

## 7. HUSSEY ROAD UPGRADE REVIEW

<b>General Manager responsible:</b>	General Manager City Environment, DDI 941 8656
<b>Officer responsible:</b>	Transport and Greenspace Manager
<b>Author:</b>	Stuart Woods, Principal Transport Planner

### PURPOSE OF REPORT

1. The purpose of this report is to respond to the following resolution adopted by the Council on 30 November 2006:

*“That the upgrading of Hussey Road (including the installation of footpaths) be considered for possible reprioritisation as an urgent work within the Council’s road reconstruction programme, and that the General Manager Corporate Services be requested to report back to the Council at its meeting on Thursday 14 December 2006 on possible sources of funding within existing budgets, including the possible substitution/reprioritisation of other programmed roading projects.”*

2. This report presents a summary of assessed required works, presents a range of funding options and seeks Council support to progress with the planning for the implementation of safety improvement capital works on Hussey Road. The Council was informed at its 14 December 2006 meeting that an independent consultant assessment of Hussey Road was being undertaken, and that now forms the basis of the information in this report.

### EXECUTIVE SUMMARY

3. Hussey Road was recently connected to the Northwood subdivision, creating a vehicle through route. The road has also been the subject of pedestrian and cyclist safety concerns by the local community and community board for several years.
4. Investigation of the road’s usage and layout indicates that the road is too narrow for modern rural road standards (particularly given its new levels of use), presents risks to cyclists and pedestrians owing to an absence of dedicated facilities or appropriate width road shoulder, and is subject to unsafe vehicle speeds and corner cutting at the Gardiners Road/Hussey Road intersection.
5. A range of improvements is possible for this road to improve safety and bring it up to modern rural road standards. These improvements include a dedicated shared pedestrian-cycle path, road widening both of the curves and straight sections, upgrading of the Gardiners Road/Hussey Road intersection, improvements outside Willowbank wildlife reserve, and kerb and channel improvements.
6. The investigation’s recommendations are to initially proceed with immediate safety improvements, namely provision of a cycle-pedestrian path and seal-widening on the curves. Subsequently other improvements should be assessed against other Council roading capital projects and prioritised accordingly.

### FINANCIAL AND LEGAL CONSIDERATIONS

7. The recommended immediate improvements are estimated to cost \$280,000. Of this sum, approximately \$150,000 is programmed to be available in current or draft budgets. The remaining \$130,000 will need to be accommodated through substitutions within the capital programme. Options are presented later in this report, and the Council is asked to recommend a preferred solution.
8. The remaining \$524,000 of capital works will need to be entered into the programme of roading projects for prioritising through later LTCCP processes, and managed for implementation according to the overall programme.
9. There are no legal implications identified at this stage of the investigation.

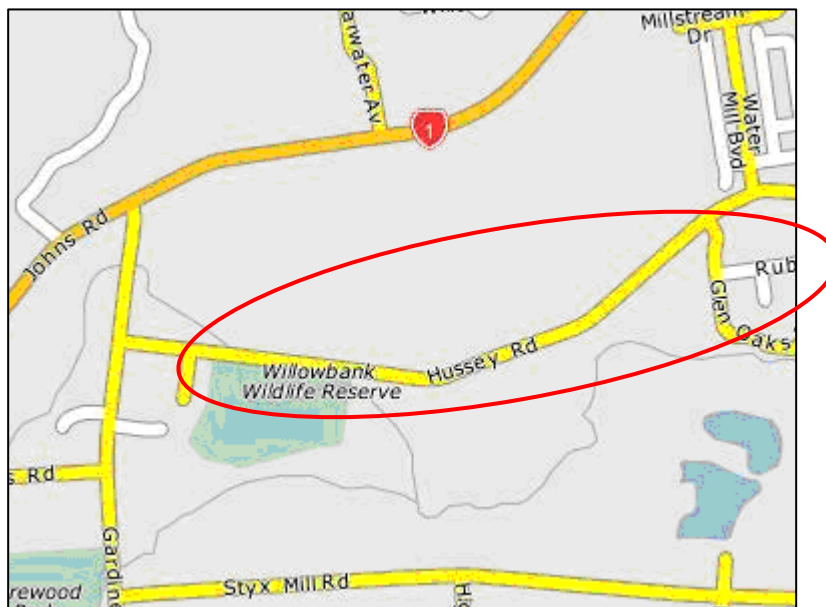
## **STAFF RECOMMENDATIONS**

It is recommended that the Council:

- (a) Receive the information;
- (b) Approve the recommended approach of implementing at the earliest opportunity the shared cycle-pedestrian path and seal widening at the curves on Hussey Road.
- (c) Approve the substitution of the funds for the Hammersley/Orion/Quinns and Kensington projects (Neighbourhood Improvements budget category) to make up the funding shortfall to achieve the works proposed in recommendation (b) above.
- (d) Grant approval for the remaining proposed works and any substituted works to be introduced into the prioritised Capital Works Programme for the next LTCCP process.

## BACKGROUND ON HUSSEY ROAD UPGRADE

10. In 2004, Hussey Road was connected to the roading network in the Northwood subdivision. This has changed the nature of the traffic using the road and its function in the local road network. The Shirley/Papanui Community Board has expressed some concern over the general safety of pedestrians along Hussey Road for several years. A review of the road was initiated to examine the safety concerns and the change in road use, and assess potential improvements or upgrades (including costs) that would address current concerns and future requirements for the road.
11. The Hussey Road review followed the following steps:
  - Determine current usage of Hussey Road
  - Determine condition and layout of Hussey Road
  - Assess capability of the condition and layout of the road to meet current and short term (10 year) future demand. (Other local network and land use developments will change the situation through and beyond this period, and issues arising through those will require further investigations at that time.)
  - Assess options to address any identified deficiencies
  - Rank and cost options.
12. The map below shows the location of Hussey Road.



### Current Usage of Hussey Road

13. Usage information is as follows:
  - From vehicle counts taken in 2004 (several months after the connection to Northwood), average daily vehicle counts varied between 1,800 and 2,500 vehicles per day. Numbers could be expected to be higher now, and continue to grow.
  - Mean speeds in the 50km/h section were approx 54km/h, while the mean speed in the 70km/h section was 67km/h.
  - Four collisions have been recorded in five years - all since the connection to Northwood opened (two serious, one minor, one non-injury)
  - Turning counts show high left turn movements from Hussey Road to Gardiners Road at all times of the day (higher during morning peak), and strong right turn movements from Gardiners Road to Hussey Road in evening peak.
  - No buses currently use Hussey Road, but ECan are evaluating its use as a bus route. Indications are that a decision on this is likely within the next few months.

14. Observed behaviours include:

- High speed turning and corner cutting at Gardiners Road/Hussey Road intersection, leading to reasonably frequent near-misses.
- Pedestrians walking on Hussey Road carriageway, including on the low-visibility bends.
- Unpredictable behaviours related to parking and turning movements at Willowbank entrances.

**Condition and Layout of Hussey Road**

15. An overview of the condition and layout of Hussey Road, starting from the western end of Hussey Road, and considering the road in two sections based on the location of the speed restriction change to the east of the Willowbank entrance, is:

16. Section 1: Gardiners to east of Willowbank Entrance – 50km/h, 450m long.

- From Gardiners Road to the east of Springvale Gardens (end of the residential properties), the carriageway is 9.4m wide, with kerb and channel both sides and footpath on the south side.
- The T-intersection with Gardiners Road and Hussey Road has a give way control on the Hussey Road approach.
- From east of Springvale Gardens to east of Willowbank entrance, the carriageway varies from 6.0 to 6.2m. There is rural style adjacent land use. Historically the 50km/h area was extended to encompass the Willowbank entrance and exits to improve safety and slow vehicle speeds past these accessways.
- There are power poles located on the northern side of the road approximately three metres from the edge of seal.
- The delineation consists of a dashed white centre line throughout the section.
- The culvert near the Willowbank exit has a headwall located close to the road.

17. Section 2: East of Willowbank entrance to Glen Oaks Drive – 70km/h, 1080m long.

- The carriageway width is 6 metres wide with grass verges. The centre line marking is continuous, with edge lines and edge marker posts through the first curve east of Willowbank. The second curve only has centre line pavement marking.
- The two curves have restricted visibility in both directions and a lack of width on the shoulders for other road users. The western curve has a planted bank obscuring visibility for all users.
- There is a rural threshold located at the entrance to the Styx Mill subdivision. The 50km/h / 70km/h signs are located on power poles remote from the carriageway.
- The power poles extend along the northern side of the road and in places, particularly on the two curves, are located very close to the edge of seal.
- Property accessways have water ponding.

**Meeting Current and Future Demand**

18. Hussey Road is required to meet the following current and projected short term demands:

- Carrying capacity at appropriate safety standards for an estimated 2007 demand for 3000 vehicles per day, increasing at an estimated 2% to 2.5% per year.
- Safe facilities for increasing numbers of pedestrians and cyclists who travel to Willowbank, Styx
- Mill Reserve and to and through Northwood.
- Safe and predictable facilities for road users at Willowbank entrances and exits.
- Possible bus stops.

19. The deficiencies and issues noted in the assessment of layout and usage in light of current and future demands that need to be addressed are as follows:
- Narrow throat to Hussey Road at Gardiners Road with lack of a right turn facility in Gardiners Road.
  - Narrow carriageway adjacent to Willowbank, a lack of a right turn facility, and parking on the grass verge outside Willowbank.
  - Sight visibility is poor on the inside line of both curves in the 70 km/h section, creating risks for pedestrians and cyclists particularly.
  - Inadequate delineation on the approaches to both curves and poor, inconsistent delineation along rural section
  - No footpath facilities east of Springvale Gardens and lack of road shoulders for the safe passage of pedestrians and cyclists.
  - Substandard rural threshold treatments at the 50/70 km/h changes in speed.
  - Poor general drainage around accessways and concern about proximity of a culvert headwall to the carriageway.

#### Options to Address Deficiencies

20. A range of treatments has been identified to address the deficiencies noted in the analysis thus far. Each of the individual treatments, their rationale and likely cost, is noted below:

Item	Component	Rough Order of Cost (\$)
A	HUSSEY/GARDINERS INTERSECTION IMPROVEMENTS: Includes widened exit lanes from Hussey Road to allow left- and right-turn exit lanes and splitter island; right-turn bay on Gardiners Road to improve turning safety.	\$39,960
B	WILLOWBANK ENTRANCES: Includes extend kerb and channel to 50/70km/h speed limit change on both sides of the road to reduce perception of rural-only environment; provides formal on-road parking outside Willowbank on southern side; rural threshold at speed limit change.	\$130,914
C	WESTERN CURVE: Widen carriageway on the curve between Willowbank & Styx Mill Reserve to provide standard carriageway width for road type, improve visibility and provide additional shoulder space for cyclists.	\$69,000
D	EASTERN CURVE: Widen carriageway on the curve east of Styx Mill Reserve to provide standard carriageway width for road type, improve visibility and provide additional shoulder space for cyclists	\$64,200
E	ENHANCE EXISTING THRESHOLD: Improve existing threshold at Northwood entrance to improve speed reduction into Northwood, and provide greater early warning of speed change area.	\$44,640
F	ACCESSWAY CULVERT IMPROVEMENTS: Improve drainage so that ponding does not obscure accessways or road surface/edges.	\$16,620
G	STYX MILL RECREATION RESERVE: Install flares at entrance to permit easier access from carriageway and reduce need for sharp braking on carriageway.	\$10,680
H	EXTEND CULVERT WEST OF WILLOWBANK EXIT: Extending culvert removes headwall from proximity of roadside.	\$25,200
I	OFF-ROAD SHARED PEDESTRIAN/CYCLE PATH: Pathway to provide safer passage and improved access for cyclists and pedestrians to and through area, by removing the need to walk on the carriageway.	\$146,400
J	ROAD WIDENING TO 9 METRES: Road widening of general carriageway to 9m is appropriate specification for environment and vehicle numbers/types.	\$256,800

21. It should be noted that with the exception of specifically identified bus stop locations and any minor treatments necessary for them, bus passage along Hussey Road can be facilitated within the range of improvements noted above.

### Currently Programmed Works

22. The Council's current capital programme has approximately \$50,000 allocated for Hussey Road cycle and pedestrian improvements from the subdivisions budget (New Assets – New Construction/New K&C/New Footpaths). Further, \$100,000 has been identified in the draft 2008/09 budget for widening of the two curves from the Transport & Greenspace Unit seal widening budget (Asset Improvement – Carriageway Seal Widening).
23. As may be seen from comparing the budgeted allocations in the LTCCP budgets and the rough order cost estimates in the above table (from the recent consultant assessments), there appears to be a funding shortfall of up to \$35,000 for the improvements to the two curves and up to \$96,000 for the shared cycle-pedestrian path.

### OPTIONS

24. As the various treatments identified above to improve the safety and function of Hussey Road can effectively stand alone as individual packages, a range of options is available:
  - (a) Option 1: Do nothing
  - (b) Option 2: Minimum safety work requirements (items C, D and I)
  - (c) Option 3: Full road upgrade works
  - (d) Option 4: Minimum safety work requirements and prioritised implementation of other works.

### PREFERRED OPTION

25. The preferred option (option 4) is to undertake the minimum requirements for the earliest improvement of key safety issues for all users, and then prioritise the remaining works to fit in with the overall roading capital and improvements programme in the city. This means completing the cycle and pedestrian path as programmed, and the corner seal widening and visibility improvements as per the draft programme. All other works will be considered alongside other safety and road upgrade improvement projects, prioritised against them, and budgeted and implemented at appropriate timings.

### ASSESSMENT OF OPTIONS

26. Option 1 - the do nothing option is clearly not an acceptable option for the Council. Officers, elected representatives and the community recognise a need for safety improvement work on Hussey Road, particularly now that the road has become a through-road with increased usage from vehicles, pedestrians and cyclists. The do-nothing option will have no physical infrastructure costs but may see social and economic costs of crashes in the future, and will clearly run counter to community expectations.
27. Option 2 - implementing minimum safety work requirements only will meet the immediate safety needs of the road, and address the areas of highest risk (primarily to pedestrians and cyclists who currently use the carriageway), and all users with sight-line difficulties at the curves. However, there are clearly other needs for the road which will become increasingly important as traffic and other user volumes increase. If these additional needs for the road are not identified and programmed now, they will inevitably become higher priority matters into the future. Hence the option to implement **only** the minimum safety works currently required is inadequate and not acceptable. This option would cost \$280,000, utilising the available programmed \$50,000 and draft-programmed \$100,000, and require a further \$130,000.

28. Option 3 - full implementation of all identified upgrades is the ideal option to meet all of the safety and road user needs for the short-term future. However, as indicated in the above table, the total capital cost of the full works is approximately \$804,000 and all but \$150,000 of this sits outside currently programmed and prioritised works. The reshuffling of the capital programme to accommodate the additional \$654,000 would have the potential to delay safety or improvement works that have a higher need, or to delay works for which there is currently Council or community expectation. The option to immediately programme all Hussey Road works for implementation within the next couple of years is not a pragmatic option when considering the context of the whole roading capital programme.
29. Option 4 - minimum safety works implementation and subsequent programming of the remaining works is the preferred option. This option meets the minimum safety requirements for the road, and places the remaining works in the roading capital programme at the appropriate time to deliver safety and access benefits when balanced against other demands on the capital programme. This option will however require the identification of a further \$130,000 within the capital programme (probably by substitution of existing projects) to complete delivery of the two programmed projects.
30. Options that the Council may wish to consider as substitutions to address the potential \$130,000 shortfall in options 2 and 4 and bridge the apparent funding gap are indicated in the table below. These options have been identified by having similar value, being programmed in the capital works programme within the next three years and being in the same broad community area.

<b>Budget Category</b>	<b>Project Title</b>	<b>Programmed Year</b>	<b>Budget Allocation</b>
Safety	Sawyers Arms at Cotswold Plus	2007/08	\$90,000
	Community Board Discretionary Funds	2007/08	\$40,000
	Or Kainga Rd Seal Widening	2010/11	\$52,000
Neighbourhood Improvement	Hammersley/Orion/Quinns Plus	2007/08	\$77,000
	Kensington	2007/08	\$83,000
Neighbourhood Improvement	Marshland/Turners	2008/09	\$25,000
		2009/10	\$250,000
Neighbourhood Improvement	Emmett Street	2008/09	\$200,000

31. The recommended option is the third (Hammersley/Orion/Quinns plus Kensington), as the Hammersley project is proposed for removal from the programme after further investigations found that the initiating issues were no longer present, and the Kensington project is on hold until the impacts of the works in the adjacent "Flockton" cluster of works are known.
32. Whichever option is chosen would be deferred until the next opportunity to prepare a prioritised LTCCP capital works programme, in which it would again be considered in its priority place. Any surplus, such as may occur through a choice of the latter two options, would be managed within those budget categories.

## The Preferred Option

33. The preferred option is option 4 - short term implementation of safety works and appropriate programming of further upgrade works.

	<b>Benefits (current and future)</b>	<b>Costs (current and future)</b>
<b>Social</b>	Safety improvements for road users and improved access to community facilities	Nil
<b>Cultural</b>	Nil	Nil
<b>Environmental</b>	Small improvements to drainage assists water management, otherwise nil	Nil
<b>Economic</b>	Economic value of safety improvements and improved access to be quantified.	Short term costs \$280,000, Future costs to be programmed \$524,000
<p><b>Extent to which community outcomes are achieved:</b></p> <p>Primary alignment with community outcome. <i>A Safe City</i> as the primary actions under this project are safety based.</p> <p>Also contributes to <i>A Well Governed City</i>. By ensuring the full upgrade works for Hussey Road are appropriately programmed and deliver benefits that are prioritised on a city wide basis.</p> <p><b>Impact on Council's capacity and responsibilities:</b></p> <p>All element of the project sits within current Council responsibilities and do not affect Council capacity.</p> <p><b>Effects on Maori:</b></p> <p>Nil.</p> <p><b>Consistency with existing Council policies:</b></p> <p>Fully consistent with Council policies, particularly by ensuring that road environment needs are identified, prioritised and funded within programmes that are developed according to policy.</p> <p><b>Views and preferences of persons affected or likely to have an interest:</b></p> <p>At this stage of the project, affected persons have primarily raised issues through the Shirley/Papanui Community Board, which has contributed to the development of this project. It is anticipated that community views will be positive toward proposed action. Each individual component of the project is likely to receive standard consultation process in accordance with normal policy.</p> <p><b>Other relevant matters:</b></p> <p>Nil.</p>		



### Maintain The Status Quo (If Not Preferred Option)

34. Maintaining the status quo is identified as option 1 – do nothing.

	<b>Benefits (current and future)</b>	<b>Costs (current and future)</b>
<b>Social</b>	Nil	Potential social costs of crashes and on-going community dissatisfaction with council inaction on identified safety issues.
<b>Cultural</b>	Nil	Nil
<b>Environmental</b>	Nil	Nil
<b>Economic</b>	Nil	Potential economic value of crashes. Nil \$\$ expenditure
<p><b>Extent to which community outcomes are achieved:</b></p> <p>Option does not align with any community outcomes. Runs counter to <i>A Safe City</i></p> <p><b>Impact on Council's capacity and responsibilities:</b></p> <p>Nil impact on council capacity, fails to live up to responsibilities related to road safety.</p> <p><b>Effects on Maori:</b></p> <p>Nil.</p> <p><b>Consistency with existing Council policies:</b></p> <p>Inconsistent with safety policies and council credo of 'customer driven organisation'</p> <p><b>Views and preferences of persons affected or likely to have an interest:</b></p> <p>Expressed views of community thus far are of a need to address safety concerns. This option runs counter to expressed preferences.</p> <p><b>Other relevant matters:</b></p> <p>Nil.</p>		

### Other Options

35. Options 2 (safety improvements only) and option 3 (full upgrade) are options that offer only minor variations to the information contained in the assessment table for Option 4. As such, assessment tables for these options will offer little differentiating information that is not explained in earlier text. The tables are therefore not included.