Draft State Highway Safety Plan

August 2004

"To Provide Road Users with safe State Highways"

Note:
This is a draft document issued for discussion purposes only – it is not Transit New Zealand policy.

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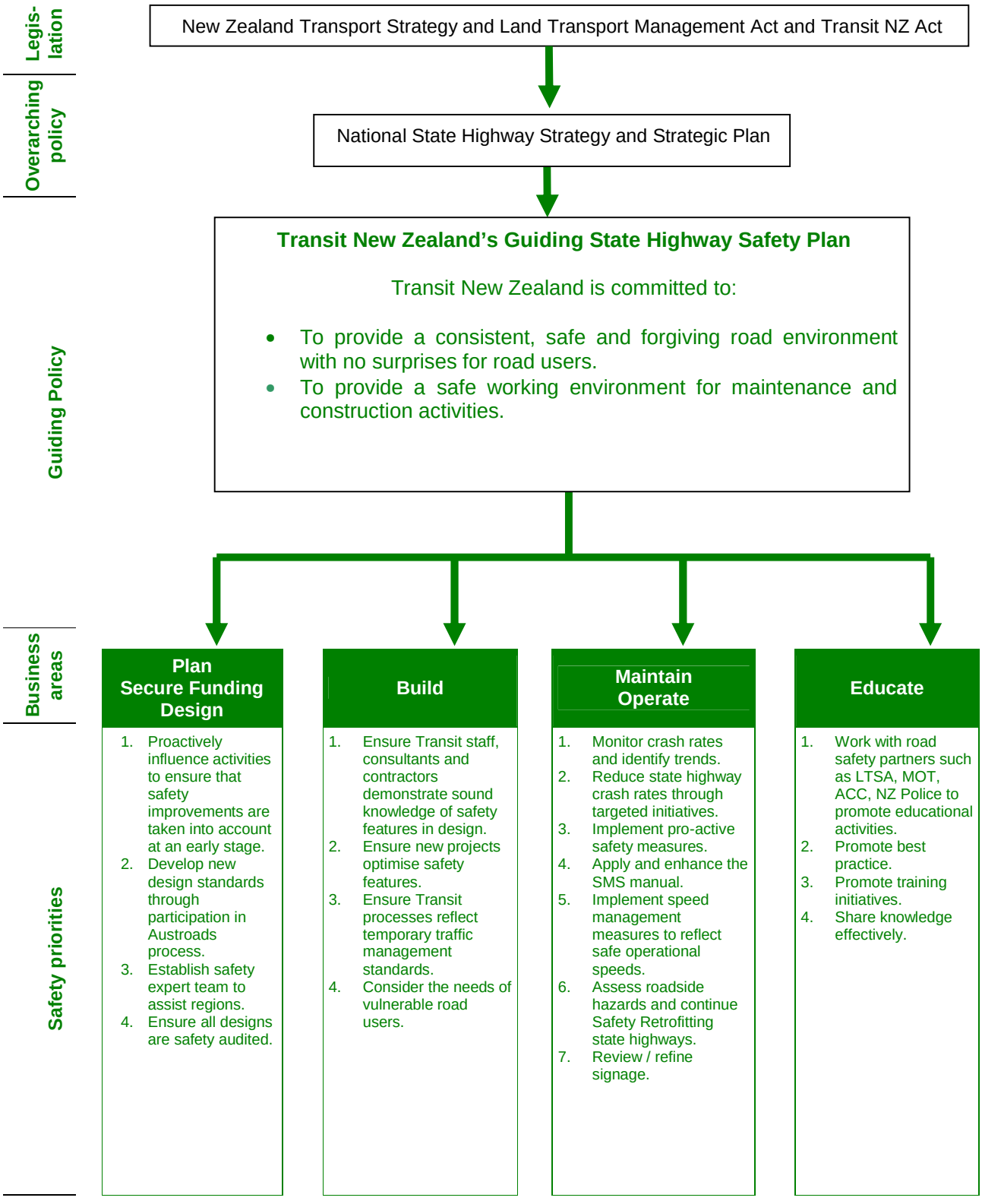
1. State Highway Safety Plan strategy map



2. Road Safety on State Highways

2.1 The Safety Plan

This Safety Plan reflects the significant changes occurring within the transport sector and the level of commitment to improving road safety on State Highways. The Land Transport Management Act 2003 (LTMA) and New Zealand Transport Strategy (NZTS) signal a clear focus on increased social and environmental responsibility in the context of an integrated, safe, responsive and sustainable land transport system.

Transit is determined to reduce the 'road toll' both in terms of absolute numbers of those killed or injured on the State highways and in terms of the severity of injury.

This Safety Plan is a key step towards meeting that challenge. Other transport related responses include reducing the demand for motorised travel, relieving congestion and partnering with stakeholders who share responsibility for sustainable transport outcomes.

Transit's heightened sense of social responsibility will influence the decisions Transit makes about the State highway network. These decisions will be balanced with the multiple objectives we strive to achieve under the LTMA and the NZTS, and each matter will be determined on its individual merits.

In order to fulfil our commitment to these bottom lines, we recognise the need to thoroughly explore alternative approaches, routes, methods and new technologies. The innovative solutions that are needed will require us to be informed about a broader range of safety issues and to enlist a more diverse range of expertise. The need to work collaboratively with our partners and stakeholders has never been stronger.

2.2 Development of the Safety Plan

This plan has been developed to identify key areas of concern and to promote initiatives that will result in a safer State highway network. The overall format of this document is based on that used by the American Association of State Highway and Transportation Officials (AASHTO).

3. Vision, Strategic Context and Objectives

3.1 Vision of this Plan

- To provide road users with safe State highways.

3.2 Safety Plan related to Strategic and National Goals

- Support Road Safety 2010, through reducing the number of fatal and serious injury crashes on State highways,

- Support the New Zealand Transport Strategy (NZTS) and the Government's overall vision for Transport that: "By 2010 New Zealand will have an affordable, integrated, safe and sustainable transport system" and in particular support *Objective 2 of the LTMA, Safety and Personal Security,*

- Support the Land Transport Management Act 2003 (LTMA) objective for Transit to operate the State highway system in a way that contributes to an integrated, safe, responsive, and sustainable land transport system,

- Support Transit's Strategic Plan and its five key goals, and

- Support Transit's National State Highway Strategy.

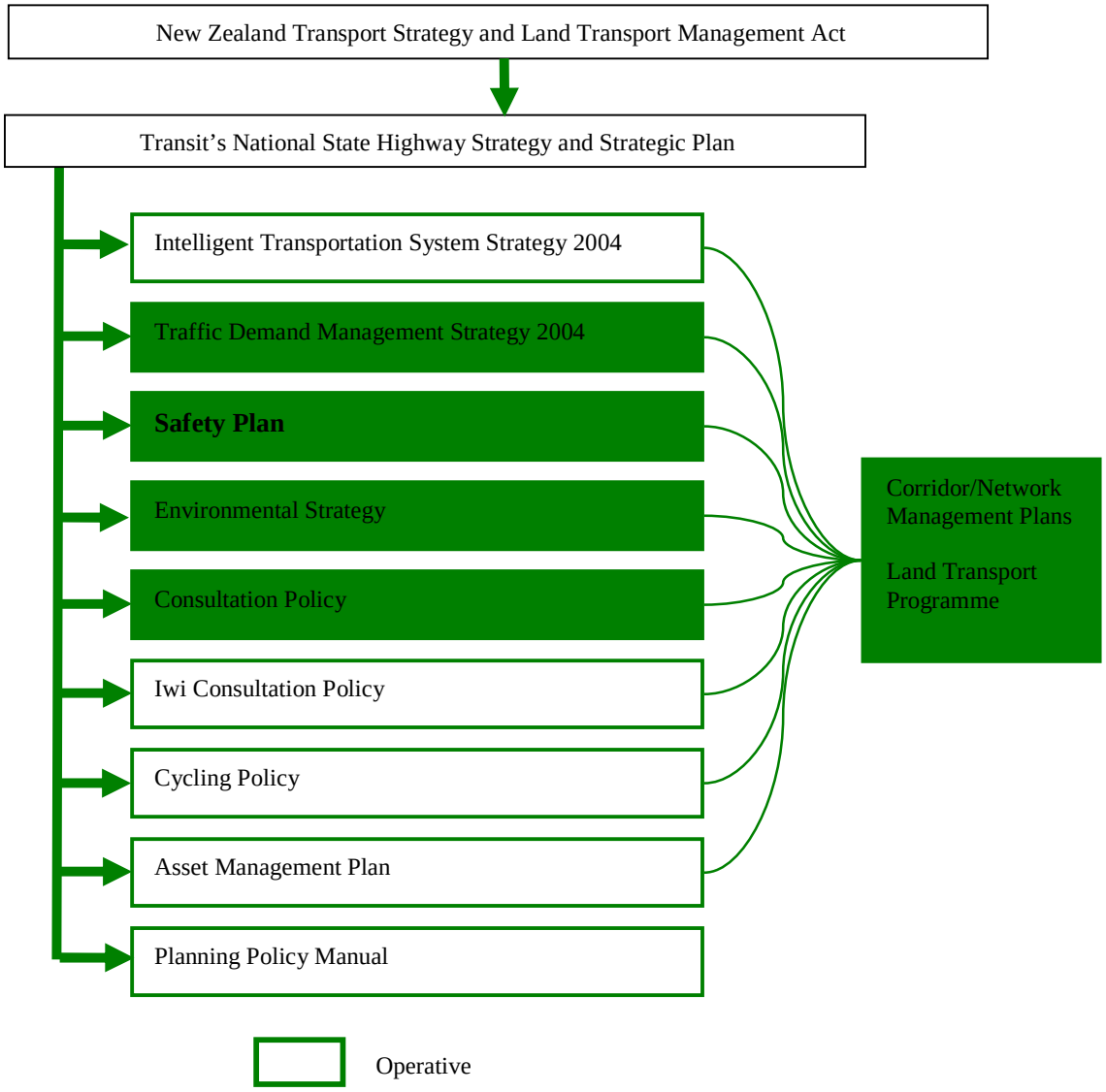
3.3 Objectives of this Plan

- To provide a consistent, safe and forgiving road environment with no surprises for road users.

- To provide a safe working environment for maintenance and construction activities.

3.4 Transit's strategic framework

Transit's primary strategic document in relation to the state highway network is the National State Highway Strategy. It addresses all of the impacts of operating the state highway network.



4. Resource Development supporting Plan Objectives

4.1 Safety Resources and Coordination

(a) Establish a safety expert team to provide technical direction and support to Transit Regions.

4.2 Data Collection Management and Analyses

(a) Develop expertise for in-house management and analyses of crash data (primarily LTSA Crash Analysis System (CAS)).

(b) Improve road network safety trend analysis using a strategic risk management approach (e.g. Black/grey spot analyses).

(c) Develop and apply in-house crash investigation and reconstruction expertise to identify potential engineering interventions.

4.3 Safety Systems

(a) Continue development and maintenance of the Transit Safety Management System (SMS) in co-operation with LTSA.

(b) Redevelop and implement the Safety Certification System.

5. Guidelines supporting Plan Objectives

5.1 Safer Temporary Traffic Management

(a) Continue development of the Code of Practice for Temporary Traffic Management (CoPTTM) with assistance from the Industry Review Group (IRG).

(b) Enhance safe work zone driving through participation in the coordination of education and enforcement efforts with the LTSA and the Police.

5.2 Signage

(a) Review all regulatory speed signs for position, sign condition, and visibility in accordance with the Manual of Traffic Signs and Markings (MOTSAM).

(b) Review all speed advisory signs.

(c) Ensure appropriate speed transitions are in place.

(d) Provide control at all intersections with State highways.

(e) In partnership with ITS section, promote and implement safety aspects of Variable Message Signing (VMS) guidelines.

5.3 Design and Traffic Management

(a) Participate in the Austroads process to develop new guidelines that reflect best practice in New Zealand and internationally.

6. Initiatives supporting Plan Objectives

6.1 Speed Management

(a) Develop, promote and implement speed management measures including controlling vehicle speeds through road layout changes, law enforcement, campaigns or advanced technology.

(b) Transit's emphasis will be on the implementation of perceptual measures that influence the speed that drivers feel are appropriate for the section of road upon which they are driving.

6.2 Speed Zoning

(a) Promote and implement speed zoning (as a tool to affect driver behaviour and specifically reduce crash rates). Speed limit zones will relate specifically to the safe operating speed based on the geometric alignment, or factors other than roadside development, that predominantly influence the speed environment for a section of road.

6.3 Reducing Vehicle-Train Crashes

(a) Continue to work with railway companies in partnership with the LTSA as part of Level Crossing Working Group, to improve rail crossing safety through signage and signal upgrades.

(b) Review signs for position, sign condition, and visibility.

6.4 Considering the needs of Vulnerable Road Users

(a) Continue to work with the LTSA and other agencies to develop guidelines such as Transit's supplement to Austroads Part 14 Bicycles, to ensure that the needs of vulnerable users are considered in the design process.

(b) Promote personal safety initiatives to enhance security in environments where there is an actual or obvious perceived risk e.g. subway lighting and CCTV monitoring.

6.5 Keeping Vehicles on the Roadway

(a) Implement a comprehensive program to improve driver guidance through better pavement markings and delineation.

(b) Implement a targeted shoulder profiled line-marking program.

(c) Implement a targeted centreline profiled line-marking program.

(d) Improve the design process to explicitly incorporate safety considerations and to facilitate better design decisions.

(e) Establish programs to improve the maintenance of the roadway to enhance highway safety.

(f) Upgrade shoulders.
- Review cross section standard widths
- Develop targets

(g) Improve skid resistance.
- Review standards and intervention levels.
- Develop corridor specific intervention levels

6.6 Minimising the Consequences of Leaving the Roadway

(a) Provide improved practices for the selection, installation, and maintenance of upgraded roadside safety hardware.

(b) Implement in an environmentally acceptable manner a national effort to address hazardous trees.

(c) Implement a national policy to reduce the hazard from roadside utility poles, particularly on two-lane rural highways.

(d) Develop and implement guidance to improve ditches and backslopes to minimize rollover potential.

(e) Remediate driveway access standards.

(f) Develop and implement guidelines for safe urban streetscape design.

(g) Develop and implement guidelines for safe rural mailboxes, private signs, and fences.

6.7 Reducing Head-On and Across-Median Crashes

(a) Trial innovative median wire rope barrier treatments to reduce head-on crashes on two-lane highways.

(b) Reduce across median crashes on dual carriage highways that have narrow medians.

(c) Apply consistent speed environment treatments.

(d) Continue implementation of passing lane program.

(e) Review One-Way Bridge signing system.

(f) Continue to work with the LTSA on overseas driver safety related issues and contribute to new initiatives as part of proposed working group.

(g) Continue to work with the LTSA as part of proposed Fatigue Management Working Group.

7. Design Measures supporting Plan Objectives

7.1 Improving the Design and Operation of Highways

(a) Improve consistency of road standards to match the road function.

(b) Improve road safety engineering practices to provide a no surprises, forgiving environment.

(c) Provide greater safety to the mix of heavy and light vehicles (e.g. implementation of slow vehicle climbing lanes).

(d) Ensure a safe maintenance environment is included in road safety engineering practices.

(e) Apply a consistent road safety audit regime (quality and coverage), including audits of existing roadways in accordance with Transit's adopted policy.

(f) Help combat driver fatigue through signage, rest areas, and working with others to provide roadside services and amenities.

(g) Improve information to road users about road conditions that may pose a safety or personal security risk.

(h) Ensure a safe operating environment for non-motorised road users.

(i) Promulgation and training on standards and guidelines.

7.2 Improving the Design and Operation of Highway Intersections

(a) Incorporate greater safety emphasis in access management policies.

(b) Apply a consistent Crash Reduction Study (CRS) regime.

(c) Utilize new technologies to improve intersection safety.

(d) Improve the safety of intersections using automated methods to monitor and enforce traffic control.