Michelle Harvey
Secretary
C/- Maunsell Limited
PO Box 4241
Newmarket
Auckland 1140

16 November 2007

Bob Gibson
Land Transport New Zealand
PO Box 2840
Wellington

Dear Bob

IPENZ Transportation Group Submission on Manual for Traffic Control Devices Part 9 Level Crossings

The IPENZ Transportation Group ("IPENZ TG") welcomes the opportunity to provide a submission on the draft of Part 9 Level Crossings of the Manual for Traffic Control Devices. The IPENZ TG consists of over 900 transportation and traffic engineering and planning professionals working in central government, local government, academia, and the private sector. The IPENZ TG represents a segment of considerable expertise in the fields of traffic and transportation and has a significant interest in managing the effects of transportation on society. This submission has been prepared by the National Committee of the IPENZ TG and recognizes that this submission may not necessarily represent the position of every member of the Group or their views given the diversity of members.

There are a number of comments we wish to make and these are covered in the attached submission.

The IPENZ Transportation Group is happy to discuss any of the comments contained in the submission and any queries can be directed to the Chairman of the IPENZ Transportation Group, Bruce Conaghan, City Traffic Engineer, Manukau City Council (☎ (09) 262 8900 ext 8770 / E-mail bruce.conaghan@manukau.govt.nz).

Yours sincerely

Bruce Conaghan
Chairman
IPENZ Transportation Group

Submission to the Land Transport New Zealand, on the Draft of :

Part 9 Level Crossings of the Manual for Traffic Control Devices

Prepared by:

IPENZ Transportation Group

November 2007

Introduction

The IPENZ Transportation Group ("IPENZ TG") welcomes the opportunity to provide a submission on the draft of Part 9 Level Crossings of the Manual for Traffic Control Devices. The IPENZ TG consists of over 900 transportation and traffic engineering and planning professionals working in central government, local government, academia, and the private sector. The IPENZ TG represents a segment of considerable expertise in the fields of traffic and transportation and has a significant interest in managing the effects of transportation on society. This submission has been prepared by the National Committee of the IPENZ TG and recognizes that this submission may not necessarily represent the position of every member of the Group or their views given the diversity of members.

Overview

While the IPENZ TG supports the publication of the Draft Level Crossing Guideline as a logical component of the NZ Manual for Traffic Control Devices, the guideline needs to be seen as part of the wider context of a rail safety regime which could be improved markedly in line with our international counterparts. At a national level, the data on reported rail crashes clearly indicates a need to improve safety especially given that the NZ rail system is not especially extensive, operates at low speeds by overseas comparisons, and has light traffic loadings. Looking ahead to the future, rail transport will have an increasingly important role in NZ as the country seeks to improve energy efficiency and long term sustainability and this will serve to increase the potential for risk.

The IPENZ TG is concerned with regard the position of central government agencies on the funding of major rail safety solutions (e.g. grade separation). These government agencies appear to view funding of grade separation as essentially a matter for the road controlling authorities and LTNZ and argue that the need for grade separation is driven by increased road traffic delays and not by rail-related safety and operations. There is a good argument to support a more pro-active contribution from central government in the case of Auckland for example, where double tracking is currently taking place. This track layout significantly increases the risk of an incident at a railway level crossing, as it enables trains to operate in both directions and accommodates an increased frequency of service. The need for grade separation is therefore influenced by changes to rail operations and the rail corridor and is not solely road traffic related.

Without allowance for satisfactory resolution of funding for major rail level crossing safety solutions, such as grade separation, the costs remain with the affected road controlling authorities and as such, the opportunity to provide grade separation is lost. This is not to say that road controlling authorities should not meet those costs which clearly lie within their road controlling responsibilities. However, road controlling authorities that are also territorial local authorities are not able to obtain the funding resource to make extensive provision for grade separation through their current LTCCPs and recommends that Central Government (including LTNZ) need to take a much more pro-active and fundamental look at funding of safety improvements at railway level crossings.

General Comments on Draft Guideline

In regard to the Draft Level Crossing Guideline, the IPENZ TG welcomes the decision to produce a New Zealand Manual for Traffic Control Devices of which the level crossing guideline is Part 9.

The guideline has been produced to a high standard and covers in detail all aspects of level crossings from crossing types, legal and procedural matters, through planning, design and maintenance standards and responsibilities. When finalised and formally adopted it will provide a useful reference document for all parties involved in rail crossings including road controlling authorities, private landowners, rail owners/operators and utilities.

Although the guideline should be seen as a useful collation of NZ practice in regard to rail crossings, it will be essential that as a matter of urgency every effort is made to upgrade all deficient crossings and to adopt best practice design standards from other countries where these can be shown to be superior to the NZ designs. It is likely that improved technology in regard to warning systems, site specific information and signage will offer high potential for safety improvements and where available should be introduced without delay.

In the past, road controlling authorities have frequently found that when they seek improvements or maintenance works at existing level crossings, it has been difficult to raise interest or achieve action from the rail track owner. The IPENZ TG would hope to see greater responsiveness and co-operation in the future from the rail access provider and while having excellent guidelines in place is important, needs to state that all parties need to co-operatively to attain and maintain the standards laid down in the Guideline.

Specific Comments on Draft Guideline

The IPENZ TG has a number of specific suggestions to improve the Guideline as follows:

1. Under Section 2 Types of crossings, it would be worthwhile including a comment or notes on “EXEMPT” crossings including the requirements for signage as well as the process for removing “EXEMPT” signage.

2. With new crossings, there is a concern with the principle that ONTRACK should not be put to additional expense either now or into the future. This is unreasonable where the applicant has to provide automatic warning devices in the future where the need for such devices is necessitated by increased services by the rail operator and such costs should sit with the rail operator. In this regard, the 2nd bullet point under 2.6.2 should be amended to reflect this not unreasonable requirement.

3. The phrase in the 4th bullet point under 2.6.2 “(see Appendices C and E)” should be amended to read “(see Appendix C)” as there is no Appendix E in the draft Guidelines.

4. In regard to Section 3 Risk Assessment, the IPENZ TG believes more work is needed to confirm the applicability of the Australian ALCAM assessment model to the New Zealand situation given the differences between the two countries in terms of rail system design and operation.

5. There are a number of incorrect references and errors in Section 4. Signs as follows :

- Pg 4-5 : last para under 4.4.3.1 - "PW-1 STOP AHEAD" should read "PW1-1 STOP AHEAD".
- Pg 4-5 : last para under 4.4.3.2 - "PW-21 Give Way Ahead" should read "PW1-2 Give Way Ahead".
- Pg 4-6 : 2nd para under 4.4.3.4 - "PW-14" should be changed to "R2-10.1".
- Pg 4-6 : Table 4.2 - the references to "PW-14a" and "PW-14b" are incorrect and may be "R2-10.1a" and "R2-10.1b" respectively.
- Pg 4-7 : Table 4.3 - the references to "PW-15a" and "PW-15b" are incorrect.
- Pg 4-7 : last para under 4.4.4.1 - "R1-1" should read "R2-1".
- Pg 4-8 ; last para under 4.4.4.2 - "R2-1-1" should read "R2-2".
- Pg 4-8 : title of Table 4.5 - "R2-1-1" should read "R2-2".
- Pg 4-9 : title of Table 4.6 – "PW1-1.1" should read 'PW8-1.1".

6. On pg 4-20, under 4.4.5.3, when a railway line ceases to be used and the period of disuse is likely to be of sufficient duration, the guidelines should identify that all costs to clearly identify that the line is out of use including all signage, gates, and removal of the crossing if required lie with the rail access provider.

7. On pgs 5-2 and 5-3, the details for limit lines are incorrect and should refer to a single line rather than parallel lines.

8. It is noted that under Section 5 - Road Marking, and Section 7- Road Surface Geometry and Surfacing, there is reference to which organisation has responsibility for these aspects of level crossings. In order to eliminate any doubt, it would also be useful to reiterate who has responsibility for provision and upkeep under Section 9 - Requirements for Pedestrian and Cycle Crossings and Section 10 - Requirements for Public Vehicle Crossings.

9. Pedestrian mazes - it is encouraging to see the pedestrian mazes are designed to cater for wheelchair and mobility scooter traffic, however, alternative design (still wheelchair and mobility scooter traffic friendly) should be provided for locations where footpath space is insufficient to accommodate a standard maze design.

10. Tactile ground surface indicators - tactile ground surface indicators should be installed (in accordance with RTS 14) at all level crossing points, in conjunction with other safety measures - such as audible signals, flashing lights etc. This will reinforce the level crossing and safety issues associated to ensure the level crossing points are highlighted for pedestrians and cyclists as well as convey important cues to blind and vision - impaired users. Furthermore pram crossings will be required if the level crossing is not flush with the footpath level.

11. Additional crossing facilities - additional facilities at locations near schools or high pedestrian / activity generators or locations with high number of young children or elderly pedestrians should be assessed regularly by the rail access provider to ensure appropriate level of protection is being provided to these users. This may require grade separated crossing facilities instead of having these pedestrians crossing railway tracks. Simple, logical and consistent layouts should be adopted using the following principles :

    - pedestrian crossings should be located in the direct line of the continuous accessible travel path to maintain the connectivity of pedestrians
    - kerbs to be aligned so they are crossed perpendicular to the path of travel
    - the distance of crossings should be as short as practicable
    - sufficient warning should be provided to pedestrians to indicate the direction of travel of the approaching train, especially if there are crossings with multi tracks

12. Under 10.5.2 Over-dimension loads and the tables in this section, it would make sense to have the overall height for the Wellington electrified area at 4.5 metres and the overall height for Non-electrified areas and the North island main trunk electrified area at 5.2 metres.

13. It is agreed that a section on tramways is included in the Guidelines given the potential to have light rail as a mode of transport in the future.

Additional Comments

1. Although there is a presumption in law that rail takes precedence over road at level crossing sites, It would be more appropriate that where a rail contractor is carrying out works at a level crossing, then they should be required to comply with normal roadworks notification procedures. This is because in most instances the road traffic at the crossing substantially dominates the rail traffic in terms of numbers, and for a road controlling authority, railway level crossings are an anomaly in regard to the RCA's ability to monitor and oversee its road network.

2. It should be required by the rail access provider together with other key agencies that any safety deficiencies that are identified through an ALCAM assessment must be implemented prior to the railway lines being able to operate. This is no different to a state highway or capital works project that requires a stringent safety audit process to ensure identified deficiencies are mitigated.

3. There should be a requirement that pedestrian and cycle crossing as well as public vehicle crossings be lit especially where there is night time use of the rail network.

4. The Guidelines may wish to provide some comment on the use of illuminated studs as a measure to reinforce active controls at railway level crossings especially where the railway level crossing is prone to sunstrike.