

## 2. GLOUCESTER/LINWOOD PROPOSED TRAFFIC SIGNALS

**Officer responsible**  
City Streets Manager

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The purpose of this report is to obtain approval to seek community views on a proposal to install traffic signals at the Linwood/Gloucester intersection. The report provides background to the project and discusses options that could improve safety and reduce delays at the intersection. The preferred option requires removal of a number of trees. The 12 June 2002 meeting of the Hagley/Ferrymead Community Board Traffic Subcommittee approved, in principle, that community views be sought.

### BACKGROUND

This intersection forms a capacity constraint on a significant route east of the city. Linwood Avenue is a major arterial east-west route between Avonside and Mt Pleasant. It currently carries around 10,500 vehicles a day east of the intersection. Gloucester Street is a minor arterial route providing access between north Linwood and Wainoni with the City Centre. Gloucester Street south of Linwood Ave, carries around 8,100 vehicles per day. The total traffic volume through the intersection is very high for a roundabout with the current lane configuration. Traffic crossing and turning at the intersection currently experiences considerable delays, especially during peak periods.

Cycle and pedestrian activity is moderate with the majority of cycles being associated with adjacent intermediate and secondary schools. Both Linwood Avenue to the east of the intersection and Gloucester Street are bus routes. The number 30 Sumner and 43 Burwood/New Brighton use this intersection.

Safety issues are an important consideration at this intersection and some 18 crashes have been reported at the intersection between 1997 and 2001. Of these crashes, 2 involved serious injury, 4 minor injuries and 11 were recorded as non-injury accidents. The most regular problem (6) involved vehicles crossing at right angles. Other crashes were varied with no dominant crash type. This reflects the complex and unusual layout of the intersection.

Previous changes at Worcester Street/Linwood Avenue removed cross movements on Worcester Street. This resulted in some additional 'U' turns at the Gloucester Street intersection. It is acknowledged that the proposed changes will cause increased difficulties for drivers wishing to undertake 'U' turns at Gloucester Street. For this reason the median island in this area is designed to assist 'U' turning vehicles.

### DISCUSSION

Installation of traffic signals appears to be the only viable option. The angles of the approach roads restrict changes to the approach geometry of the existing roundabout. Significant land purchase would be required to realign the roads and to construct a suitable two-lane roundabout. Such a change would also affect significant trees on Linwood Avenue west of the intersection.

The proposed traffic signals will have a number of advantages. The signals will reduce delays at the intersection especially for the large number of vehicles turning right from Linwood Avenue into Gloucester Street north. The proposed changes are also likely to significantly improve safety at the intersection. Cyclists and pedestrians will also benefit from the provision of cycle lanes and pedestrian facilities. Installing traffic signals will involve the removal and relocation of nine trees in the roundabout and the median to the east of the intersection.

The project has a benefit cost ratio of 35. The estimated cost is \$296,000 and \$305,200 is provided in the annual plan for 2002/03.

### CONSULTATION

It is proposed that consultation will comprise circulation of a standard publicity leaflet including the attached plan to residents and property owners within approximately 300m of the intersection, to local residents groups and church groups. Publicity information will also be forwarded to the media and will be available at the Linwood Library and Service Centre.

### CONCLUSION

Delays and associated problems at the Gloucester/Linwood intersection have been of considerable concern to the community and the council for a number of years. The option of improving the existing roundabout to provide safer approaches and increased capacity has been investigated but is not considered a viable option.

The installation of traffic signals is proposed to address the safety and capacity concerns at the intersection. Before proceeding with the installation of traffic signals it is proposed that the community views be sought.

**Recommendation:** That the project be approved for the purposes of consultation by way of written submissions and that if any submitter wishes to be heard, then such hearings be held by the Land Transport Subcommittee plus the Chairman of the Hagley/Ferrymead Community Board.