6. CYCLEWAYS



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PURPOSE OF REPORT

- The purpose of this report is to respond to the Council's 24 November 2005 resolutions on the Cycleways Moratorium report, requesting that staff provide a report to the Council on its questions and issues raised at its 15 November 2005 workshop and also report on a proposal that the Council have additional, or earlier, opportunities to consider future capital projects which might include on-road cycleways.
- 2. This report and information provided in the earlier seminar, workshop and related meetings covers the range of issues, questions and concerns raised from broad strategic transport approaches to detail about the design of cycle lane widths and use of different materials. This report also aims to solicit further clarification and direction from the Council on a number of these issues by running through possible scenarios and their implications.

EXECUTIVE SUMMARY

- On 24 November the Council lifted a temporary freeze it had placed in June on cycleway capital
 projects. It also called for a report to its 15 December 2005 meeting addressing cycling issues
 and questions previously raised.
- 4. The following table summarises the issues and questions raised, whether they can be considered within the existing cycle strategy and/or whether more work is required:

Summary Table of Issues & Questions

Report Ref. No.	Issue/question – description	Able to be fully considered within existing Cycle Strategy	Comments	Further report/ investigation required
1	CCC Approach to Transport Planning:			
	Prior to the installation of all planned cycleways, the Council debates need for on-road (in addition to existing process inputs)	√	Metropolitan = duplication Local = Reduction Com Bds delegation - All projects delayed 2-4 mths	X
	Road arterial congestion first, then corridors for alternative transport modes	√	Many Qs but very expensive (opposite of Councillors' current actions reducing sustainable transport funds) and contradictory to RLTS and MCTS direction	X
	Consider safety of each road, whether safe enough to provide for cyclists?	~	Best practice currently incl. independent safety audits – Is it safe not to provide for cyclists?	Х
	Capital budget re-prioritisation for all transport modes	✓	Essentially being undertaken each annual and LTCCP funding round	X
2	Marketing Review:			
	Marketing-style review of cycling promotion and education, with focus on school-age cycling	√	Commenced in December 2005	Progress report Feb 2006 Trials evaluation report April/May 2006

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3	Project and Facility Approaches:			
	On roads with alternative nearby routes – no cycle provision	✓	Continue with project by project basis to meet cyclists' needs	X
	If off-road cycle facilities available, no on-road facilities to be provided	✓	Continue with project by project basis to meet cyclists' needs	Х
	More dual use of footpaths, bus lanes	✓	Currently assessed on project by project basis, duty of care	Х
	Stronger separation of different transport modes on roads	✓	Continue assessing and introducing new separations	✓
	Swapping positions of on-road car park and cycle lanes	√	Contrary to best practice	X
	Creating 30kmh zones	→	Significant costs to widely implement - currently small scale trials to be evaluated with report back to Council	√
	Wider consultation with non- cyclists.	~	Current consultation in projects adequate	X
4	Design Issues:			
	Adjusting width of on-road cycle lanes	✓	National Design Guide specifications adhered to	X
	Adjusting width of traffic lanes	✓	Current practices recognise operational and legal requirements.	X
	Red surfacing	✓	Applied to best practice	X
5	Miscellaneous:			
	Retailers in 'Strip' shopping areas – on-road parking priorities	✓	Consistent with existing Parking Strategy	Х
	Cycle bells be made compulsory	✓	Options to be reported	✓
	Visual mapping of the network	✓	On project by project basis	✓
	Recycled rubber materials used for road construction	√	Best practice construction materials used in accordance with affordability.	X
	Develop 'cycle and ride' bus facilities	✓	Scheduled for implementation within Strategy	✓ Report via Public Transport Strategy
	Provide major central secure cycle parking	✓	Scoping investigations planned for possible 2007/08 capital	✓
	Funding from LTNZ	✓		X
	Mobility scooters on footpaths	✓	Will be considered in Pedestrian Strategy review	Х
	Riccarton Road progress	√	Seven sections at various stages	✓ Reported sections as per development process

- Many of these topics share an underlying concern about safety. It is appropriate to restate that ensuring new roading works provide high safety levels is a fundamental driver for all Council cycling projects. They are planned and designed to best-practice standards and guidelines which have been developed, improved and refined on the basis of international and national experience and evidence-based learning over many years. Feeding into this development are numerous studies of accident data, both before and after various initiatives and designs are put in place. It is clear that setting aside this approach would result in potentially exposing the organisation to claims of poor work and questions about whether what we are providing is less safe. Safety is relative, but being able to demonstrate that work is based on the best available evidence and design gives the organisation surety that the safest possible outcomes are being achieved. Finally, all capital roading projects are put through independent safety audits both before and after construction.
- 6. Other key issues discussed are:
 - Riccarton Road: Concerns regarding potential changes on Riccarton Road will be addressed during project development. The progress of this and a programme description, included in the report, show the concerns aired will be considered in the existing process.
 - The 24 November discussion asked for an opinion about what would be involved if the Council were to decide earlier in the development phase about whether any project should include on-road cycle works. The current process used for capital roading projects (August 2005 process for Local Capital Project Development flow diagram Appendix 1, attached) shows that it is only after a series of steps in the development process that specific solutions are identified. There is no added value in adding a step at the beginning of this process. The effects would also impact on the role and responsibilities of community boards and add potential delays to the capital programme implementation of two-to-four months per project. This in turn would potentially impact capital carry-forwards and cut across delegations to community boards.
 - Arterials First: Prioritising work to ensure all arterial roads are flowing and afterwards developing a separate network for other transport modes would potentially be a significant variation to the approaches and priorities detailed in the Council's Metropolitan Christchurch Transport Statement (MCTS). It would require a marked upward adjustment in funding allocations from that supported in the MCTS and a major change in direction in Council transport policy to return to the ethos of trying to build our way out of congestion first, which is clearly not possible. This proposal is also clearly at odds with the current Council activity on the reduction of funding for the MCTS projects in the LTCCP.
 - Children cycling: A marketing review is under way to gauge whether current cycle promotion and education resources are maximising the opportunities to contribute to the Cycle Strategy's vision and objectives. The primary focus is on school-age cycling, with reports on findings and progress on any trials early in the New Year.
- 7. As can be seen from the summary table, the great majority of the Council's concerns can be fully considered without the need to change its Cycle Strategy, which can remain operative.

LEGAL AND FINANCIAL IMPLICATIONS

- 8. There are several legal issues relating to the individual issues raised. However, there are no over-riding legal implications relating to this report.
- 9. The report is for information and has no direct financial implications. Any further investigations required as a consequence of this report would be identified specifically in a future report.

STAFF RECOMMENDATIONS

It is recommended that the Council:

- (a) Receive the report.
- (b) Confirm the existing Community Board delegations and process flow chart.
- (c) Note that further reports/investigations are required as detailed in the report.

BACKGROUND ON CYCLEWAYS REPORT

- 10. In June 2005 the Council placed a temporary freeze on cycleway capital projects. Subsequently a series of meetings, including a workshop and a seminar, were held to clarify and understand Councillors' issues with the cycleways and on 24 November 2005 it was resolved that the Council:
 - Proceed with the marketing review of the Cycling Strategy.
 - Note that staff will provide a report by 15 December 2005 on the issues and questions raised at the workshop on 15 November 2005.
 - Request staff to also report on a proposal that prior to the installation of any current planned
 or new on-road cycleway, the Council be given the opportunity to fully debate the need and
 benefits for the particular on-road cycleway, along with the input available through the
 current process.
 - Note that there is a process in place to ensure elected member input prior to roading projects being signed off.
 - Note the work on the value of cycle lanes on Riccarton Road is effectively underway.
 - Revoke the Council resolutions of 16 June and 6 October 2005 and lift the temporary freeze on cycleway capital projects.

This report is submitted in response to the above resolutions.

COMMENTARY ON ISSUES AND QUESTIONS

CCC approach to Transport Planning

- Prior to the installation of all planned cycleways, the Council debates the need for on-road (in addition to existing process inputs)
- 11. The proposal is that prior to the installation of any (both local and metropolitan) currently planned or new on-road cycleway, the Council adds an additional step in the existing processes where it debates the need for on road cycleways.
- 12. The current development process for projects that involve on-road cycleways is dependent upon whether the project is considered a local project, or a metropolitan project. If the Council were to progress this proposal it will need to consider the message that it sends to Community Boards. The proposal would in effect over-ride previous delegations to the Community Boards. Community Board delegations would need to be changed to specifically represent the limitations being imposed.
- 13. Projects that are considered 'metropolitan' are run through the same process as for 'local' projects, with the exception that the projects then proceed to the full Council for final decision making. To be clear the Council already decides on 'metropolitan' cycle lane projects, therefore this part of the proposal is a duplication of process.
- 14. Overall, while it is possible to report to the Council for all on-road cycle projects, the process of doing so will slow capital project development process by anywhere between 2 to 4 months depending on access to the Council.
- Road arterial congestion first, then corridors for alternative transport modes
- 15. This approach is based on the premise that all transport modes cannot fit down one arterial network and that it is practically possible to create a secondary or shadow network to the existing arterial network that will encourage alternative transport modes. The implementation of this approach i.e. private motor vehicles network first and alternative transport modes later is at odds with the Council's stated priorities.

- 16. One assumption is that Councillors would look to work towards freeing up the flow on the arterials by not only removing any provision for cycling (and possibly other modes such as public transport?) but also by building more width and lanes into the network i.e. try to build out of congestion. Current strategies recognise that congestion levels will increase even with substantial investment therefore to try and achieve free flowing arterials would demand massive investment. Overseas experience shows the bold 'building roads more quickly' approach to keep up with growing motoring demand is a folly and actually encourages more motoring demand to the point of congestion re-occurring and being back at square one or worse.
- 17. If the Council was to look at pursuing the initial approach through firstly increasing the roading infrastructure for mainstream motoring on arterials and then later creating a secondary arterial network for alternative modes there is a risk that in the interim period between the two the Council would encourage more people to motor and that many of these would be from people currently using the transport modes the Council has strategies to encourage. Hence the timing used in this approach would be better aimed at firstly creating the alternative transport modes secondary arterial network and then building up the 'motoring' arterial or at the least develop them simultaneously.
- 18. The Council also accepted that if Christchurch was going to avoid considerably worsening levels of congestion it would also need to introduce travel demand management initiatives in the future. Arguably the opposite of what this proposal suggests.
- 19. If the Council were to consider it prudent to further pursue this proposal it will need to provide staff with confirmation on the assumptions made and then as a first step seek a staff report that provides a summary on the current approaches adopted at regional and city council level that this potential new approach will or may impact upon.
- Consider safety of each road, whether safe enough to provide for cyclists?
- 20. This proposal is based on several Councillors' comments that a number of roads on the network are not safe enough to provide for cyclists. The question in the proposal –"Is it safe to provide cycle lanes?" but this begs the question "is it safe not to provide cycle lanes?".
- 21. The suggestions in Councillors' discussions included not providing for cyclists on 'unsafe' roads cyclists could go elsewhere but if they choose to ride on that part they were 'on their own!' This 'laissez-faire' approach to the identified 'unsafe cycling roads' could be construed as the Council not meeting its responsibilities to ensure that the roads are as safe as possible for all legal road users.
- 22. One of the assumptions underlying this proposal appears to be that sections of the arterial roads (carriageway) are considered unsafe for cycling and therefore if the Council provides cycle lanes on those parts it will encourage cyclists and novice cyclists to cycle on it thus increasing the potential peril. The reverse view can be argued that cyclists are presently using these sections and therefore the Council by providing cycle lanes is making it safer for them and that novice cyclists (or their guardians) will continue to choose routes to ride on that match their abilities.
- 23. The decision on which parts of the network a person chooses to transport themselves is fundamentally left to the user to decide for themselves. However, it is the responsibility of the Council to recognise this and to make it as safe as it can for all road users that are legally allowed to use it.
- 24. This then raises the issue of whether the Council should look to ban cyclists on these roads which also further raises the need for the Council to ensure there are adequate alternatives available to ensure that the Council continues to encourage cycling.
- 25. There are a number of major difficulties in banning cyclists from carriageways particularly where the roads in question have adjacent land uses with cycle destinations and generators such as retail buildings, offices, factories and cyclists own homes etc.
- 26. On a project by project basis all the Council's roading projects, including those with cycleways, are as a matter of course audited by an independent safety auditor both prior to and after construction.

- 27. The suggestion of ring fencing roads for no provision for cyclists (with or without formally banning cyclists) isn't recommended by staff as an appropriate approach to encouraging cycling.
- Capital budget re-prioritisation for all transport modes
- 28. This suggestion would need to be considered once the Council determines the direction it wishes to pursue. Certainly it is appropriate for the Council to revisit its allocations of capital funding regularly to ensure it reflects where the Council wishes to focus its efforts. The MCTS adopted by the Council in 2003 flagged that under the current transport spending approaches there was a need to give higher priority to sustainable transport modes i.e. give them more funding.

Marketing Review

29. Over the next two months the review will assess what is being undertaken and identify what has been successfully used elsewhere. It will trial initiatives in schools early in the new year i.e. February and March 2006. The Council will be kept informed of progress and a report presented at the conclusion of the review and trials.

(A brief description of the marketing review along with time lines is attached - Appendix 2.)

Project and Facility Approaches

- On roads with alternative nearby routes no cycle provision
- If off-road cycle facilities available, no on-road facilities to be provided
- 30. This proposal suggests that where there are alternative cycling routes nearby, no cycle provisions are made on-road. This is to a large degree covered in this report's earlier considerations but does raise the opportunity to clarify the issues that need to be considered.
- 31. Firstly the current approach of the Council is to provide cycle facilities to meet the needs of cyclists. To provide for cyclists to the level of encouragement requires the recognition of differing types of cyclists and their needs. Hence sometimes it may appear that two facilities close to each other represents duplication however this is not the case.
- 32. In the event that off road cycle facilities are available an approach raised was that no on-road facilities be provided. In addition to the issues explained above which may be applicable, the actual level of service provided by some off road paths is limited and will not by themselves adequately help the Council to achieve its cycling objectives.
- More dual use of footpaths and bus lanes
- 33. Whilst the proposal for cyclists to use footpaths is tempting, especially when it becomes difficult to provide for all users on busy roads, there are a number of issues to consider in addition to those already covered in this report.
- 34. New Zealand Road User Rules prohibit cycle riding on footpaths (exceptions are mail deliveries), hence the Council would need to specifically reclassify the footpaths to shared paths.
- 35. Generally it isn't possible or advisable to just simply nominate an average footpath to become a shared path. There are national standards on the design layouts which include safety and operational factors and also the Council's duty of care in introducing a risk to existing footpath users to take reasonable precautions to minimise the risks for all users. This approach is currently used on a case by case basis in roading projects and options put forward to the Council and/or Community Boards for consideration.
- 36. The option of looking to accommodate cyclists in bus lanes is also subject to design standard considerations and will also be presented to the Council on a project by project basis for consideration as and when any bus lanes are proposed.

- Stronger separation of different transport modes on roads
- 37. This proposal may take many forms but the assumption based on some Councillors' comments are that it mainly refers to physical separation measures of providing a raised surface for cyclists to ride on with a mountable kerb to the rest of the carriageway.
- 38. This situation could be used in a limited number of carriageways, the introduction of such new features requires more width to operate safely. There are also a number of design challenges to meet such as drainage management especially where the raised cycle lane is not along the kerbside.
- 39. In addition to this there may be opportunities to provide separation by bollards, islands (such as on the corner of Northcote Road and Sawyers Arms Road) or other physical structures which are then subject to safety audits to ensure they don't on balance create more accidents.
- Swapping the on-road car parking area with the cycle lane area
- 40. Essentially this proposal suggests swapping the 1.6 to 1.8 metre width cycle lane from the usual traffic side of the on road parking area to the kerbside of the on road parking area. This option has the advantage of placing either parked cars or a 2 metre width space between cyclists and same direction motor vehicles. Based on accident records this avoids a very small percentage of accidents but introduces a larger number of hazards to cyclists from right turning traffic and passenger doors opening leaving cyclists with little room to take evasive action.
- 41. From an operational perspective it increases obstructions from turning traffic and motor vehicles leaving driveways and waiting to enter the traffic lanes. The layout would need to reduce the on road parking available by approximately two parks per intersection approach to allow motorists an unobstructed view of cyclists using the kerbside lanes.
- 42. This option has been broadly considered by staff but as an overall approach to design was rejected at an early stage due to its introduction of low safety and operational levels.
- Creating 30 kph zones
- 43. This proposal would largely match and reinforce the current network's hierarchy. To be widely developed in zones throughout Christchurch and to a level that produces the results possible would require significant capital costs. If undertaken it is expected that the returns through lower accident costs would be significant along with other environmental benefits for Christchurch.
- 44. Considerable success has been achieved by a number of towns and cities that have implemented 30 kph zones. The results have shown remarkable drops in the crash rates and the severity of road injuries.
- 45. A small number of slow streets have been trialled in Christchurch including the Square, Sumner Esplanade, streets in Charleston and in the Avon Loop. Several more are planned of which one is for a further section of Oxford Terrace. The results of these individual examples appear to provide varying levels of success in calming their environments suggesting that if this proposal were strongly pursued to complete a robust implementation in neighbourhoods, higher benefit levels could be expected. An evaluation on the current trials will be reported to the Council.
- Wider consultation with non cyclists
- 46. The proposal suggests that roading projects aren't consulted on widely enough with non-cyclists.
- 47. All roading projects are progressed through a consultation process with the public made up of cyclists and non-cyclists. On a wider basis the recent Council survey found that from the non-cycling public 95% support the Council in its efforts to promote cycling by establishing both on-road and off road cycling routes. 73% of non-cyclists think that the Council is doing the right amount whilst 19% think the Council is doing too little.

Design Issues

- 48. A number of comments were recorded relating to specific design criteria these are noted as follows:
- Adjusting width of on-road cycle lanes
- 49. Planned roading projects with on road cycle lanes are designed to meet the new National Cycle Design Guidelines. There are existing cycle lanes on the network that are now not up to the new current guidelines as they are too narrow. However these will generally be addressed as and when the road markings are updated. The guidelines set desirable widths and acceptable width ranges based on varying environment conditions that they are being designed into. These variables include such factors as the operating speed environment and the presence of adjacent on street parking.
- Adjusting width of traffic lanes
- 50. Traffic lanes are legally required to be no narrower than 2.5 metres in width. Generally in Christchurch the practice is that in a 50 kph posted environments, mid block traffic lanes are no narrower than 3 metres. On occasions this width has been reduced to 2.9 metres and very rarely to 2.8 metres.
- 51. At intersections where there are lower operating speeds and often carriageway space is at a premium the general practice is that turning lanes are reduced in width. However they are not reduced below the legal minimum width. The Kilmore Street and Madras Street intersection was raised as a concern of having too narrow a right turning lane. Its width of 2.65 metres isn't considered unusual and is within the legal requirement set.
- Red surfacing
- 52. Questions were raised on the increasing usage of red surface colouring and also about its durability.
- 53. In 2004 the first National Cycling Design Guide recognised pavement surface colouring and recommends its use in locations where motorists may be unaware of the likely presence of cyclists or where cyclists are likely to feel under stress from potential conflicts with motor vehicles.
- 54. Research has shown considerable safety benefits from the strategic use of coloured pavement markings in cycle facilities.
- 55. In terms of the overall network maintenance costs this is a very small item and it targets potential 'black spots' and makes them significantly safer.

Miscellaneous

- Retailers in strip shopping areas on road parking priorities
- 56. Proposals to remove on road car parking for competing roading demands often causes consternation for retailers in strip shopping or other roadside businesses, because of the potential loss of customer parking.
- 57. Newer retail or business premises are required to provide reasonable levels of off road car parking under the city plan. However, many existing use situations on main roads don't.
- 58. This issue generally arises where there is insufficient road corridor space for competing road demands. Staff are fully aware of and sensitive to the concerns of the retailers in these situations and are at pains to minimise the impacts of providing better road environments for all users. However there is an obvious priority given to the safety of people using the roads over convenience of people as customers.

- 59. The continuing increase in traffic demand on main roads throughout Christchurch will continue to increase the pressure for road space and those uses with higher priorities will need to be provided for at the expense of lower priority uses. These priorities have already been determined by the Council and are stated within the Parking Strategy adopted by the Council in June 2003. In all situations staff use the priorities set down by Council policies as their primary guide. It should be noted that the Council has still retained its and community boards' rights within the Parking Strategy to determine the allocation of road space in consultation with the affected property owners/occupiers.
- Cycle bells be made compulsory
- 60. In a number of countries bells on cycles are compulsory as it is recognised that cycle bells act as an effective warning to pedestrians, who might otherwise step out in front of an on-coming cyclist on shared paths or on the road.
- 61. In New Zealand under the New Zealand Road User Rules there is no requirement for cycles to have bells. There is also no legal requirements for retailers to sell cycles with bells in New Zealand.
- 62. If the Council were interested in pursuing this further staff can arrange for a report on the options available to it.
- Visual mapping of the network
- 63. A number of Councillors requested visual representations of the various user roading networks. It was suggested the maps should show the progress in current network development, the gaps, the priorities for implementation and that all the various user networks be combined to show an overall transport map.
- 64. These suggestions will be developed by staff towards being able to present Councillors with a quick referencing visual aid to help alongside the various relevant subjects as they are reported, particularly for assisting in the broader strategic network decisions.
- Recycled rubber materials for road construction
- 65. The suggestion raised was to look at introducing the use of recycled rubber products (car tyres) to be combined with other road construction materials when constructing roads.
- 66. The application can be used to improve the length of life of the road. However, this can also be achieved by adding polymers to the normal construction material. The process to 'crumb' used tyres for roading is very expensive and relies on a large market for economies of scale whereas the New Zealand market is very small. So, while there is appeal with the ability to use recycled tyres, it isn't currently considered a viable option.
- 67. The Transport and City Streets Unit keeps well abreast of new world wide technologies available to it and assesses their benefits for the city. Many Councillors will be aware of the very recent shared trial venture with a major roading construction contractor to trial recycled roading material in the construction of Golf Links Road.
- Develop 'cycle and ride bus' facilities
- 68. This proposal suggests providing secure cycle parking facilities at bus interchanges at mall locations around Christchurch. The proposal involves encouraging people to be able to cycle to major bus transit nodes and using buses for the main part of their journey, knowing that their bike is securely parked and will be there when they return. This initiative has the potential to shift people from private vehicle usage to cycling and bus usage.
- 69. The Council has been working with Environment Canterbury to plan the future development improvements of public passenger transport in Christchurch as detailed in the 'Christchurch Public Passenger Transport Strategy'. Part of these joint plans include the provision of cycle and ride facilities at key locations either as part of suburban interchange developments or as stand alone cycle parking facilities at key bus stops.

- Provide major central secure cycle parking
- 70. This project has been identified within the cycle planning programme and a project scoping exercise is planned to further determine the demands and firming of costings. It is listed as a possible priority for cycle parking funding within the 2007/08 financial year.
- Funding from Land Transport New Zealand (LTNZ)
- 71. If the CCC follows good practice, complies with project funding application procedures and with legal requirements in its project development then no change to the current access to LTNZ funding will occur.
- Mobility Scooters on footpaths
- 72. Any issues around this concern will be addressed in the Pedestrian Strategy when it is next reviewed.
- Riccarton Road Progress
- 73. The project to improve traffic management on Riccarton Road considers Riccarton Road as seven sections:
 - Sect 1: Deans to Mandeville
 - Sect 2: Mandeville to Clarence/Straven
 - Sect 3: Clarence/Straven to Matipo
 - Sect 4: Matipo to Clyde
 - Sect 5: Clyde to Ilam
 - Sect 6: Ilam to Waimairi
 - Sect 7: Waimairi to Peer & Curletts.
- 74. The road was considered in sections because it was recognised that the different sections service different types of adjacent land uses. Whilst it is an arterial road, it was recognised that different treatments would be appropriate for different sections. It is also easier to develop and manage a planning process for a road of this length when considered in sections.
- 75. Currently the investigation and consultation stages are considered complete for Section 1 and Section 6. Decision making reports are almost ready to be placed before the community board for comment and then to the Council for a decision. Each fully explores the matter of the 'value of cycle lanes on Riccarton Road.
- 76. Sect 4 & 5: These sections are at the initial issues gathering stage survey leaflets have been distributed to properties adjacent to the roadway. This project will run through the full and appropriate project development process, including seminar information to the community board when issues and options have been identified.
- 77. Sect 2 & 3: These sections are not yet programmed or budgeted. They were placed at the end of the programme for Riccarton Road, as the Riccarton Mall expansion and Clarence/Riccarton/Straven projects were still in consideration when the programme was set. Further feasibility and programme development work is required before these items make the capital programme.