HAGLEY/FERRYMEAD COMMUNITY BOARD
14 DECEMBER 2011

Report of a meeting of the Hagley/Ferrymead Community Board held on Wednesday 14 December 2011 at 3pm in the Board Room, Linwood Service Centre, 180 Smith Street, Linwood

PRESENT: Bob Todd (Chairperson), Islay McLeod (Deputy Chairperson), Tim Carter, David Cox, Yani Johanson and Nathan Ryan.

APOLOGIES: An apology for absence was received and accepted from Brenda Lowe-Johnson.

An apology for partial absence was received and accepted from David Cox who was absent from the meeting between 4pm and 5.20pm for consideration of Clauses 1, 2.4, 2.5 and 2.6.

An apology for early leave was received and accepted from Tim Carter who retired from the meeting at 5.42pm and was absent for Clauses 7, 8, 9, 14, 15, 16 and 17.

The Board reports that:

PART A - MATTERS REQUIRING A COUNCIL DECISION

1. MAIN ROAD - 3 LANING

General Manager responsible:	General Manager, City Environment Group, DDI 941 8608
Officer responsible:	Unit Manager, Transport and Greenspace
Author:	Christine Toner, Consultation Leader

PURPOSE OF REPORT

1. The purpose of this report is to present the Hagley/Ferrymead Community Board recommendation to the Council regarding approval of the proposed addition of a third lane (inbound) on Main Road between McCormacks Bay Road (at the western end of the causeway) and Ferrymead Bridge, and authorise that the project proceed to final design, tender and construction. **An addendum covering the councillor workshop held on 24 April 2012 is attached.**

EXECUTIVE SUMMARY

2. The proposal involves the addition of a third lane on Main Road from the western end of the causeway at McCormacks Bay Road to just east of St Andrews Hill Road, linking in with the Ferrymead Bridge widening project. The additional traffic lane will be installed in the westbound (towards town) direction on Main Road.

3. The aim of the project is to improve the capacity of this section of Main Road, in particular at the intersections of Main Road with McCormacks Bay Road and Mt Pleasant Road, while maintaining or improving safety for all road users especially cyclists.

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4. The project proposal includes intersection enhancements and changes, removal of all parking except two inset parking bays, additional right turning bays with raised median islands, the relocation of some bus stops, and the closure of the western entrances to The Brae and Scott Park Street lighting and signage will be upgraded. Facilities for cyclists and pedestrians will be improved.

5. It also includes the rebuilding of the seawall (due to earthquake damage as well as aging) for 660 metres in the area of the project extending from the from the car park in Scott Park to just past the intersection of McCormacks Bay Road and Main Road, at the western end of the causeway, a length of approximately 660 metres. The proposed design will provide a shared pathway for cyclists and pedestrians on top of the upper end. The seawall proposal consists of a rock rip rap wall, approximately three metres wide on top, and sloping away from the roadway for a distance of several metres. Although the costs of this proposed extended length of rebuild exceed the repair costs anticipated at the outset of the project in 2010, the proposed rip rap design can achieve robust and sustainable repairs as well as a shared path for much less cost than that of the alternative erect stone wall design. Although a shared path had been mooted in the Estuary Green Edge Master Plan introduced in 2010, it was thought that it would be many years before it could be manifested, or funding found.

6. The proposed seawall design also provides additional protection for the road and underground infrastructure should more earthquakes and/or sea level rise or tidal surges occur in future. An indicative diagram of the proposed rock rip rap wall is shown in **Attachment 3**.

7. Extensive local consultation was carried in November/December 2010, and many different issues were raised by residents. 81 submissions were received, of which 42 specified support of the proposal and 15 did not support the proposal. These are summarised in paragraphs 31 to 36 of this report, and detailed more fully in **Attachment 2**.

8. Key issues raised at this time related to expectations of an increased difficulty turning right across Main Road in either direction. Concerns were also expressed about the third lane being 'car centric' and not encouraging the use of public transport or alternative modes of transport. There were also some environmental concerns raised relating to trees and to bird life.

9. The project team recommends several changes to the original plan in response to the community feedback. The recommended plan is detailed in paragraphs 59 to 67 of this report, and shown in **Attachment 1**.

10. When proposals were drafted in September 2011 for this seawall rebuild along the length of the project, further discussions were held with local residents' associations, the Ihutai Estuary Trust, The Christchurch Estuary Organisation, Mt Pleasant Yacht Club, windsurfers and rowing representatives and Mahaanui Kurataiao Ltd (MKT). Their comments are summarised in Paragraphs 37 to 41 of this report and detailed more fully at the end of **Attachment 2**.

11. Earthquake repair works to the road itself are also required. These will be completed by the Stronger Christchurch Infrastructure Rebuild Team (SCIRT) as part of this project but the funding will come from a different budget. These will include full pavement rehabilitation, with replacement of the kerb and smoothing and re-surfacing of the footpath on the southern side of the carriageway.

12. The design provides for future bus priority if required, but it is considered that the changes in themselves will be effective in improving bus efficiency along this piece of road.

13. Other capital projects in this area are the widening and strengthening of Ferrymead Bridge, Sumner Bus Priority, the Causeway culvert renewal, and (since the earthquakes) the realignment of the sewer main in McCormacks Bay, along the Main Road and through Scott Park.

14. The proposed plan has been safety audited.

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15. The project was planned to start construction in January 2012 and finish in December 2012 to work in with the completion of the Ferrymead Bridge work. It is anticipated that construction will be completed during the 2012/13 financial year, and that it will be carried out by SCIRT together with their completion of earthquake repairs to the seawall and the Main Road itself.

FINANCIAL IMPLICATIONS

16. Council has a budget of $2,317,969 for the construction of the Main Road Three Laning project. The estimate to complete the project at the end of the scheme design phase is $2,180,892. This includes a construction contingency of 20%. The New Zealand Transport Agency (NZTA) funding has been approved for the parts of this project that comply with the NZTA funding requirements. Total design, consenting, and supervision fees are estimated at $492,078 which is 23% of the project estimate.

Year	Budget	Actual to date
2009/10 and earlier	47,523	47,685
2010/11	144010	144,010
2011/12	2,126,274	30,391
2012/13		
Total	2,317,807	222,086

17. In addition to this it is estimated that the earthquake repairs to the road, drainage, and seawall will cost another $2,271,054. This will be funded as an earthquake repair rather than from the project budget.

18. The additional cost to the project to achieve a three metre wide shared path along the length of Main Road described in this report is $117,000 and included in the project construction estimate.

Do the Recommendations of this Report Align with 2009-19 LTCCP budgets?

19. Funding for the Main Road 3 Laning project is programmed in the 2011/12 Annual Plan.

20. The current project cost estimates indicate there is sufficient budget allocated in the 2011-12 Annual Plan to implement and complete the project. Construction is programmed to commence in the 2011/12 financial year, it is likely that this funding will need to be carried forward until the 2012/13 financial year.

21. Funding for this project is provided within the Transport and Greenspace Unit Capital Programme as outlined above.

LEGAL CONSIDERATIONS

22. There are no Notable or Heritage trees shown in the City Plan or on the Council mapping system. There is one Heritage building, the Cob Cottage, which is located on the northern side of Main Road at the western end of the project area. As part of the Ferrymead Bridge project an Archaeological Authorisation has been applied for, for working close to the Cob Cottage. It is assumed this will cover the work being completed for the Main Road project, as this is the point where the two projects connect. No other consents are expected to be required.

23. The existing stone wall along the front of the reserve at the bottom of The Brae is a heritage wall. The heritage team will be consulted during the detailed design phase for changes to and adjacent to this structure.

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Consent Issues

24. A resource consent will be required for the work on the seawall. The proposed work is considered to be within the ambit of the Canterbury Earthquake (Resource Management Act) Order 2011 because extensive lengths of the road adjacent to the location of the intended rip rap wall are now unstable. Preparation for this consent process is underway.

Bylaw changes

25. A number of traffic resolutions will require amendment or addition to the Christchurch City Traffic and Parking Bylaw 2008. These are detailed later in this report in the Staff Recommendations section. Council resolutions are required to approve these.

Have you considered the legal implications of the issue under consideration?

26. Yes, as above.

ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS

27. This project is identified in the Annual Plan, Section 1, Page 35 as having been brought forward to coincide with the completion of work on the Ferrymead Bridge.

Do the recommendations of this report support a level of service or project in the 2009-19 LTCCP?

28. Yes, as above.

ALIGNMENT WITH STRATEGIES

29. This project aligns with the Council parking strategy, road safety strategy, cycling strategy and pedestrian strategy.

Do the recommendations align with the Council's strategies?

30. Yes, as above.

CONSULTATION FULFILMENT

31. No external initial issues consultation was carried out, as there had recently been consultation relating to the bus priority proposal in the area.

32. The proposed plan was presented to the community in November 2010, during which a leaflet with drawings and descriptions of the various components of the project proposal was distributed to all households along Main Road from Ferrymead Bridge to McCormacks Bay Road, up the adjoining streets Te Awakura Terrace, The Brae, Rangitira Terrace and Mt Pleasant Road, and along McCormacks Bay Road to Soleares Avenue. Copies of the leaflet were sent to residents' groups, libraries and service centres in the area, other clubs and societies including the Mt Pleasant Yacht Club, Avon Heathcote Estuary Ihutai Trust and the Estuary Association. In addition, a link to the Council Have Your Say website pages about this project was emailed to a list of people and organisations who had previously expressed interest in the Ferrymead Bridge project. A community drop in session was held on Wednesday 1 December 2010 at the Mt Pleasant Community Centre and staff met with residents of The Brae, and also with representatives of SPOKES. 81 submissions were received, of which 42 specified support of the proposal and 15 did not support the proposal.

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33. General comments praised the design but expressed concerns that it is car centric, could give more attention to buses, pedestrians and cyclists, that 3 laning is dangerous, will work in the morning but not evening, and will not solve the congestion problem. Several causes of the problem were suggested including the signals at Ferrymead, school timetables, Redcliffs roads, the drivers who allow others to enter the flow. Others were concerned about the Council spending money on this road when there is earthquake damage in other places.

34. Specific problems articulated by submitters included the difficulty of crossing two lanes, both in a vehicle turning on to or off Main Road, and three lanes as a pedestrian; concern about use of stop signs instead of give way signs; loss of greenspace; worries about noise affecting the kindergarten. A roundabout was suggested, and a call was made for driver education to encourage drivers not to stop for vehicles entering from the side roads. Several residents requested a right hand turn facility for east bound vehicles turning in to The Brae, a right turn lane out of The Brae toward Sumner and for parking on Main Road and in the Brae Reserve area. Lack of street parking around Scott Park was noted, and one person suggested moving the Cob Cottage to Ferrymead. There were several requests for a shared cycle pedestrian pathway along the estuary edge to be included in this project, and for separated cycle lanes (using a rumble strip) on Main Road, and several asked for the proposed new third lane to be restricted to buses. Others were concerned about the bus stops being placed in the cycle lanes. Environmental concerns were mainly about bird life, and asked for the retention of the Macrocarpa tree, and of specific rocks in the estuary and the gravel edge strip for gulls to roost and nest. One requested a pipe under the road for Paradise Shell ducks and their families. Flooding concerns centred round the Brae Reserve, and there were a few requests for undergrounding of cables.

35. A full summary along with staff comments is attached to this report as **Attachment 2**.

Changes to the plan as a result of the consultation

36. The project team reviewed the feedback received on the proposed option and agreed to make the following changes to the scheme in January 2011 to take into account some of the consultation responses:

    (a) A right turn bay will be installed for traffic turning into The Brae. A pedestrian refuge will also be installed to provide a crossing point to the bus stop adjacent to The Brae. To accommodate the inclusion of the right turn bay the existing footpath will be relocated to behind the existing stone wall and Norfolk pines. The bus stop on the southern side of the carriageway will also be relocated further west into the area where the second leg of The Brae currently joins Main Road. This access will be closed to allow for the relocated bus stop and to force vehicles to use the upgraded intersection further east to improve safety. The stone wall will require some modification at the western end to accommodate the bus stop and also to provide gaps for the footpath. This proposed work has been discussed with the Council Heritage team.

    (b) The bus stop located on the southern side of the carriageway just east of Ferrymead Bridge will now be partially indented due to feedback received from the safety auditor on the previous un-indented option. Due to space limitations in this location a fully indented bus stop was not achievable. To minimise the risk of cyclists getting squeezed between the bus and vehicles in the through lane, it is proposed to narrow both west bound lanes to 3.2 metres in this location and make some adjustments to the curve leading off Ferrymead Bridge in the eastbound direction so the northern kerb is pushed slightly north to provide 1.6 metres width between the bus and vehicles if a bus is stopped.

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(c) The previously proposed off road section of path for cyclists on the west side of McCormacks Bay Road intersection will be removed and replaced with a shared path south of the proposed parking area to provide a more direct route between McCormacks Bay Road and Main Road. This will involve the footpath being widened to 2 metres to allow for the one way cycle movement. Additional markings and signage will be installed where the path crosses over the main footpath along Main Road and joins with the on road cycle lane to minimise the risk of cyclists colliding with pedestrians at this cross over point.

(d) The no stopping restriction will be extended on McCormacks Bay Road around the new curve due to expected parking congestion in this area during drop off and pick up at the pre-school close by.

37. These changes have been reviewed by the safety auditor and no additional comments were provided regarding these changes. The only suggestions were in relation to road markings at the bus stops, which have been adjusted.

Further feedback on seawall rebuild proposals

38. As the revised proposal for rebuilding of the seawall differs significantly from the plan that was consulted upon in 2010, further discussions were held in September 2011 with Mt Pleasant, Redcliffs and Sumner residents' associations, the Ihutai Estuary Trust, The Christchurch Estuary Organisation, Mt Pleasant Yacht Club and Pleasant Point Yacht Club, windsurfers and rowing representatives and Mahaanui Kurataiao Ltd (MKT). These involved a site visit and meeting at the Mount Pleasant Yacht club premises followed by emailed information for Yacht Club committee members and for those who could not attend the site visit, and other meetings with the Estuary Association and Ihutai Estuary Trust. Those attending the meetings seemed generally happy with the proposal although the Estuary Association expressed concern about encroachment on the estuary.

39. Subsequent correspondence from the stakeholders raised the following concerns:

(a) Encroachment into the estuary - 'the thin end of the wedge' – concern that this solution may apply in other parts of the estuary edge resulting in unacceptable reduction of sailing area.

(b) Danger to sailors from underwater rocks.

(c) Impact on tidal flows and viable sailing areas – exacerbating the already reducing sailing areas due to changing tidal patterns due to the earthquake having changed the levels of the estuary floor, and the apparent moving of the channel gradually closer to the causeway.

(d) Lack of modelling of effects.

(e) Lack of full consultation about this specific change.

40. There was support given as follows:

(a) Mt Pleasant Memorial Community Centre & Residents' Association Inc gave support in principle for the shared path but reiterated their non-support of the 3 laning project itself.

(b) Individuals from Redcliffs and Sumner Residents' Associations indicated support for the proposal.

1 Cont'd

STAFF RECOMMENDATION

It is recommended that the Council:

(a) Approve the proposed Main Road 3 Laning project to proceed to final design, tender and construction, as shown in the plans for Board approval at Attachment 1 (TP323501 and TP323502).

(b) Approve the following traffic resolutions as shown in the plans for Board approval at Attachment 1 (TP323501 and TP323502), refer to corresponding Roman numeral listed on attachment:

(i) that all existing parking restrictions on the northern side and western side of Main Road between a point 53 metres north east of the Bridle Path Road intersection and extending in a northerly and easterly direction for a distance of 850 metres, be revoked

(ii) that all existing parking restrictions on the southern and eastern side of Main Road between a point 58 metres north east of the Bridle Path Road intersection and extending in a northerly and easterly direction for a distance of 820 metres, be revoked

(iii) that all existing parking restrictions on the north east side of Mt Pleasant Road commencing at its intersection with Main Road and extending in a south easterly direction for a distance of 20 metres be revoked

(iv) that all existing parking restrictions on the south west side of Mt Pleasant Road commencing at its intersection with Main Road and extending in a south easterly direction for a distance of 55 metres be revoked

(v) that all existing parking restrictions on the east side of The Brae commencing at its intersection with Main Road (at its eastern intersection) and extending in a southerly direction for a distance of nine metres be revoked

(vi) that all existing parking restrictions on the west side of The Brae commencing at its intersection with Main Road (at its eastern intersection) and extending in a southerly direction for a distance of nine metres be revoked

(vii) that the stopping of vehicles be prohibited at any time on the south side of Main Road, commencing at its intersection with Mt Pleasant Road and extending in an easterly direction for a distance of 30 metres

(viii) that a bus stop be created on the south side of Main Road, commencing at a point 30 metres east of the Mt Pleasant Road intersection and extending in an easterly direction for a distance of 14 metres

(ix) that the stopping of vehicles be prohibited at any time on the south side of Main Road, commencing at a point 44 metres east of the Mt Pleasant Road intersection and extending in an easterly direction for a distance of 107 metres

(x) that the stopping of vehicles be prohibited at any time on the south east side of Main Road, commencing at its intersection with Te Awakura Terrace and extending in a south westerly direction for a distance of 112 metres

(xi) that a bus stop be created on the south east side of Main Road commencing at a point 112 metres south west of its intersection with Te Awakura Terrace and extending in a south westerly direction for a distance of 14 metres

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(xii) that the stopping of vehicles be prohibited at any time on the south east side of Main Road, commencing at a point 126 metres south west of its intersection with Te Awakura Terrace and extending in a south westerly direction of 30 metres

(xiii) that the stopping of vehicles be prohibited at any time on the south east side of Main Road, commencing at its intersection with Te Awakura Terrace and extending in a north easterly direction for a distance of 73 metres

(xiv) that the stopping of vehicles be prohibited at any time on the south east side of Main Road, commencing at a point 90 metres north east of its intersection with Te Awakura Terrace and extending in a north easterly direction for a distance of 17 metres

(xv) that the stopping of vehicles be prohibited at any time on the south side of Main Road, commencing at a point 131 metres north east of its intersection with Te Awakura Terrace and extending in an easterly direction for a distance of 46 metres

(xvi) that a bus stop be created on the south side of Main Road, commencing at a point 177 metres north east of its intersection with Te Awakura Terrace and extending in an easterly direction for a distance of 14 metres

(xvii) that the stopping of vehicles be prohibited at any time on the south side of Main Road, commencing at a point 191 metres north east of its intersection with Te Awakura Terrace and extending in an easterly direction to its intersection with Mt Pleasant Road

(xviii) that the stopping of vehicles be prohibited at any time on the north west side of Main Road commencing at a point 53 metres north east of its intersection with Bridle Path road and extending in a north easterly direction for a distance of 59 metres

(xix) that a bus stop be created on the north east side of Main Road, commencing at a point 112 metres north east of its intersection with Bridle Path Road and extending in a north easterly direction for a distance of 14 metres

(xx) that the stopping of vehicles be prohibited at any time on the north west side of Main Road commencing at a point 126 metres north east of its intersection with Bridle Path road and extending in a north easterly direction for a distance of 281 metres

(xxi) that a bus stop be created on the north side of Main Road, commencing at a point 407 metres north east of its intersection with Bridle Path Road and extending in an easterly direction for a distance of 14 metres

(xxii) that the stopping of vehicles be prohibited at any time on the north side of Main Road commencing at a point 421 metres north east of its intersection with Bridle Path Road and extending in an easterly direction for a distance of 350 metres

(xxiii) that a bus stop be created on the north side of Main Road, commencing at a point 771 metres north east of its intersection with Bridle Path Road and extending in an easterly direction for a distance of 14 metres

(xxiv) that the stopping of vehicles be prohibited at any time on the north side of Main Road commencing at a point 785 metres north east of its intersection with Bridle Path Road and extending in an easterly direction for a distance of 119 metres

(xxv) that the stopping of vehicles be prohibited at any time on McCormacks Bay Road at, or adjacent to its intersection with Main Road (the intersection closest to the Mt Pleasant Road intersection), and including that portion of McCormacks Bay Road which will be created as a no exit section, due to the realignment of the intersection, as illustrated on **Attachment 1** (TP323502)

1 Cont'd

(xxvi) that the parking of vehicles be restricted to 90 degree angle parking on that "no exit" portion of McCormacks Bay road, as illustrated on **Attachment 1** (TP323502)

(xxvii) that the stopping of vehicles be prohibited (at any time) on the north east side of Mount Pleasant Road, commencing at its intersection with Main Road and extending in a south easterly direction for a distance of 14 metres

(xxviii) that the stopping of vehicles be prohibited (at any time) on the south west side of Mount Pleasant Road, commencing at its intersection with Main Road and extending in a south easterly direction for a distance of 30 metres

(xxix) that the stopping of vehicles be prohibited (at any time) on the east side of The Brae, commencing at its intersection with Main Road and extending in a southerly direction for a distance of 9 metres

(xxx) that the stopping of vehicles be prohibited (at any time) on the west side of The Brae, commencing at its intersection with Main Road and extending in a southerly direction for a distance of nine metres.

Changes to intersection controls:

(xxvii) that the Give Way control on Mt Pleasant Road at its approach to Main Road be revoked

(xxviii) that a Stop control be installed on Mt Pleasant Road at its approach to Main Road

(xxix) that the Give Way control on McCormacks Bay Road at its approach to Main Road (at the western end of the Causeway) be revoked

(xxx) that a Stop control be installed on McCormacks Bay Road at its approach to Main Road (at the western end of the Causeway, but at the realigned position of McCormacks Bay Road as illustrated on **Attachment 1** (TP323502).

STAFF RECOMMENDATION FROM ADDENDUM

That the Council:

(d) Approve the Staff Recommendations contained in the body of the Main Road 3 Laning Council report – including a three metre off-road gritted path and a 1 in 3 rip rap embankment.

(e) Accept Ferrymead Bridge downstream footpath width remain as currently approved at 2.5 metres.

(f) Accept the road layouts proposed for Mt Pleasant Road and McCormacks Bay Road.

1 Cont'd

BOARD CONSIDERATION

The Board **received** three deputations on this report, Clauses 2.4, 2.5 and 2.6 refer.

The Board sought clarification from staff regarding the relationship between the Main Road - 3 Laning Project and Ferrymead Bridge in regard to funding, and the potential for widening the proposed shared pathway for cyclists and pedestrians. Board members expressed concern that the Main Road – 3 Laning Project was not being considered in conjunction with the Suburban Centres Programme Ferry Road/Main Road Master Plan, and considered that the Council should be provided with advice on this before approving the project.

BOARD RECOMMENDATION

It was **decided** on the motion of Tim Carter, seconded by Yani Johanson:

(a) that the Board recommend that the Council be provided with advice on how the Main Road - 3 Laning Project fits with the Ferry Road/Main Road Master Plan, before approving the project to proceed to final design

(b) that the Board request that staff report to the Council on the options available for widening the shared path.

These issues are covered in the addendum and attached memo.

BACKGROUND (THE ISSUES)

41. The proposal involves the addition of a third lane on Main Road from the western end of the causeway at McCormacks Bay Road to just east of St Andrews Hill Road, linking in with the Ferrymead Bridge widening project. The additional traffic lane will be installed in the westbound (towards town) direction on Main Road.

42. Main Road and Mt Pleasant Roads are classified in the City Plan as Minor Arterial roads. McCormacks Bay Road and St Andrews Hill Road are classified as collector roads.

43. The aim of the project is to improve the capacity of this section of Main Road, while maintaining or improving safety for all road users. In the past, congestion has resulted when city bound drivers stop on Main Road to allow drivers from McCormacks Bay Road and Mt Pleasant Road to enter the Main Road traffic. This not only caused congestion back toward Redcliffs, but also created an unsafe situation for cyclists approaching the intersections from the east. Several serious injury crashes and other near misses have occurred when drivers made a right turn across the stationary city bound traffic queue, not seeing a cyclist behind the row of cars. The design provides for future bus priority if required, but it is considered that the changes in themselves will be effective in improving bus efficiency along this piece of road.

44. It should be noted that it was agreed at the start of the project by the project team that any consideration of tidal traffic movement for the third lane is excluded in the scope of this project, as congestion currently does not occur in eastbound direction and is not anticipated to be a significant issue in the future for this part of Main Road.

Seawall and road repairs

45. The causeway was constructed in 1907 and originally carried only a single tram line. It was widened in 1937 to accommodate vehicular traffic. The total length of the estuary seawall is approximately 1700 metres, running from the car park in Scott Park to the intersection of Main Road and Beachville Road.

1 Cont'd

46. The deterioration of the seawall poses a threat to road users and the existing services located in the road shoulder, in particular the Orion power cables and the brittle asbestos cement water mains which are located closest to the back of the estuary seawall. The processes leading to the deterioration of the seawall will be on-going and are likely to continue resulting in further collapse and subsidence. Structural analysis undertaken in 2004 by City Solutions also showed that the current state of the estuary seawall does not have sufficient capacity to resist traffic loading. Therefore repair/replacement works are strongly recommended.

47. Seawall repairs were always going to be part of this project, but the Christchurch earthquakes caused significant damage and the seawall now requires replacement along the full length of the Main Road adjacent to the proposed 3 laning (and further, which is outside the scope of this project).

48. The extent of the estuary seawall affected by the works and therefore consequently included within this report is from the car park in Scott Park to just past the intersection of McCormacks Bay Road and Main Road, at the western end of the causeway, a length of approximately 660 metres.

49. It was previously proposed to use a precast concrete wall for the 120 metres of wall that required replacement. However following the earthquakes it is considered that a rip rap wall would be more appropriate in this location and will provide better protection for underground services as well as for the roadway itself, if another significant event occurred. This type of structure can be repaired, if damaged by any quake in future, simply by moving rocks back into place. Also, if another earthquake event caused seawall damage, any slumping would be far enough away from the traffic lanes that vehicles should still be able to use the road.

50. The issue of sea level rise and wave surges was also part of the original project. Now that the whole length of seawall needs replacing, it is planned that the road surface be raised by around 200 millimetres on average over the project length in order to build the centre line of the road at RL11.6 metres to account for future sea level rise. The drainage requirements associated with this change will be detailed further during the design phase but a 1.5 metre 'service strip' has been provided adjacent to the cycle lane on the northern side of the carriageway to cater for any drainage requirements. This strip will also provide separation between the vehicle lanes and the shared pathway.

51. As well as adjusting for sea level rise, we now have an opportunity to install a three metre wide shared off road path at the top of the wall as part of the construction. Some of the width of this path will be on the existing road shoulder wherever possible. This path allows for future walking and cycling connections around this part of the estuary and also provides additional protection to Main Road and its services.

52. Earthquake repair works to the road itself are also required. These will be completed by SCIRT as part of this project but the cost will come from a different budget. The repairs will include:

    (a) Full pavement rehabilitation.

    (b) Replacement of the kerb on the southern side of the carriageway.

    (c) Smoothing and re-surfacing of the footpath on the southern side of the carriageway.

53. An allowance has also been included for the replacement of a number of drainage pipes that cross over Main Road within the project area. Currently seven pipes cross over Main Road within the project area and it is considered that up to half of these could have sustained significant damage during the earthquake events and have been included in the cost estimate.

1 Cont'd

54. Other capital projects in this area are the widening and strengthening of Ferrymead Bridge, Sumner Bus Priority, the Causeway culvert renewal, and (since the earthquakes) the realignment of the sewer main in McCormacks Bay, along the Main Road and through Scott Park.

55. The proposed plan has been safety audited.

56. The project was planned to start construction in January 2012 and finish in December 2012 to work in with the completion of the Ferrymead Bridge work. It is anticipated that construction will be completed during 2012/13 financial year, and that it will be carried out by SCIRT on their completion of earthquake repairs to the seawall and the Main Road itself.

THE OBJECTIVES

57. Project objectives are:

    (a) To improve capacity through this section of Main Road by installing a third traffic lane on the south side, for westbound traffic.

    (b) To maintain or improve safety for all road users through this section of Main Road.

    (c) To ensure that the design can incorporate future bus priority needs.

THE OPTIONS

The 'Do Minimum Option

58. The do minimum option is that no changes are made to the current layout and design of the Main Road corridor in the study area.

Option 1

59. Option 1 was the preferred option for consultation and is detailed fully here. Option 1 includes three traffic lanes (two inbound and one outbound) along the section of Main Road from the proposed new location of the intersection of McCormacks Bay Road and Main Road, to the Ferrymead Bridge. All three lanes will be typically 3.4 metres wide, except for approximately 120 metres adjacent to the right turn bay into the Scott Park car park where space is particularly limited and the lanes reduce to 3.3 metres. The westbound lane widths are also reduced for a short section adjacent to the bus stop near 10A Main Road to provide extra space between a stopped bus and vehicle for cyclists. The lanes will reduce to 3.2 metres for this short section, and some adjustments will be made to the curve leading off Ferrymead Bridge in the eastbound direction so the northern kerb is pushed slightly north providing more space (1.6 metres) for a cyclist between a stopped bus and a passing vehicle. The original Option 1 for consultation did not include the right turn lane at The Brae, but this has been included now at the request of local residents.

60. This option retains the existing footpath, kerb and flat channel on the south side of Main Road, and also retains the footpath and kerb and flat channel on the north side of the carriageway adjacent to the Bowling Club to the Scott Park car park. This footpath will connect at its western end with the proposed 'off road' footpath being constructed as part of the Ferrymead Bridge project, and at its eastern end with the proposed shared path on top of the proposed rebuilt seawall (see paragraphs 84 of this report onward).

1 Cont'd

61. Existing cycle lanes will remain but the south side cycle lane will now be located kerbside rather than adjacent to the parking. New green surfacing will be provided across all intersections and main access points (such as the access to the Scott Park car park). A three metre wide off road shared path will be provided along the top of the new seawall for use by recreational cyclists and pedestrians. This path will not be sealed but will be surfaced adequately to cater for pedestrians and cyclists. Cyclists will be able to reach this stretch of path by utilising the refuges along the project length.

62. The footpath at The Brae will be relocated to behind the stone wall and pram crossings provided when the footpath crosses The Brae. Tactile pavers will be installed at all crossing points for visually impaired pedestrians.

63. All on street parking will be removed except the two existing parking bays outside 30 and 32 Main Road and yellow no stopping lines will be installed along the full length as part of the installation of the cycle lanes. Overall this means a loss of approximately 50 parking spaces. As off street parking is provided within the Scott Park car park, and a new area with 22 car parks will be created in the road space left over once McCormacks Bay Road is diverted, it is considered that the current low demand for parking will be well met. With the inclusion of drainage and a shared path on the northern side of the carriageway adjacent to the seawall, there will be no space for any informal parking, which currently occurs in some locations.

64. All the existing bus stops will remain within the project area, with a small relocation of the eastbound bus stop outside the Bowling Club and some safety improvements at the stops on the north side of Main Road. The westbound bus stop just east of Mt Pleasant Road will be tidied up as part of the improvements in this area, including lengthening to meet the current standards. The bus stop outside The Brae Reserve on the southern side of the carriageway will be relocated further west into the area where the second leg of The Brae currently joins Main Road. This access will be closed to allow for the relocated bus stop and to force vehicles to use the upgraded intersection further east to improve safety. The stone wall will require some modification at the western end to accommodate the bus stop and also to provide gaps for the footpath.

65. Landscaping including new grass, low landscaping and new trees is included in the scheme and shown on **Attachment 1**. The planting of new trees will mitigate the removal of a number of trees, particularly around the Bowling Club and McCormacks Bay Road.

66. Some new signage will be installed as part of the project, and street lighting will be upgraded.

Intersection/Access Changes proposed in Option 1

67. A number of changes are proposed for various accesses and intersections along the corridor to improve safety for all road users. Each is discussed in detail below.

    (a) The western access to the Scott Park complex, located just west of the bowling club, will be closed to improve safety in this area. Visibility from this access to the west is restricted due to the horizontal curvature of the carriageway. Although this closes access to one of the parking areas, this area can still be reached by using the eastern access to the complex and the internal road provided.

    (b) The access to the Scott Park car park (and now the only access to the full complex) will be relocated approximately 20 metres west to provide more space for the right turn bay into the complex and also provide better visibility for vehicles entering and exiting the site. The proposed access will remain at 10 metres wide and wide kerb radii will be provided for ease of access for cars and boat trailers.

1 Cont'd

(c) A flush median will be provided for right turning traffic into Te Awakura Terrace. This flush median is provided as an extension of the right turn bay into the Scott Park car park and the raised pedestrian refuge provided just east of Te Awakura Terrace. The south side footpath will be narrowed from three metres to approximately 2.3 metres for a short section to allow for this refuge and median. One power pole will also need to be relocated.

(d) A right turn bay will be installed for traffic turning into The Brae. A pedestrian refuge will also be installed to provide a crossing point to the bus stop adjacent to The Brae. The existing footpath will be relocated to behind the existing stone wall and Norfolk pines to allow space for this. The south side bus stop will be relocated further west into the area where the second leg of The Brae currently joins Main Road. This access will be closed to allow for the relocated bus stop and to force vehicles to use the upgraded intersection further east to improve safety. The stone wall will require some modification at the western end to accommodate the bus stop and also to provide gaps for the footpath.

(e) The Mt Pleasant Road intersection will be narrowed down significantly to slow traffic coming down the hill entering Main Road and also to reduce the crossing distance for pedestrians. The crossing distance will be reduced further by the installation of a central raised island. Two short turning lanes, approximately 12m long, are provided for vehicles exiting Mt Pleasant Road. This provides space for two vehicles to queue to turn left or right without blocking the other movement. A short kerbside cycle lane will be provided at the intersection on Mt Pleasant Road so cyclists are not blocked by queuing traffic. A flush median will be placed on Main Road east of Mt Pleasant Road to provide access to the bus stop on the northern side of the carriageway. In this location kerbing and a footpath will be provided around the bus stop to provide a clear path for any visually impaired users using the bus stop.

(f) The existing Give Way control at the newly aligned intersections of Main Road with McCormacks Bay Road and Mt Pleasant Road will be replaced by a Stop control to provide improved safety for cyclists travelling along Main Road. After stopping, all left turning vehicles exiting McCormacks Bay Road and Mt Pleasant Road will turn into the proposed new left lane.

(g) The right turn bay provided on Main Road for traffic turning into Mt Pleasant Road will remain and will be widened from 2.5 metres to three metres.

(h) The McCormacks Bay Road intersection will be relocated approximately 80 metres east of the current intersection to provide better separation between McCormacks Bay Road and Mt Pleasant Road. This will make it easier for buses to access the bus stop just east of Mt Pleasant Road once the two lanes are operating. This relocation will all occur within the current road reserve, which is currently a grassed area with some small trees that will require removal.

(i) A raised central island will be installed on McCormacks Bay Road, at its intersection with Main Road, to reduce the crossing distance for pedestrians. A left and right turn lane will be provided on McCormacks Bay Road, providing space for around seven vehicles to queue without impeding the other movement. The radii on the left turn out of McCormacks Bay Road will be quite tight so vehicles are forced to slow down for the Stop control.

(j) Under this arrangement, through traffic will not be able to enter the new kerbside lane until further downstream of the McCormacks Bay Road intersection. A no overtaking yellow line will be installed at the start of the proposed new lane to reinforce to through traffic on Main Road that they cannot cross into this lane until further downstream to reduce any potential conflict between through traffic and left turning traffic on McCormacks Bay Road.

1 Cont'd

(k) A right turn bay will be provided for traffic entering McCormacks Bay Road from Main Road. This will form a flush median from the Mt Pleasant Road intersection to McCormacks Bay Road. The flush median will taper out approximately 60 metres east of McCormacks Bay Road, at the eastern extent of the project.

Option 2

68. In Option 2 the new westbound traffic lane commences approximately 50 metres east of the McCormacks Bay Road intersection rather than commencing at the intersection. All other changes to the intersection as proposed in Option 1 would occur, for example it being moved eastwards from its current position and installing the central pedestrian island.

69. In the original Option 2 proposal, a right turn bay into The Brae was considered and rejected due to the low demand for this movement. However, feedback from the public consultation included strong demand from local residents of The Brae for this facility so it has now been included in Option 1.

Option 3

70. In Option 3 the new westbound traffic lane commences approximately 30 metres west of the McCormacks Bay Road intersection rather than commencing at the proposed newly located intersection. This option was developed as it was considered to be safer for cyclists than Options 1 and 2, as they would not have to cross over a new lane at McCormacks Bay Road.

Other Options Considered

71. A number of other options were considered.

(a) Closing the western access to The Brae. This was initially not considered beneficial as there was no crash history to warrant this and the traffic movements in and out of it are very low. However, consultation feedback showed a demand for a right turn bay for The Brae, and this has been included in Option 1. Thus Option 1 now also includes the proposal to close the western access to The Brae.

(b) An off road cycle link from Mt Pleasant Road to Main Road through the new narrowed area was considered but not taken further as there was concern around pedestrian safety at the point where a cycle path would cross the Main Road footpath to join with Main Road. Cyclists would be travelling at high speeds down the hill and pedestrians may not be aware of cyclists coming down a path and a high speed collision could occur between a pedestrian and cyclist. This idea has now been replaced with the proposal outlined in paragraph 64 above, for a shared pedestrian cycle path south of the proposed parking area.

(c) Stopping the footpath on the northern side near Scott Park at the western end of the bus stop due to restrictions in space next to the bowling club. This idea was rejected and instead, minor change to traffic lane widths were made in this section to fit the footpath.

(d) Installing kerb and channel along the northern side of the carriageway adjacent to the estuary. This was not considered further due to the significant cost of installing new kerb and channel for the full length, new drainage required and the likely full reconstruction that would be required to achieve suitable cross falls and the like.

(e) Installing a flush median for the full length of the project. This was not considered further as in Option 1 and 2 flush medians were proposed where they were considered necessary. It was not considered that a flush median would provide any other benefits in the other areas.

1 Cont'd

ASSESSMENT OF OPTIONS

Assessment of the 'Do Minimum' Option

72. The Do Minimum option has not been selected as the preferred option, as it does not meet the aims and objectives for the project.

Assessment of Option 1

73. This is the preferred option.

Benefits of Option 1

74. The transport modelling showed that there were significant travel time benefits for this option as the inclusion of the westbound traffic lane reduced queuing and delays on both Main Road and at the side road intersections. The main benefits occurred during the morning peak period. There was little change in delays during the interpeak and evening peak periods.

75. With Option 1 the queuing that was common prior to the February earthquake and now still occurs along Main Road in the morning peak period will no longer occur. Thus the 'reverse priority' phenomenon will disappear, thus improving safety for cyclists. Installation of Stop controls at these intersections is also expected to improve cycle safety. Pedestrian safety will also be improved through the installation of two new pedestrian refuges and the narrowing down of both the Mt Pleasant Road intersection and McCormacks Bay Road intersections.

76. The proposed design will significantly improve bus travel times through this section of the bus corridor, to the extent that it is envisaged that additional bus priority measures may not be required in the future as bus travel times will be significantly improved. However the design does not preclude additional measures being incorporated in the future.

Shortfalls of Option 1

77. It is expected that approximately 50 on street car parks will be lost, but this will be supplemented by the inclusion of around 22 to 27 car parks in the new parking area off McCormacks Bay Road.

78. Approximately 340 metres of existing kerb and flat channel will be removed under this Option, 110 metres due to the installation of the pedestrian refuge and flush median at Te Awakura Terrace and 230 metres on the northern side of Main Road outside the bowling club to allow space for the road widening.

Assessment of Option 2

79. Option 2 is the same as Option 1 except for the proposal to move the start of the third lane west slightly. Option 2 therefore brings the same benefits as Option 1, including similar travel times.

80. Moving the start of the third lane east would compromise cycle and motor vehicle safety at the McCormacks Bay Road intersection as now right turning vehicles would have two lanes of traffic to cross. Also sight lines of vehicles turning out of McCormacks Bay Road may be compromised by vehicles moving into the developed lane blocking traffic staying in the central lane. Option 2 was not considered further.

Assessment of Option 3

81. When compared to Options 1 and 2 the transport modelling completed for Option 3 showed significant delays and queuing on McCormacks Bay Road and therefore this option was not considered further.

1 Cont'd

SEAWALL OPTIONS ASSESSMENT

82. Various options were considered for the replacement of the seawall along the seaward side of the road between the Bowling Club and McCormack's Bay Road. These options could still be suitable for the remaining length of the road as ground conditions and the height of the existing rock wall appear similar, although earthquake damage is likely to be a consideration in many other areas of the estuary edge.

83. The options considered fall into two wall types:

    (a) a vertically faced precast concrete cantilever panel wall or

    (b) a sloping rock rip rap wall.

Seawall Option 1

84. The precast wall concept was originally developed (before the earthquake) to keep the footprint of the new wall within the footprint of the existing wall and so minimise encroachment into the estuary. The consequence of this is that in order to build it, the edge of the road must be excavated, putting a number of key services at risk. Other erect precast seawalls around the estuary have performed poorly in recent earthquakes. The estimated cost of this option is approximately three times that of Option 2. Thus Option 1 is now considered uneconomical and has not been considered further.

Seawall Option 2

85. This option has been adopted as the preferred option for this project.

86. A conceptual view of the rock rip rap or rock armour wall is shown in **Attachment 3.** The appearance of the wall would be similar to that of the walkway and shore in McCormacks Bay between the stone bus shelter and the Christchurch Yacht Club.

87. The main components of the wall are:

    (a) The toe, which would be just below the seabed level to prevent erosion underneath the seawall. It is designed to be long enough to reach the expected lowest seabed scour level and still protect the wall.

    (b) The main slope of the wall, which would break incoming waves, dissipating their energy. This would be covered with rocks of a size that is sufficient to remain in place under the design wave conditions. Repairs are effected by moving displaced rock and adding more rock to restore the design profile.

    (c) The crest of the wall, the height of which would be set to control the amount of wave overtopping that occurs. The height of the wall is therefore an economic decision, based on the effect of some overtopping under storm conditions.

88. The rock rip rap wall option has a larger footprint than Option 1 but it has a number of advantages.

    (a) The rock rip rap option provides far greater seismic capacity than any other option considered.

    (b) It is significantly less costly to build and maintain than an erect wall. Estimates of the cost to build this option over the 660 metres length now needing replacement are approximately the same as the cost of the 120 metres of erect precast wall originally proposed prior to the earthquakes.

1 Cont'd

(c) In the event of another earthquake it will be inherently easier to repair.

(d) This type of wall will not require disturbance of the existing road formation.

(e) The top of the proposed rip rap wall can be made wide enough to provide a shared pedestrian cycle path, at comparatively low cost. Such a path has been requested by the community.

Seawall repair/replacement options considered earlier

89. The following list indicates the main alternative seawall options considered. A cost comparison of the various options was not undertaken. In addition it was earlier considered that a patch repair technique could possibly be used in some areas.

90. Prior to the revised road realignment being completed eight possible options were identified to fully reconstruct the estuary seawall. These were:

(a) Grouted rock, using existing rock where possible, and reinforced concrete capping beam.

(b) Precast reinforced concrete units, possibly with pile foundations, and with the top of the wall shaped to deflect wave splash. This option would involve excavation of the carriageway, closure of traffic lanes and exposure of existing services.

(c) Rock gabions, which would also require excavation of the carriageway and labour intensive construction.

(d) Precast retaining block wall, which would be easy to construct but would possibly require piled foundations, and would require excavation of the carriageway.

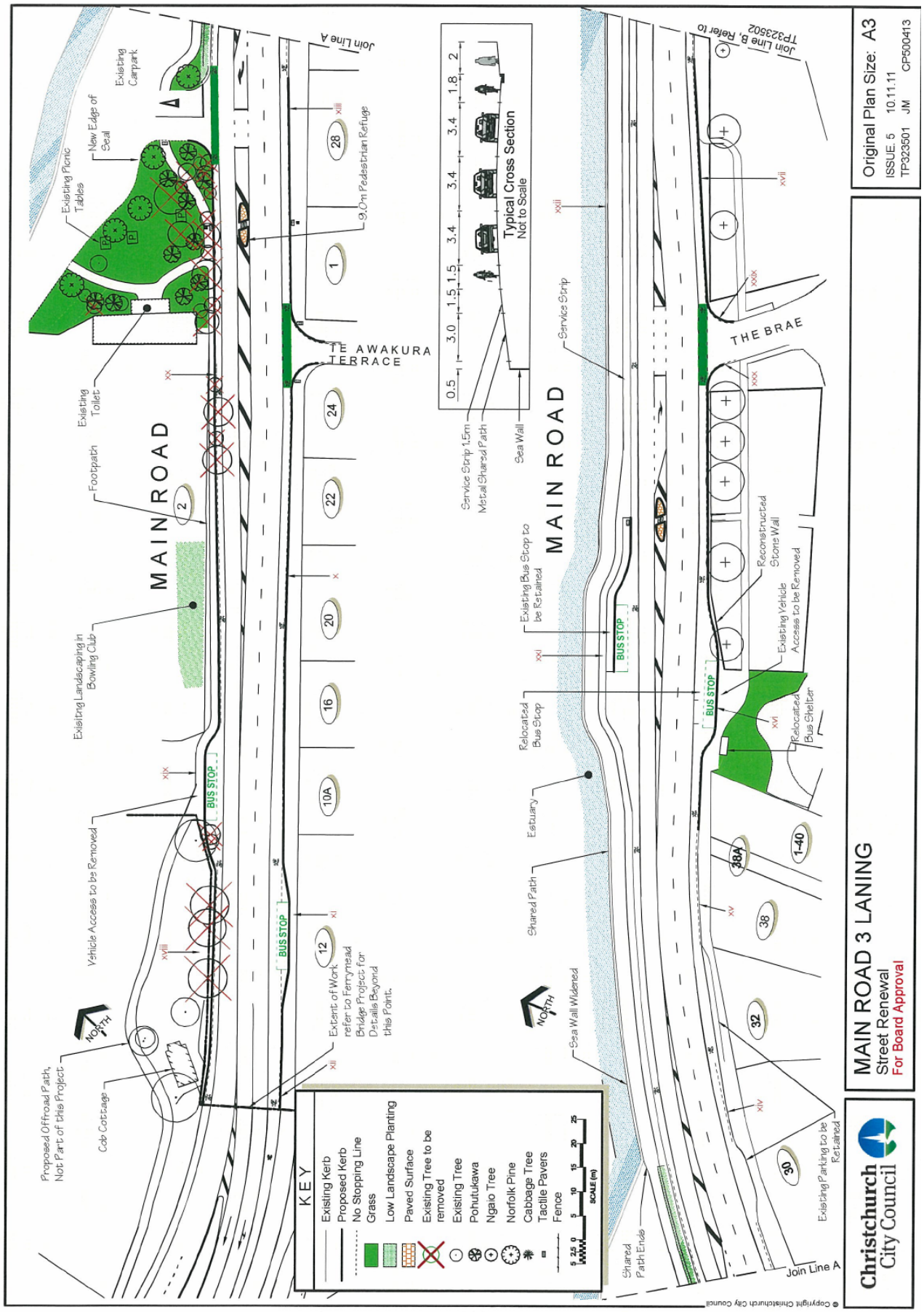
(e) Machine placed armour rock which would minimise the likelihood of damaging the existing services, but would require acquisition of land in front of the retaining wall – potentially requiring a regional consent from ECan.

(f) Hand placed rock, which is similar to the previous with similar benefits and draw backs, more manual labour intensive, and possibly requiring pile foundations, but able to be achieved with a steeper slope and therefore less encroachment on the estuary.

(g) Rock Reno Mattress – similar to the above and requiring fewer rocks.

(h) Interlocking concrete slabs - similar to the above but the concrete finish may not be preferred.

ATTACHMENT 1 TO CLAUSE 1



ATTACHMENT 1 TO CLAUSE 1 Cont'd

ATTACHMENT 2 TO CLAUSE 1

MAIN ROAD 3 LANING - CONSULTATION SUMMARY FOR BOARD REPORT

1. Full consultation November December 2010

2. Summary of comments from local stakeholders on the Sep 2011 proposal for rebuilding of the seawall in the Main Road 3 laning project area

1. FULL CONSULTATION NOVEMBER DECEMBER 2010

Community consultation of the proposed design was undertaken in November /December 2010. Leaflets were delivered to residents in the immediate area and other stakeholders. A project information meeting was held in the street during the consultation period. 81 submissions were received, of which 44 indicated support of the proposal. 15 specified that they do not support the proposal. Approximately 50 people attended the project information meeting, and a further 10 attended a neighbourhood meeting near the Brae. Formal submissions were received from Spokes, Mt Pleasant Residents Association, and the Ihutai Trust. Details of the submissions and comments received are summarised in the table below.

Support	**Number of Responses**	**% of Total Responses**
Specific overall support	23	28.5%
Support with comment	21	26%
Does Not Support	15	18.5%
Commented on specific features without indicating general support	22	27%
Total	**81**	**100%**
Attended meeting but made no submission	4	

Summary of issue	Council team responses
Generally in support *This will be a great improvement.* *This design will have significant safety benefits.* *We support this in principle but have concerns that the Council still operates in a piecemeal fashion without coordination of projects.* *The plan will work well on weekday mornings and weekends and the pedestrian facilities are greatly enhanced.*	
Generally not in support *This plan is focused on motor vehicles and is not in keeping with Council's stated objectives of reducing vehicular traffic. The Council should be focussed on encouraging biking and public transport. Increasing the capacity of the road will encourage the use of the motor car at peak times. This gives the impression that pedestrians have limited rights to the road.*	While this project is essentially looking at reducing congestion in the morning peak, significant cost is going into improving safety for cyclists at the McCormacks bay and Mt Pleasant Road intersections. Nothing in the proposed plan precludes future bus priority facilities or other means of encouraging people to use their cars less, and to take public transport, walk or cycle. With less congestion the present day efficiency of public transport will be greatly enhanced. This solution will facilitate traffic flow all the way from Sumner and this will enhance bus timetable efficiency. Without this extra lane, buses will still be held up in traffic stoppages caused by traffic entering from McCormacks bay and Mt Pleasant Road.

ATTACHMENT 2 TO CLAUSE 1 Cont'd

The third lane should be bus only or multiple occupant vehicles only.	Restricting the use of the third lane would not solve the congestion on the causeway, and would not enable any of the efficiency and safety benefits that are designed into the proposal. In addition, there would be significant danger involved in lane changing along the route as vehicles enter from McCormacks bay Rd and Mt Pleasant Rd and had to traverse the new lane to get to the general use lane. This would add risk for cyclists and pedestrians as well as to other vehicles, where the proposal seeks to improve safety for all users.
The project must allow for a shared pedestrian and cycle lane on the estuary side of Main Road.	There is nothing in this proposal that precludes the addition of an off road pedestrian cycle path on the estuary side if in future, after further consideration and consultation, Council decides to provide funding for such an asset. This decision is well beyond the scope of this current project and is included in the Estuary Edge Master Plan for future discussion.
This proposal will make the cars go faster – also causing noise and vibration which may damage our houses.	This plan does not actively encourage an increase in vehicle numbers, although it will cater for the anticipated increases in future. The speed limit on the road here will remain at 50kph – there is no plan to increase this. All traffic lanes will be narrower than at present, resulting in a perception of 'tightness' which has a psychological effect on drivers and encourages slower, more careful driving.
Three laning is dangerous – causes head on collisions.	This plan has been safety audited and no problems were identified with the 3 laning. When 3 laning is 'tidal' ie two lanes in one direction at one part of the day and in the other direction at another part of the day, there can be confusion and risk of driver error causing crashes. This is not the case in this plan.
Three laning to reduce morning congestion is not going to improve the weekend or evening congestion.	City bound congestion at any time of day or during the week will be relieved by this proposed third lane. There are occasions when east bound traffic is heavy enough to cause slowing of traffic flow, but these occasions are relatively rare as the flow is spread over a longer time frame. This pattern is expected to continue in future, but there is nothing in this configuration that cannot be re-addressed in future should things change.
The problem is in Redcliffs, not at this location.	There are several parts of the 'bigger plan' for the area extending from the city to Sumner. These include a public transport priority plan and the widening and strengthening of Ferrymead Bridge, as well as the already completed revamp of the Ferry Road Humphreys Drive intersection, and the rebuilding of the estuary culvert. This 3 laning project attends to the significant issues of safety and efficiency around the McCormacks Bay and Mt Pleasant Road areas. No significant problems have been identified in Redcliffs itself, although it is widely recognised that the patrolled school pedestrian crossing causes some short delays between 8.45am and 9am and again just after 3pm for about 10 minutes.
The problem is dependent on school timetables.	School bound traffic certainly does contribute to traffic volumes, but congestion and traffic flow efficiency is a broader based issue and this proposal addresses safety as well as traffic flow.
The lights at Ferrymead cause the congestion at peak times.	Council observes that the signals at Ferry Road Humphreys Drive do not cause any traffic congestion in the area of this proposed 3 laning.

We can see no benefit from this proposal for us.	While this project may not have apparent benefits for residents in the immediate vicinity, it has very significant benefits for thousands of commuters who pass through the area daily. Efforts have been made to minimise disadvantages for local residents , including a number of changes made to the plan as a result of feedback to this consultation.
Drivers should be educated not to flash lights and invite drivers on the side roads to enter the Main Road traffic as this is what causes the problem.	Indeed the eastern drivers who stop to let Bay and Hill drivers enter the Main Road flow are contributing to the stop-start quality of the queue, but if they did not stop, the Bay and Hill drivers would have to wait a long time for a natural break. This plan will relieve this congestion.
Concern at loss of greenspace caused by moving the intersection. The additional lane will further cut the hill communities from the estuary	The area of grass that will be taken away by the new road is replaced by new grass and car parking where the old road will be closed. In addition, all tress that have to be removed will be replaced by natives (pohutukawa, ngaio, cabbage trees), and by Norfolk Pines, with native under planting. Further 'greening' of the area is to be achieved by creation of a 'park and ride' parking area, improvement of cycle pathways and improvement of safety for cyclists.
The Council should not be spending this money when other parts of the city are damaged.	Significant parts of the Council's Capital Programme of ongoing street upgrades have been put on hold while earthquake damage is repaired throughout the city. This project is an essential adjunct to the widening of Ferrymead Bridge and as such will proceed to be completed during 2012 when the Bridge work is finished. The budgeted spending for this project does not have any impact on the money available for repairs to earthquake damage.
Perception that no notice will be taken of feedback.	There were 81 responses to the consultation document, and significant changes have been made to the recommendations to the Community Board as a direct result of requests and concerns raised by submitters.
McCormacks Bay and Mt Pleasant area including Rangitira Tce	
Making the corner (at McCormacks Bay Rd and Mt Pleasant Rd intersections) 90 degrees will make it harder to turn onto the Main Road / removing the acute angle will improve visibility. Stop signs will make it impossible to turn – give way is easier. Concern that stop signs are being installed so as to increase revenue generation from vehicles failing to stop.	Tightening the corners at the McCormacks Bay Road and Mt Pleasant Road intersections with Main Road is incorporated in this design to make it safer for all vehicles. It will slow motor vehicles down as they approach on the side roads, and they will have to stop at the Stop sign, making it much safer for cyclists. The right angle corner will not be any different from any right angle corner in the city and will not be difficult to navigate. In fact it will make it much easier for motorists to see the Main Road traffic approaching on their right, whereas now they have to look back over their shoulder. The Stop Signs are not designed in for any pecuniary benefit for the government - they are a necessary safety improvement.
Right turn to Sumner will be impossible across two lanes of traffic. Suggestion of a roundabout here.	It is not expected that the two inbound lanes will both be occupied continuously for long periods, and in fact it is possible that the traffic flow will be more intermittent than at present which will make the right turn at least no more difficult than at present. For the non peak periods each day, there is not expected to be an increase in difficulty for this movement. In addition, there will always be the option as at present of turning left and making a U- turn in Scott Park car park.

ATTACHMENT 2 TO CLAUSE 1 Cont'd

Changing driver behaviour would be a better idea than changing the road – signage and education will do this.	Training drivers not to stop and let Bay and Hill drivers in would be a never ending and expensive process, as it goes against human nature. It would still not truly facilitate more efficient passage along Main Road in the longer term.
Concerns about traffic impacts on residential property near the intersection	Residents in the vicinity of the newly aligned McCormacks Bay Rd intersection will notice that vehicles approaching the intersection will slow down earlier and therefore should be quieter as they pass. Also, because there will no longer be the need for 'short cutting' around the bay, there will be fewer vehicles approaching the intersection. Access to these properties will not be reduced.
Concern about impact on kindergarten and Community Centre, including noise and car parking issues, and potential dangers re cars pulling out into traffic flow.	The new intersection will be approximately 80m from the kindergarten, and it is anticipated that the changes will have little impact on the McCormacks Bay Road side. Observation of current parking demand and supply in this area indicate that there is sufficient off street and kerbside parking well to the east of the realigned intersection. Volume of traffic on McCormacks Bay Road will reduce (due to no benefit in short cutting around the bay) and it is not anticipated that the risks to cars emerging from parking spaces will increase. However, the situation will be watched and if driver safety problems occur in the future, they will be dealt with specifically. As traffic on Main Road on the causeway will no longer be stopping and starting, the kindergarten people should notice a reduction in vehicle noise and gases.
Concern about the loss of greenspace due to relocation of the McCormacks Bay Road intersection.	The new intersection alignment is within existing road reserve, and although it will replace grass and some trees with asphalt, there will be a reciprocal replacement of asphalt with grass where the existing intersection will be closed. All trees that have to be removed will be replaced with an appropriate native species.
Request to redesign the intersection changes to fit with a single westward lane and remove only essential amounts of the green space at the McCormacks Bay intersection.	A single westward lane would achieve no improvement in efficiency of buses and other vehicles on Main Road.
Rangitira Tce – a resident suggests closure of Rangitira Tce at the bottom as it is steep and narrow, close to the Mt Pleasant Road intersection and used infrequently	Closure of Rangitira Tce is outside the scope of this project, but the issues raised have been passed to the appropriate area of Council for further investigation. The alignment of the intersection should somewhat improve safety in the area.
Parking on Main Road – request for retention of parking near Mt Pleasant Road intersection.	To enable the third lane it is necessary to remove all kerbside parking on Main Road.

ATTACHMENT 2 TO CLAUSE 1 Cont'd

The Brae area	
Right hand turn facility for east bound vehicles turning into The Brae *Right turn into the Brae and the second entrance to the park is difficult and a right turn bay or median strip is requested in at least one of these locations. Residents desire a turning bay and flush median.*	Vehicle counts show that this intersection carries a very low volume of vehicles turning right inwards and outwards, even before the earthquakes. This volume of turning traffic is marginal for the provision of right turning facilities. Notwithstanding, an option has been designed which incorporates a right turning bay for east bound vehicles entering The Brae. The changes will also include making the alternative (western) opening to the reserve area an exit only with a left turn only restriction. This will mean that all vehicles turning into the Brae area will have to use the right turn bay. Adding a right turn bay involves significant additional cost and the decision to go ahead with this will rest with the Community Board.
If the outbound bus stop were removed feel there would be room to widen the road.	There is no option of removing the bus stop altogether, although the inbound bus stop may need to be moved along to provide room for the turning bay.
A wider entrance to the Brae would help – sometimes cars exiting don't leave enough space for turning cars to enter, so they have to wait on Main Rd.	The project will incorporate the paint marking of a centre line on The Brae entrance. This should ensure that there is sufficient room left on The Brae for vehicles turning in.
Request for more formalised car parking in the reserve area.	Changes to car parking within the reserve is outside the scope of this project, and will be referred on to the appropriate area of council for further investigation.
Right turn out of The Brae toward Sumner *This is difficult now, and will be more difficult against two lanes of on-coming traffic.*	Drivers making a right turn out of The Brae will be able to wait on a short flush median (white painted area) east of the right turning bay, if this is provided (see previous response), for traffic from the city direction to pass. It is not expected that the two inbound lanes will both be occupied continuously for long periods, and in fact it is possible that the traffic flow will be more intermittent than at present which will make the right turn at least no more difficult than at present. For the non peak periods each day, there is not expected to be an increase in difficulty for this movement.
Right turn out is impossible also, and some people turn left and do a U turn in Scott Park.	In addition, there will always be the option as at present of turning left and making a U- turn in Scott Park car park.
Do not provide a second westward lane; instead place resources on roading options which will provide all communities east of Ferrymead Bridge with sustainable transport options e.g. a dedicated bus lane and a dedicated two-way cycle/pedestrian path estuary side.	The extra city-bound traffic lane will enhance bus efficiency, as it will reduce or prevent the queues and stoppages that occur on the causeway (where there is no room for an extra bus lane) and all the way back to Sumner at times due to congestion at the bay and hill intersections. There is not sufficient space even at present for a shared cycle pedestrian pathway all the way through this area, but it is being considered in the Estuary Edge Strategy as a separate construction project. This project does not include anything that would prevent a cycle/pedestrian path being added on the estuary side in the future if this was decided by Council.

Parking on Main Road / in the Brae Reserve area *Concerns about loss of street parking. Formalising parking marking in the Brae reserve area might help the nearby residents, who would like a landscaped paved area instead of the grass there at present.*	Demand for kerbside parking on Main Road along this area is not high now. There is currently adequate space for informal parking in the reserve (which is, in fact, a road reserve) and there is no scope in this project for landscaping and/or paving extra areas. This request has been passed to the appropriate section of council for further investigation.
Te Awakura Tce	
Concern about turning right against two oncoming lanes of traffic.	Drivers making a right turn out of The Brae will be able to wait on a short flush median (white painted area) east of the right turning bay, for traffic from the city direction to pass. It is not expected that the two inbound lanes will both be occupied continuously for long periods, and in fact it is possible that the traffic flow will be more intermittent than at present which will make the right turn at least no more difficult than at present. For the non peak periods each day, there is not expected to be an increase in difficulty for this movement.
Scott Park	
It is difficult to turn right out of Scott Park now – this will make it worse	Drivers making a right turn out of Scott Park towards the city can, as at present, wait on a short flush median (white painted area) west of the right turning bay, for traffic from the east direction to pass. It is not expected that the two inbound lanes will both be occupied continuously for long periods, and in fact it is possible that the traffic flow will be more intermittent than at present which will make the right turn at least no more difficult than at present. For the non peak periods each day, there is not expected to be an increase in difficulty for this movement.
Concern that this will impact on The Brae because people use the Brae Reserve a turn around when they cannot turn right out of Scott Park.	Where this movement is difficult eg for a vehicle with a long trailer/ boat etc, the present alternative taken by many will still exist at the Brae. The proposal includes closing the western opening in this Brae reserve area for entering vehicles, making a left turn out the only movement possible here. This will mean that all vehicles turning right off the Main Road will have to use the new right turning bay (if this is approved by the Community Board). This will make this movement easier for vehicles with long trailers etc.
Move the Cob Cottage to Ferrymead.	Relocation of Cob Cottage has been considered carefully and fully in the past. Because it was originally made of cob and then repaired using mud and other materials, it is thought that it would collapse if relocation were to be attempted. The condition of the cottage has deteriorated recently and relocation is not a possibility.
Council should re-visit the issue of reduced parking near the bowling club/ reorganise parking inside Scott Park to cope with increasing demand.	On an arterial road, parking is a secondary priority to moving traffic flow, including cycles and public transport. In this situation, it is not possible to include street parking in the road space available. Demand for parking along this road is not high. There is significant parking in Scott Park for present demand in the area, and the request for reorganising the layout of parking has been passed to the appropriate area of Council for consideration.

ATTACHMENT 2 TO CLAUSE 1 Cont'd

Main Road right turning issues at Bridge end	
Concern about being rear ended while waiting to turn right into driveways on Main Road near Ferrymead Bridge.	The lane width in this westernmost area of Main Road is 3.4m, which in addition to the 1.5m wide cycle lane provides 4.9m which is sufficient for two cars side by side. In addition, the flush median begins outside No 20 and widens to provide a right turn bay for Te Awakura Tce, and this will assist drivers turning into properties at 20, 20a, 22, and 24 Main Road.
Concerns about turning right against two lanes of traffic.	It is not expected that the two inbound lanes will both be occupied continuously for long periods, and in fact it is possible that the traffic flow will be more intermittent than at present which will make the right turn at least no more difficult than at present. For the non peak periods each day, there is not expected to be an increase in difficulty for this movement.
Concern about an island being designed in front of gateway.	The striped area shown on the plan outside No 20a is a flush median, not an island. There is a pedestrian refuge outside No 1 Te Awakura and traffic turning right toward Sumner, out of Te Awakura can wait in the 'shadow' of this island for a break in westbound traffic if necessary.
Could the third lane be available at peak hours only?	Tidal and /or limited hours for the third lane are considered unsafe – likely to cause confusion and would need a significant increase in traffic controls, signage etc to ensure they were used correctly.
Pedestrian issues	
At The Brae *Crossing the road to and from the bus stops is a problem now – the three laning will make it more difficult. Request for a median island or flush median near the bus stop at The Brae, and appreciation of other median islands on the route.*	An option has been designed which incorporates a right turning bay for east bound vehicles entering The Brae. This has yet to be approved by the Community Board but if it goes ahead it would incorporate a median island with pedestrian refuge facilities to assist crossing the road. In other areas where a median island is provided, the roadway is already wide enough to provide space for a turning bay with the island at its eastern end.
Concerns about the location of tactile paving.	Tactile paving locations are being re-examined.
At McCormacks Bay Road/ Mt Pleasant Road *Appreciation for the pedestrian islands but request for them to be closer to the bus stops.*	The location of the pedestrian median islands is dictated by the location of the bus stop – this is a set traffic safety standard that allows for pedestrians to cross a safe distance from the bus, and behind the bus, where they can see oncoming vehicles.
Suggestion of speed limit signs on causeway.	This request has been passed to the appropriate area of council for consideration.
Crossing the road is difficult now – three laning will make it worse.	It is not expected that the two inbound lanes will both be occupied continuously for long periods, and in fact it is possible that the traffic flow will be more intermittent than at present which will make the right turn at least no more difficult than at present. For the non peak periods each day, there is not expected to be an increase in difficulty for this movement.

General Pedestrian issues *Request that the Council takes action now to increase public transport use and cycling on Main Road from Ferrymead Bridge to Sumner rather than increase capacity for motor vehicles. This includes the provision of an Estuary-side shared cycle/walkway.*	There is not sufficient space even at present for a shared cycle pedestrian pathway all the way through this area, but it is being considered in the Estuary Edge Strategy as a separate construction project. This project does not include anything that would prevent a cycle/pedestrian path being added on the estuary side in the future if this was decided by Council.
Cycling issues	
Concerns that this design is motor vehicle centric rather than aiming to reduce the use of motor.	Current congestion and safety issues for cyclists and others are the drivers behind this project. The Council does have a strategic intent to reduce the growth of motorised traffic throughout the city, and while this project enhances efficiency for private vehicles it also greatly enhances bus efficiency. There is no other place where there can be a bus priority measure, at this stage, because the causeway cannot be widened. Therefore this project actually doubles as a bus priority measure and also enhances cycle access and safety.
Request that this project include a dual shared cycle pedestrian pathway on the estuary side.	There is not sufficient space even at present for a shared cycle pedestrian pathway all the way through this area, but it is being considered in the Estuary Edge Strategy as a separate construction project. This project does not include anything that would prevent a cycle/pedestrian path being added on the estuary side in the future if this was decided by Council.
Request that the third lane be restricted to buses only.	If the third lane were to be restricted to buses only, it would create more congestion on the causeway and back toward Sumner, thereby causing delays for the buses before they reached this section. The net result would be more congestion and slower buses than at present.
Can you use this project to initiate a separated cycle lane using rumble strips on the car side.	There is not sufficient road width for a separated cycle lane, unless the width of the cycle lane itself were to be reduced. (I have examples where the width could come out of the adjacent traffic lanes to create a perceived safer cycle lane.) e g here we could have two 3.1 m wide lanes with a 0.6 m separation – However our Ops representatives believe that traffic lanes need to be wider.
Concerns about safety for cyclists on, and crossing this three laned road – suggest an electronic sign, median islands. Requests for coloured advance stop boxes at the end of each right turn lane, and changes to the intersections.	This project incorporates many enhancements for cycling safety. Modifications have been made to the plan at the intersections of McCormacks Bay Road and Mt Pleasant Hill Road, in response to the feedback received.
Concerns about bus stops being placed in the cycle lanes.	There are many areas in Christchurch where bus stops are located in the cycle lane. Cycling safety experts have been consulted on this issue and this plan has been safety audited. The plan has been revised where possible to separate cycle lanes and bus stops, and where this situation still exists, it is simply because there is no other solution. This current outcome is up for re consideration.

ATTACHMENT 2 TO CLAUSE 1 Cont'd

Public Transport issues	
Was an inbound Bus lane considered as an alternative to a third traffic lane? And please ensure that this project does not prevent the implementation of Bus Priority measures where necessary along this section of road in the future.	This project enhances efficiency for private vehicles it also greatly enhances bus efficiency. There is no other place where there can be a bus priority measure, at this stage, because the causeway cannot be widened. Therefore this project actually doubles as a bus priority measure and also enhances cycle access and safety.
Overall support for the design regarding bus access to stops, and safety at the intersections.	Support is appreciated.
Landscaping / environmental	
The estuary is a wildlife haven and any project must take account of this. Bird life will be impacted. Please don't put railings.	The importance of the estuary as a wildlife haven is recognised throughout this project. The only railings provided are where there will be bus passengers embarking and disembarking close to the estuary edge. Note that any future walkway would have to have a railing all the way around the estuary.
Please don't remove too many trees. The macrocarpa is an important roosting tree. Have the planting supervised by wildlife experts.	Trees have been retained where possible (the macrocarpa tree will stay there), and replaced where change are required. There is expertise on this matter within the council.
Please put a pipe under the road for Paradise Shell ducks and their families	The road will not be dug up, so the placement of a special pipe for ducks is not included in this plan.
Please don't clean up the wilderness areas.	The project doesn't extend into the estuary so wilderness areas will not be affected.
Retain gravel edge strip for gull to nest.	The gravel edge will remain.
Prohibit overnight camping. Don't add parking in McCormacks Bay as it will attract camping.	Overnight camping will not be encouraged.
The encroachment of the expanded roadway on the estuary and the failure to consider ways to avoid or mitigate the effects of contaminated stormwater from the road entering the estuary.	The roadway will not be physically expanded and it is not expected that there will be any increase in stormwater runoff as a result of this project. There is no width available in the existing road reserve for any roadside stormwater systems to be added. There could theoretically be SW treatment swales etc put in but the amount of contaminants coming off the roads adjacent to the Estuary is tiny compared with that going in to the rivers from most of Chch. SW treatment requirements for new developments are now much more stringent than in the past.
Additional comments from staff:	Reclamation of a small area of estuary mudflat near Scott park carpark is not a good precedent for the estuary, BUT, it is of such a small area that it is not likely to have any measurable negative effect on bird feeding or roosting in the estuary. A future promenade" may have potential to increase human-generated disturbance to birds feeding near the sea wall. This would need some future assessment in terms of impacts and possible screening of sensitive areas to birdlife. The macrocarpa tree located on the estuary side of the road (overhanging the estuary bank) just west of the causeway and opp. Mt Pleasant Road will remain This is an important roosting site for Little Cormorant. Leave rubble and stone debris from the former Mortens Jetty in place on the estuary bed. This is a low-mid tide roost by Pied Cormorant, Little Cormorant and Spotted Shag.

ATTACHMENT 2 TO CLAUSE 1 Cont'd

Drainage	
Please remove the old sewer that runs through private property near the Brae.	There will be no changes to existing drains and underground pipes as a result of this project. The sewer that runs underneath this property is not the main sewer line from Sumner to Ferrymead. It is a 100mm earth pipe laid 1.5m underground collecting from the local area – approximately 100 properties. It was laid in 1930. The main sewer line is a 375mm pipe that is in the estuary parallel to Main Road.
Please check out flooding that occurs in the reserve at the Brae.	Advice about the flooding and the ruptured pipes has been passed to the appropriate section of the Council.
Street lighting and wiring	
Can this project include undergrounding of wiring all along this section of Main Road?	The Council now has a policy not to underground the wiring anywhere in Christchurch. This project is no exception to this.
Can there be floodlighting at crossing points.	The project will include an appraisal of all lighting, and crossing points will be lit at the required standard.
Other	
Complaints about consultation being insufficient and not early enough in the project, and also that the publicity indicates that there are limits to what can be changed.	The constraints facing the design team on this project are great, and the decision to carry out the project was made by council after considering feedback given in the LTCCP consultation process in 2006. Therefore there is not an option to abandon the project, and there is very little room to make changes. However, as readers will see as they look through these responses and reconsider the plan, many modifications have been made to the original proposal as a result of the submissions received.
Why is this plan not combined with the Estuary Edge Strategy.	The Estuary Edge Strategy is a very large project that considers the entire edge of the whole estuary. It will be a long time before this strategy is finalised. The Main Road 3 laning project has been in the Council's plans for several years and must be completed to coordinate with the completion of the Ferrymead Bridge in 2012.
Can the entire gravel strip along the causeway be sealed?	No the gravel edge is to remain – this part of the causeway is too soft for traffic, and if sealed it may cause vehicles to drive on it, or cyclists to mistakenly ride too close to the edge of the estuary.
Acknowledgement and support for the need to strengthen and rebuild the seawall, but that this should not pre-empt the construction of a proposed promenade along the estuary edge.	Support is appreciated.

ATTACHMENT 2 TO CLAUSE 1 Cont'd

SUBSEQUENT FEEDBACK

Summary of comments from local stakeholders on the Sep 2011 proposal for rebuilding of the seawall in the Main Road 3 laning project area

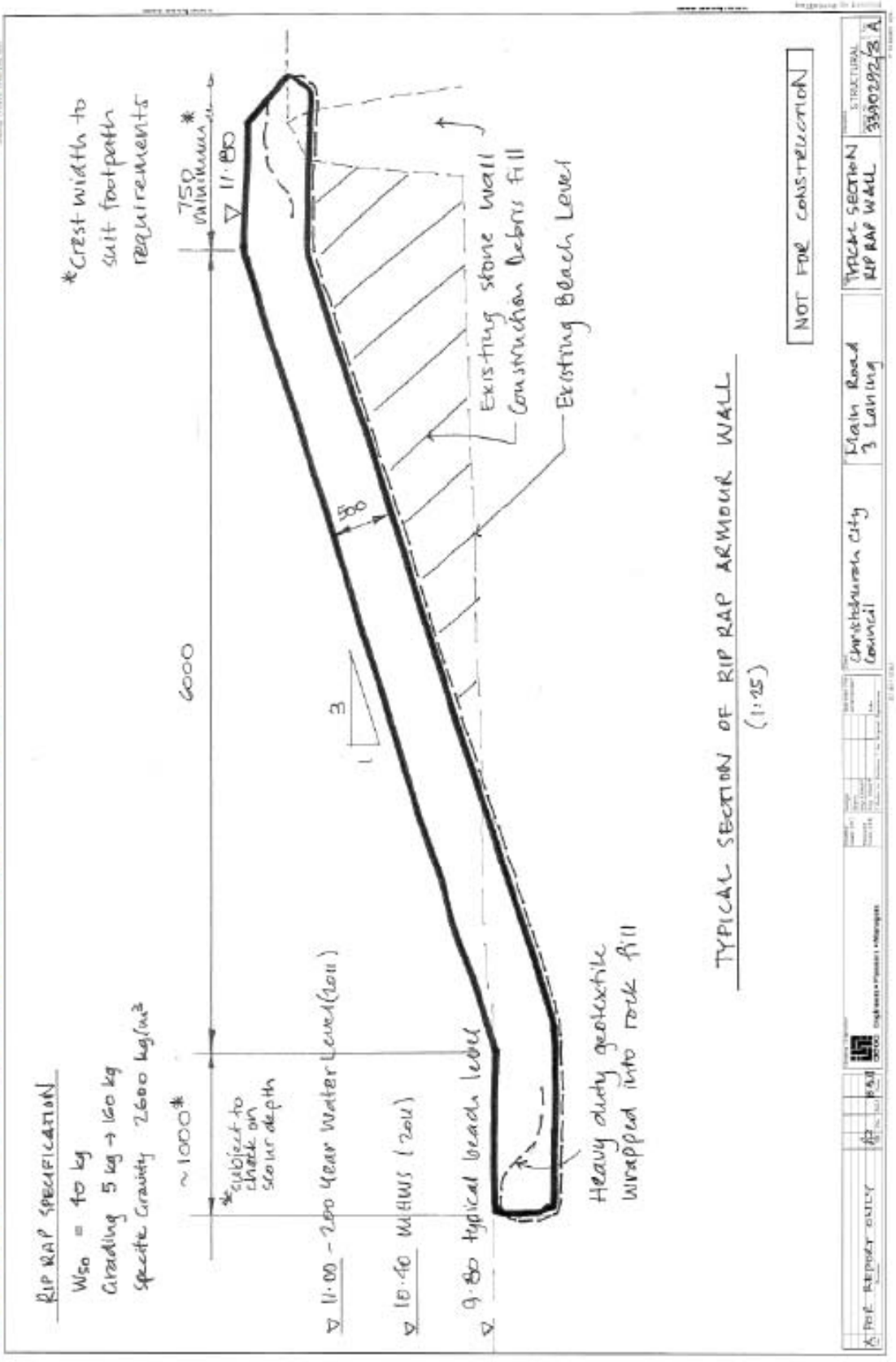
The Ihutai Trust opposes in principle to what appears here to be reclamation activity in the estuary and would be very concerned if there was to be encroachment into the estuary without a very careful and detailed consideration of the need, impacts and benefits. They wish to be able to appraise and comment/submit on, amongst other things, an Assessment of Environmental Effects or Environmental Impact Assessment (depending on the regulatory framework to be used). The trust gives no view on the merits or otherwise of the proposal as it feels there is insufficient information from which it can form an opinion. It states that there should be several options offered for consideration and that there was not enough information regarding the benefits and costs of the proposal. The expressed concern that the process used may be assumed to be a precedent for other work and the style of construction may influence future work (cycle ways and walk ways) along the estuary edge. They ask to be involved in any further discussions and encourage the city council to consider normal consultation processes when developing the proposal rather than emergency procedures as the results of work undertaken now will be long-lasting.
The Christchurch Estuary Trust said that extending into the Estuary so much for 660 metres at this stage is only a fore runner for the rest of the causeway; that it could well be a hazard for yachts etc who tend to work into the causeway as they beat up the causeway on the way to the top mark. Canterbury Watersports Ass felt that once this was allowed that in future it will carry on to completely around the Estuary which would encroach a lot on the Estuary and make it more difficult for all watersports users.
Mt Pleasant Yacht Club expressed concern about the potential impact on tidal flows and viable sailing areas; that the proposal will obviously reduce sailing area, unless the road is realigned; and that it increases the risk to the Yacht Clubs of further non-navigable water. They further ask about plans for repairing earthquake damage around Scott Park and refer to an idea they have had to build another launching ramp at the east end of Scott Park which would provide deeper water access. In summary, they are generally supportive of the need to create and maintain a good seawall to protect all the land in that area, but object that impacts and risks on water sports users of the Estuary have not been assessed, nor any opportunities related to Scott Park considered.
The Pleasant Point Yacht Club say that the current changed proposal is much more invasive than the original in that it involves an encroachment of between 6 and 10 metres into the Estuary, which is of concern to all sailors as they sail the channel close to the causeway and often tack within metres of the road. They expressed disappointment at the failure to consult water sport users of the Estuary and concern that the current proposal may set a precedent for the whole of the causeway which will limit good sailing water. They also express concern about danger created by rocks below the waterline for yachts navigating in the vicinity and lack of modelling of the effects of the change to the edge of the seawall on the tidal flows. They suggest that it would be more sensible for the proposed changes to the seawall to be incorporated into an integrated management plan for the whole South- Eastern edge of the Estuary. Pleasant Point Yacht Club supports MPYC with a request for an integrated plan for the whole of Scott Park, in particular a new launching ramp to the East end of Scott Park, and the need for a good seawall to be established to stabilize the land. They go further and suggest that the problem of inadequate tidal flows into McCormack's Bay be addressed at the same time that the reinstatement of the causeway is undertaken and that the road should be widened into the Bay in preference to any encroachment into the Estuary.
The Mt Pleasant Residents Association would like to see the whole Main Road 3 laning project deferred until the proposed city-sea masterplan has been undertaken, so that it can be part of an overall, long-term solution for this traffic corridor. They believe that the reduced population in the area will mean that there is no need for the project now or in the short term. They support the establishment of a wide two way off road walking/cycle path and believe that the impacts on the Estuary related to the changes required will be most appropriately dealt with by the Ihutai Trust but they would like the impacts to be as minimal as possible.

Peter Hyde from the Redcliffs Residents Association gave his personal view that he has no problem with the concept of the rock approach, in spite of its encroachment on the estuary, but is keen to see attention paid to the nature of the surface of the walking/cycle path being such that it would encourage cyclists to use the path; and that there be a distance/offset of the path from the main roadway – even a narrow psychological barrier (e.g. a thin strip of appropriate maritime planting) so as to create an appropriate and inviting cycle and walking link along the shoreline from Sumner to Ferrymead.
Sumner Residents Association agree with the proposal for rebuilding the sea wall along the length of the three laning project.
MKT : Thanks for your description of the sea wall, which was helpful. I have been unable to talk directly with Tūāhuriri and Rāpaki representatives about the sea wall proposal this week. However, their interests and concerns on the three-laning proposal, and expressed through the MKT submission on that proposal, are relevant to the sea wall component. Their primary interest is maintaining and restoring the ecological and cultural health of Ihutai (Avon-Heathcote Estuary). They are concerned about any encroachment of the sea wall and expanded roadway on the estuary and its effects on estuarine habitat and water quality. The effects of contaminated stormwater runoff from the roadway directly into the estuary is of concern, as is the lack of any proposed containment and treatment of roadway stormwater. Rūnanga acknowledge and support the need to rebuild and strengthen the sea wall to support the existing roading infrastructure. However, in doing so, there may be opportunities to mitigate adverse effects on estuarine habitat through the sea wall design and in particular, use of the increased roadside area to incorporate stormwater soakage (swales or rain gardens). Rūnanga are interested in being kept informed about the design of the sea wall, assessment of environmental effects and any mitigation features. I apologise for the delay in getting you a response on the sea wall proposal. However, I did indicate Rūnanga concerns in my email request for further information on 9 Oct.

Summary of points re seawall rebuilding proposal
Concerns:
Encroachment of road way and path into the estuary area;
'The thin end of the wedge' – concern that this solution may apply in other parts of the estuary edge resulting in unacceptable reduction of water;
Perceived danger to sailors from underwater rocks;
Impact on tidal flows and viable sailing areas – exacerbating the already reducing sailing areas due to changing tidal patterns due to the earthquake having changed the levels of the estuary floor, and the moving of the channel gradually closer to the causeway;
Environmental concerns – re the impacts of this wall proposal on restoration of and maintenance of the ecological and cultural health of the estuary;
Concerns about stormwater run-off and the potential for the use of the increased roadside area to incorporate stormwater soakage (swales or rain gardens);
Lack of modelling of effects;
Lack of full consultation about this specific change.
Support:
Mt Pleasant Residents Association gave support in principle for the shared path but reiterated their non–support of the 3 laning project itself.
Other residents associations indicated support for the proposal.

Conceptual view of the rock armour wall for new seawall

For Main Road 3 Laning Report for Hagley Ferrymead Community Board December 2011 and Council



ADDENDUM TO MAIN ROAD 3 LANING REPORT

PURPOSE OF ADDENDUM

1. This addendum is to record the information presented in the workshop held for Councillors on 24 April 2012, and the memorandum sent to Councillors on 20 March 2012. The workshop and memorandum provided further information in response to deputations to the Council and the Hagley Ferrymead Community Board, and to Councillor questions. The outcome of the workshop was that the Councillors requested that the original report be re-tabled.

MEMO TO COUNCIL

2. The Hagley Ferrymead Community Board, at their 14 December 2011 meeting, requested:

   (a) that the Council be provided with advice on how the Main Road - 3 Laning Project fits with the Ferry Road/Main Road Master Plan, before approving the project to proceed to final design

   (b) that staff report to the Council on the options available for widening the shared path.

3. The memorandum sent to Council in response to these requests is attached as **Appendix 1**.

COUNCIL WORKSHOP

4. As a result of a further three deputations at the Council meeting on 22 March 2012, it was decided to leave the report laying on the table, and that staff would hold a workshop for Councillors to address the issues. Councillors submitted their questions, and a workshop was held on 24 April 2012. The workshop was attended by 12 Councillors and three members of the Hagley Ferrymead Community Board. The Main Road 3 Laning Project Manager, Peter Rivers, delivered the workshop. He was supported by Jane Parfitt (GM City Environment Group); Jenny Ridgen and Steve Miles (both from Christchurch City Council Strategy & Planning); Melissa Foster (Beca, scheme designer); Richard Frankland (Beca, Senior Civil Engineer); and Jeanine Keller (Consultant Resource Consent Planner).

5. The questions received from Councillors were:

   - I need a general over view of the project that explains things like how road width might need to intrude into the estuary and any environmental consenting issues that flow from that.
   - How can all the works on this corridor be aligned to the master planning work we are doing?
   - Commentary about automatic inclusion and future funding expectations for this multi year community vision for a recreational pathway, without any coastal pathway planning prioritisation or Council 'ownership';
   - How can we bring forward the master planning for the Ferrymead bridge to Sumner section in a timely manner?
   - What is the approx cost of repairs, capitals works, and other related projects for this corridor?
   - Main Road 3 Laning, Sea wall & Earthquake repairs, Causeway earthquake repairs, Causeway culvert
   - How can we put a four meter pathway on the Ferrymead bridge and how much would this cost?
   - Can you please show all cross sections of the possibilities of a wider pathway on the key capital/repair projects? And explain the cost and consenting implications for each.
   - How much is budgeted for the bus priority project and what is the status of this.
   - Response to deputation over environmental concerns raised over rip rap sea wall.
   - Comments on consentability in relation to wall (design, ecological considerations and further intrusion into sea bed);
   - How safety considerations (raised by deputation from McCormacks Bay) have been addressed.

   The answers were provided as below.

PROJECT BACKGROUND

6. The primary objectives for the project are:
   - Install third lane to improve capacity westbound
   - Maintain or improve safety for all road users
   - Able to incorporate future bus priority needs.

   As a result of the earthquakes:
   - The seawall now requires replacement along the length of the project
   - The road now requires full reconstruction along the length of the project
   - Together with the road and seawall reconstruction, Council now has the opportunity to raise the road and sea wall to accommodate sea level rise, and the opportunity to add an off road path on new sea wall.

7. The plan for approval is shown over an aerial photograph together with detailed cross sections in **Appendix 2**.

MASTER PLANNING

8. The Ferry Road / Main Road Master Plan was split into two stages to allow an immediate focus on the recovery of suburban centres and the road corridor (Stage 1). Stage 1 is addressing Ferry Road west of Ferrymead Bridge, Stage 2 will look at the corridor between Ferrymead Bridge and Sumner.

9. Stage 2 of the Ferry Road / Main Road Master Plan requires the following information to be available before it can proceed:
   - Timeframes for proposed works (SCIRT, Capital Programme)
   - Geotechnical & building status information
   - "White Zone" decisions.

   It is expected that Stage 2 of the Master Plan will commence around July or August this year. It will be delivered, as far as possible, by the Stage 1 team.

10. The Coastal Pathway has no approved funding. The planning viability of a coastal edge pathway has yet to be fully investigated. It could be considered as part of Phase two of the Ferry Road/Main Road Corridor master plan, or as a separate parallel project. This would enable further investigations, including:

    - Timing and scope of the earthquake repair work programme for Main Road by SCIRT
    - Possible constraints to pathway width along the corridor
    - Interface with the three-laning project and any pathway agreed as part of this project
    - Interface with suburban centres along the route
    - Consent implications from the relevant authorities
    - Detailed costings including potential land purchase.

    It would be preferable to have Council support in principle for the concept of a 'coastal edge pathway' before these investigations are commenced.

11. It is cost effective to add a section of off-road path together with the 3 Laning project sea wall repairs. This section will have amenity even if the Coastal Pathway does not proceed. Additionally the pathway meets the requirement of the City Plan for a footpath on both sides of an arterial road. Without the inclusion of this path, a resource consent will be required to deviate from the City Plan requirements. Note that the off-road path will not be sealed within the 3 Laning project.

3 LANING PATHWAY OPTIONS

12. All options require significant reclamation. To gain a resource consent in a reasonable time it will be necessary to request that ECAN consider the consent under the Canterbury Earthquake (Resource Management Act) Order 2011 (OIC). This process will involve consultation carried out by ECAN within constrained timelines, and is expected to take between one and two months. This is a process run by another agency that involves input from the public, as such the outcome cannot be guaranteed. For example, it may be necessary to further reduce path width to gain a consent.

13. Possible options for the path include:
    - 3 metre off road path, with a 1 in 3 rip rap embankment
    - 4 metre off road path, with a 1 in 2 rip rap embankment
    - 1.2 metre off road path, with a 1 in 3 rip rap embankment
    - No off road path, vertical concrete wall
    - No off road path, sloped concrete wall (possibly stone faced)
    - Un-reinforced masonry wall
    - Other combinations of these options.

    Appendix 3 shows cross-sections of some of the above options.

14. The preferred construction methodology for the seawall option is rip rap. A rip rap seawall is formed from an embankment of varying size rocks placed on top of a geotextile material. The wall is relatively cheap to build, and can be expected to perform well in earthquakes. It is easy to repair after a quake simply by moving the rock material back into place and topping up as necessary.

15. Any form of reinforced concrete wall is not preferred because it is estimated to cost at least $2.2 million more than the rip rap wall, and could likely require replacement after any future significant earthquake. Similarly un-reinforced vertical or sloping masonry walls are not recommended because they do not perform well in an earthquakes.

16. A three metre path is recommended because it meets the City Plan requirements, and meets the Council's Infrastructure Design Standard for a high use dual direction shared path. Compliance with these requirements can be used as a justification for reclamation in the resource consent application. Although a four metre path could be constructed for a marginal additional cost, it is more difficult to make a case to justify the additional reclamation.

17. It is not an option to amalgamate the shared path with the eastbound on-road cycle lane to gain additional width. The on-road cycle lane is essential to cater for bunch riders on this key training route, and to keep higher speed cyclists separate from pedestrians and slower cyclists.

ENVIRONMENTAL

18. It is acknowledged that the proposal does have environmental effects. These will be considered in the resource consent process. To reach a decision ECAN will weigh the environmental effects against the amenity value and recovery value of the proposal.

19. Staff will initiate the consent process by preparing an Assessment of Environmental Effects (AEE). This document will include:
    - consideration of water quality, sediment quality, ecology, topography, cultural considerations, recreation, amenity, landscape
    - a description of the activity proposed and the alternatives considered
    - an assessment of the impact of the proposal.

    If the proposal is approved to proceed, it is planned to submit the AEE around the end of July.

RELATED PROJECTS

20. Table 1 shows the significant projects that are currently planned near the Main Road corridor. Ferrymead Bridge and the Causeway earthquake repairs will commence shortly. The 3 Laning and related earthquake repairs could commence this year if approved and consented. The Causewall Culvert is dependant on a design review following changes to the site resulting from the earthquakes.

21. It is expected that a number of other projects arising from geotechnical issues will be required. These are not yet known, but can be expected to include issues such as Peacocks Gallup and Moa Bone Cave.

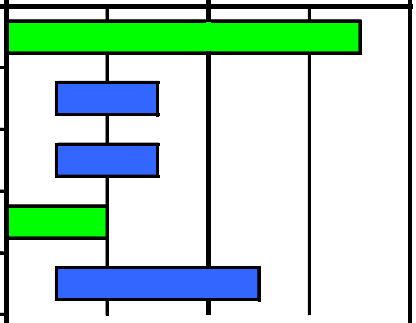
Project	Budget or Estimate	Delivery	FY 2012/13	FY 2013/14
Ferrymead Bridge	~$18M	CCC		
Main Road 3 Laning	$2.4M	TBC		
Main Road EQ repairs	$2.3M	TBC		
Causeway EQ repairs	$1.5M	SCIRT		
Central Culvert	$1M	TBC		
Sumner Bus Priority	$4.1M	TBC	Deferred to LTP pending outcome of CCP on Public Transport Programme	

Table 1: Related Projects

OPTION FOR PATHWAY ON CAUSEWAY

22. There is nearly four metres on the Causeway on the estuary side of the existing road that could be used to extend an off-road path across the causeway. Refer to **Appendix 4**. The red lines are four metres apart. Provision would need to be made to cross the McCormack's Bay culverts. The earthquake repairs being carried out by SCIRT will make good this area but will not install a path. There will be localised repairs of the seawall.

FERRYMEAD BRIDGE PATHWAY OPTIONS

23. The existing bridge downstream footpath is 3.5 metres wide and it has 1.5 metre on-road cycle lanes. The new bridge footpath width is 2.5 metres and it will also have 1.5 metre on-road cycle lanes.

24. Staff were asked to identify how a four metre pathway could be put on the Ferrymead bridge and how much it would cost. The options available are:
    - It is currently possible to add "clip on" to the new bridge later. This would involve a rough order cost of around $330,000 plus design and consenting costs.
    - Realign road position to take width from the upstream footpath on the new bridge. This could achieve a maximum downstream footpath width of 3.5 metres. This additional downstream footpath width would result in an upstream footpath width of 1.5 metres. This option would require significant effort to redesign the road layout within the constraints of the site.

MT PLEASANT ROAD - RIGHT TURN

25. A deputation expressed their concern that the 3 Laning would make turning right from Mt Pleasant Road more difficult and less safe. The scheme designer (Beca) has been asked to review the traffic modelling to find out if this is the case. They concluded that:

    - *Right turning vehicles at Mount Pleasant Road will experience an increase in delay during the AM peak period because the reverse priority that currently occurs at this intersection will be removed.*
    - *Right turning vehicles at Mount Pleasant Road will experience reduced delay during the PM peak period, with a significant reduction for the right turn out movement*

    On balance it is considered that the changes in delay for right turning vehicles at Mount Pleasant Road and McCormacks Bay Road will have a positive effect on the operation of the intersections. This reduced delay is also anticipated to provide a benefit to road safety, as the reduced delay can be expected to result in less driver frustration, and therefore fewer resultant dangerous manoeuvres.

STAFF RECOMMENDATION

26. That the Council:

(d) Approve the Staff Recommendations contained in the body of the Main Road 3 Laning Council report – including a three metre off-road gritted path and a 1 in 3 rip rap embankment.

(e) Accept Ferrymead Bridge downstream footpath width remain as currently approved at 2.5 metres.

(f) Accept the road layouts proposed for Mt Pleasant Road and McCormacks Bay Road.

APPENDIX 1 – MEMO TO COUNCIL

Christchurch City Council
General Manager City Environment

Memorandum

Date: 20th March, 2012

From: Jane Parfitt – General Manager City Environment Group

To: Mayor and Councillors
Hagley/Ferrymead Community Board

Re: **Main Road 3 Laning Project and Ferry Road/Main Road Corridor Master Plan**

This memo provides the staff response to two requests made by the Hagley Ferrymead Community Board at their meeting on 14 December 201 and also comments on the deputations made by the Coastal Pathway Group.

BACKGROUND

1. The section of Main Road between Ferrymead Bridge and the Causeway suffered significant damage to the road and seawall in the earthquakes and repairs to the road should be carried out as soon as possible. To minimise cost and disruption to the community, these repairs should be carried out together with the 3 Laning works. Initial investigations indicate that it is likely that the shared 3 meter path and embankment (including some reclamation) will be able to be consented under the Canterbury Earthquake (Resource Management Act) Order 2011 (OIC). Refer to section 6 below.

2. A project is underway to develop a master plan for the Ferry Road / Main Road Corridor. This project has been split into two parts at the Ferrymead Bridge. The section east of the bridge cannot commence until geotechnical solutions are available for the hillsides immediately above the road. Accordingly initial consultation for this section of the master plan will not commence until sometime after May 2012, and the master plan will not be available until much later this year. Waiting for this master plan before starting the consent process for the 3 Laning and earthquake repairs will result in an unacceptable delay.

3. Ferrymead bridge construction is expected to commence around May this year and be complete before the end of 2013. NZTA part funded the bridge on the expectation that the 3 Laning would be carried out in parallel and be complete when the bridge is opened. To meet this requirement, detailed design and consenting for the 3 Laning, earthquake repairs, and shared path need to get underway as soon as possible. It is expected that the 3 laning project and earthquake repairs will take approximately the same time to design, consent and construct allowing construction to also be complete by the end of 2013. SCIRT are planning to carry out the causeway repairs within this timeframe.

4. The Christchurch Coastal Pathway group are advocating for a dedicated shared path from Ferrymead Bridge to Sumner. The 3 Laning project, as designed, does provide a dedicated shared path three meters wide. The Coastal Pathway group's desired minimum path width is four meters. A number of other groups and individuals, including Christchurch Estuary Association, the Avon-Heathcote Estuary Ihutai Trust, and others, are strongly opposed to any reclamation of the estuary. Many of their members support the formation of a path but wish to see encroachment into the estuary minimised.

5. The Coastal Pathway group have suggested examples of other successful paths. Prime among these is the New Plymouth Coastal Walkway. The width of this path varies between 3 and 4 meters in the section in front of the CBD, and is around 3 meters (with some pinch points) for the rest of the path. Council staff have based the 3 Laning shared path width on the Christchurch City Council Infrastructure Design Standard which states - "Formed pedestrian-only paths should be between 1.5m and 2.0m wide, and paths shared by pedestrians and cyclists should be at least 2.5m wide. Increase the width to 3.0m wherever a lot of people are expected to use the path."

6. Gaining a resource consent for the reclamation to construct the new sea wall with the required urgency to coincide with the Ferrymead Bridge project means that the consent must be applied for under the Canterbury Earthquake (Resource Management Act) Order 2011 (OIC). Applying for a consent under the normal RMA process would take up to two years and provide no certain outcome. ECAN have the discretion to determine whether they will consider a resource consent application under the OIC where the consent is for the purpose of earthquake repairs. At initial discussions ECAN consent officers have indicated that they would likely accept an application for resource consent under the OIC that included a path width of 3 meters. In subsequent discussions with ECAN officers to explore the 4 metre path option, they indicated that they would need to see the final plans and consideration of environmental effects before they could indicate whether it could be considered under the OIC.

COMMUNITY BOARD REQUESTS FOR INFORMATION

That the Council be provided with advice on how the Main Road 3 Laning Project fits with the Ferry Road / Main Road Corridor Master Plan, before approving the project to proceed to final design.

7. The consultation carried out for the Main Road 3 Laning project has extensively canvassed local views on the issues affecting this area. The Ferry Road/Main Road corridor master plan has a much broader focus, but it is expected that feedback on aspects associated with 3 Laning will be broadly in line with that already received and will usefully inform the final content of the master plan. The Main Road 3 Laning project delivers extra facilities in response to community feedback. Its objectives support those of the master plan, and do not foreclose on any aspects that might be covered by the master plan.

8. The Main Road 3 Laning project was included in the Council's 2011/2012 Annual Plan to be completed in parallel with the Ferrymead Bridge. NZTA part funding for the Ferrymead Bridge was (and currently is) contingent on its construction. Since then the road and seawall have suffered significant damage in the earthquakes. The traffic volumes and importance of the route mean that it is a priority that this damage is repaired.

That staff report to the Council on the options available for widening the shared path.

9. Three options have been identified for widening the shared path:

   Option 1. Incorporate the 1.5 meter utility strip into the shared path.

   This would give an overall path width of 4.5 m. It could be accomplished within the existing budget, but would remove any possibility of landscaping and make stormwater treatment more difficult. A number of key submitters advocated landscaping within the project, and sought stormwater treatment. On-road primary stormwater treatment is a requirement of the Infrastructure Design Standard.

   Option 2. Authorize staff to endeavour to gain resource consent to construct a 4 meter wide path with a one in three gradient rip rap embankment.

   The construction cost of the increased reclamation to achieve this extra path width is estimated to cost $150,000 above the available project budget. As indicated above, the extra width path may mean that normal RMA consent processes are required which in turn would add an unacceptable time delay to the overall project. To allow earthquake road and seawall repairs to proceed expeditiously, if this option is chosen staff need the authority to proceed with a narrower path in the event that a consent for a 4 m path cannot be gained through the OIC process.

Option 3. Proceed with the current proposal of a 3 meter wide shared path.

If this option is chosen the path can be widened at a future date, if required to meet usage levels. This can be achieved in one of two ways: use of additional rip rap to widen the path without further encroachment (resulting in a steeper embankment); or widen the path by reclaiming additional width. Both of these options would cost more than constructing the additional width at the time of the earthquake repairs and 3 laning. The major extra cost component would be associated with gaining a resource consent

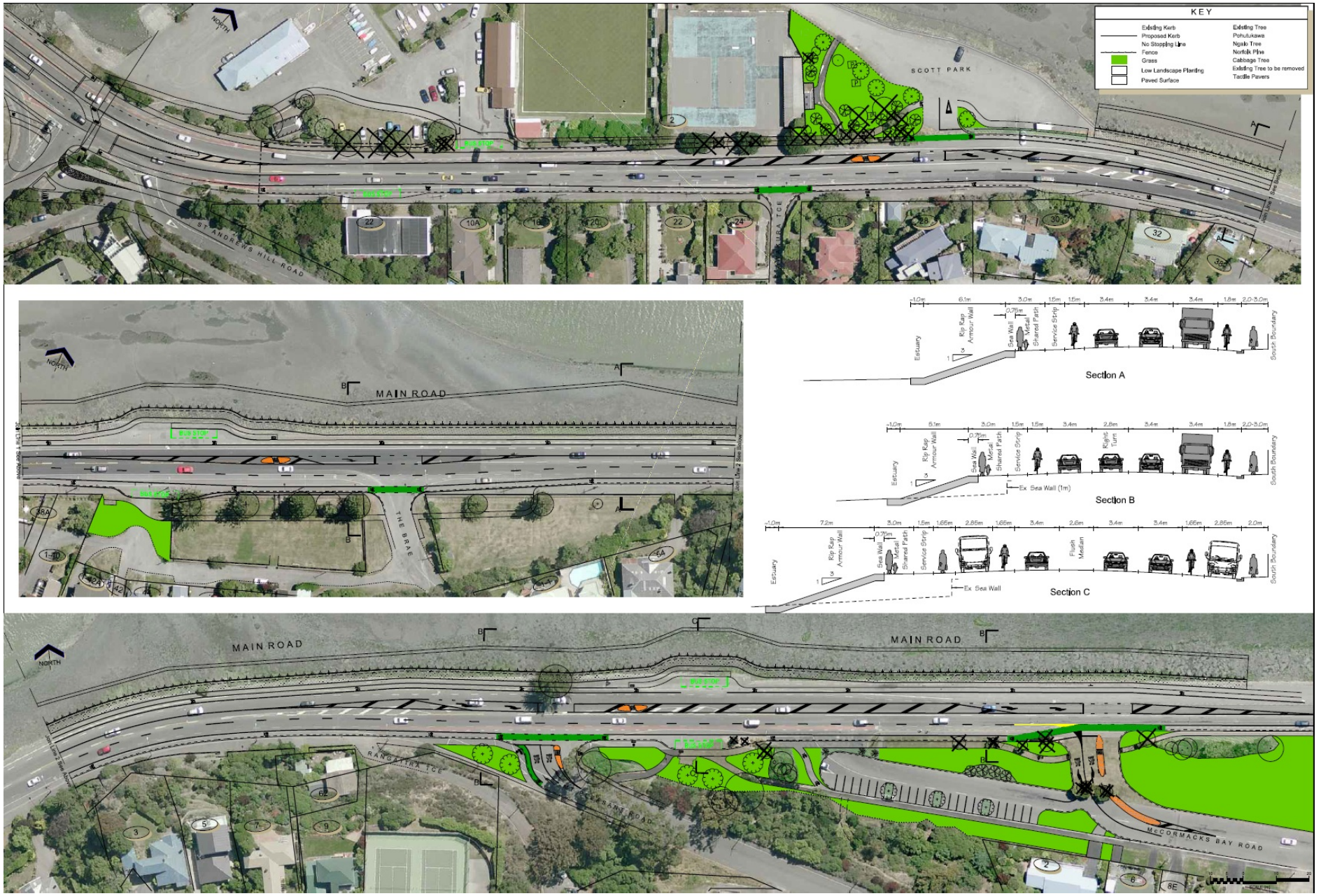
10. The current walkway proposal can cater for the pathway being wider at strategic points.

11. It is not an option to incorporate the on-road cycle lane(s) into the shared path as this would remove existing amenity for all cyclists. In particular the shared path will not cater for higher speed cyclists or for those in training bunches.

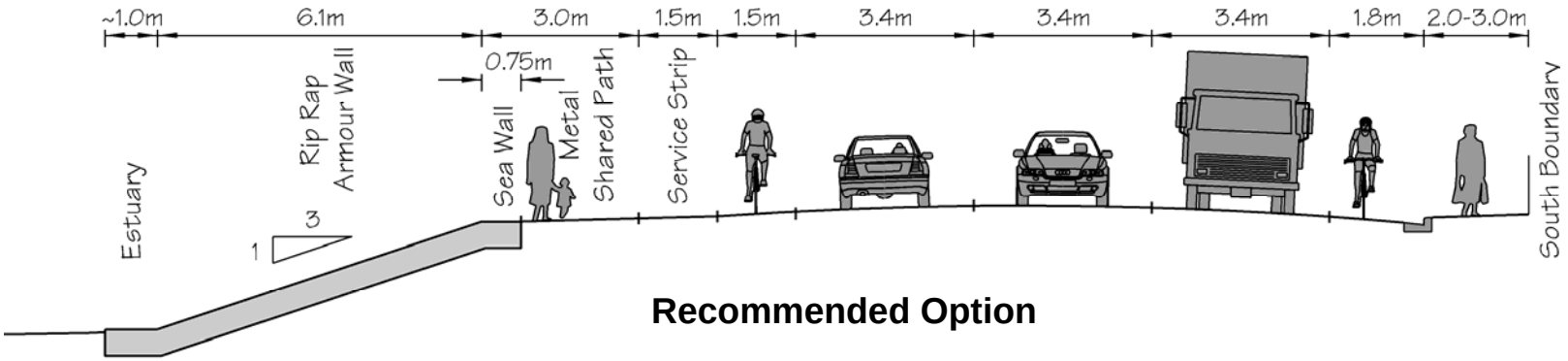
Staff recommendation: That Council approve Option 3 - Proceed with the current 3 Laning proposal including a 3 meter wide shared path. Staff will incorporate widening at strategic points.

Jane Parfitt
General Manager
City Environment

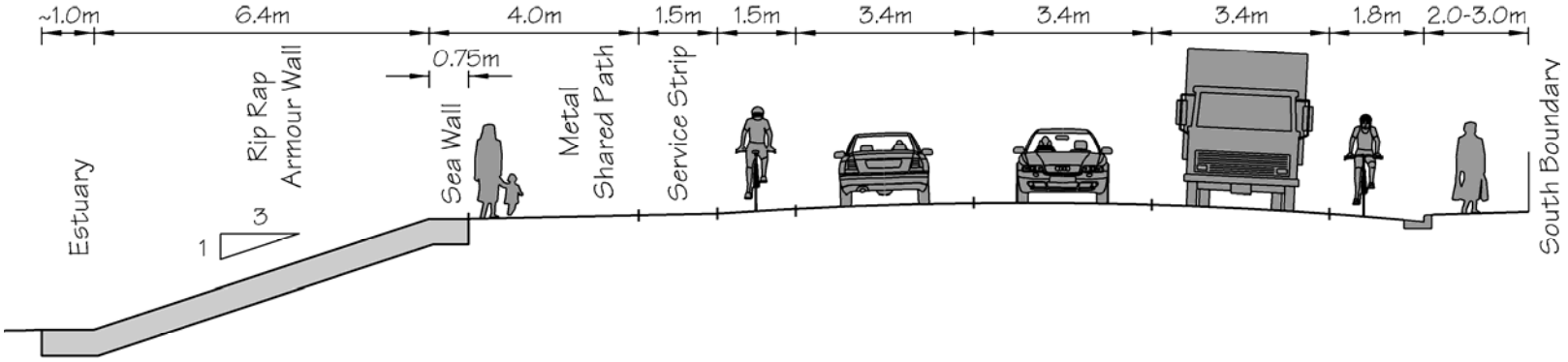
APPENDIX 2 – PROPOSED OPTION



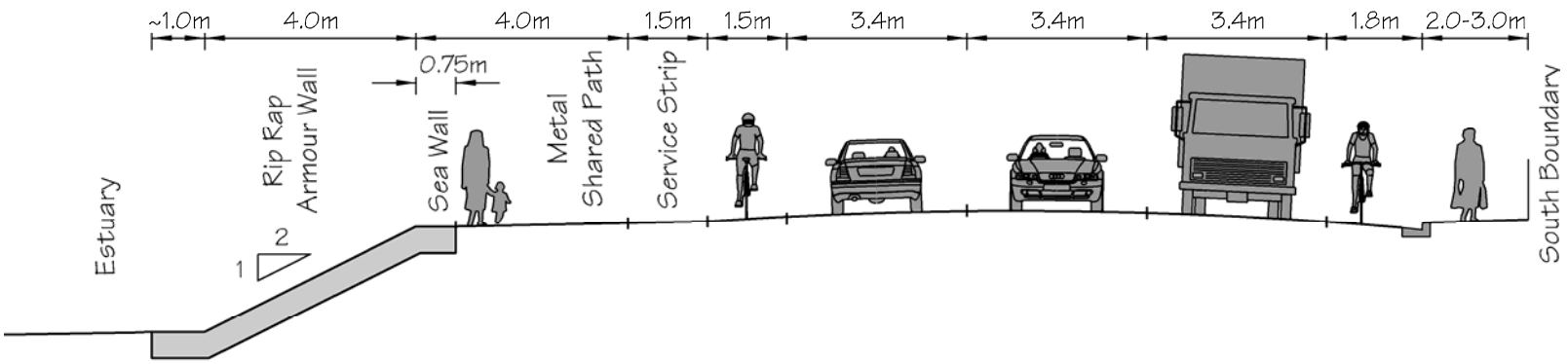
APPENDIX 3 – ALTERNATIVE CROSS SECTION OPTIONS



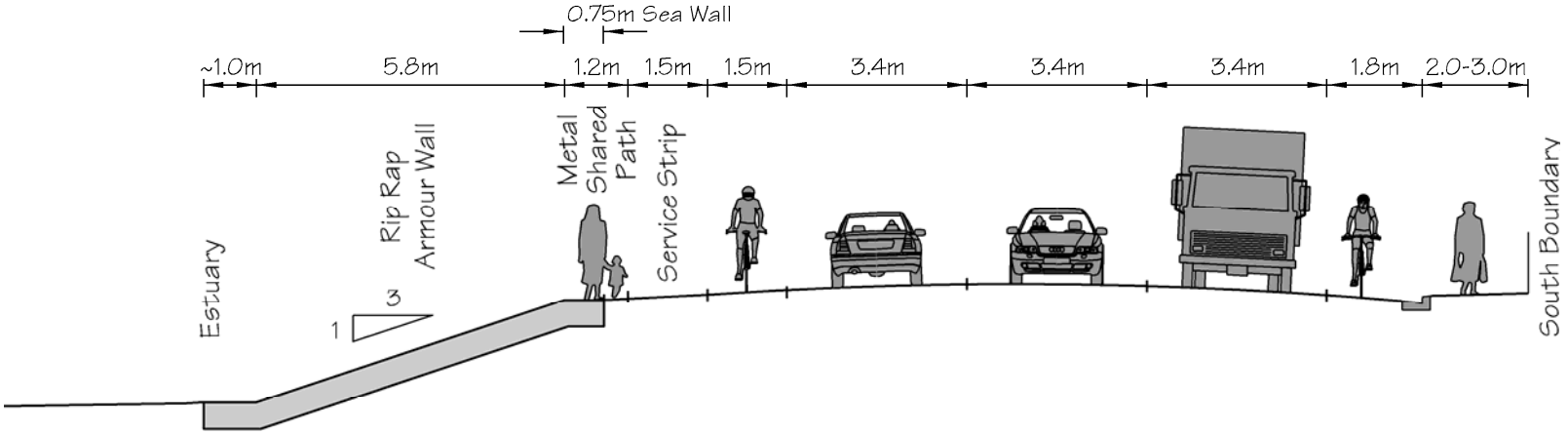
3.0m Shared Path with 3in1 Sloping Embankment Section



4.0m Shared Path with 3in1 Sloping Embankment Section



4.0m Shared Path with 2in1 Sloping Embankment Section



1.2m Shared Path with 3in1 Sloping Embankment Section

APPENDIX 4 – PATH ON CAUSEWAY

Christchurch City Council