

SaferRoads

Thorndon Technical Report

November 2004

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1. Executive Summary

Wellington City Council has introduced an innovative road safety project called SaferRoads. The objective of this project is to **“reduce the number of crashes in Wellington City by one third by the year 2010”**.

Wellington is the first city in New Zealand to implement a project that links with the Land Transport Safety Authority’s (LTSA) national road safety strategy. The SaferRoads project has been developed in conjunction with the LTSA, and it is supported by Council’s key road safety partners.

This unique project integrates engineering, education and enforcement initiatives to reduce crashes by using an area wide methodology; this means that whole suburbs will be targeted with the focus on total crash reduction rather than alleviating problems on a particular street.

An important aspect of the Safer Roads project is community participation and accordingly a series of workshops were held in the Thorndon area to discuss road safety issues. These workshops, held in June 2004, were attended by over 30 residents, the SaferRoads team and councillors.

The Thorndon Technical Report outlines the information and road safety issues gathered from these community workshops, technical analysis of this data, and puts forward proposed road safety initiatives under the integrated approach of engineering, education and enforcement. The aim of these proposed road safety initiatives to meet the SaferRoads objective of reducing road crashes by one third by 2010 in Thorndon and across the city.

Thorndon is unique when compared with other residential areas in Wellington because of its relatively small size and the division of the residential areas by five main arterial routes. This report considers the influence of these arterial routes and looks at reducing speed and improving pedestrian links throughout the area. A significant focus on schools in the area will also be incorporated into the SaferRoads project as part of the Safer Routes to School programme.

Research indicates that lowering average speeds reduces the number of crashes that occur and reduces the severity of the remaining crashes. The proposed approach for Thorndon therefore focuses on reducing vehicle speeds on all roads. Firstly it is proposed to lower the speed limit to 40km/h on residential streets. Physical traffic calming elements will be introduced into the network to slow vehicle speeds and community education campaigns will be delivered covering all aspects of road safety. Enforcement will be increased with the installation of speed cameras, red light cameras and targeted road policing.

An implementation plan has been included in this report that outlines the initiatives proposed to reduce crashes. These have been listed as high, medium and low according to their priority in reducing the number of crashes.

Funding for the implementation of this work has been subject to the Annual Plan process and is now approved. Consultation for SaferRoads in Thorndon will run from 15 November to 13 December 2004. Detailed design will commence following the outcome of the consultation process.

2. Background

In 2003 Wellington City Council introduced a road safety project called SaferRoads that aims to reduce accident numbers in Wellington city by a third by 2010. The SaferRoads Project has been designed so Council can make a contribution to the Government's "Road Safety to 2010" strategy.

SaferRoads is modelled on successful projects carried out in the United Kingdom, Scandinavia and Australia where an area-based approach has been used to reduce road accidents. The project has been developed in conjunction with the Land Transport Safety Authority (LTSA), and it is supported by Council's key road safety partners including Transit New Zealand, Transfund New Zealand, Greater Wellington, the Regional Council and the New Zealand Police.

Council's previous road accident reduction strategies concentrated on making changes to identified black spots and defined routes. This work is now largely complete. However, analysis from the LTSA confirms that there are still a significant number of 'scattered' accident sites that are more difficult to eliminate. A specialist traffic safety consultant was commissioned in 2001 to make recommendations on a new accident reduction strategy for Council. The *Proposed Road Safety Action Plan for Wellington City Discussion Paper* which outlines current international research and recommendations was developed as a result.

According to overseas research, the most effective way to reduce both concentrated and scattered accidents is by:

- managing traffic on to the right roads so that a safer distribution of traffic is achieved
- managing the speed of traffic so that it circulates more safely
- coordinating all work that influences road safety.

To be successful, the SaferRoads Project will require the following critical elements:

- co-operative working arrangements between relevant agencies
- ongoing political support
- ongoing funding
- acceptance from local communities
- the ability to introduce measures currently outside the legislative framework.

3. Accidents

As part of the SaferRoads project a detailed review of the Land Transport Safety Authority crash database has been undertaken to identify key locations where some targeted action is required. The crashes which have occurred between 1999 and 2003 have been analysed with a summary provided below. There were 25 injury and 94 non injury crashes making a total of 119 reported crashes for this five year period.

- Crossing and turning accidents 39% of all crashes
- Rear end/obstruction accidents 39% of all crashes
- Pedestrian accidents 10% of all crashes
- The number of crashes midblock is similar to crashes at intersections
- 72% of the crashes happened between 6am and 6pm Monday to Friday
- 44% was attributed to poor observation
- 20% was attributed to failing to give way or stop
- 18% of the crashes involved a collision with a parked car.

The crash data also provides details on which roads have the higher number of reported incidents. A brief summary of the key individual streets is provided below.

- Molesworth Street accounted for 27 crashes with the movement factors being pedestrians, parking manoeuvres and collision at a crossroad.
- Tinakori Road accounted for 52 of the crashes with the main movement factors being right turns, collision with a parked vehicle and rear-end collision.
- Molesworth Street and Tinakori Road accounted for 99 of the 119 accidents in the Thorndon SaferRoads zone.

The crash data clearly shows there is a need to reduce the number of incidents occurring along Molesworth Street and Tinakori Road. While there have not been many accidents on the other roads in the Thorndon SaferRoads zone, there is still a requirement to provide an area-based scheme to provide a safe road environment for all users.

It is clear from the accident data that a focus on reducing crashes on Molesworth Street and Tinakori Road would help towards a road accident reduction of one third. However crashes can migrate into the side roads as motorists use other routes. It is therefore important to implement road safety changes across the whole area and not just on the routes that have demonstrated problems.

4. Community Workshops

Stakeholder Consultation

To begin the stakeholder consultation phase, the SaferRoads team went out into the community and met with local groups to inform them about the project.

Meetings were held with stakeholders including:

- Cycle Aware Wellington
- Living Streets Aotearoa (Wellington)
- Stagecoach
- Mana/ Newlands Coach Services
- Utilities Companies (telecommunications, gas and power companies)
- The Road Safety Reference Group.

In Thorndon meetings were held with:

- Thorndon School
- Sacred Heart School
- Wellington Girls' College

Publicity for the community workshops included information flyers delivered by NZ Post to all residents in Thorndon. SaferRoads posters were displayed around the Thorndon area at schools and shops. A media release about the project was circulated to local papers and public notices were placed in community newspapers. The Wellington City Council website also listed workshop dates and venues and provided background information.

Workshop One

Workshop one was held on 23 June 2004 from 7-9pm at Wellington Girls' College, Hobson Crescent and 13 people attended along with the SaferRoads project team, ward Councillors and other council staff.

The aim of the first workshop was to inform the local community about SaferRoads objectives and gather information about road safety issues based on people's local knowledge of the area.

A number of visual displays containing large maps of the area and local crash statistics were displayed at the workshop. Participants were given a SaferRoads folder pack that contained background information on the project and materials for the workshop exercise.

Workshop exercises were divided into four main themes:

1. Engineering
2. Enforcement
3. Education
4. Streetscape

Community participants wrote down their road safety issues on post-it notes under these themes and put them onto wall maps. A separate board was provided for participants to post non-local issues.



Post-it notes showing road safety issues by location at Workshop One.

Following the workshop the issues raised were sorted into themes. The general themes for Thorndon were identified as:

- speed
- intersections
- pedestrians
- parking
- cyclists
- other general roading concerns.

Documenting road safety issues in this way was an effective method for identifying road safety trends and issues in the area. Information gathered from the workshop was then analysed to identify common issues and themes to be discussed at workshop two.

Comments made at the first workshop are listed in the following tables.

Community Feedback from Workshop One

Issue	Location
Speed	
Speed of traffic - particularly heading north as the road slopes downhill. Reduce the speed limit or road bumps may help here. If road humps cannot be used, why not reduce the speed limit; put signs up stating new limit, install speed cameras and signs notifying that speed will be monitored.	Tinakori Road
Traffic speeds outside business hours are a concern.	Tinakori Road
Speed on Tinakori Road during weekends is a concern.	Tinakori Road
Need a 40km/h speed limit because of the narrow street. A speed camera would force traffic to slow down. Integrate another pedestrian crossing at Bowen Street and Tinakori Road near the drycleaners.	Tinakori shops
The pedestrian crossing should be reviewed because of the speed of cars.	Tinakori Road/ Newman Terrace
High speed, poor visibility and pedestrians.	Grant Road
High speed of vehicles going up and down Grant Road is dangerous, particularly for people using the bus stop, as well as elderly people from blocks of flats.	Grant Road
Speed camera needed on Murphy Street by New World and the pool entrance.	Murphy Street
Slow traffic on Murphy Street as they exit the motorway. Speed hump/ rumble strips.	Murphy Street
Cars travelling too fast down Murphy Street from motorway off-ramp to Pipitea Street corner.	Murphy Street
Police need to put effort into encouraging drivers to reduce their speed to 50km/h after exiting the motorway. There are four schools adjacent to Murphy Street, and many people crossing that street to get to the supermarket. Excessive speed is not limited to only those who enter Murphy Street from the motorway.	Murphy Street
Fixed speed camera on Murphy Street off-ramp.	Murphy Street
Speed at off-ramp.	Murphy Street
High speeds from Murphy Street off-ramp down to New World and Wellington Girls' College.	Murphy Street
This area is not pedestrian friendly – crèche parents parking on the footpath don't help.	Corner of Murphy & Molesworth
People drive too fast down Hobson Street.	Hobson Street
Speed is an issue on Hobson Street and this needs to be addressed.	Hobson Street
Cars travel very fast down Hill Street travelling towards Molesworth Street.	Hill Street

Issue	Location
Speed cont.	
Speed of traffic travelling in both directions across link in road – speed humps should be placed by childcare centre and pedestrian crossing outside St Mary’s College.	Hill Street
A 40km/h speed limit on Thorndon Quay would be safer and make it more pleasant.	Thorndon Quay
Speed is an issue at the northern end of Grant Road.	Grant Road
The speed of vehicles travelling up and down Grant Road is dangerous (Wadestown end).	Grant Road
A number of vehicles drive too fast up and down Hobson Street.	Hobson Street.
Enforce bus speed limits in the CBD - they drive too fast & go through too many red lights.	
Grant Road speed issues could be resolved by speed humps or path-side extensions or restoring parking which has been removed in recent years.	Grant Road
Local street gateways.	
Support 40km/h in all except main arterial routes and in those routes where shops are present eg. Kelburn and Thorndon.	
Removal of resident parking in Grant Road has led to higher vehicle speeds.	
Adopt different speed limits – suggest 100km/h on open road is reduced to 80km/h; roads currently at 70km/h reduced to 60km/h; 50km/h reduced to 40km/h on pedestrian and residential streets.	
Thorndon is an historic area. Any improvements should be in keeping with the area. Perhaps granite insets placed in streets to slow down traffic.	
The dangerous speed of vehicles in Grant Road could be calmed by kerb extensions.	Grant Road
Intersections	
Re-instate straight ahead lane north from Tinakori Road to Hutt Road.	Tinakori Road
New traffic island stops traffic moving north – causes traffic jams up Tinakori Road.	Tinakori Road
Moving out from Stowe Hill and Cottleville Terrace is difficult at peak times ie. 8:00am & 5:30pm.	Tinakori Road
Use of mirrors to view Tinakori Road moving out of Stowe Hill and Cottleville Terrace.	Tinakori Road
Pedestrian crossing on Tinakori Road at the top of Hawkestone Street bridge needs to be made safer for pedestrians.	Tinakori Road
If you remove the arrow, put in a pedestrian crossing.	Tinakori Road

Issue	Location
Intersections cont.	
Drivers turning right onto the motorway cross traffic going straight ahead and south up Tinakori Road.	Tinakori Road
Remove green arrow for traffic exiting motorway going south/ west on Tinakori Road. It worked fine without the green arrow.	Tinakori Road
Better signal design for improved traffic flow into Bowen Street.	Tinakori Road
Cannot see traffic when coming out of Cottleville Terrace onto Tinakori Road.	Tinakori Road/ Cottleville Terrace
More traffic signals along Tinakori Road, Hawkestone and Hill Streets.	Tinakori Road, Hawkestone and Hill Streets
This intersection is dangerous – overhead lighting is required.	Tinakori Road & Hawkestone Street
A pedestrian crossing at Tinakori Road and Park Street on the north side of Tinakori Road would provide a more direct route to schools.	Tinakori Road/ Park Street
Install signals or a roundabout at Tinakori Road/ Thorndon Quay intersection as it is very hard to exit, and people try and go into gaps that are too short.	Tinakori Road/ Thorndon Quay
Vehicles especially buses cut the corner.	Grant Road/ Park Street
Priority controls needed at intersections.	Hobson, Davis and Moturoa Streets
Risky for pedestrians when drivers pull out of Kate Sheppard Place to go straight through. Likewise, when buses speed through traffic lights.	Kate Sheppard Place
Pedestrian crossing Aitken and Hill Streets at intersection get caught at crossing if pedestrian traffic heading up Molesworth Street.	Aitken and Hill Streets
Rumble strips on Hawkestone Street off-ramp, cars often stop in middle of Hawkestone Street.	Hawkestone Street
Cars don't give way at top of motorway off-ramp.	Hawkestone Street
Red light camera on left turn from Bowen Street to the Terrace.	Bowen Street
Traffic signals need to be changed because you cannot make a right-hand turn from Lewisville Terrace into Bowen Street because of traffic travelling straight along Tinakori Road. Vehicles parking on the pavement block visibility too.	Lewisville Terrace
Difficult to exit George Street because cars are permitted to park too close to the corner.	George Street
Red light cameras for Tinakori Road/ Harriet Street and motorway off-ramp intersection.	Tinakori Road/ Harriet Street

Issue	Location
Intersections cont.	
Put in red light cameras, as too many vehicles go through red lights which is dangerous for pedestrians.	
Priority intersections in Thorndon.	
A lot of vehicles do not indicate when going into Hobson Crescent.	Hobson Crescent
Pedestrians	
Pedestrian crossing at Tinakori Road, near Cottleville Terrace is in the wrong place for people walking down from Wadestown. It needs to be at the end of the steps at the bottom of Newman Terrace which is in a direct line with steps coming down from Wadestown Road.	Tinakori Road
Pedestrians crossing on Tinakori Road at top of Hawkestone Street bridge needs to be made safer for pedestrians.	Tinakori Road
Kerb crossings are required at the lights on Tinakori Road and at motorway off-ramps.	Tinakori Road
It is very hard to see people walking onto the pedestrian crossing (from east to west) when you are driving south up Tinakori Road.	Tinakori Road
If you remove the arrow, then put in a pedestrian crossing.	Tinakori Road
Integrate another pedestrian crossing at Bowen Street and Tinakori Road by the drycleaners.	Tinakori shop area
Pedestrian crossings should be reviewed because of the speed of cars.	Tinakori Road/ Newman Terrace
A pedestrian crossing is needed for Tinakori Road and Park Street on north side of Tinakori Road would provide more direct route to schools.	Tinakori Road/ Park Street
The pathway off Tinakori Road down to Thorndon Quay needs skid resistance material to stop people slipping.	Tinakori Road/ Thorndon Quay
High speed, poor visibility and pedestrians.	Grant Road
Pedestrian access to New World supermarket needs to be provided.	New World
Pedestrian access to New World across Molesworth and Murphy Streets needed.	New World
Crossing required for the supermarket.	New World
Police need to put effort into encouraging drivers to reduce their speed back to 50km/h after exiting the motorway. There are four schools adjacent to Murphy Street, and many people crossing that street to access the supermarket. Excessive speed is not limited to those who enter Murphy Street from the motorway.	Murphy Street
Vehicles obstructing the footpath are an issue on Hobson Crescent, with cars parked often in driveways or off-road car parks, but still obstructing the footpath with part of the vehicle, often a tow bar. With the number of schools in the area, and a pre-school, this is a potentially dangerous practice.	Hobson Street

Issue	Location
Pedestrians cont.	
Pedestrian facility for crossing road to school and work – Moore Street steps.	Moore Street
Vehicles obstructing the footpath in Moore St (Bodyworks Gym) causes pedestrians (again, often school children) to have to walk on the road. This is particularly a problem in the mornings, lunchtimes and evenings on Monday to Friday.	Moore Street
It is risky for pedestrians when drivers pull out of Kate Sheppard Place to go straight through. Likewise, when buses speed through traffic lights.	Kate Sheppard Place
Pedestrians crossing Aitken and Hill Street at the intersection get caught at the crossing if traffic is heading up Molesworth Street.	Aitken and Hill Streets
Pedestrian crossing at off-ramp.	Hawkestone Street
Pedestrian crossing – remove left turn lane to improve visibility.	Hawkestone Street
Vehicles dart across from Hawkestone Street to get into Little Pipitea Street (especially taxis) – which is a risk to pedestrians on pavement.	Hawkestone Street/ Little Pipitea Street
Pedestrian crossing – very poor visibility (bushes) and signage light out. Needs much better signage.	Hawkestone Street/ Tinakori Road
Hobson Street gets very congested by parents dropping off children to school, any chance of another pedestrian crossing?	Hobson Street
Lower Tinakori Road by Wellington Bridge Club. Needs better signage on the right-hand side for pedestrian crossing and speed coming onto Cottleville Terrace.	Tinakori Road
Runners going down lower Tinakori Road making cars move to opposite side of road.	Tinakori Road
Road across Grant Road down to Tinakori Road – current Tinakori Road crossing should be moved. This would encourage pedestrians – encouragement of pedestrians may reduce traffic.	Grant Road/ Tinakori Road
Pedestrian crossing across Grant Road.	Grant Road
The pedestrian underpass is too spooky and tortuous to be much use.	Molesworth/ Murphy Streets
The area at top of Molesworth and Murphy Streets needs to be re-designed to cater for pedestrians – particularly crossing motorway off-ramp.	Molesworth/ Murphy Streets
Crossings needed on Molesworth and Murphy Streets to get to the supermarket.	Molesworth/ Murphy Streets
It is very difficult to get across Murphy Street to New World unless crossing at Pipitea Street – inconvenient.	Murphy Street

Issue	Location
Pedestrians cont.	
Crossing the motorway off-ramp at the top of Molesworth Street is difficult.	Molesworth Street
More lighting from Molesworth Street to New World – very dark if walking to supermarket at night. I currently won't walk there by myself at night.	Molesworth Street
Pedestrian crossing needed across Grant Road – to deal with people using the bus stop and to link the path down Newman Terrace from Wadestown.	Grant Road
It is noticeable that many of the people who walk out onto the road without looking are Asian – cultural training to new immigrants required.	
Pedestrians still have the right to cross on a flashing 'red man'. Vehicles do not have the right to try and bowl pedestrians over. Make the red flashing man orange rather than red.	
Educate pedestrians that the roads are for vehicles and they need to look out for them when crossing the road – expect a vehicle – not many even look.	
Parking	
New apartments are being built without off-street parking. This leads to narrow egress in the village with an increased risk of accidents.	Tinakori Road
Shops on Tinakori Road – there are quite a few problems with people stopping to park or pulling out from parking.	Tinakori Road
Many shop/office car owners use the Tinakori Road medium term parking all day by moving cars around. Discourage them by doing a blitz – recording licence numbers and ticketing the worst violators.	Tinakori Road
Parking issues: Removal of parking from an area where off-street parking is limited has caused a number of traffic safety issues.	Grant Road
Parked cars on Grant Road are regularly damaged by vehicles moving up and down Grant Road.	Grant Road
This area is not pedestrian friendly – crèche parents parking on the footpath don't help.	Corner of Murphy Molesworth Streets
Vehicles obstructing the footpath are an issue on Hobson Crescent, with cars parked often in driveways or off-road car parks, but still obstructing the footpath with part of the vehicle, often a tow bar. With the number of schools in the area, and a pre-school, this is a potentially dangerous practice.	Hobson Crescent
Removal of resident parking in Grant Road has led to higher vehicle speeds.	Grant Road
Provide proper parking for the crèche at top of Molesworth Street – at present parents have to park on footpath.	Molesworth Street

Issue	Location
Parking cont.	
Inappropriate double parking over drives around Wellington Girl's College.	Wellington Girl's College
Improve streetscape by removing vehicles that park on the street all day, ie. commuters.	
Cyclists belong in cycle lanes – courier cyclists are hazardous to all pedestrians and they should obey the road rules.	
Suggest that more footpaths are shared with cycles, with pedestrians having right of way.	
Cycling	
Hard to cycle down Murphy and Mulgrave Streets because of parked vehicles.	Murphy and Mulgrave Streets
Vehicles pulling/ turning out of parking on Thorndon Quay are dangerous to cyclists.	Thorndon Quay
Other Roading Issues	
An increase in traffic flow noted recently - all targeting parking along the street – need to clearly encourage people to use public transport by not providing day parking on residential streets.	Tinakori Road
Difficulty coming out of New World, turning right up Molesworth Street, when others are trying to enter New World.	New World
Narrow road off Molesworth Street for access into New World.	New World
Correct the poor access from New World – swap entrance and exit round.	New World
Vehicles parked on lip of road do not let cars/ trucks go down Murphy Street easily.	Murphy Street
Large amount of lane changing required here.	Murphy Street/ Halswell Street
Problems with vehicles going down one way the wrong way especially at weekends.	Molesworth Street
Any residents in Hill Street who have to exit their garages or entrance ways have to take extreme care as the visibility due to the narrowness of the road and the speed of the traffic is cause for concern.	Hill Street
Ban heavy vehicles through the Thorndon village area during working hours.	
Ban heavy vehicles from Tinakori Road north of Bowen Street.	Tinakori Road
Hobson Street gets very congested by parents dropping off children to school, any chance of another pedestrian crossing?	Hobson Street
More 'Clearway' enforcement.	
Car traffic doesn't look for yellow signs. Possibly a change of colour needed.	

Issue	Location
Other Roding Issues cont.	
Remove the power of police/ traffic officers to waiver tickets. If you are stopped you should receive a ticket.	
Local street gateways.	
North bound and south bound lanes in Grant Road (north of Park Street) are different widths.	Grant Road
Cars not keeping to lanes going up Molesworth Street.	Molesworth Street

Workshop Two

Workshop Two was held on 30 June 2004 from 7-9pm at Wellington Girls' College, and 13 people attended along with the SaferRoads project team, ward Councillors and other council staff.

The objective of Workshop Two was to examine the trends and types of crashes in each area and to develop a high level framework for crash reduction based on community input. Issues identified in workshop one were also presented.

The SaferRoads team worked alongside community participants on a group exercise which aimed to provide possible road safety solutions based on the themes of engineering, education and enforcement.

Summary

The stakeholder meetings and workshops held by the SaferRoads team have enabled the Thorndon community to contribute to future road safety initiatives in the area. The response from the public to the community involvement has been very positive with over 30 people attending the workshops and other interested parties contacting the SaferRoads team directly with their comments. The framework for reducing crashes in Thorndon is outlined on the following pages.

Framework for Reducing Crashes in Thorndon

from Workshop Two – 30 June 2004

Engineering	Education	Enforcement
Speed		
Parking restricts flow – don't remove.	Speed education needed.	Murphy Street, speed cameras.
Kerb extensions to slow traffic.		Health Department, Telstra Clear and crèche staff are parking on footpath – need more parking (on Council land).
More traffic lights, on pedestrian crossing on Tinakori Road (Hawkestone).		Tinakori Road between Harriet, Park and George Streets.
Add pedestrian crossing top of Hobson Street or/ signalise.		Speed enforcement along Tinakori Road between Harriet, Park and George Street.
Narrow streets are being used as short cuts and high speeds – make one way, ie. George Street.		Red light camera at off-ramp Harriet Street, Glenmore Street, Aiken/ Hill lights and along Aiken Street.
Crossing outside New World on Murphy Street.		
Underpass not safe – needs better lighting and closed circuit TV.		
Speed humps.		
Rumble strips where appropriate.		

Framework for Reducing Crashes in Thorndon

from Workshop Two – 30 June 2004

Engineering	Education	Enforcement
Intersections		
Re-instate straight ahead lane north from Tinakori Road to Thorndon Quay.	Pedestrians only cross on green man.	Speed camera/ enforcement – Hutt Road and Thorndon Quay.
Cross-hatching on Tinakori Road at Cottleville Terrace and install mirror to increase visibility.	Not to park too close to intersections.	Stop people cutting through BP – Park Street.
Roundabout at Tinakori Road, Thorndon Quay.	Use indicators.	Parking too close to intersections.
Speed humps in Tinakori Road and village.	Don't block intersections.	Parking over driveways.
Rumble strips on motorway off-ramps.		Red light cameras.
Pedestrian crossings marked at motorway off-ramps.		
Thresholds Hobson Street and others.		
Parking spaces marked too close to intersections.		
Signals at Tinakori/ Hawkestone and incorporate pedestrian crossing.		
6-metre parking distance too close for some intersections – carry out stopping distance/ sight line formula on intersections as some roads you need to be in middle of intersection to see past parked cars.		
Further engineering works possible signals or roundabout at intersection of Tinakori/ Hutt Road and Thorndon Quay.		
Stop traffic at signals for longer periods of time.		

Framework for Reducing Crashes in Thorndon

from Workshop Two – 30 June 2004

Engineering	Education	Enforcement
Pedestrians		
Check positioning of pedestrian crossings and investigate relocating if required.	Improve pedestrian attitudes.	
Use barrier/ bollards to direct pedestrians.	Way of finding safe routes.	
Improve pedestrian crossings, lighting and footpaths/ walkways.	Educating pedestrians on alternate routes, short cuts and safest walkways – having routes signed.	
Slow vehicles down with use of traffic claming and signs.	Pedestrians not using over bridge at bus stop at off-ramp.	
Threshold treatments.		
Improvement of street lighting as not comfortable walking at night.		
Parking		
Parking allowed too close to intersections.	Parking to close to intersections.	Review parking requirements for residential developments (reduce on-street parking demands).
Reduce width of footpaths to allow wider carriageway for parking (reduce side swipes).	Double parking.	Parking too close to intersections.
Re-instate parking north end of Grant Road.	Parking over driveways.	North end of Grant Road – allowing parking on footpath.
Clearway in village.	Parking on footpaths.	Double parking, parking over driveways and parking on footpaths.

Framework for Reducing Crashes in Thorndon

from Workshop Two – 30 June 2004

Engineering	Education	Enforcement
Cycling		
Streets narrow, very difficult – remove parking on one side and put in cycle lane.	Agree with educational campaigns.	Cyclists not obeying rules and motorists not considering cyclists.
Shared footpaths for cyclists and pedestrians.		Thorndon Quay – trucks double parking.
Divert heavy traffic (trucks) off Tinakori Road to Bowen Street and Thorndon Quay.		Stop cyclists running red lights.
Continue cycle lane down Thorndon Quay (share with pedestrians, vehicles or use railway land).		
Move Tinakori Road to make way for cycleway.		
Other roading issues		
Revisit New World entry/ exit design.		District Plan – provision of car parking rules to be reviewed – apartments must have car parking.
Alternate New World entry/ exit.		
Bowen/ Tinakori Road traffic signal phasing to allow Lewisville Terrace exit.		
Pedestrian and right-hand green arrow on northbound Tinakori to exit from Lewisville Terrace.		

5. Proposal

The SaferRoads proposal for Thorndon outlines a range of road safety changes for reducing crashes including engineering, education, and enforcement initiatives. By following this holistic approach, SaferRoads aims to achieve the goal of reducing the number of crashes by one third by the year 2010.

5.1 Engineering

Research indicates that lowering average speeds reduces the number of crashes that occur and reduces the severity of the remaining crashes. The proposed approach for Thorndon therefore concentrates on reducing vehicle speeds on all roads.

Speed reduction will be initiated in a number of ways. Firstly it is proposed to lower the speed limit to 40km/h in a number of streets. Physical traffic calming elements will be introduced into the network to slow vehicles as well as educating drivers that excessive speed in residential communities is not acceptable. The level of enforcement will be increased by the installation of speed cameras and targeted road policing.

The reduction in speed will make crossing roads safer and easier as well as making the roads safer for cyclists using the network. In addition to lowering speeds, it is proposed that intersections with a poor history of crashes will be addressed with physical traffic features, backed up with appropriate education to highlight changes. To reinforce a culture of safer driving it is proposed to increase speed awareness by using a coloured surface on some roads and installing signs reminding drivers to drive safely.

The treatment for Thorndon is focused on particular routes, as the roads in this area have two quite distinct purposes, one being residential and the other for moving traffic. The measures proposed for the residential streets are aimed at reducing speed and providing a more pedestrian-friendly environment and making them safer for users of these roads. The measures used on residential streets are typically road narrowings, painted treatments and crossing facilities.

The approach taken for the arterial routes is more careful and considered to ensure the proposed improvements do not lead to capacity issues which may in turn lead to congestion and safety problems. This approach has been taken because active measures such as speed reduction, are considered inappropriate for arterial routes. Accordingly proposed measures on these routes are more passive - such as painted treatments and more enforcement.

Maps showing each proposed treatment can be found in the appendix of this report. Each map has a map reference number such as TSR30, which is referred to in the Implementation Plan on page 25.

Thorndon Proposed Measures

i) *Description of Area*

As noted earlier in this report, the road network in Thorndon is quite unique. There are several main arterial roads bisecting the residential and commercial areas of Thorndon which include Thorndon Quay, Murphy Street, Tinakori Road, Mulgrave Street and Molesworth Street. All these routes provide the important function of moving traffic in and out of the city as well as adjoining suburbs. Mixed in with these routes are road connections to the residential zones which are primarily in the Hobson Street, Tinakori Road and Grant Road areas. The Thorndon Quay, Molesworth Street, Pipitea Street, Murphy Street and Mulgrave Street areas are typically used for commercial activities which have different requirements to the residential areas.

Pedestrian requirements in the area are also mixed, with three girls' colleges, three primary schools, commercial properties and residents all needing to cross busy arterial routes at different times of the day.

Some residential roads in the areas such as Moturoa Street, Hobson Street and Davis Street are used by through-traffic to avoid some of the delays experienced on the main arterials. These roads also have numbers of school children because of the educational institutions in the area.

ii) *Identified Predominant Causes and Factors*

A review of the accident data shows that the main crash issues to consider relate to intersection accidents, collision with parked vehicles and speed associated with rear-end collisions. More than 70% of the accidents in the Thorndon area occur between the hours of 6am and 6pm Monday to Friday.

iii) *Remedial Works*

In developing the philosophy for addressing issues in the Thorndon area, it is important to consider the different needs of various road users and the diverse requirements within 'groups' of road users. For example, providing traffic calming for commuter traffic on an arterial road would be inappropriate; however in a residential street it is important.

There is a need to provide clear visual and physical indicators to ensure road users drive safely within these areas. Such treatments will include:

- localised 40km/h zones
- 30km/h through the Thorndon shopping precinct
- kerb extensions and median islands
- alterations to road markings
- coloured treatments across the road
- traffic signals.

These main treatments, along with other measures such as controlling all side roads with give way and stop signs, will send a clear message to road users about how they should be driving in each area.

The table on the next page provides general details about some of the specific measures on individual streets. Other minor measures are also planned and are discussed in detail in Appendix 9.

Remedial Measures

It is proposed to undertake the following remedial measures:

Street	Treatment
Aitken Street	Install traffic signals to provide safe crossing facilities for the high number of pedestrians at the intersection of Hill Street. This treatment will also improve the safety for vehicles crossing Molesworth Street.
George Street	Install give way, median islands and coloured pavement to demarcate the residential area and reduce speed at each end of George Street. Implement 40km/h zone.
Grant Road	Install kerb extensions and a median island to improve pedestrian crossing facilities at Park Street. This treatment will also provide better guidance for vehicles using this intersection. Install speed humps at 70-metre intervals and median islands to reduce speeds and better guide motorists between Park Street and George Street. Install kerb extensions to provide a long chicane or median islands to reduce speed between Park Street and Frandi Street. Implement 40km/h zone from Wadestown Road to Harriet Street.
Hawkestone Street	Install kerb extensions and gateway at motorway off-ramp to provide entrance feature and change driver's perception of the appropriate behaviour. Install kerb extensions at the intersection with Portland Crescent to improve visibility and intersection identification.
Hobson Street	Install give way, kerb extensions and median island at the intersection of Tinakori Road and Moturoa Street. These treatments provide entrance features to this residential street. Install kerb extensions at Hobson Crescent to reduce speed into this street. Install other treatments along the length of Hobson Street to reduce speed and through traffic. Implement 40km/h zone. Consider possible one lane restrictions in the central parts of Hobson Street.
Hill Street	Install kerb extensions and reposition school pedestrian crossing to improve visibility. Install kerb extensions and median island at eastern end of motorway overbridge to reduce speed and change driver perception of this road. Install kerb extensions at the intersection with Tinakori Road to reduce speed and improve visibility at this junction. Implement 40km/h zone.
Molesworth Street	Install kerb extensions and/or traffic signals at the intersection of Hawkestone Street to assist pedestrians crossing to New World and improve the safety of motorists crossing to Little Pipitea Street. Consider reducing Molesworth Street to one lane and adding a cycle lane. Another option is to remove parking on the left hand side between Hill Street and Pipitea Street. This will reduce the number of crashes involving parked cars and associated manoeuvring crashes. This will also provide a facility for cycles going to Wadestown. Extend footpath along motorway over bridge and provide crossing points in the vicinity of the Ministry of Health.

Street	Treatment
Moturoa Street	Install kerb extension and median island to make a safe crossing point for school children at Moore Street. The school is proposing to move its main entrance, and a zebra crossing could be installed at its new location. Implement 40km/h zone.
Murphy Street	Install a speed camera to reduce vehicle speeds down Murphy Street. Install pedestrian-operated traffic signals near Turnbull Street to provide safe crossing facilities to New World and reduce speed along Murphy Street.
Tinakori Road	Install pedestrian traffic signals or reconfigure zebra crossing. Install a speed camera to reduce speed between Park Street and Hawkestone Street. Introduce a 30km/h zone for the shopping precinct. Reconfigure parking and road markings at the intersections of Harriett Street and Park Street to improve safety. Install red light cameras at the traffic signalised intersections.

5.2 Education

Thorndon is unique because of its relatively small size and the large number of education institutions which include Wellington Girls' College, Queen Margaret's College, St Mary's School, Thorndon School and Kia Ora School.

Each school in Thorndon has been approached to take part in the *Safer Routes to School* programme. An important part of *Safer Routes to School* is empowering the school community to play a key role in identifying and resolving child road safety issues, working alongside police, their youth education service, parking enforcement, traffic engineers and other agencies in the process.

Successful *Safer Routes to School* programmes have resulted in fewer children being driven to school, therefore freeing up the road and parking at the school gate. Fewer cars on the road in the vicinity of the school also improves safety for children.

Within the schools, programmes will be delivered to teach children how to use the road as pedestrians and cyclists. Other road safety campaigns will focus on correct use of roundabouts and the need to drive at a safe speed within residential areas.

Currently most of the work being done with the schools is ongoing and at this stage we are unable to report back on the outcomes of the proposals. It is expected that any outcomes will be integrated with the engineering, education and enforcement actions proposed in this report.

In addition to the work being delivered as part of *Safer Routes to School* there will be a focus on the 'correct use of the road'. These campaigns will focus on the use of roundabouts, the use of indicators, safe driving speed and how to be safe on the road as a pedestrian and as a cyclist.

The proposal to reduce the speed limit on local roads will require a comprehensive education awareness campaign. These campaigns will be combined with other initiatives run throughout the city. Funding for the majority of these educational campaigns is likely to attract a subsidy from the Land Transport Safety Authority and will be in addition to the funding available for the SaferRoads project.

5.3 Enforcement

The New Zealand Police are partners in the SaferRoads project and have given an undertaking to help where they can. In addition to enforcement being provided by the Police, Council has its own contracted enforcement section that will target parking. Many of the complaints we received related to poor parking practices especially around schools.

It is proposed to install two fixed speed cameras in Thorndon, one on Murphy Street and the other on Tinakori Road. In addition mobile speed enforcement will focus on designated areas to reduce unacceptable speeds along arterial routes that have residential properties along them.

The police have agreed to target speed enforcement and intersection enforcement in response to concerns raised by the community, about the type of crashes reported in Thorndon and in particular at the intersection of Harriett Street and Tinakori Road. They have also agreed to raise their profile before and after school on roads close to schools.

Parking enforcement will be increased near schools, before and after school, and will also target general poor parking in residential areas during the day.

Footpath parking is another area of concern as it damages the footpath and sometimes forces pedestrians to walk onto the road. A campaign targeting footpath parking will be implemented during the SaferRoads project.

6. Implementation Plan

This draft implementation schedule identifies each proposed road safety initiative for Thorndon, its priority, estimated cost and the map number reference, which corresponds to the maps shown in the appendix of this report.

Engineering				
Location	Treatment	Map no.	Priority	Estimate
Aitken Street	Install midblock kerb extensions.	TSR 8	Low	\$16,000
Aitken Street	Install raised footpath over vehicle entrance to Freyberg building.	TSR 8	Low	\$8,000
Aitken Street	Re-mark centreline to reflect changes with angle parking.	TSR 8	High	\$1,000
Aitken Street	Install traffic signals at the intersection with Molesworth Street.	TSR 7	High	\$80,000
Aorangi Terrace	Install kerb extensions and give way at the intersection of Grant Road.	TSR 24	Medium	\$12,000
Fitzherbert Terrace	Install kerb extension and planting at the intersection of Hobson Street.	TSR 15	Medium	\$20,000
George Street	Install give way, median island and coloured pavement at the intersection of Tinakori Road.	TSR 25	Medium	\$2,100
George Street	Install median island and give way at the intersection of Grant Road.	TSR 27	High	\$16,000
George Street	Install a give way control at the intersections of Goring Street and Little George Street.	TSR 26	High	\$700
Grant Road	Install kerb extensions and median island at the intersection of Park Street.	TSR 29	High	\$16,000
Grant Road	Install give way, median island and coloured paving at the intersection of Wadestown Road.	TSR 28	High	\$12,000
Grant Road	Install two speed humps at between Wadestown Road and George Street.	TSR 28	High	\$8,000
Grant Road	Install median and alter footpath to provide a pedestrian facility at Frandi Street.	TSR 28	High	\$10,000
Grant Road	Install kerb extensions and long chicane between Park Street and Frandi Street.	TSR 28A	High	\$48,000

Engineering

Location	Treatment	Map no.	Priority	Estimate
Grant Road	Install median islands between Park Street and Frandi Street.	TSR 28B	High	\$48,000
Grant Road	Install median island 100 metres north of Newman Terrace.	TSR 30	High	\$6,000
Halswell Street	Install coloured paving.	TSR 18	High	\$2,100
Harriett Street	Install coloured paving at the intersection of Tinakori Road. Improve traffic signal layout for pedestrians crossing motorway off-ramp southbound.	TSR 4A	High	\$10,000
Harriett Street	Install coloured paving at the intersection of Tinakori Road. Provide give way and zebra crossing for pedestrians crossing motorway off-ramp southbound.	TSR 4B	High	\$10,000
Hawkestone Street	Install kerb extensions, median island and coloured paving at the motorway off-ramp.	TSR 22	High	\$25,000
Hawkestone Street	Install kerb extensions at the intersection of Tinakori Road.	TSR 23	High	\$12,000
Hill Street	Install kerb extensions for St Mary's School crossing at Guildford Terrace.	TSR 6	High	\$12,000
Hill Street	Install kerb extensions and give way at the intersection of Tinakori Road.	TSR 3	High	\$15,000
Hill Street	Install kerb extensions and median island on the east side of motorway overbridge. Add parking along bridge.	TSR 5A TSR 5B	High	\$20,000
Hobson Street	Install give way, kerb extensions, median island and coloured paving at the intersection of Tinakori Road.	TSR 16A TSR 16B	High	\$25,000
Hobson Street	Install kerb extensions with trees, median island outside the German Embassy.	TSR 15A TSR 15B	High	\$12,000
Hobson Street	Install kerb extensions with trees outside 50 Hobson Street.	TSR 13	Medium	\$12,000
Hobson Street	Install one lane treatment outside 50 Hobson Street.	TSR 14	Medium	\$12,000

Engineering

Location	Treatment	Map no.	Priority	Estimate
Hobson Street	Install two kerb extensions with planting at the intersection of Hobson Street.	TSR 12	Low	\$24,000
Hobson Street	Install kerb extensions with trees paving outside 20 Hobson Street.	TSR 13	Medium	\$12,000
Hobson Street	Install one lane treatment outside 20 Hobson Street.	TSR 14	Medium	\$12,000
Molesworth Street	Reconfigure the New World access arrangements and allow for access from the proposed traffic signals at Hawkestone Street.	TSR 20	High	TBA
Molesworth Street	Install traffic signals at the intersection of Hawkestone Street.	TSR 20	High	\$150,000
Molesworth Street	Extend footpath at over bridge and provide pedestrian link across the street from bus stop to Ministry of Health offices.	TSR 31	High	\$30,000
Molesworth Street	Improve pedestrian facilities under motorway by better lighting, closed circuit TV and removal of vegetation.	TSR 31	High	\$20,000
Molesworth Street	Consider one lane for Molesworth Street with a cycle lane.	TSR 31A	High	\$10,000
Molesworth Street	Consider removing of parking full time or by clearway from the left side between Hill Street and Pipitea Street.	TSR 31B	High	\$10,000
Moturoa Street	Install give way, kerb extensions, median island at intersection of Hobson Street.	TSR 11	High	\$15,000
Moturoa Street	Install kerb extension at intersection with Moore Street.	TSR 10	High	\$6,000
Murphy Street	Move centreline to the centre of road, provide for cyclists in the right-hand lane.	TSR 19	High	\$5,000
Murphy Street	Install pedestrian-operated traffic signals at the intersection of Turnbull Street.	TSR 19	Medium	\$50,000
Murphy Street	Install speed camera by United States Embassy.	Refer Location Plan	High	\$45,000
Pipitea Street	Install mid block kerb extensions.	TSR 9	Low	\$12,000
Pitarua Street	Install give way.		High	\$350

Engineering

Location	Treatment	Map no.	Priority	Estimate
Portland Crescent	Install give way and kerb extensions at the intersection of Hawkestone Street.	TSR 21	Medium	\$3,000
St Mary's Street	Remove coupon parking from the street.	TSR1	Low	\$1,000
Tinakori Road	Install red light camera at the intersection of Harriett Street and Motorway off-ramp.	Refer Location Plan	Medium	\$45,000
Tinakori Road	Re-configure traffic signal layout at the intersection of Bowen Street.	TSR 2	Medium	\$45,000
Tinakori Road	Install red light camera at the intersection of Park Street and Molesworth Street.	Refer Location Plan	Medium	\$45,000
Tinakori Road	Install speed camera between Malcolm Lane and George Street.	Refer Location Plan	High	\$45,000
Tinakori Road	Install coloured paving for shopping precinct between Upton Terrace and Hill Street (30km/h zone).		High	\$10,000
Tinakori Road	Alter road markings at the intersection of Park Street and Molesworth Street.	TSR 17	High	\$5,000
Tinakori Road	Install pedestrian traffic signals at the intersection of Hawkestone Street.	TSR 23A	High	\$80,000
Tinakori Road	Install kerb extension at the intersection of Hawkestone Street.	TSR 23B	High	\$20,000
Turnbull Street	Install coloured paving.	TSR 19	High	\$2,100
Upton Terrace	Install give way at the intersection of Tinakori Road.		High	\$350
Total				\$1,190,700

Education

Location	Treatment	Priority	Estimate
Thorndon schools	Safer Routes to School programme	High	\$30,000
City wide	Pedestrian awareness campaign	High	\$1,000
City wide	Cycle awareness campaign	Medium	\$1,000
Thorndon	Speed limit awareness campaign	High	\$15,000

Enforcement

Location	Treatment	Map no.	Priority	Estimate
Murphy Street	Speed camera		High	\$45,000
Tinakori Road	Speed camera		High	\$45,000
Tinakori Road	Red light camera at Harriett Street		High	\$45,000
Tinakori Road	Red light camera at Park Street		High	\$45,000
All roads in Thorndon	Targeted road policing		High	N/A
City wide	Additional parking staff		High	\$52,000

7. Proposed Solutions to Community Issues

Street name	Location	Issue	Solution
Tinakori Road	Shopping precinct	Speed outside business hours.	Agree, it is proposed to reduce the speed limit to 30km/h.
Tinakori Road	General	Speed along the road and during the weekends.	Agree, it is proposed to install a speed camera, red light cameras and kerb extensions at Hobson Street, George Street, Hawkestone Street, St Marys Street and Hill Street.
Tinakori Road	Newman Terrace	Install new pedestrian crossing at Newman Terrace.	It is proposed to install new pedestrian facilities at Hobson Street.
Grant Road	Between Park Street and Frandi Street	Speed of traffic using this section of Grant Road.	It is proposed to install a long chicane or median islands to reduce speeds. Road markings such as edgelines double yellow centrelines to be painted. Speed humps are not appropriate because it is a bus route. Install pedestrian facilities at the intersection of Grant Road and Cottleville Terrace.
Murphy Street	At motorway off-ramp	The speed of vehicles coming off the motorway creates difficulties for side road traffic, pedestrians and parking manoeuvres.	Install speed camera by American Embassy.
Molesworth Street	Outside Ministry of Health	Parents park on footpath when dropping off and picking up children from crèche.	It is proposed to provide short term parking at this location and reduce the road width down to one lane to improve pedestrian safety.
Hobson Street	General	People drive too fast along Hobson Street.	It is proposed to install a number of traffic calming devices such as road narrowing, introduce a 40km/hr speed limit and median islands. Speed humps were considered not appropriate because of Ambulance Station in Davis Street
Hill Street	Towards Molesworth Street	Drivers proceed to fast down hill towards Molesworth Street.	Installing kerb extensions at the top of the hill by Guilford Terrace and traffic signals at the intersection of Hill Street and Molesworth Street.
Thorndon		Install local street gateways and 40km/hr street zones.	It is proposed to introduce residential street speed restrictions of 40km/hr along with gateways in these areas.
Thorndon		Thorndon is an historic area and any improvements should reflect the unique character of this area. For example granite insets or brick features.	It is proposed to install trees into kerb extension where appropriate and particularly along Hobson Street.
Cottleville Terrace	Tinakori Road	Turning out of the intersections at peak times difficult. Consider mirrors to see vehicles travelling along Tinakori Road.	Mirrors are not to be used at intersections of legal roads.
	General	All side roads should be controlled.	It is proposed to install stop and give ways signs on all intersections.

Street name	Location	Issue	Solution
Tinakori Road	Various	More traffic signals along Tinakori Road at Hawkestone Street, Hill Street and Hobson Street.	One proposed solution at the intersection of Hawkestone Street is traffic signals. Kerb Extensions proposed at Hills Street and Hobson Street. This will assist in reducing speeds and improving safety for turning vehicles.
George Street	Tinakori Road	Difficult to exit from George Street because vehicles park too close to the intersection.	It is proposed to install kerb extensions to allow vehicles exiting to pull ahead of the parked vehicles and have better visibility along Tinakori Road.
Tinakori Road	Harriett Street	Install red light cameras.	It is proposed to install red light cameras at this intersection.
Tinakori Road	Park Street	Pedestrian crossing on north side across Tinakori Road would provide a more direct route to direct route to schools.	This was considered and rejected because of signal phasing.
Molesworth Street	Hill Street and Aitken Street	Pedestrians crossing road can hold up crossing traffic from Aitken or Hill Streets.	It is proposed to install traffic signals at this intersection to provide safer crossing facilities for pedestrians and motorists.
Tinakori Road	Motorway on ramp	Cars turning right on to motorway cross the path of straight ahead traffic on Tinakori Road	Will consider extending right turn phase and install red arrow to control right turn movements.
Grant Road	Park Street	Vehicles cut corner and especially buses	This is a tight turn and buses have to travel across right turn bay to get around corner. It is proposed to install median islands and chicanes in Grant Road to slow down approach speeds.
Lewisville Terrace	Tinakori Road	Traffic signals need to be changed as can not make a right hand turn from Lewisville terrace into Bowen Street as Traffic still travelling straight along Tinakori Road. Vehicles block visibility also.	It is proposed to move the traffic signals so that Lewisville Terrace is not within the traffic signals intersection. Another option could be to include Lewisville Terrace into the signalised intersection this will involve the removal of at least two on street spaces.
Hawkestone Street	Motorway off-ramp	Car's don't give way at top of motorway off-ramp	It is proposed to install kerb extensions and median islands to better define the intersection and reduce speeds at this location.
Cottleville Terrace	Tinakori Road	Pedestrian crossing at Tinakori Road, near Cottleville Terrace is in the wrong place for people walking down from Wadestown. It seems to be better at the end of the steps at the bottom of Newman Terrace which is in a direct line with steps coming down from Wadestown Road.	Pedestrian facilities have been provided at Cottleville Terrace. It is proposed to provide additional facilities at the Hobson Street / Tinakori Road intersection. This will assist pedestrians crossing Tinakori Road in this area.
Hawkestone Street	Tinakori Road	Pedestrian crossing across Tinakori Road at top of Hawkestone Street bridge needs to be made safer for pedestrians.	Two options have been designed to make pedestrian crossing safer. One option removes left turn lane and provides better visibility for pedestrians. Option two proposes to install traffic signals. Both options will significantly improve the pedestrian crossing. The traffic signal option will also reduce speeds and make right urn into Hawkestone Street safer.

Street name	Location	Issue	Solution
Tinakori Road	Tinakori Road	Kerb crossings required at lights at Tinakori Road and motorway off-ramps.	Kerb crossings are proposed as part of the SaferRoads project where footpaths are present. It is also planned to carry out some minor alterations to the pedestrians crossings across motorway off-ramp heading west.
Tinakori Road	Motorway off-ramp	Remove green arrow for traffic exiting motorway going south/west on Tinakori Road. It worked fine without the green arrow.	Option proposed to; put give way and zebra crossing at this location.
Tinakori Road	Tinakori Shop Area	40km/ph speed limit because of narrower street. Speed camera to force traffic to slow down. Integrate another pedestrian crossing at Bowen Street and Tinakori Road at the drycleaners.	It is proposed to provide a 30km/hr speed zone though the shopping precinct. There have been crashes involving speed and parked vehicles. A speed camera is proposed north of Hawkestone Street. Due to intersection phasing it is not possible to provide pedestrian crossing across Tinakori Road at dry cleaners. Some minor modifications are planned to remove Lewisville Terrace out of the signalised intersection.
Tinakori Road	Tinakori Road/Park Street	Pedestrian crossing Tinakori Road and Park Street on north side of Tinakori Road would provide more direct route to schools.	It is proposed to provide pedestrian crossing across Tinakori Road as well as providing traffic lane markings.
Tinakori Road	Tinakori Road/Thorndon Quay	Pathway off Tinakori Road down to Thorndon Quay needs skid resistance material to stop people slipping.	
Grant Road	Grant Road	High speed of vehicles going up and down Grant Road is dangerous, particularly to people alighting from the bus stop here, including elderly people from blocks of flats.	Two options have been provided for slowing vehicles down along Grant Road. The first option provides kerb extensions to reduce road width and create a long chicane. The second option provides median islands to reduce vehicle speeds. Pedestrian facilities have been provided at the Cottleville Terrace intersection with Grant Road.
Murphy Street	New World	Pedestrian access to New World supermarket needs to be provided.	It is proposed to install traffic signals to provide a safe facility for pedestrians crossing Murphy in the vicinity of Thorndon Pool. There a high number of school children crossing the road in this area. The proposed traffic signals will also reduce the though speed along Murphy Street.
Murphy Street	Murphy Street	Police need to put effort into encouraging drivers to reduce their speed back to 50km/h after exiting the motorway. There are four schools adjacent to Murphy Street, and many people crossing this road.	It is proposed to install a speed camera site to reduce vehicle speeds as motorists head down Murphy Street.

Street name	Location	Issue	Solution
Hobson Crescent	Hobson Street	Vehicles obstructing the footpath are an issue in Hobson Crescent, with cars parked often in driveways or off-road car parks, but still obstructing the footpath with part of the vehicle, often a tow bar. With the number schools in the area, and a pre-school, this is a selfish and potentially dangerous practice.	More enforcement is proposed as part of the SaferRoads project.
Moore Street	Moore Street	Vehicles obstructing the footpath in Moore Street (Bodyworks Gym) cause pedestrians (again often school children) to have to walk on the road. This is particularly a problem mornings, lunchtimes and evenings Monday to Friday.	More Enforcement
Pipitea Street	Moore Street	Pedestrian's facility of crossing road to school and work – Moore Street steps.	It is proposed to provide pedestrian facilities across Pipitea Street and Moore Street. The 40km/hr residential speed zones will also provide a safer crossing environment for pedestrians.
Kate Sheppard Place	Kate Sheppard Place	Risky for pedestrians when drivers pull out of Kate Sheppard Place to go straight through. Likewise, when buses speed through traffic lights.	Will consider banning straight movement across Mulgrave Street to Thorndon Quay. There is a current campaign targeting bus drivers that run red lights and travel at inappropriate speeds.
Aitken Street	Aitken and Hill Streets	Pedestrian crossing Aitken and Hill Street at intersection caught at crossing if pedestrians traffic heading up Molesworth Street	The proposed traffic signals will better control pedestrians and vehicles at this intersection.
Hawkestone Street	Hawkestone Street	Pedestrian crossing at off-ramp.	Traffic calming measures are proposed to reduce speeds in the area as well as providing pedestrian facilities at key locations.
Little Pipitea Street	Hawkestone Street/Little Pipitea Street	Vehicles dart across from Hawkestone Street to get into Little Pipitea Street (especially taxis) – risk to pedestrians on pavement.	Traffic signals are proposed at this cross road intersection. The traffic signals will also provide further pedestrian facilities across Molesworth Street. There is a possibility that New World may reconfigure their driveway arrangements and have an entrance into the site from the proposed traffic signals.
Hobson Street		Hobson Street very congested by parents dropping off children to school, any chance of another pedestrian crossing?	Traffic calming measures planned for Hobson Street to reduce speeds and make it safer for school children and other pedestrians in the area.
Tinakori Road		Runners going down lower Tinakori Road making cars move to opposite side of road.	Pedestrian facilities provided in this area. These road users chose to use road.
Grant Road		Pedestrian crossing across Grant Road. Pedestrian crossing across Grant Road – to deal with bus stop people and to link the path down Newman Terrace from Wadestown.	Pedestrian crossing in this location would not be justified. IT is proposed to provide some speed reducing measures along Grant Road as well as pedestrian facilities.

Street name	Location	Issue	Solution
Hobson Street and Murphy Street	Motorway Over bridges	The pedestrian underpasses is too spooky and tortuous to be much use.	Improve lighting and install CCTV cameras to improve safety.
Molesworth Street		Area at top of Molesworth and Murphy Streets needs to be re-designed to cater for pedestrians – particularly crossing motorway off-ramp. Crossing motorway off-ramp at top of Molesworth Street is difficult.	Due to sight distances associated with the motorway off-ramp it is considered to be unsafe to provide a pedestrian facility in this location. There is an underpass which will be improved for personal safety which provides a safe crossing point.
Hobson Street		More lighting from Hobson Street to New World – very dark if walking to supermarket at night. I currently won't walk there by myself at night.	Improve lighting in the vicinity of Kia Ora School.
Various		Noticeable that many of the people who walk out onto the road without looking are Asian – cultural training to new immigrants required. Educate pedestrians that the roads are for vehicles and they need to look out for them when crossing a road – expect a vehicle – not many even look.	Educational campaigns are planned to provide guidance to pedestrians and motorists.
Various		Pedestrians still have the right to cross on a flashing red man. Vehicles do not have the right to try and bowl pedestrians over. Can the red flashing man be changed to orange?	Land Transport Safety Authority is currently considering the flashing man and other possible methods of providing better guidance to pedestrians and motorists.
Tinakori Road	Shopping Precinct	Shops in Tinakori Road - quite a lot of problems with people stopping to park or pulling out from parking.	It is proposed to reduce the speed limit in this area to 30km/hr to provide a safer environment in this retail area. There have been a number of accidents involving parking manoeuvres and speed.
Grant Road		Parking issues: Removal of parking from an area where off street parking is limited has caused a number of traffic safety issues. Parked cars in Grant Road all regularly damaged by vehicles moving up and down Grant Road. Removal of resident parking in Grant Road has led to higher vehicle speeds	The removal of parking on Grant Road has resulted in an increase in vehicle speeds. It is proposed to narrow down the road with either kerb extension or medina islands and provide more parking where possible to reduce speeds.
Molesworth Street	Cnr of Murphy and Molesworth Streets	This area is not pedestrian friendly – crèche parents parking on footpath doesn't help. Provide proper parking for crèche at top of Molesworth Street, at present parents have to park on footpath.	
Hobson Street		Inappropriate parking – double parking and parking over driveways around college. More clearway enforcement.	More enforcement and particularly around schools is an important part of the SaferRoads programme.
Murphy and Mulgrave Streets		Hard to cycle down Murphy Street and Mulgrave Streets because of parked vehicles. It is also hard to cycle up Molesworth Street. This is the most direct link to Wadestown.	Roadmarking changes planned.

Street name	Location	Issue	Solution
New World		Difficulty coming out of New World, turning right up Molesworth Street, when others are trying to enter New World. Narrow road off Molesworth Street for access into New World. Correct the poor access from New World – swap entrance and exit around.	One way operation of Molesworth Street makes it difficult to provide efficient access to and from New World. The proposed one lane for Molesworth street would simplify driver tasks. There may be some changes to the access arrangements associated with New World as part of an upgrade of the facilities. The proposed traffic signals at Hawkestone street will provide gaps in traffic to allow vehicles to exit New World and reduce the vehicle speeds along this road.
Molesworth Street		Problems with vehicles going down one way the wrong way especially weekends.	Improve signage in and around the exit from New World and other side streets.
Hill Street		Any residents in Hill Street who have to exit their garages or entrance ways have to take extreme care as the visibility due to the narrowness of the road and the speed of the traffic is cause for concern.	Traffic calming measures along with a 40km/hr speed restrictions is proposed for Hill Street.
Tinakori Road		Ban heavy vehicles through the Thorndon Village area during working hours. Ban heavy vehicles from Tinakori Road north of Bowen Street.	This would be difficult to achieve as Tinakori Road is an arterial route and is one of the few roads that provides access to Karori and Northland.
Grant Road		North bound and south bound lanes in Grant Road (north of Park Street) are different widths.	Road marking and traffic signal changes are planned as part of the SaferRoads project.
Molesworth Street		Keeping to lanes going up Molesworth Street.	These lanes are currently too narrow to safely accommodate two lanes of traffic. A number of options are being considered which include providing one wider lane and cycle lane, widening the road and implementing a clearway.

8. Conclusion

The proposed road safety changes for Thorndon concentrate on reducing vehicle speeds on all roads using engineering, education and enforcement initiatives including:

- lowering the speed limit to 40km/h on most residential streets
- using traffic calming devices to slow speed vehicles
- increased speed enforcement including the installation of speed cameras and targeted road policing
- increasing parking enforcement
- running school and community education campaigns about road safety and the dangers of excessive speed.

This technical report has been reviewed by the SaferRoads technical review group and representatives from the LTSA, New Zealand Police, Transit New Zealand, Greater Wellington, Transfund New Zealand, and Council officers.

The proposal has also been approved by the SaferRoads Steering Committee and both groups endorse the project proceeding to consultation.

The consultation period runs from 15 November until 13 December 2004, during this time the Council is asking for submissions from the public.

Following consultation, submissions will be analysed and the implementation plan will be reviewed and refined to reflect feedback from the public and key road safety partners. The *SaferRoads for Thorndon Report and Implementation Plan* will provide a summary of the outcome.

Funding for the implementation of this work has been approved in the Annual Plan for the 2004-2005 financial years. Detailed design will commence following the outcome of the SaferRoads consultation process. Construction of the approved measures will occur in mid 2005.

9. Appendix

Each map shown has a map reference number which refers to the proposed road safety treatments listed in the Implementation Plan in section 6.