

TRANSPORT, ROADS AND ROAD SAFETY

ROAD NETWORK PLANNING AND ISSUES FOR A COASTAL GROWTH AREA

Cliff Toms, Hastings Council

This paper discusses the experiences , planning and engineering issues associated with Hastings Council's development of a strategy for improvements to it's major road network to cater for growth up to the year 2020.

The paper focuses on a study of the road network by SMEC Australia Pty Ltd, which involved a process of traffic surveys, modelling, road hierarchy planning, and programming for future works. A discussion on the challenges in preparing and implementing the strategy is provided in the context of Council's financial and urban growth constraints and opportunities.

TRAVELLING BEYOND BOUNDARIES – CATCH THE BUS!

CASE STUDIES IN THE DEVELOPMENT OF BOTH RURAL AND URBAN TRANSPORT STRATEGIES

Royce Toohey, Eurobodalla Shire Council
Chris Little, Hurstville City Council
Richard Jarvis, Rockdale City Council

This paper examines the approaches taken by rural and urban Councils in looking beyond their traditional roles and indeed traditional boundaries, to promote and facilitate greater use of public transport.

Eurobodalla is different to most other local government areas in that it has a number of equally important towns but, like most other rural towns, existing public transport is limited. The Council has just revised its Public Transport Strategy.

EuroTransport has been developed for those requiring special consideration although Bus Operators see this as competition, as is the proliferation of free services by clubs, community groups, etc. Recently Bombala Council in NSW and Gippsland Council in Victoria have instigated a trial of a jointly funded bus service.

Eurobodalla Council recognises that is in the ideal position to co-ordinate the provision and interconnection of services whether it be buses, taxis, planes or ferries. Indeed rural Councils either regulate these functions through the local Traffic Committee or operate the aerodromes and manage the wharves and jetties. The strategy also examines the need to upgrade facilities associated with disability access and provide improvements to transport infrastructure generally with limited funds.

The St George region is the corridor for transport between Sydney and the southern and south western outer metropolitan areas. Geographic features limit the number of routes traversing the region, and traffic congestion is the outstanding issue affecting the residents of Hurstville, Kogarah and Rockdale Councils. In contrast to Eurobodalla, the region is relatively well connected to metropolitan public transport networks, but their further expansion is essential to manage future demand.

With funding assistance from the Roads & Traffic Authority, the three councils combined to determine a strategy for better public transport for the region's residents and areas beyond. Community surveys and workshops and extensive consultation with public and private sector public transport providers was undertaken, followed by detailed transport modelling.

This study and the strategy it created support and flesh out the broader directions outlined in the State Government's "*Action for Transport 2010 – An Integrated Transport Plan for Sydney.*" When recently launched at Parliament House, it presented to Government a way ahead for "*Action for Transport 2010 - for St George.*"

Both strategies recognise that continued growth of congestion and increasing concern over air quality is not able to be solved by improvements to the road system alone. Ecological Sustainability demands a co-ordinated and better use of public transport leading to less impact on roads, less congestion, improved road safety and less greenhouse emissions.

The Public Transport Strategies in these two case studies provide positive examples of the way both rural and urban Councils can play an active and persuasive role in determining the transport future for their communities.

CHILD FATALITIES AND INJURIES IN DRIVEWAYS: IDENTIFICATION OF CONTRIBUTORY FACTORS - ENVIRONMENT, BEHAVIOUR AND VEHICLES

Abigail Hall, Advisor Road Safety, Motor Accidents Authority

In 1999 the NSW Parliament's Child Death Review Team identified a particular area of concern, namely driveway fatalities involving toddlers.

The Review Team Report found that a total of 17 children have died in these circumstances in NSW since 1996. Four wheel drive or large commercial vehicles were involved in fifteen of these deaths. In addition to those children that died figures from the New Childrens' Hospital indicated that for the same period 32 children were admitted to that hospital alone having been severely injured in similar circumstances.

The Review Team Report recommended that the Motor Accidents Authority, in consultation with other relevant agencies:

- Develop targeted strategies including public education programs
- Commission research on preventive strategies such as the use of refractive panels, rounded mirrors and fenced shared driveways and
- If appropriate, make recommendations on standards to the Australian Vehicle Standards Board and the Australian Building Standards Board

In response to the recommendations of the Review Team Report the MAA established a broad based intersectoral working party of agencies with an interest and responsibility in this area including -Kidsafe NSW, RTA, NSW Health, New Childrens Hospital, NRMA, Institute of Early Childhood and the NSW Commission for Children & Young People. The MAA also commissioned Dr Michael Henderson to assist the MAA and the working party to develop a program to address this issue.

This paper will:

- Outline the recommendations of the Child Death Review Team Report in respect to driveway fatalities involving toddlers
- Provide an overview of the issues involved with particular reference to contributory factors including environment, vehicle and behavioural.
- Outline the activities, including research and results, undertaken by the MAA and relevant agencies to date

THERE'S MORE THAN ONE WAY TO SKIN A CAT

Catherine Parker (RTA) and Melissa Clark (RSO Tablelands Councils)

Local Government has established a strong partnership with the RTA and has a clear role in road safety particularly through the Local Government Road Safety Program. *Road Safety 2010* provides support for Local Government to further contribute to the delivery of road safety outcomes at the local level by developing effective and co-ordinated locally based road safety initiatives in response to the specific road safety needs of its local communities.

As part of the Local Government Road Safety Program the RTA assists councils in meeting the costs of employing a Road Safety Officer (RSO), and since the first RSO was appointed to Fairfield in 1992, the Council Road Safety Officer Program has expanded to now reach 83 NSW councils.

The RTA is now investigating avenues to assist smaller councils who cannot support a full time RSO position. This paper will outline the advantages of council participation in the Council Road Safety Officer Program, and will also discuss a range of alternative models for the employment of road safety professionals in local councils. These may include part time employment, officers employed full time with shared duties within a council or an officer employed across more than one council to address road safety regionally. Skinning the cat is one thing.....first we have to catch it! In other words, if a council wants to join the program, the RTA will find a way to make it happen.

©YOUTH ON THE MOVE

Jennifer Andrews, Cessnock City Council

Youth On The Move is an educational young driver program with the focus on improving attitudes by reducing risk taking behaviour and increasing hazard perception. Youth On The Move was developed for the youth of the Cessnock City Council Local Government Area

AIMS

The aim of the Youth On The Move program is to:

- a) Educate young and novice drivers about the issues and consequences of driving
- b) Improve road user behaviour and road safety attitudes
- c) Decrease the incidence of risk taking behaviour.
- d) Increase the awareness of drug & alcohol issues and standard drink information
- e) Increase the awareness of the consequences of acquired brain injury through road trauma
- f) Improve hazard perception
- g) Increase awareness in the areas of crash factors, insurance, licensing points
- h) Decrease the incidence of road rage

KEY STAGES

- To successfully gain entry to the program by meeting set criteria and attending an interview.
- Attendance at all six structured interactive road safety driver education sessions.
- Completion of session evaluation sheets at the conclusion of each week's session.
- Successful completion of a weekend Senior First Aid course.
- Completion of practical driving instruction including night, multi-laned, gravel and wet weather driving (if possible).
- Attainment of Provisional driving licence.

Participants are required to complete each stage of the program before progressing to the next.

EVALUATION

Newcastle University's Associate Professor Richard Heath - Head of Behavioural Science Faculty, has conducted research into the project as part of the evaluation process.

Results showed significant improvements in road safety attitudes in the participants of the *Youth On The Move* program compared to the control group of similar demographics. It also showed lasting benefits in the areas of alcohol education and crash consequences.

RESULTS TO DATE

Eight courses have been completed with 163 individuals participating. Out of these, all 163 have graduated.

Benefits to the applicant successfully completing the course are:-

1. Better educated in the area of Road Safety
2. More aware of hazard perception and crash avoidance.
3. Attainment of a Provisional Driving Licence.
4. Completion of a First Aid Certificate.

CONCLUSION

The Youth On The Move program has gained solid credibility in the community as an effective program to improve road safety attitudes and reduce risk taking behaviour among young drivers. Parents and carers are constantly approaching Cessnock City Council in regard to the timing of future courses. Promotion of Youth On The Move is effortless with graduates themselves great stalwarts in promoting the course throughout our community.

LEAD BY EXAMPLE

***Joe Pereira, Road Safety Officer, Blacktown City Council
for and on behalf of the Road Safety Officers of Blacktown, Blue Mountains,
Hawkesbury and Penrith City Councils***

Lead By Example is a pedestrian safety project that has transcended many and varied boundaries.

Its main aim is to encourage parents to extend the positive role modelling that occurs in so many everyday aspects of raising children to encompass safe road user behaviour as part of the daily routine.

Beginning in 1998 as an RTA-funded collaborative project in the Blacktown, Blue Mountains and Penrith Local Government Areas, Lead By Example soon spread to Hawkesbury and Parramatta City Councils, and now enjoys the ongoing support and collaboration of the RTA's Early Childhood Road Safety Education Program, Western Sydney and Wentworth Area Health Services, Kidsafe, the Catholic Education Office and the Department of Education and Training as well as literally hundreds of primary schools across Western Sydney. The momentum is relentless, and the diversity of major interagencies has ensured that Lead By Example retains freshness and dynamism as well as longevity.

Lead By Example began by targeting parents of children aged 5-12 via a parent education kit containing bookmarks, pamphlets posters and stickers, as well as a series of easy to reproduce school newsletter inserts. Gateway and footpath signage complemented the promotional materials which featured the most famous pedestrian of all, the road-crossing chicken. Phase 2 saw the launch of a kindergarten orientation kit which included information sheets for parents whose 4 or 5 year olds were starting school, and overheads which could be shown during orientation sessions.

Lead By Example is now on the verge of embarking on a third exciting phase into new areas yet again. A preparatory program is being developed for parents of 0-4 year olds, in association with the organisations mentioned above. A kit will be made available to Playgroup Associations, pre-schools, long day care and family day care containing games and educational material. Posters and leaflets will be distributed to library services, community health and community facilities.

The success of Lead By Example is primarily due to the commitment of its strategic partners. This has provided many opportunities and challenges; mostly positive, but with some negative experiences also. This paper acknowledges and explores the risks, but concludes that there are significant benefits in going beyond boundaries

FLEETSAFE – HOW TO IMPROVE DRIVER AND VEHICLE SAFETY IN COUNCILS

Dr Graham Brisbane, Manager for Road Environment and Light Vehicle Standards, Roads and Traffic Authority
Phil Sochon, contractor to RTA and author of the FleetSafe Report

Fleet safety has demonstrated significant savings in terms of crash costs and insurance premiums. For example, the NSW Police Service saved \$4M in insurance premiums after adopting a program that focussed on a safe driving policy, driver safety measures and incentives for managers to reduce insurance premiums. The 3M company also achieved a 6% reduction in crashes which produced savings of 36% in costs. Orica (former ICI) saved 28% and 35% in successive years which equated to nearly \$1M over two years. The RTA has backed an initiative in the Southern Sydney Regional Organisation of Councils (SSROC) to explore further the safety and cost benefits of fleet safety.

SSROC's twelve Councils together operate over 2,700 vehicles, operated by an estimated 5,900 staff. At the prompting of SSROC RSOs, and with RTA funding, SSROC developed the FleetSafe report which was launched in August 1999.

The goal of the FleetSafe project was to establish for each of the SSROC member councils:

- A model fleet safety policy that would significantly improve driver and vehicle safety
- Best practice guidelines that could be adapted to each council's unique requirements
- Guidance as to how the councils should go about putting the policy and guidelines into practice.

After the launch of the Report, RTA provided funding to help facilitate implementation of FleetSafe in the SSROC Councils. This has borne fruit as demonstrated by the fact that each of the 12 member councils has adopted the policy, and many have made significant progress on implementing the policy and guidelines.

This paper details some of the results of this work and other aspects of the success of FleetSafe projects.

WET OR DRY?

Rob Shaw, Director, Local Government Engineering Services Pty Ltd

For years Council engineers in rural areas have debated the merits of grading their roads with a watercart and roller (“wet maintenance”), or just a grader on its own (“dry maintenance”).

Although many engineers believed that wet maintenance was justified for the long-term life of the road, most were forced to continue regular dry maintenance due to limited funds.

In 2000, Gunnedah Shire Council engaged Local Government Engineering Services Pty Ltd to carry out a “Gravel Road Maintenance Audit”, with the aim of examining Council’s maintenance techniques for resheeting, patching and routine maintenance grading, and recommending methods of maintenance to maximise efficiency and cost effectiveness both today and in the future. One aspect of the audit was an examination of the merits of wet versus dry maintenance.

This paper outlines the methodology used during the audit, research and consultation, fieldwork, and evaluation – including cost analysis of alternative maintenance techniques.

A major conclusion from the audit was that wet maintenance leads to fewer grading cycles per year and fewer resheeting cycles over the life of the road. Although more expensive in the short term, the long-term costs are significantly less than for dry maintenance. While this may have been obvious to some engineers, the audit provided the economic evidence to justify the higher short-term expenditure to the elected members of Council.

**MANAGEMENT OF INFRASTRUCTURE PLANNING AND WORKS BY UTILITY
AUTHORITIES / SERVICES PROVIDERS – WITHIN COUNCIL ROAD
RESERVATIONS
OR
SOC IT TO THEM!**

Paul Anderson, Waverley Council

For a number of years the twelve member Councils of the Southern Sydney Region Organisation of Councils (SSROC) were concerned, like many others, about the conduct of Utility Authorities / Service Provider and their agents in the public domain when installing their plant.

Competition Policy now provides the basis for these organisations to seek open competition for restoration works which otherwise would have traditionally been done by local governments.

In August 1999 the NSW Streets Opening Conference (SOC) prepared a Model Agreement setting down the basis on which councils and utilities can establish their working relationships.

The SSROC Public Works Management Group have advanced this issue to the point of developing a legally binding contract between the parties.

The purpose of the contract is to clarify important issues of concern to local government including:

- Rights and responsibilities of the parties
- Quality Assurance
- Safety Management
- Environmental protection
- Defects liability periods and warranties
- Specifications

This presentation will explain the direction adopted by Public Works Managers in the Southern Sydney Region and the benefits to local governments by entering into such agreements based on the SOC Model.

MEASURING THE ROAD MAINTENANCE FUNDING GAP

Wilton Boyd, Technical Services Director - City of Tamworth

George Giummarra, Principal Consulting Engineer - ARRB Transport Research

City of Tamworth commissioned ARRB Transport Research recently to assist Council in deciding what was the appropriate level of annual maintenance funding of its local roads based on an established scientific methodology on how to measure the '**funding gap**'. The study was to provide Council with an independent assessment of the City's road conditions and maintenance strategies to measure if the current level of maintenance funding was adequate to sustain the network to a satisfactory level of service.

The study involved a survey of community levels of service expectations on various road conditions and to establish appropriate ride quality intervention levels. Included in the study were surveys of existing road roughness and rutting conditions across the road network and the analysis of this data using a pavement life cycle costing model for local roads using both road user and maintenance cost to arrive at optimal conditions.

Based on the network level pavement roughness conditions and community expectations the study established the annual maintenance funding required to sustain the roads to acceptable conditions. Alternatively the study presented, for the existing annual maintenance budget what the resulting level of network road roughness would likely turn out to be.

The study results provided Council with various annual levels of funding required for different sets of ride qualities. The results were all based on local pavement conditions, existing traffic volumes, current maintenance cost rates and community levels of expectations. This information proved most valuable for the engineering staff to explain and support future maintenance strategies to Council and the level of annual maintenance budget required.

The paper will present the key findings from the various surveys conducted, the results obtained from the life cycle analysis and how the study results was successful in assisting Council decide on the appropriate annual allocation for road maintenance.