

2. FERRY ROAD/HUMPHREYS DRIVE INTERSECTION

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| General Manager responsible: | General Manager City Environment, DDI 941-8656 |
| Officer responsible: | Transport and Greenspace, Unit Manager |
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PURPOSE OF REPORT

1. The purpose of this report is to seek the approval of the Council, to proceed to final design, tender and construction for the Ferry Road/Humphreys Drive Intersection Improvements project, as shown in the plan **attached**.

EXECUTIVE SUMMARY

2. The project is located at the intersection of Humphreys Drive and Ferry Road, both major arterial roads, just west of the Ferrymead Bridge.
3. Project objectives include safety, increased capacity and travel times, and improved facilities for pedestrians and cyclists.
4. The intersection caters for approximately 30,000 vehicles a day.
5. Even at current demand levels the intersection is subject to sporadic delays and queuing for westbound traffic that can lead to reliability problems for public transport routes with 'knock-on' impacts for the inbound journey.
6. Traffic volumes on Ferry Road have been rising by an average of 3.3% per year and queuing and delay problems are forecast to worsen considerably given anticipated traffic growth in the area.
7. The intersection and its approaches have a poor accident history, with some 58 crashes recorded 1995 – 2004 and another 12 crashes in the subsequent 2.5 years including two serious and five minor injury crashes.
8. There has been a longstanding intention to complete a cycle route from Sumner to Hagley Park. Despite recent installation of cycle lanes over the Ferrymead Bridge, cyclists are still poorly served at the intersection. Pedestrians seeking to cross Ferry Road are also poorly served.
9. Planning for this project has included consideration of the current plans for the renewal and reconstruction of the Ferrymead Bridge; the building of a new apartment building at 1091 Ferry Road; the intention to reduce use of Ferry Road as a route to the city; consideration of the environment, consideration of recreational use of Tidal View, and the requirement to fulfil the project within a budget and timeframe.
10. In accordance with the aims and objectives of the project, ten options have been considered, in addition to that of a roundabout that was considered in 1999 and discounted because it will not provide for future capacity requirements nor will it service cyclists and pedestrians adequately.
11. The Hagley/Ferrymead Community Board was advised on 3 April 2007 that public consultation on the preferred option was about to start in the immediate area and through community and residents groups.
12. Public consultation took place with emphasis on the 'inform' level of consultation due to the long background of discussions in conjunction with the Bridge consultation meetings, and the very limited leeway for change other than on landscape issues.
13. The distribution of 1,119 newsletter leaflets in the area, email and website communication with stakeholders, and publicity through local and citywide media, attracted feedback from 125 respondents with a total of 178 comments. 73.6% of the respondents supported the concept, 18.4% were directly or indirectly not in support and 8% did not state a position.

14. The key issues arising from the 125 respondees were:
 - General comments in favour of the changes and urging the council to 'hurry up' with construction.
 - General comments not in favour of the concept including suggestion for a roundabout, flyover and putting signals into the existing alignment; and for cycle underpass or dual cycle lanes, combined cycle and pedestrian paths etc.
 - Cycling and pedestrian issues.
 - Special pedestrian needs for people with a disability.
 - Ferry Road westbound (inward or toward city) including access to the Mobil Petrol Station, concern about safety for cyclists entering Humphreys Drive, and the potential for vehicles queuing for Humphreys Drive blocking the Ferry Road slip lane.
 - Ferry Road eastbound issues relating to traffic turning right out of Settlers Crescent; issues specific to 1020–1022 Ferry Road; comments about the lanes and intersection, eastbound; landscaping issues.
 - There was also considerable confusion with the bridge project.
15. Stakeholder consultation included a Safety Audit and the findings of this, along with some points of feedback from council staff and the public, have led to some modifications being made to the concept plan leading to the design offered with this report for approval.
16. The key aspects of the preferred option are outlined in paragraph 48 below, and shown on the plan for Board approval at **Attachment 1** to this report.
17. It is expected that the project works will be started in January 2008 and that they will take six months.

FINANCIAL IMPLICATIONS

18. The street renewal works for Ferry Road/Humphreys Drive Intersection Improvements were recommended in the Transport and Greenspace Unit's capital programme for implementation in the 2007/08 financial year. The original total estimated cost of this project was \$2.5 million.
19. The estimated cost for the construction project is \$1,778,000. This includes a contingency of 15% or \$200,000. The design and supervision fees are estimated at \$180,000. This is 18% of the construction estimate.
20. To date, \$860,000 has been spent or committed on land acquisition and project planning, scheme design and consultation.

LEGAL CONSIDERATIONS

21. There have been a number of land ownership issues associated with this project. Land was purchased at 1026 Ferry Road (south side) of Ferry Road in 2002 and 1060 Ferry Road in 2003 and 1030 Ferry Road in 2004, to facilitate widening of the carriageway and placement of the slip lane; and at 1099 Ferry Road in 2002. Negotiations to purchase land at 1091 Ferry Road, needed for the reduction of curvature on Humphreys Drive as it bends (south bound) into Ferry Road were protracted but agreement was reached in April 2007.
22. There are no notable or heritage trees, and no heritage or historic buildings, places and objects, shown in the City Plan or on Webmap2 on the intranet.
23. A number of traffic resolutions require amendment or addition to the Christchurch City Traffic and Bylaw 1991. These are detailed later in paragraph 44.(b) this report. Board resolutions are required to approve these.

ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS

24. This project is identified as a Capital Project in the Development Contributions Policy of the 2006-2016 LTCCP.

Do the recommendations of this report support a level of service or project in the 2006-16 LTCCP?

25. As above.

Do the recommendations align with the Council's strategies?

26. This project aligns with the Council's parking strategy, road safety strategy, cycling strategy and pedestrian strategy.

CONSULTATION FULFILMENT

27. In accordance with the aims and objectives of the project, ten options have been considered since the project was formally commissioned in 1999. These options are detailed in paragraph 47 onwards.
28. The preferred option was presented to the Sustainable Transport Committee and thence to the Christchurch City Council on 25 July 2002. The Council approved the concept plan for consultation and negotiations for land acquisition.
29. Initial external consultation was undertaken with the community in conjunction with meetings on the Ferrymead Bridge reconstruction project, between 2001 and 2006. The planned intersection layout was displayed and discussed at several public meetings.
30. In April 2007, after advance information was given to the Board, this layout was published in a Consultation Newsletter. A 1,119 leaflets were circulated to all businesses and all building owners in the immediate vicinity, residents who had sent feedback on the Ferrymead Bridge project, all resident groups, all Neighbourhood Support Groups and other community groups in the Sumner, Redcliffs, Mt Pleasant and Heathcote areas. Small quantities of the newsletter were left at or sent to community centres, libraries and other social centres, Christchurch City Council Service centres and sent to the project stakeholder list that covers emergency service providers and many other interested parties. Press releases resulted in news items and photographs being published in the Bay Harbour News and the Press. Some newsletters were emailed and it was posted on the Christchurch City Council 'Have Your Say' website.
31. A total 125 responses were received, of whom 70 ticked the 'in support' box and 17 ticked 'not support'. Of the remaining 48 who were not explicit, 21 made comments that inferred their support (usually with a specific concern) giving a total 73.6% generally in support of the project, 18.4% directly or indirectly not in support and 8% not stating a position.
32. The key issues arising from the 125 respondees are detailed in the attachment. Topics covered were:
- General comments in favour of the changes and urging the council to 'hurry up' with construction
 - General comments not in favour of the concept including suggestion for a roundabout, flyover and putting signals into the existing alignment; and for cycle underpass or dual cycle lanes, combined cycle and pedestrian paths etc.
 - Cycling and pedestrian issues
 - Special pedestrian needs for people with a disability
 - Ferry Road westbound issues (inward or toward city)
 - Ferry Road eastbound issues

- Traffic turning right out of Settlers Crescent
- Specific to 1020 – 1022 Ferry Road
- Lanes and intersection, eastbound
- Landscaping issues
- Confusion about the existing and future Ferrymead bridge layouts with respect to the intersection.

33. Team responses to each issue are also detailed in **Attachment 2**.

34. As a result of the feedback received and the safety audit requirements, the following changes were made to the layout:

- (i) A pedestrian facility (median cutdown) across Ferry Rd by Tidal View has been included.
- (ii) The advanced cycle stop box at the traffic signals has been extended.
- (iii) Access to the Mobil Service Station needs to be resolved.
- (iv) Development of a short left turn slip lane for west bound traffic, creating a definite separation area between cyclists electing to travel along Ferry Road or Humphreys Drive.
- (v) Cycle lane width is increased past the recessed bus stop outside 1022 Ferry Road.
- (vi) The flush painted chevrons will be removed from the Ferry Road west approach to the raised median.
- (vii) The advance shared, through and left turn arrow will be removed from the Ferry Road west approach.
- (viii) Extended merge area on east bound exit.

STAFF RECOMMENDATION

It is recommended that the Council:

- (a) Grant approval for the Ferry Road Humphreys Drive intersection improvement project to proceed to final design, tender and construction, as shown in the plan for Board approval at **Attachment 1**.
- (b) **New Cycle Lanes**
 - (i) That a 'cycle lane' be installed adjacent to the kerb on the south side of Ferry Road commencing at the east side of its intersection with Settlers Crescent (west) and extending in a easterly direction to the intersection with Main Road (the west end of the Ferrymead bridge).
 - (ii) That a 'cycle lane' be installed adjacent to the kerb on the north side of Ferry Road commencing on the opposite side of the road to its intersection with the east side of Settlers Crescent (west) and extending in a easterly direction to the intersection with Main Road (the west end of the Ferrymead bridge).
 - (iii) That a 'cycle lane' be installed adjacent to the kerb on the south side of Ferry Road from the Advance stop box at the traffic signals at the intersection with Humphreys Drive, extending in an easterly direction to the west side of the intersection of Ferry Road and Settlers Crescent (east)
 - (iv) That a 'cycle lane' be installed adjacent to the kerb on the south-west side of Humphreys Drive commencing at its intersection with Ferry Road and extending in a northerly direction to the intersection of Humphreys Drive and Tidal View (north end).
 - (v) That a 'cycle lane' be installed adjacent to the kerb on the north-east side of Humphreys Drive commencing at its intersection with Ferry Road and extending in a northerly direction northern direction to the intersection of Humphreys Drive and Tidal View (north end).

(c) **New No Stopping Restrictions**

- (vi) That the stopping of vehicles be prohibited at any time on the west side of Settlers Crescent (east) commencing at its intersection with Ferry Road and extending 18 metres in a southerly direction.
- (vii) That the stopping of vehicles be prohibited at any time on the east side of Settlers Crescent (east) commencing at its intersection with Ferry Road and extending 20 metres in a southerly direction.
- (viii) That the stopping of vehicles be prohibited at any time on the west side of Tidal View commencing at its intersection with Ferry Road and extending 23 metres in a northerly direction.

(d) **No Turn Restrictions**

- (ix) That westbound vehicles on Ferry Road be prohibited from 'U'-turning at the intersection with Humphreys Drive.
- (x) That eastbound vehicles on Ferry Road be prohibited from 'U'-turning at the intersection with Tidal View.
- (xi) That southbound vehicles on Humphreys Drive be prohibited from 'U'-turning at the intersection with Ferry Road.

(e) **Traffic Controls**

- (xii) That traffic signals and associated works be installed at the intersection of Ferry Road and Humphreys Drive.
- (xiii) That a signalised pedestrian crossing and associated works be installed on the westbound Ferry Road slip lane.
- (xiv) That a give way controlled free left turn be installed on Ferry Road eastbound onto Humphreys Drive.

- (f) Revoke any existing parking restrictions in the foregoing areas.

BOARD RECOMMENDATION

- (a) That the staff recommendation be adopted.
- (b) That the staff provide reports at six monthly intervals on monthly traffic counts, including cyclists, following construction of the new intersection.

BACKGROUND (THE ISSUES)

- 36. The intersection of Ferry Road and Humphreys Drive is located in the Ferrymead Ward, which falls within the jurisdiction of the Hagley Ferrymead Community Board.
- 37. Ferry Road runs from the Ferrymead Bridge to the city, intersecting with High Street, Madras Street and St Asaph Street at its city end. This section of Ferry Road passes through a series of mixed commercial land uses. Humphreys Drive begins at the intersection and runs north along the edge of the estuary until it meets Linwood Avenue at a right angle corner.
- 38. Humphreys Drive and Ferry Road east of the Ferry Humphreys intersection are classified as 'Major Arterials' in the City Plan's roading hierarchy. West of the intersection with Humphreys Drive, Ferry Road is classified as a Minor Arterial up to Aldwins Road. It is a proposed limited access road between the intersection and the Tunnel/Dyers Road roundabout.
- 39. The intersection caters for approximately 30,000 vehicles a day.
- 40. At the current demand level, the intersection is subject to sporadic delays and queuing for westbound traffic that can lead to reliability problems for public transport routes to Sumner and Mt Pleasant on the outbound journey with 'knock – on' impacts for the inbound journey.

41. Traffic volumes on Ferry Road have been rising by an average of 3.3% per year and queuing and delay problems are forecast to worsen considerably given anticipated traffic growth in the area.
42. The intersection and its approaches have a poor accident history, with some 58 crashes recorded 1995 – 2004 inc and another 12 crashes in the subsequent 2.5 years including two serious and five minor injury crashes.
43. There has been a longstanding intention to complete a cycle route from Sumner to Hagley Park. Despite recent installation of cycle lanes over the Ferrymead Bridge, cyclists are still poorly served at the intersection. Pedestrians seeking to cross Ferry Road are also poorly served.
44. Planning for this project has included consideration of the current plans for the renewal and reconstruction of the Ferrymead Bridge; the building of a new apartment building at 1093 Ferry Road; the intent to reduce use of Ferry Road as a route to the city.

THE OBJECTIVES

45. The objectives for the Ferry Road Humphreys Drive intersection improvement project are as follows:
 - (a) To improve safety of the intersection.
 - (b) To improve capacity of the intersection to cope with increasing traffic volumes.
 - (d) To improve travel times through the intersection.
 - (e) To improve facilities for cyclists and pedestrians through the intersection.
46. Secondary/additional aims of the project include:
 - (f) To integrate with the Ferrymead Bridge Lifelines project
 - (g) To be sympathetic to the environment
 - (h) To retain recreational access to Tidal View
 - (i) To be completed within the Council approved budget
 - (j) To be completed within the Councils approved programme.
47. Intended project achievements
The more specific intentions of the project are to achieve:
 - (i) Double right turn from Ferry Road to facilitate signal controlled egress.
 - (ii) Encourage use of Humphreys Drive.
 - (iii) Cycle lane markings and improved pedestrian/cycle crossing facilities throughout the project.
 - (iv) Signal-controlled crossing facility for pedestrians.
 - (v) Retain the existing right turn ban.
 - (vi) Widened intersection approaches to provide space for two vehicle lanes and a cycle lane.
 - (vii) Landscaped solid median between the intersection and Tidal View to restrict right-turning manoeuvres from the driveways along the north side of Ferry Road.
 - (viii) Gap in solid median that will continue to allow right turns into Settlers Crescent, whilst preventing right-turns out from Settlers Crescent.
 - (ix) Compatibility with the selected option for Ferrymead Bridge.
 - (xi) Improved safety for pedestrians, cyclists and vehicles.
 - (xii) Signalised movement for vehicles exiting Ferry Road (west) onto Ferry Road (east).

THE OPTIONS

48. In accordance with the aims and objectives of the project, several options were developed for comparison for this intersection.

The Preferred Option

50. The proposal will signalise the intersection of Ferry Road and Humphreys Drive.
51. There will be two lane approaches on each arm of the intersection.
52. The right turn ban between Humphreys Drive and Ferry Road west will be retained and a right turn ban out of Settlers Crescent (east) onto Ferry Road east will be introduced.
53. Ferry Road east will have a continuous slip lane to Ferry Road west. Ferry Road west will have both lanes as right turn lanes with a short left turn slip lane subject to a give way control.
54. There will be cycle lanes incorporated into all arms of the intersection, with coloured surfacing at potential conflict locations. At each approach to the traffic lights the cycle lanes will have an advanced stop line incorporated.
55. There will be tactile paving at all pedestrian crossing points at the intersection. The crossing of Humphreys Drive and the two lane section of Ferry Road west will be signalised for pedestrians. The Ferry Road west give way slip and the Ferry Road east slip lane will not be signalised for pedestrians. Additional tactile paving will be placed at the crossing of Settlers Crescent (east) and the crossing of Humphreys Drive, to the north of Tidal View.
56. The latest plan used for the scheme and the publicity shown in Figure 1 is RD 1176s74.dgn.

Other options

58. There were ten options considered altogether, including (A) 'do nothing', (B) 'do minimum' (retain existing configuration and correct shape – super-elevation – of the curve).
59. Each option includes signals, slip lanes and cycle facilities.
60. Three options (H, I and J) add signals to the existing 'seagull' configuration.
61. One option (G) proposes re-orientation of the intersection with T-d traffic signals
62. The remaining options are variants of the preferred option layout varying the way the geometry affects user safety and effectiveness in managing capacity.
63. A key component of each variation involves the degree of the bend from Humphreys Drive into Ferry Road east and the requirement for more or different land acquisition.
64. An option for a roundabout was indicated in a 1999 Draft Feasibility Report, but subsequent analysis has shown that a roundabout would have limited lifetime in meeting the capacity needs of the intersection and would offer a poor level of service to pedestrians and cyclists. For this reason it has not been included as an option.

ASSESSMENT OF OPTIONS FOR FERRY ROAD HUMPHREYS DRIVE INTERSECTION

65. The preferred option best meets the project objectives, although it impedes westbound Ferry Road traffic only if the traffic queuing at the signals backs up and blocks the slip lane – which modelling suggests is not likely. None of the options provide completely signalised pedestrian crossing, as the slip lanes do not have sufficient pedestrian traffic volume ratio to qualify for signals.
66. The other options only partially meet project objectives.