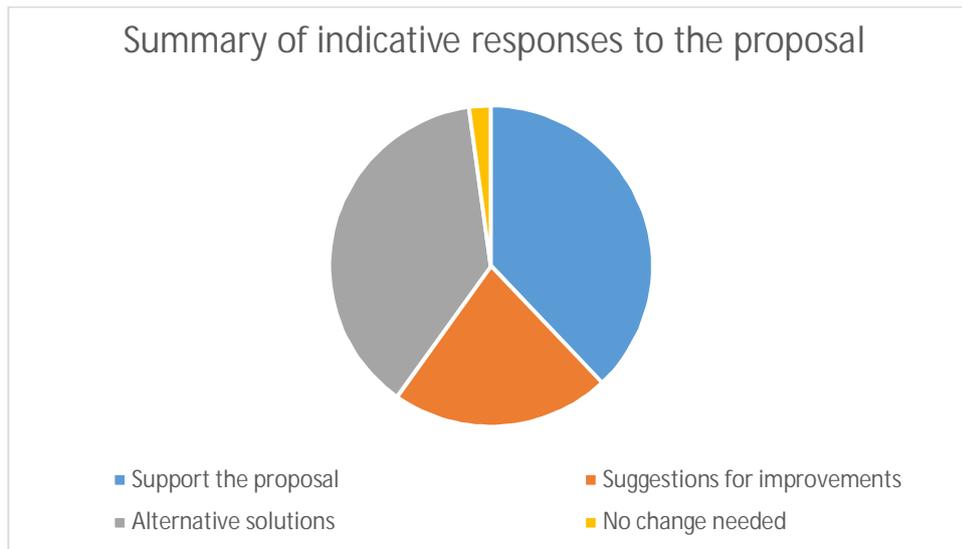
More than 30 people attended two drop-in information meetings, including staff presentations and question and answer sessions.

There was a high level of engagement on social media targeting the Riccarton community about this proposal with 115 Facebook likes, 128 comments and 20 shares. Generally, people agreed that something needs to be done to make the intersection safer and nobody suggested it should be left as is. Of the few who had suggestions for alternatives, banning right turns enabling retention of the through route from Middleton to Ilam was the most popular. There were 1,169 views of the Newsline article on the website.

### Overview of feedback

A binary support/yes no response was not requested or specifically provided for in the consultation feedback form. Although the feedback gave clear themes and levels of support, analysis and interpretation is indicative only.

One hundred and thirty-seven individuals or groups provided written comment and 52 indicated support for the proposal. Over half of the remaining eighty-two providing comments or suggestions gave alternative solutions, while the rest put forward comments or suggestions to improve the proposal. Three do not think any change is needed at the intersection.



### Support for the proposal

Key support comments reinforced the need for safety for all Ilam/Middleton/Riccarton intersection users – including those walking and on bikes (29 submitters). The Canterbury District Health Board and Generation Zero gave strong support to prioritising safe cycling, walking and public transport including the use of road space such as berms. Six submitters questioned the fairness of prioritising cycles over other road users especially drivers including whether the Nor West Arc Major Cycle Route is viable, while seven specifically indicated support for the cycleway.

The Kirkwood Intermediate School Principal supports the proposal as a safety improvement, requesting a change to the proposed parking removal immediately to the west of the school to allow for bus parking at relevant times. Positive comments were received from Ilam School parents supporting the safety improvements for pedestrians and cyclists at the intersection.

There was some support for those travelling to local schools, the university or other institutions for the safety improvements brought by the proposal for these people, especially cyclists and pedestrians.

### Key concerns

Access to local and wider destinations to the north. Ninety-three submitters questioned what would happen to north-bound vehicle traffic that currently travels up Middleton Road into Ilam Road to get to schools, the university, and other destinations.

About two thirds of over 30 references to the university and local schools and other institutions noted concerns about access to these locations and lack of viable routes for these commuters and students.

Viability of alternative routes – wider network. A number of questions were raised about the viability of alternative routes including Hansons/Waimairi and Wharenui/Clyde, and how this would affect access for locals as well as the wider community and those travelling to wider destinations.

Increased localised traffic congestion. There was particular concern from 25 submitters about how traffic including those travelling from Bush Inn and unable to turn right into Middleton Road will divert to clog local streets such as Auburn Avenue, Suva Street and Field Terrace and nine had

specific concerns over loss of access for locals. Middleton Grange School had questions about how Suva Street would be affected given the new cycle lane.

Increased wider congestion. Thirty-six noted that they expect wider congestion and 'log jam' issues in Riccarton Road and intersections especially Wharenui/Clyde and to a lesser extent Hansons/Waimairi.

Alternative suggestions from submitters

Alternative solutions for Ilam/Middleton/Riccarton intersection. Twenty-nine suggestions for alternative overall solutions for the Ilam/Middleton/Riccarton intersection included solving the problem by banning the right turns to keep the through movement, and resetting the traffic lights to split the phases. Seven submitters suggested acquiring land to straighten the road, and eight asked for assurance that there would be a right turn arrow from Ilam into Riccarton.

Retain the right turn into Middleton. Thirty four comments were made about the effects this could have on local congestion and 13 specifically opposed this change.

Alternative solutions for Clyde/Riccarton/Wharenui. There were several suggestions to change the through and left turn lanes located between the Clyde Road and Wharenui Road approaches to left turn only, to allow a north-south movement.

Other suggestions and concerns

Field Terrace access concerns – right turn bans. At least 10 submitters were concerned about the removal of the right turns in and out of the street at the Field Terrace/Riccarton Road intersection.

Concern that traffic will divert through Field Terrace. There was also some concern that the changes to the Ilam/Middleton/Riccarton/Field Terrace intersection might encourage more through traffic for those wanting to go north along Ilam Road. This could cause left turning traffic from Field Terrace to build up on Riccarton Road waiting for a right turn into Ilam Road.

Cycle and pedestrian suggestions. During the consultation phase a number of informal and several written comments were made questioning the viability of the location of, and priority given to the Major Cycle Route, while six raised concerns about how the layout and route would actually improve the situation for pedestrians and cyclists.

Parking concerns. In addition to Kirkwood Intermediate's comments above, another submitter was concerned about the effects on their residential property from parking removal in Riccarton Road near Kirkwood Intermediate School.

Others with parking loss concerns were the building owner and three business owners in opposition to the proposed removal of four parks outside the Clyde Building on the corner of Euston Street and Riccarton Road, and two residents concerned about parking changes in their section of Middleton Road.

Project team response to key issues and alternative suggestions raised during consultation

Access to and viability of alternative routes. Traffic modelling shows most vehicles that would have previously travelled north via Ilam Road will move to adjacent roads, the majority choosing Wharenui/Clyde or Waimairi/Hansons. Residents along or near Middleton Road or its side roads will have limited options to divert. The routes will depend on the destination, but with no change to how they get to the city centre. (See table below showing current and projected 2031 post intersection improvements for morning and afternoon peaks)

Residents living along Middleton Road or on one of the side roads will have limited options to divert. Preferable routes will depend on the destination or origin of the journey. Here are some examples:

For vehicles travelling to city centre, residents could use Lochee Road and Wharenui Road to turn right onto Riccarton Road, or they could use Blenheim Road. There is no change for vehicles returning from the city centre.

For vehicles travelling northbound, residents could use either Lochee Road and then the Wharenui Road–Clyde Road corridor, or Suva Street and then the Hansons Lane–Waimairi Road corridor. Returning from the north results in no change, as vehicles can still travel south on Ilam Road through to Middleton Road.

For vehicles travelling to the west, residents can continue to left turn out of Middleton Road on to Riccarton Road. Returning from the west they could use Hansons Lane and Suva Street.

Increased traffic congestion. To support the proposed Ilam/Middleton/Riccarton Roads intersection improvements, additional changes to the road layout at other intersections are expected to bring an overall reduction in travel time for general traffic on both Riccarton Road and the wider network.

The proposed design also includes changes to the following intersections:

Field Terrace/Riccarton Road

Hansons Lane/Riccarton Road/Waimairi Road

Clyde Road/Riccarton Road/Wharenui Road

There will be an increase in traffic using the Clyde Road/Riccarton Road/Wharenui Road intersection as part of this proposal. While the overall level of service at this intersection is not expected to change in the morning peak or during the day, there will be slightly higher volumes in the afternoon peak traffic flow.

A comparison of the existing situation with the proposed option for both current and projected morning (am) and afternoon (pm) peak vehicle numbers is shown in the table below. The expected increase in vehicle numbers is shown in red and the expected decrease in vehicle numbers is shown in green.

Streets included in the traffic modelling		AM Peak			PM Peak		
		Existing vehicles	Option vehicles	Change	Existing vehicles	Option vehicles	Change
Current	Auburn Avenue	5	5	0	10	15	5
	Balgay Street	290	350	60	130	140	10
	Clyde Road	910	950	40	1070	1130	60
	Field Terrace	40	110	70	50	150	100
	Hansons Lane	860	960	100	930	960	30
	Ilam Road	770	630	-140	940	830	-110
	Kirkwood Avenue	90	80	-10	80	80	0

Lochee Road	150	140	-10	270	360	90
Middleton Road	750	520	-230	910	750	-160
Newham Terrace	30	20	-10	20	20	0
Suva Street (Hansons/ Curletts)	140	160	20	170	180	10
Suva Street (Hansons/ Middleton)	170	190	20	240	200	-40
Waimairi Road	730	750	20	830	840	10
Wharenui Road	450	550	100	520	660	140

Streets included in the traffic modelling		AM Peak			PM Peak		
		Existing vehicles	Option vehicles	Change	Existing vehicles	Option vehicles	Change
2031	Auburn Avenue	5	5	0	15	15	0
	Balgay Street	140	160	20	150	160	10
	Clyde Road	1120	1090	-30	1210	1160	-50
	Field Terrace	40	80	40	50	120	70
	Hansons Lane	770	870	100	980	910	-70
	Ilam Road	750	700	-50	980	830	-150
	Kirkwood Avenue	60	60	0	70	70	0
	Lochee Road	150	140	-10	420	310	-110
	Middleton Road	660	350	-310	990	630	-360
	Newham Terrace	20	10	-10	20	20	0
	Suva Street (Hansons/ Curletts)	130	130	0	180	170	-10
	Suva Street (Hansons/ Middleton)	110	120	10	300	210	-90
	Waimairi Road	680	700	20	750	770	20
Wharenui Road	460	630	170	580	790	210	

Alternative solutions for Ilam/Middleton/Riccarton intersection:

Ban right turn movements out of Ilam and Middleton Roads and keep the through movement.  
This is not a viable option because:

Buses need to turn right and it is difficult to restrict the right turn to buses only.

The right turn without a physical restriction could be frequently ignored, and therefore create an unsafe situation.

Including a north/south movement would reduce the time that can be allowed for:

A right turn phase into Ilam Road from Riccarton Road, which improves safety.

A cycle crossing which is needed for the Major Cycle Route and cannot run at the same time as the Ilam–Middleton phase.

Overall, the proposed staff solution to retain the right turn allows a significant improvement in Ilam Middleton Riccarton intersection safety. There will be minimal loss of green signal time for Riccarton Road - the main traffic flow consideration at this location.

Split phasing of the traffic lights. The proposal to operate Ilam Road and Middleton Road separately is not workable. It is important to note that the through traffic movement from these approaches cannot run at the same time as the cycle movements. This is because there is not enough road space for both cycles and vehicles, and there would be a high risk of conflict.

Five phases would be needed to address the safety concerns:

1. Riccarton Road westbound approach, and a protected right turn into Ilam Road
2. Riccarton Road
3. Ilam Road
4. Middleton Road
5. Cycles

This is an inefficient signal phasing cycle with more red time than is ideal, but the key concern is the affect this would have on signal co-ordination along Riccarton Road. With the phasing above, the Council would not be able to keep the light phasing cycle at the Ilam/ Middleton/Riccarton intersection to approximately 74 seconds signals which is the timing needed for vehicles on Riccarton Road to get green lights along the corridor.

Right turning arrows. As with the split phasing option outlined above, the issue is signal co-ordination and the need to add two new phases (right turning arrows and cycle crossing), which would prevent us from achieving the desired level of co-ordination.

Line markings. The proposal aims to improve safety at the intersection for all road users. Line marking could be used for improved guidance through the intersection, but this would not prevent the types of crashes that are typical here. It would also leave an unprotected section in the Nor'West Arc Major Cycleway, which requires a cycle crossing in this location.

Reduced speed. Limiting speed would reduce both the severity and the likelihood of a crash, but the changes put forward in this proposal are designed for a more overarching and comprehensive

approach to crash reduction by improving the road environment and allowing for the Major Cycle Route.

Retain the right turn from Riccarton Road into Middleton Road. Retaining the right turn into Middleton Road would require Middleton Road to be part of the signalised intersection. It is too close to Ilam Road to not be part of the signals if the right turn is there. This would have a detrimental impact on network efficiency and would essentially require either split phasing, which as outlined previously will not work with the signal co-ordination, or into providing right turning arrows, which will provide the same issues.

Alternative suggestions for Clyde/Riccarton/Wharenui. Suggestions to change the through and left turn lanes located between the Clyde Road and Wharenui Road approaches to left turn only, to allow a north-south movement are beyond the scope of this project. However, modelling will be done to consider the benefits of this suggestion, along with an independent safety review. This information will be passed on to the network planning team for consideration as a future project, and to the bus priority team for consideration as part of the Bus Priority Stage Two project.

Project team response to other issues and concerns

Retain the right turn out of Field Terrace. The right turn out of Field Terrace into Riccarton Road has not been included because it would make it easier for vehicles to right turn in from Riccarton Road, against the proposed turning ban. It would also encourage people to use Field Terrace as an alternative route to get to Riccarton Road from Middleton Road.

Retain the right turn into Field Terrace. Retaining the right turn into Field Terrace was considered during the options assessment. Unfortunately allowing vehicles to queue to turn into Field Terrace would result in this turning movement blocking access to the right turn lane from Riccarton Road to Ilam Road. This would reduce the efficiency of traffic flow in the network.

Increased traffic through Field Terrace and congestion from left-turners into Riccarton Road heading right up Ilam Road. Traffic modelling shows that there will be an increase in traffic on Field Terrace, particularly in the p.m. peak. However this modelling also shows that the impact on the traffic flow on Riccarton Road is minimal and there remains a net benefit to travel times on Riccarton Road for general traffic. The efficiency of the network, and the impact of this movement, will be monitored and if remedial action is required this can be programmed.

Cycle and pedestrian concerns/suggestions. The Nor'West Arc Major Cycle Route has already been consulted on and approved. A substantial section of the cycleway on Ilam Road is existing and relocation to another road corridor is beyond the scope of this project. The proposal will improve pedestrian safety at the intersection by reducing the crossing distance, altering the signal phasing and removing the slip lanes.

Clyde Building. Following requests to retain the four parking outside the Clyde Building, changes have been made to the plan layout allowing space to retain three of these car parking spaces.

Bus parking outside Kirkwood Intermediate School. This has been addressed through a time-restricted loading zone, which is long enough for a bus to park, between 8am and 4pm only. The space will not be available for parking outside these times, as it would interfere with queuing at the intersection.

Parking outside residence near Kirkwood. Unfortunately it is not possible to provide parking in this location, as there needs to be enough space for vehicles to queue for the signalised intersection.

Parking outside two residences on Middleton Road. This proposal does not change the number of parking spaces available in this section of Middleton Road from those previously approved, although not yet constructed, as part of the Nor'West Arc Major Cycle Route. However the locations of the parking spaces have changed, as explained below.

The approved Nor'West Arc Major Cycle Route did not include any parking spaces on the west side of Middleton Road, north of number 6 Middleton Road, but four spaces are included on the eastern side north of the access to number 7 Middleton Road.

These four spaces on the west side are removed as part of this proposal, which instead includes four parking spaces in new locations; two on the west side of Middleton Road north of number 6 Middleton Road, and two on the east side south of number 7 Middleton Road.

Proposed changes to the plan

After considering all the feedback and responding to key issues as above, the changes made to the plan for consultation resulting in the plan for approval are:

- Three of the four car parks proposed to be removed outside the Clyde Building (233 and 235 Riccarton Road) will be re-instated.
- Part time parking for buses will be provided outside Kirkwood Intermediate School.