

## 22. HAWKINS/LOWER STYX/MARSHLAND ROADS INTERSECTION

<b>Officer responsible</b> City Streets Manager	<b>Author</b> Lachlan Beban, DDI 941-8680
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The purpose of this report is for the Board to consider investigations into an option of installing traffic signals to address safety issues at the Hawkins/Lower Styx/Marshland Roads intersection.

### BACKGROUND

In March 2002 a scheme was developed to address safety concerns at this intersection. The main features of the scheme were the removal of the turning bay for southbound vehicles turning right from Marshland Road into Hawkins Road and the restriction of turning movements on the Hawkins Road approach to left turns in and out. The scheme was put out for public consultation in April 2002 to seek the community view. A public meeting was held on 13 May 2002 where the scheme was rejected by the residents. At the Board meeting of 5 June 2002 the Board resolved that "staff be asked to report on the viability of installing traffic signals at the intersection".

### INVESTIGATION

Opus International Consultants were engaged to investigate and provide a report on the viability of installing traffic signals at the intersection. The results of the investigation, presented in the attached report, advise against the installation of traffic signals.

### DISCUSSION

As highlighted in the report there are significant disadvantages to installing traffic signals at this location.

#### High Speed Environment

The posted speed limits are 80 km/h on Marshland Road and 100 km/h on Lower Styx Road and Hawkins Road. High speed approaches (those above 70km/h) at traffic signals are not as safe as those with lower vehicle speeds. Due to the higher operating speeds, the ability of drivers to assess and react to potential hazards becomes more critical and there is an increased possibility of unsafe operation. Over the past five years this intersection has had an average of 1.2 injury crashes per year. The average for signalised intersections in Christchurch is around 1.3 injury crashes per year, however at this site there is likely to be a higher number of crashes due to the higher operating speeds. This is likely to be around 1.6 injury crashes per year, hence there is no safety benefit in installing traffic signals at this site. The fact that the site is located in the rural fringe where road users would not be expecting to encounter traffic signals is another safety concern.

#### Cost

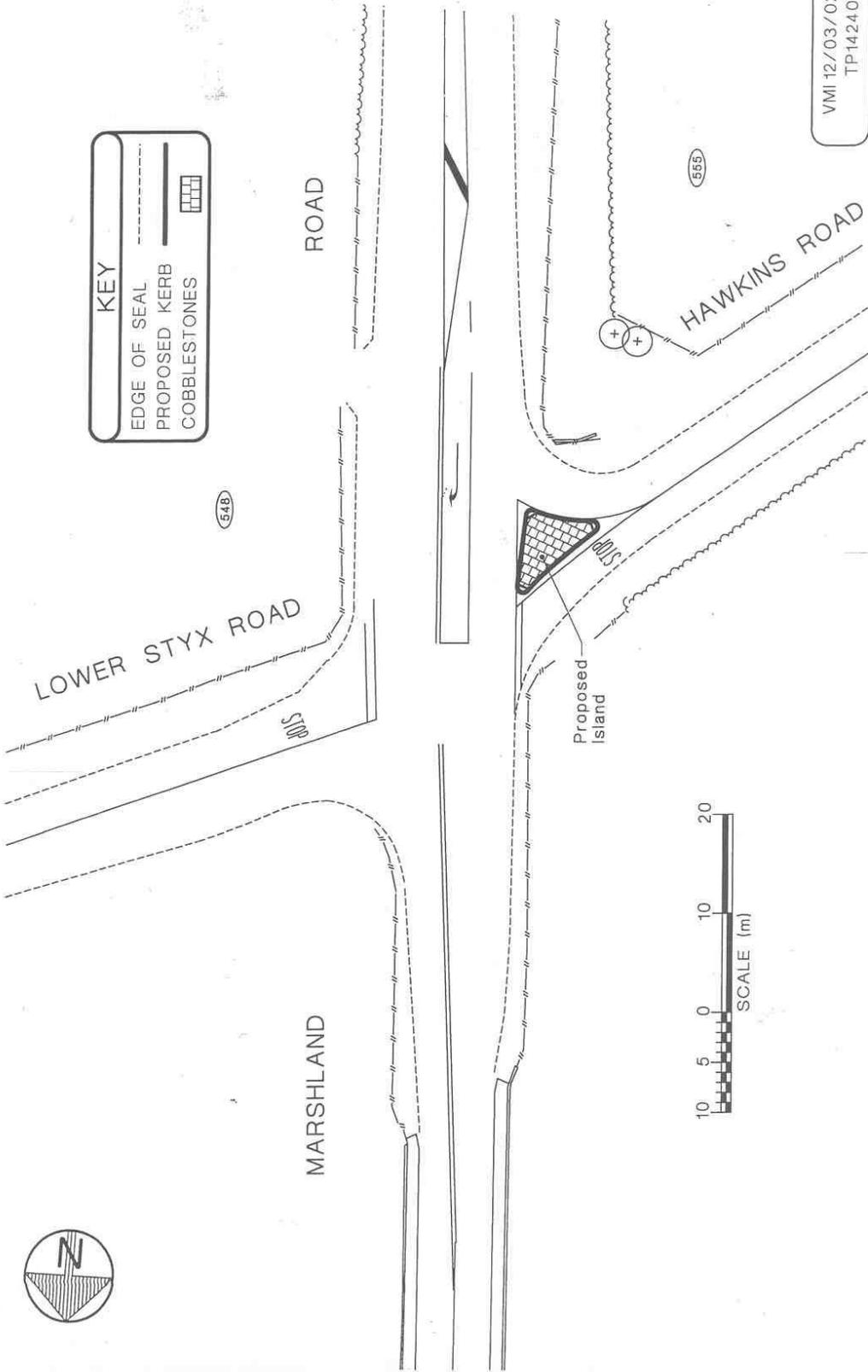
In order to install traffic signals at this intersection there would need to be extensive work undertaken to widen the bridge and its approaches so that adequate road width for two through lanes of traffic is provided. Even if there were to be only one through lane on each of these approaches there is insufficient carriageway width on the existing bridge to signalise the intersection to an acceptable standard. The estimated cost of installing traffic signals and the associated civil works is \$1,360,000. The project will have a negative benefit/cost ratio.

### CONCLUSION

Despite a community view that the original scheme (Plan TP142401 included) be rejected, there is a need for the Council to address safety issues at this intersection. Traffic signals are not an option at this time, therefore investigations should continue to determine both short and long term solutions that will address the safety issues at this intersection.



KEY	
—	EDGE OF SEAL
- - -	PROPOSED KERB
▬	COBBLESTONES



# MARSHLAND RD/LOWER STYX RD INTERSECTION

**Staff**

- Recommendations:**
1. That the installation of traffic signals at this intersection not be pursued.
  2. That further investigations be carried out to determine both short and long term safety improvement works for this intersection.

**Chairperson's**

- Recommendations:**
1. That staff recommendation number 1 be adopted.
  2. That staff proceed with the installation of safety work shown on Plan TP142401, which has already been released for public consultation.