

## 6. HILLS ROAD - BUS BOARDER TRIAL

<b>General Manager responsible:</b>	General Manager, City Environment
<b>Officer responsible:</b>	Manager Transport & Greenspace
<b>Author:</b>	Kirsty Ferguson, Consultation Leader (Transport), DDI 941 8662

### PURPOSE OF REPORT

1. The purpose of this report is to seek the approval of the Board to proceed to consultation, design and construction of an amended concept design for the Hills Road Bus Boarder trial, as shown at attachment 1.

### EXECUTIVE SUMMARY

2. The Queenspark bus route (#70) is one of three routes, which has been prioritised for the implementation of bus priority measures. To assist in development of bus priority measures for Christchurch, it is proposed to install and trial an amended concept design for two bus boarders along Hills Road.
3. This section of the Queenspark route on Hills Road suffers from congestion, with high volumes of slow moving traffic mainly during a three hour period in the afternoon and early evening peak period. In several areas, the traffic slows down to around 15-20 kph.
4. An amended concept design has been developed to rectify the deficiencies identified with the initial trial.
5. It is proposed to trial the amended concept design for a period of three months to ascertain its effectiveness as a bus priority measure for Hills Road, as well as other potential sites around Christchurch.
6. Consultation will be carried out with the community, route users and key stakeholders during the trial, through education, information and requests for feedback.

### FINANCIAL AND LEGAL CONSIDERATIONS

7. The total estimated cost of the project is approximately \$93,300. The project is funded from the Passenger Transport Infrastructure - Bus Priority budget of \$120,000 for the 2006/2007 financial year. There is also budget allocated in the 2007/2008 financial year for the Queenspark Bus Priority Project.
8. There are no known legal implications for this project. Land Transport New Zealand is a key stakeholder, and any potential for legal implications will be fully addressed with that organisation.
9. Community Board resolutions are required for no parking restrictions, the change of a bus stop location and installation of cycle lanes.

### STAFF RECOMMENDATIONS

It is recommended that the Shirley/Papanui Community Board:

- (a) Approve the Hills Road Bus Boarder trial to proceed to consultation, design and construction, as shown in attachment 1, for a duration of three months.
- (b) Approve the following parking restrictions, cycle lanes and moving of bus stop to a new location:
  - (i) Cycle lanes are proposed for both the west and east sides of Hills Road from south of Dudley Street to link up with the existing cycle lanes near Edward Avenue. Where those cycle lanes are in a kerbside position, they replace some of the existing restrictions and result in some new no stopping at any time restrictions as detailed below.

### **New cycle lane**

- (ii) That a cycle lane be installed adjacent to the kerb, on the east side of Hills Road, commencing at a point 52 metres north from its intersection with Dudley Street and extending in a northerly direction for a distance of 130 metres.
- (iii) That a cycle lane be installed adjacent to the kerb, on the west side of Hills Road, commencing at a point 103 metres south from its intersection with Edgeware Road and extending in a southerly direction for a distance of 25 metres.
- (iv) That a cycle lane be installed adjacent to the kerb, on the west side of Hills Road, commencing at a point 67 metres south from its intersection with Edgeware Road and extending in a southerly direction for a distance of 23 metres.
- (v) That a cycle lane be installed adjacent to the kerb, on the west side of Hills Road, commencing at a point 38 metres south from its intersection with Edgeware Road and extending in a southerly direction for a distance of 19 metres.
- (vi) That a cycle lane be installed adjacent to the kerb, on the west side of Hills Road, commencing at a point 14 metres north from its intersection with Edward Avenue and extending in a northerly direction for a distance of 18 metres.

### **New no stopping**

- (vii) That the stopping of vehicles be prohibited at any time on the east side of Hills Road commencing at its intersection with Dudley Street and extending for 6 metres in a northerly direction.

### **New parking restriction**

- (viii) That the parking of vehicles be restricted to a maximum period of 30 minutes on the west side of Hills Road commencing at a point 96 metres south from its intersection with Edgeware Road and extending in a southerly direction for a distance of 7 metres.

### **Move existing bus stop to new location**

- (ix) That the existing bus stop be revoked from the west side of Hills Road at its present position commencing 53 metres south of the intersection with Edgeware Road and extending 17 metres in a southerly direction; and reinstated on the west side of Hills Road commencing 57 metres south of the intersection with Edgeware Road and extending 10 metres in a southerly direction.
- (x) That the existing bus stop be revoked from the west side of Hills Road at its present position commencing 98 metres north of the intersection with Edward Avenue and extending 15 metres in a northerly direction; and reinstated on the west side of Hills Road commencing at a point 4 metres north from its intersection with Edward Avenue and extending in a northerly direction for a distance of 10 metres.

### **Remove all existing no stopping**

- (xi) That all existing no stopping at any time areas in the aforementioned areas be revoked.

## **CHAIRPERSON'S RECOMMENDATIONS**

That the staff recommendations be adopted, with the addition of the following:

- Promotion of the bus boarder trial takes place at the Palms Mall.
- Consideration be given to providing signage on buses saying "stopping now, do not overtake".
- Staff work in partnership with the Police regarding enforcement throughout the period of the trial.

## BACKGROUND ON HILLS ROAD BUS BOARDER TRIAL

10. At its meeting on 6 September 2006, the Shirley/Papanui Community Board **resolved**:
  - “1. To approve the Hills Road Bus Boarder trial, as illustrated in attachment 1 of the agenda, to proceed to consultation, design, and construction.
  2. To request the trial be undertaken over a period of three months.
  3. To seek the support of the Police to monitor traffic behaviour.
  4. That staff consider a reward system (free bus passes) for motorists displaying good behaviour.”
11. A copy of the report presented to the Shirley/Papanui Community Board at its meeting held on 6 September 2006 is attached for your information at attachment 4.
12. The initial trial commenced on 16 November 2006 and continued until 22 December 2006, when it was put on hold because it was not operating as intended. The trial was therefore only in effect for five weeks, rather than the three months requested by the Community Board.
13. The initial trial was promoted using the following measures:
  - Several press releases were made, resulting in discussion on talk back radio and a couple of letters to the paper.
  - Small leaflets were distributed to Neighbourhood Support Group convenors in the north east segment of the city, and out along Marshlands Road to try to cover those people who may drive along Hills Road.
  - A consultation newsletter was delivered to all residents in Hills Road south of Shirley Road and Whitmore Street, as well as to all businesses around the Shirley Road/Warrington Street corner. Copies were also distributed to the Shirley Service Centre, Community Centre, pre-schools and schools in the area.
  - The CCC “Have Your Say” website was linked to an electronic copy of the project information, with references to all publicity material, thus providing an opportunity for anyone to ask questions or provide feedback on the bus boarder trial.
14. No feedback has been received directly from the Police in relation to traffic behaviour during the initial trial; however, their support will be requested for this trial as they are a key stakeholder in the consultation process.
15. A reward scheme was not implemented as part of the initial trial, but will be considered by the project team, as part of the trial for the amended concept design.

## OBJECTIVES OF TRIAL

16. The objectives of the trial are to:
  - Observe, identify and evaluate the behaviours of bus drivers, other vehicle drivers, bus passengers, and residents in the area with respect to bus boarders.
  - Observe and measure the impacts of the bus boarders on bus and car travel times.
  - Observe, identify and evaluate other impacts of the bus boarders on traffic, pedestrians, cyclists, residents etc.
17. As noted above, Hills Road suffers from severe congestion in the afternoon peak, when travel speeds often reduce to around 15-25 km/hr. Buses are affected by this reduction in speed too. With the existing bus stops in the parking lane, bus drivers also find it hard to rejoin the traffic stream, thus reducing their travel speed further.

18. This proposal addresses these sources of travel time variability in two ways. Firstly, when a bus stops at a bus boarder, the road ahead of the bus clears. Hence, when the bus leaves the bus boarder, it can proceed at a higher speed than the congested traffic speed. Secondly, leaving the bus boarder is straight forward. The bus does not have to rejoin the traffic stream, as traffic now stops behind the bus.
19. At the point in time, the excess bus journey time cannot be quantified. The Paramics option modelling will give an indication of the potential excess bus journey time reductions. This will also need to be measured over the route length once the whole bus priority measures are in place.
20. The monthly average speeds of buses during the peak period cannot yet be quantified. The Paramics option modelling will give an indication of the potential speed improvements. This will also need to be measured over the route length once the whole bus priority measures are in place.

#### **FEEDBACK ON TRIAL**

21. In conjunction with the initial trial, feedback was sought from the wider community, route users, and key stakeholders groups about the bus boarders and their operation via a written survey, the "Have Your Say" section of the CCC website, by telephone and by email. There were 19 responses received by the closing date of 30 January 2007 and a summary of the comments received is shown at attachment 3.

#### **NEW DESIGN**

22. Based on the experiences learned from the initial trial, further options were developed. The preferred option, which is shown at attachment 1, has been through a safety audit, and is now proposed for trial.
23. The proposal for the amended concept design includes the provision of two bus boarders on Hills Road for north-bound buses. The bus boarders are proposed outside No's. 95 and 163 Hills Road. The kerb faces of the bus boarders are 3.0 metres from the centre line, which is marked up as double yellow lines.
24. Cyclists bypass between the inside of the bus boarder and the kerb. It is proposed to remove the existing high kerb over the length of the bus boarder, so that cyclists have an emergency escape route if the need arises. Low landscaping on what is now the footpath and a section of post and rail fence along the bus boarder direct pedestrians to a defined point for crossing the cycle bypass. This crossing point is highlighted by a red coloured surface and a painted cycle logo.
25. A large pre-warning sign "Buses Stopping in Lane" is proposed to be located 90 metres south of the No. 95 Hills Road stop. Two signs each "Stop behind Bus" are proposed for the approach to each bus boarder location – one on the bus boarder itself, and one of the east side of the road, facing north-bound drivers.
26. A south-bound cycle lane is proposed to be coloured in the vicinity of the bus boarder locations. This is to clearly define the south-bound traffic lane.
27. Due to the innovative design to include cycle lanes within the bus boarder concept, which does not appear to have been used anywhere else in the world, a meeting was held with representatives of Spokes Canterbury Inc. on 24 January 2007 to gain feedback on the viability of the preferred design for cyclists.
28. The key issues arising from the meeting with Spokes include:
  - Concern that cyclists may hit pedestrians due to the location of the bus shelter causing a lack of visibility. Suggestion made to shift the bus shelter to corral pedestrians outside the cycle lane or put in some barriers (i.e. to avoid conflict). An alternative suggestion is to allow the bus shelter to be moved back against the property boundary to allow visibility for vehicles exiting side streets or properties.

- Suggestion to change the surface material between the cycle lane and bus border, i.e. using different senses to alert people to the cycle lane. NZ culture of cycling is more high speed commuter cyclists rather than sedate cyclists such as in continental Europe. It was noted that the vertical dimension is important, rather than changing kerbs alone.
  - Open space is unpredictable for cyclists, and pedestrians can wander anywhere – thus it is important to make it predictable by corralling the cyclists past the bus boarder. Need to control the way pedestrians/bus users get across the cycle lane to/from the bus. Need to allow an escape route for cyclists by only placing a barrier on one side.
  - Suggested that a barrier on the bus boarder is more useful, supplemented with low shrubs on the walkway side of the track to allow an escape route for cyclists if required. This will also act as a warning to cyclists as they approach the zone. Pavement markings are also needed.
  - Education is a key issue for motorists – not just enforcement. Targeted education on-site is most effective.
  - Hand rails are an option to separate cyclists and pedestrians.
29. One of the main reasons for choosing the bus boarder option over a north-bound bus lane for the trial is that it retains significantly more car parking spaces. The following numbers of car parks are lost in various locations:
- Four car parks are lost on the west side of Hills Road in the vicinity of the No. 95 Hills Road bus boarder.
  - About four car parks are lost on the east side of Hills Road between Guild Street and Edgeware Road to accommodate the kerbside cycle lane.
  - Two car parks are lost on the west side of Hills Road in the vicinity of the No. 163 Hills Road bus boarder.
  - About two car parks are gained at No. 173 Hills Road through the removal of the previously trialled bus boarder from this location.
30. Due to the number of car parks lost in the vicinity of the No. 95 Hills Road location, and the potential high parking demand (i.e. a dairy is located on the opposite side of the road), a P30 time restriction is proposed at No. 87 Hills Road.
31. Hills Road is used by bus route 70 (Queenspark) with 63 services per day, and Kainga with a single service per day. The project team has yet to decide whether bus shelters are to be installed at the two bus boarder locations, and this will be further investigated following the conclusion of the trial.
32. The previously installed bus boarders are to be removed, and at the proposed bus boarder locations, the existing kerb is to be replaced as a cut-down kerb. The existing channel behind the bus boarders will be swept by hand as required.
33. There is no known history of flooding in these bus boarder locations, and the proposed bus boarders have been specifically designed to not interfere with existing stormwater systems. One fire hydrant will have to be lifted to the new surface level at the No. 95 Hills Road bus boarder.

#### **PROPOSED CONSULTATION**

34. One of the key issues that arose from the initial trial was the lack of consultation and effective publicity about bus boarders and what their purpose was. The primary aim of the bus boarder trial from a consultation perspective is to inform and involve the wider Christchurch community in the development of bus boarders along Hills Road, whilst minimising the effect on other road users, residents and business operators along the route. Therefore, it is proposed to educate and inform the public about bus boarders through the measures outlined in the Consultation Plan shown at attachment 2.

35. In addition to the education and informative role of the consultation process, we need qualitative feedback on how the route users, key stakeholders and community view the bus boarders, and therefore, we will be seeking their feedback via:
- “Have Your Say” section of the Council website
  - Survey forms included with a consultation newsletter
  - Email messages
  - Telephone calls
  - Meetings with resident groups, school groups
  - Discussions with NZ Police
  - Discussions with bus drivers.

#### **MONITORING**

36. For the initial trial, before and after traffic counts were undertaken as well as time measurements. A permanent video camera has been set up at the Hills Road/Shirley Road/Warrington Street intersection, which is being used to record traffic behaviour at the northernmost bus boarder.
37. To measure the success of this trial, we will need to monitor the behaviour of bus drivers, route users, and the reaction of the community to understand if the objectives have been met, and whether the bus boarders are an appropriate solution as a bus priority measure. In particular, the operation of the bus boarders with the amended concept design will be monitored to observe whether drivers continue to try to pass stationary buses.
38. All bus drivers report incidents that they notice via their RT, and all these calls are logged so they can be tracked. This information may be useful for monitoring bus driver observations in and around the bus boarders.
39. The proposal is currently being micro-simulation modelled as part of the Queenspark bus priority Paramics model, which will provide additional confidence about the effectiveness of the proposal.

#### **REPORTING**

40. It is anticipated that the project team will report the findings of the trial to the Shirley/Papanui Community Board following the completion of the trial period, which is likely to be in August 2007.
41. By this time, an initial concept design for the Queenspark route should be in the public arena, and the feedback arising from the Hills Road bus boarder trial can be incorporated into the consultation and design processes for bus priority along the Queenspark route.