

20. MARSHLAND/HAWKINS/LOWER STYX INTERSECTION IMPROVEMENTS

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Corporate Plan Output: Road Safety Improvements Capital Works 2002/03 budget	

The purpose of this report is to obtain Board approval to 'seek the community view' on the proposed safety improvement work at the Marshland/Hawkins/Lower Styx intersection. The report provides a background to the crashes that have occurred and outlines options that could address safety issues at the intersection. The preferred option involves removal of the turning bay for right turning vehicles from Marshlands Road north into Hawkins Road. In addition, an island in Hawkins Road would restrict vehicle movements to left turns and exit only. The report recommends that the community views regarding this project be sought. This report is for consideration by the Shirley/Papanui Community Board and provided for the information of the Burwood/Pegasus Community Board.

BACKGROUND

Marshland Road is a minor arterial road carrying around 11,200 vehicles per day and links the districts to the north of Christchurch and the city centre. Lower Styx Road is also a minor arterial carrying around 1500 vehicles per day and links rural areas of Brooklands and Bottle Lake Forest with the City via Marshland Road. Hawkins Road is an unclassified local road and carries around 750 vehicles per day.

The speed limits on Marshland Road are 80 km/h with the estimated operating speed being 90 km/h. There are few pedestrians or cyclists in the area although there is a cycle path provided on Marshland Road to the north and south of the intersection. Marshland Road is a bus route for the No. 48 Kainga/Brooklands service.

The number of reported crashes at this intersection continues to concern the community and Council. During the last five years 16 crashes were reported to the Police. Three of these involve serious injuries, six minor and seven were non-injury crashes. The most common problem involved vehicles crossing to and from Lower Styx Road colliding with straight through vehicles on Marshland Road. The crash reports noted that confusion as to the intention of vehicles approaching the intersection on Marshland Road was a major factor.

DISCUSSION

A previous crash reduction study identified closure of Hawkins Road as the preferred option. This option was reported to the community at a public meeting. The meeting strongly rejected this option and requested others be investigated:

1. A road deviation to provide a large roundabout. This would provide a safe, quality link across Marshland Road and cost in the order of \$3.5 million. It would delay traffic on Marshland Road, have a poor benefit/cost ratio and involve property designations. The poor vertical alignment of Marshland Road, structural and sight line problems associated with the bridge would not be addressed.
2. Widening of the bridge. This would improve the sight line from Lower Styx Road and cost in the order of \$600,000. It would have a low benefit/cost ratio. The poor vertical alignment of Marshland Road, the intersection layout and structural problems associated with the bridge would not be addressed.
3. A raised carriageway both sides of the bridge. This would cost in the order of \$275,000 with a very low benefit/cost ratio of 1.3. This option would improve driver vision to the north. The alignment of the intersection and problems with the bridge would not be addressed.
4. An offset Tee's intersection and limit Hawkins Road access to left turns in and out. This option removes crossing movement between Lower Styx Road and Hawkins Road and right turns from Marshland Road into Hawkins Road. It will however improve visibility for right turn vehicles into Lower Styx Road. Kerb and channel around the intersection, extending the culvert at the intersection and guard railing of the bridge approaches are also involved in this option. This project would cost in the order of \$184,000 and have a benefit/cost of 18.7. Problems with the bridge would not be addressed.

As a result of the high cost of the above options and the low benefit/cost ratios (except option 4) a further crash reduction study was undertaken. The new study recommended that the straight through movement from Lower Styx Road into Hawkins Road and the right turn from Marshland Road into Hawkins Road be prevented by the construction of an island on Hawkins Road leg of the intersection. Minimal kerb, channel and no work on the bridge are proposed. The draft 2001/2002 safety improvement capital works budget has included sufficient funds (\$25,000) for this option to be implemented. It is expected to produce a benefit/cost ratio of 13.7. Details of the proposal are shown on the attached plan.

The level of previous community input regarding this intersection suggests that a further round of seeking the community views will need to be undertaken.

CONCLUSION

Safety at the Marshland/Hawkins/Lower Styx Road intersection has been of concern for many years. A number of options have been investigated. Restricting all access to and from Hawkins Road is the most efficient and effective treatment but has been strongly rejected by the local community. A low cost remedial treatment to address the safety issues in the short term can be undertaken. Before construction commences on the proposed low cost treatment it is appropriate that the community view be sought.

Recommendation: That the proposed low cost remedial improvement at the Marshland/Hawkins/Lower Styx Road intersection be circulated to seek the community view.

Chairperson's

- Recommendation:**
1. That the officer's recommendations be adopted.
 2. That a public meeting in the area take place before July 2002.