

# Roundabout

Newsletter of the IPENZ Transportation Group

*Take me to*

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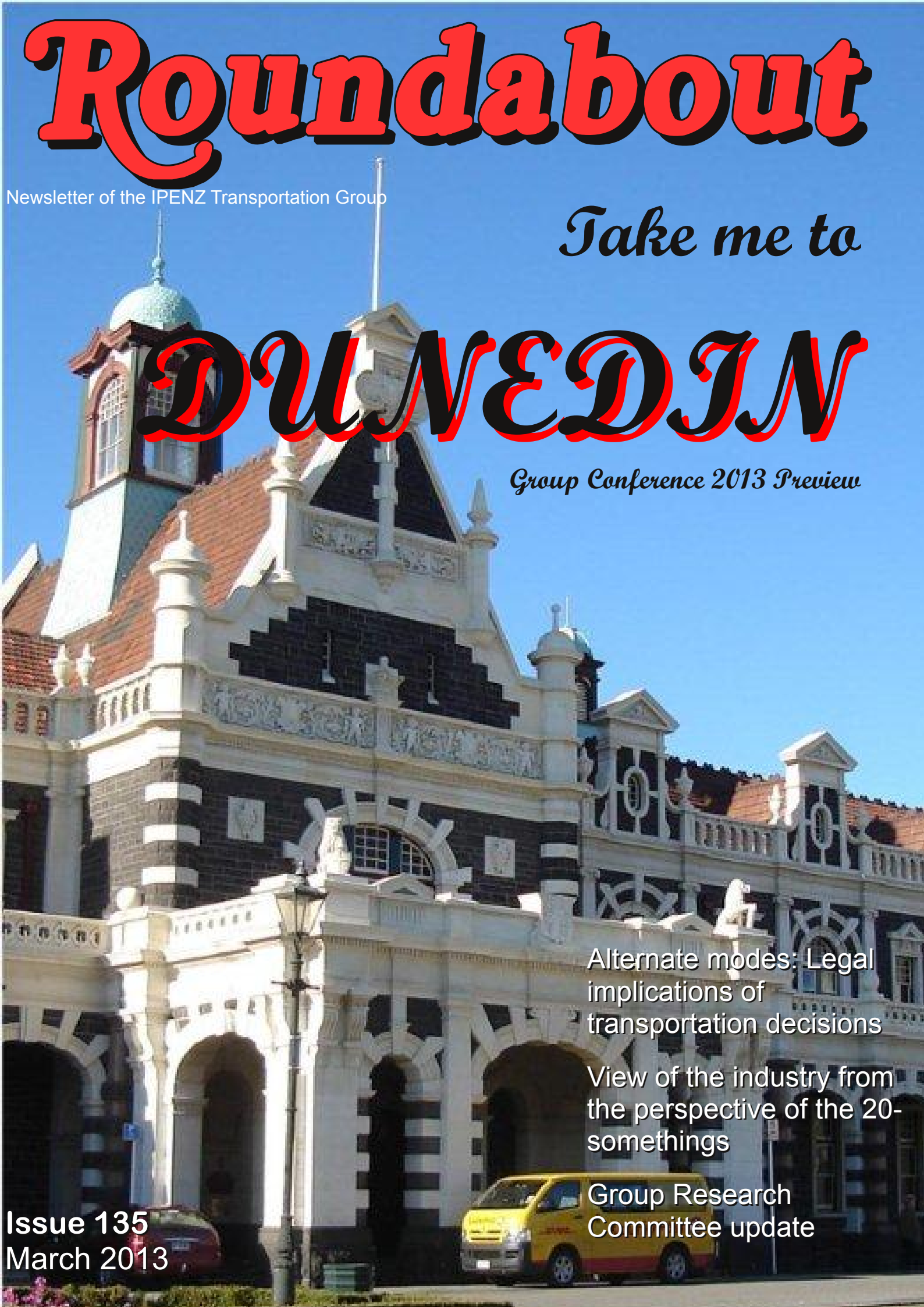
*Group Conference 2013 Preview*

Alternate modes: Legal implications of transportation decisions

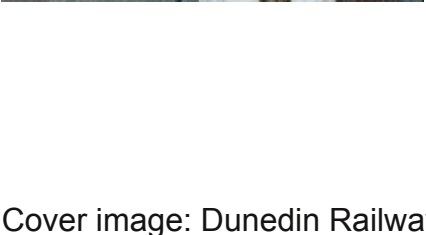
View of the industry from the perspective of the 20-somethings

Group Research Committee update

Issue 135  
March 2013



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Cover image: Dunedin Railway Station

**ISSN 0113-9053**

**Roundabout Issue 135 March 2013**

It's two years since the devastating 22 February Christchurch earthquake and a number of structural and geotechnical engineers have been busy ever since. Transportation professionals are increasingly engaged in the planning and operational environment of the rebuild. The westward shift in traffic has caused noticeable problems with changed traffic patterns straining traffic light operations, especially those without right turn arrows, more of which the authorities appear to be installing in response to delays and resident comments.

The delayed census this month will help show changed population patterns in Christchurch and elsewhere. In many areas it will confirm declining population and associated decline in traffic growth and lessen the need for major new transport projects.

## Opportunities

With councils cutting back on infrastructure expenditure due to the need for earthquake strengthening of public facilities, increased insurance premiums and leaky home liabilities, the future of transport and roading consultants is looking increasingly challenging. This situation is worsened in many parts of the country by the lack of NZ Transport Agency spending outside of the Roads of National Significance and while the Government is funding

to increase the engineering (and science) tertiary student intake, there appears to be a real chance of our current (and future) members being made redundant or put on a shorter working week as occurred in the relatively recent GFC induced recession.

I have heard it said that the majority of consulting professionals moving overseas for employment would be unlikely to return to NZ should there be in due course an upsurge in demand for their talents. It is therefore to be hoped that organisations such as ACENZ (with whom IPENZ often collaborates), Ingenium (a Collaborating Technical Society of IPENZ) and other institutions will raise (again?) with the Government the impacts of the current fiscal and other constraints, in order to provide stability in the transport professional services industry before the expected upsurge eventuates.

## Singapore rail expansion plans

The Singapore Land Transport Masterplan (2013) aims to double the existing rail network to bring 80% of households within a 10-minute walk of a rail station by 2030, costing a mere NZD70-100 billion. Plus within the next 5-7 years a further NZD670 million is planned for other schemes, comprising \$320 million for

the Walk2Ride pedestrian shelters programme, \$60 million for fitting pedestrian overbridges with lifts, and \$290 million for rail noise barriers. Considering the size of Singapore with a planned 6½ (previously 5½) million permanent residents (and considering the low cost of umbrellas), this is quite impressive.

## Conference Autumn 2014

The Central branch has formally kicked off organising the conference to be held in Wellington (IPENZ centenary, 'Prosperity through ingenuity' theme). I have been liaising with our sub-groups and other industry representative bodies re them holding a parallel session to augment their annual conference/seminar/workshop. This might be by way of a third day and we will be seeking feedback from the Dunedin conference about the reduced two day programme and canvassing the idea of the good



"Before I read the investment committee's report - I would remind everyone that I never asked to be on this damn committee."



part of one day being held over the weekend, as some conferences and company training courses regularly arrange.

I hope that our ~80 current overseas members will consider coming back for Autumn 2014 to attend and present at the conference, and that our 80+ students will make a short trip to the "coolest little capital in the world" (actually it's been an amazingly hot summer).

### **Design and Planning Guides**

We are a small country and rely heavily on a few selective guides and standards, predominantly from NZ and/or Australia, with NZTA being the main New Zealand wide repository along with local Council engineering standards and district plan requirements.

My recent Saturday exploration of the NZTA website pertaining to the Traffic Control Devices (TCD) manual revealed some interesting information:

- Part 1 General requirements for traffic signs, 1st ed, Oct 2010
- Part 2 Direction, service and general guide signs, 1st ed, Jan 2011
- Part 3 Advertising signs, 1st ed, Jan 2011
- Part 8 COPTTM, 4th ed, Nov 2012
- Part 9 Level crossings, 2nd ed, amend.1, Dec 2012
- Part 10 Motorways and expressways, Jun 2009 & Feb 2010
- Part 13 (to become Part 7) Parking control, Dec 2007

It is pleasing to that the above are pretty well up to date but what about the other three Parts?  
<http://www.nzta.govt.nz/resources/traffic-control-devices-manual/tcd.html> informs that Parts 4 and 5 pertaining to general use at intersections and mid-block were planned for 2012 and Part 6 Speed Management for 2013. In addition there are three specifications: Signs (Aug 2009), Traffic signals (planned for 2011), and Markings (under consideration).

With respect to planning, the current Planning Policy Manual (PPM) as confirmed in NZTA's register of network standards and guidelines, is still version 1, August 2007 although I recollect an update planned for 2011 (App 5E cost sharing amendment Oct 2008), The Planning & Investment Knowledge Base (August 2011) replaced the Planning, programming and funding manual (Aug 2008). NZTA provide a good service for anyone to sign up to receive email updates about specific documents (Austroads also provide a RoadWatch service <https://www.onlinepublications.austroads.com.au/member/lists> and update to Austroads Guides).

I am confident that NZTA will take the opportunity to mention the above, plus their EEM, State Highway Geometric Design Manual (draft Dec 2000) and High Risk Intersection Guide (interim

draft April 2011, consultation draft Mar 2012) update plans, in their Tuesday afternoon session report at our 2013 Conference. I thank them in advance for doing so and for informing how, as a professional body representing around 1200 members, we can be a constructive part in the continual improvement and updating processes within NZTA.

Lastly, I always welcome feedback on any matters you might wish to raise, either indirectly via our excellent branch chairs and secretaries, or directly to me in confidence. I am hopeful to get the

**"I always welcome feedback on any matters you might wish to raise"**

opportunities to present to our branches on suitable topics as the opportunity arises – any topic suggestions are welcomed! Look forward to catching up with you at the Dunedin confed Dave Wanty, Group Chair.

**David Wanty, Chair**  
**IPENZ Transportation Group**



Roundabout is the newsletter of the IPENZ Transportation Group, published quarterly. It features topical articles and other relevant tid-bits from the traffic engineering and transport planning world, as well as details on the latest happenings in the NZ transportation scene. All contributions, including articles, letters to the editor, amusing traffic-related images and anecdotes are welcome.

Many thanks are due to Opus International Consultants (see their advertisement on p34), who sponsor the printing of Roundabout for those members who prefer to receive a hard copy.

Correspondence welcome, to [bridget.burdett@tdg.co.nz](mailto:bridget.burdett@tdg.co.nz)

Or c/o TDG, PO Box 1261, Hamilton 3240

Roundabout is published around the 15th of March, June, September and December each year.

Contributions are due by the 5th of each publication month.

To join the IPENZ Transportation Group, fill in an application form, available from the Group website:

<http://ipenz.org.nz/ipenztg/files/TG-App.pdf>



[www.twitter.com/ipenztg](http://www.twitter.com/ipenztg)



[www.facebook.com/ipenztg](http://www.facebook.com/ipenztg)

Perhaps it's the nature of our calling as transportation professionals to be looking always to improve, and therefore to be constantly pessimistic in our hunt for system failures. There's not much that's interesting about a safe, free-flowing piece of road - at least not much worthy of fee-paying investigation.

This problem-based outlook can lead us to ignore, or at best underacknowledge, the advances that have been made and the improvements in objectives that have been realised in the course of our work. It doesn't take much looking back to note that over the last few decades, road safety has improved however it is measured; that (by and large) public transport is more frequent, more reliable and more attractive; that our streets are increasingly seen as places as much as thoroughfares, and that walking and cycling are an increasingly valued mode in a healthy transport system.

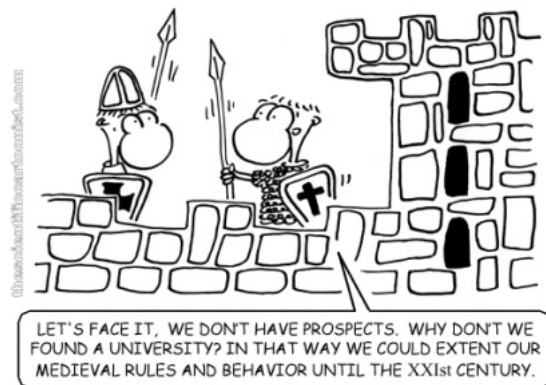
If we go back even further, the greenness of our grass is even more apparent.

Some 700 years ago, the Statute of Winchester decreed that all roads should have clearzones. That is, it was required that space be cleared

200 feet either side of a road carriageway - but not to help errant horses recover their path. The decree was to mitigate against the threat of ambush by brigands who liked to lurk in the bushes.

We don't need to design against roadside brigands any more. There are advances in engineering and society happening all the time, that can be ignored in our leap from

Somewhere in Europe, XVth century



problem to problem. Just as it is useful in research to study the effects of an intervention after its implementation, so too would it be useful for our road controlling authorities to invest a little of their project budgets in a happy analysis of the realised benefits of their funding.

Perhaps you could add value to your next project by providing such a retrospective analysis, before looking again for a transport problem to be solved.

**Bridget Burdett,**  
**Roundabout Editor**

Dear Editor

## Police Pursuits Policy

I often wonder how the regular occurrence of death and serious injury following police pursuits fits into the road safety picture. Should these deaths be subtracted from the National Road Toll so as not to undermine our efforts and the taxpayer money invested in road safety? There are many compelling reasons not to pursue vehicles at high speed. The economic and social costs must be huge. Then there are

the ethical issues. Should the penalty for property theft or minor traffic offence be death or injury? If there are passengers in the car being chased or other road users involved, why should they be placed at risk? Surely there are technological solutions to apprehending fleeing drivers that don't involve raising the risk by pursuing them? Should the TG be leading the way in a national debate on this issue?

Brad Hayes

*What do you think? Letters to the editor are welcome: [bridget.burdett@tdg.co.nz](mailto:bridget.burdett@tdg.co.nz)*

*Members are advised that due to the merger of Gabites Porter Consultants with Traffic Design Group, of the GPC Hamilton office, John Winter is to retire and John Kinghorn is to move to the Hamilton office of AECOM Ltd.*

*John Winter*

## Specialist transportation consultancies join forces

National transportation engineering specialists Traffic Design Group and Christchurch-based transportation planning firm Gabites Porter Consultants are joining forces. The two privately-owned companies are combining their complementary skills under the one brand: TDG.

“Essentially we’ve brought together New Zealand’s largest transportation planning firm with New Zealand’s largest transportation engineering firm,” says Traffic Design Group Managing Director Brett Harries.

Founded in 1950, Gabites Porter Consultants is known for its specialist skills and abilities in the development and application of transport models throughout New Zealand and in Australia.

Traffic Design Group, established in 1976, is



known for its experience, expertise and reliability in meeting a broad range of transportation engineering and analysis needs. It serves both private and public sector clients around the country, and the Pacific Rim. Gabites Porter Consultants Director Grant Smith says the move enhances the future development of the long legacy established by both companies in client service. “Our businesses are a great fit. The new combined TDG will deliver our clients a greater breadth of transportation engineering experience and capability. Similarly, TDG will provide Traffic Design Group clients with access to greater depth in transportation planning and modelling.”

See [www.tdg.co.nz](http://www.tdg.co.nz) for more information.



# MEMBER NOTICES

## Barbara Sabey

Barbara Sabey was a well known road safety expert who worked for the Transport Research Laboratory in England. In 1984 she spent a year in New Zealand and founded the programme we know today as Crash Reduction Studies.



*Barbara Sabey and Ian Appleton*

This note provides information about Barbara which I received recently. The news is intended for those who knew and worked with Barbara during her visits to New Zealand especially in the 1980s. Instead of trying to contact those people individually, I thought it is simpler to put this note in Roundabout.

I have been in regular contact with Barbara over the years. We exchanged Christmas cards each year, and when I visited England I visited her at her home in Sunningdale.

So it was with dismay that this Christmas I received an email from Barbara's neighbour, who told me that Barbara suffered a severe stroke in September 2012 and was in a nursing home. Yesterday I received another email from her neighbour telling me that Barbara suffered another stroke and passed away on 23rd February 2013.

Barbara made a significant contribution to road safety in New Zealand. I would like to see a tribute to Barbara and her time here in the next edition of Roundabout. I am happy to coordinate the compilation of such a tribute. If you are interested in contributing then please send me an email [appleton@xtra.co.nz](mailto:appleton@xtra.co.nz).

It is likely that this note will not reach all the people who knew and worked with Barbara in New Zealand. If you know such a person, then please can you convey the contents of this note to that person?

Ian Appleton 2nd March 2013

## Update on 2Walk & Cycle Conference

Since the previous successful 2Walk&Cycle national conference in Hastings (Feb '12), some of you have been wondering what has happened to planning for the next one. Fear not, work has been underway behind the scenes; unfortunately it is likely to be a little later than hoped.

The original idea was to hold the next conference at the end of 2013 and some hosting bids were received for this. However, more work was needed to develop a successful conference proposal from these, and so the organising committee has gone back to the drawing board for some new bids from a range of venues. Mindful of other coming events, such as the 2014 IPENZ Transportation Conference and the VeloCity Global cycling conference in Adelaide next May 2014, it is likely that the next conference will now be in the second half of 2014.

We are still interested in more people who would like to help contribute to the running of this event, in any small way. If you're keen, contact Uli Neumann at NZTA

**Ulrike.Neumann@nzta.govt.nz**  
**ph.04-8946460**



# ALTERNATE MODES

**Amanda Douglas** is a Partner at Wynn Williams Lawyers, a 19-partner firm with a full team of 71 lawyers and support staff. Amanda's primary area of practice is in Resource Management and Environmental Law, and in the related area of Local Government Law. She carries out work, at council and all Court levels, involving resource consent applications, district and regional plan preparation and reviews, prosecutions, enforcement, and declarations. Amanda's expertise extends to providing resource management advice for due diligence, overseas investment applications and other commercial arrangements, and litigation involving resources such as water and land.



Amanda will be presenting a paper at the IPENZ Transportation Group conference in April 2013.

## Proposed RMA Changes: How will they affect your transportation assessments?

### Introduction

The Resource Management Reform Bill 2012 was introduced on 5 December 2012. It had its first reading in Parliament on 11 December 2012 and submissions will now be considered by the Local Government and Environment Committee. It is expected that the amendments will become law fairly quickly, given that they include changes to the Auckland Plan process.

The Bill is part of the phase 2 RMA reforms. Phase 1 resulted in the Resource Management (Simplifying and Streamlining) Amendment Act 2009, which contained a number of amendments aimed at improving the operational efficiencies of RMA processes.

The Resource Management Reform Bill 2012 is a part of the Phase 2 reforms and provides:

1. six month limits on Council processing of medium sized consents;
2. a one off streamlined hearing process for the first Auckland Unitary Plan;

3. a choice for major regional projects to be consented directly through the Environment Court;

4. enhanced requirements for Councils, designed to ensure that Councils base their planning decisions on robust and thorough cost benefit analyses; and

5. other amendments aimed at improving RMA processes.

### Six Month Consent Time

One of the primary objectives is to introduce a six month time frame to streamline the consenting process. Whilst the explanatory note states that this six month time frame will apply to "medium sized" projects, there is no definition of "medium sized" in the Bill.

Putting that aside, the Bill intends to ensure that resource consents are processed within a six month time frame. To achieve this, the Bill makes changes to the time periods for notification, submissions, evidence exchange and the completion of the hearing (Clauses 97-100).

### Auckland Combined Plan

The Bill also amends the Local Government (Auckland Transitional Provisions) Act 2010, by making significant changes to the process for the first combined planning document for Auckland Council under the Resource Management Act.

This involves a one off streamlined process, meaning that there will be only a single hearing on the Auckland Combined Plan (Also referred to as the Auckland Unitary Plan).

The hearing will be conducted by independent Commissioners appointed by the Minister, with the only ground of appeal being on points of law to the High Court. This is unless the Auckland Council rejects the hearing panel's recommendation, in which case parties will be able to appeal those parts of the decision to the Environment Court.

The Auckland Council will still be responsible for the preparation and notification of the proposed plan. The first period for submissions will



run for 60 working days, with a further submission period running for 30 working days (New Section 120).

The Bill proposes that the Plan has legal effect, in that it must be taken into account by Auckland Council when considering resource consent applications, once the Council has



*"Do you promise to pay the bill, the whole bill and nothing but the bill?"*

issued its decision following the hearing on the panel's recommendation.

The independent hearing panel will be appointed by the Minister for the Environment and the Minister of Conservation, in consultation with the Auckland Council and the independent Maori Statutory Board (New Section 155). The panel will comprise 3 – 7 members, led by a chair person.

At the hearing, parties may question other parties or witnesses and cross-examine them. The Council, itself, must attend the hearing sessions to: assist the hearing panels; to clarify or discuss matters in the proposed plan; to give evidence; to speak to submitters, or address issues raised by them; and, to provide any other relevant information as requested by the hearings panel.

### Direct Referral

The Bill attempts to increase applicants' access to the direct referral process in the Environment Court. It provides that, where the value of investment involved in a

particular consent application or designation requirement meets or exceeds a specific threshold, the consent authority cannot reject the request for direct referral and must directly refer the application to the Environment Court. This is unless exceptional circumstances exist.

The threshold and exceptional circumstances will be specified in regulations, yet to be prepared. There will be no discretion for the Environment Court to reject a directly referred application (Clauses 13-15).

### Section 32

The Bill proposes amendments to Section 32, including "more robust cost-benefit analysis". This will involve the quantification of the benefits and costs of the environmental, economic, social and cultural effects anticipated from the implementation of the proposed provisions. The Bill introduces an additional requirement to assess the opportunity costs to economic growth that are anticipated to be lost as a result of the proposal. Interestingly, there is no requirement to analyse the opportunities for economic growth that are likely to be gained from the proposal. For traffic and other transport assessments it will be easier to quantify the benefits and costs than it will be for some other disciplines. The details of the Section 32 report must be commensurate with the scale and significance of the effects anticipated from the proposal.

### Section 42A Reports

The Bill proposes that section 42A is amended so that a report may adopt any information, and not just an assessment of environmental

effects, included in an application for a resource consent.

### Stopping the Clock

The clock will only stop for the first further information request, provided it is made before the Council's notification decision. Even then, the clock can only be stopped three working days after the further information request. Therefore, if an applicant quickly provides the information the clock won't stop.

The Bill (New Section 88B) tries to clarify how the clock is stopped for certain processes and how deadlines are consequently differed. A number of definitions are included, together with a table to assist in these calculations. This would apply to deadlines for:

- a. notification;
- b. a consent authority report on direct referral to the Environment Court;
- c. the commencement of a hearing of a non-notified application;
- d. the completion of a hearing for a notified application;
- e. notification of the decision of a non-notified application where no hearing was held; and
- f. notification of a decision of a notified application where no hearing was held.

### New Application Requirement

Section 88 will be amended, and a new Schedule 4 inserted into the Act. Schedule 4 covers Assessment of Environmental Effects ("AEE") requirements and more general matters for inclusion in a consent application.

The amendments require that the listed matters "must" be included in AEEs, whereas the current requirement is that the application is "in accordance with" Schedule 4. Applications must include Part II matters, assessments against Section 104(1)(b) statutory documents, as well as specific information for certain applications.

As a part of this, the application must demonstrate why any associated permitted activities are permitted. Additional information for subdivision and reclamation applications are also outlined, as well as the information required, and matters that must be addressed, in an AEE.

The consent authority will have 10 working days, not 5, to reject an application for being incomplete. If the information in the (new) Schedule 4 is not included, the application may be rejected.

### Sections 6 and 7

This Bill does not include the significant amendments that are proposed to Sections 6 and 7 of the RMA. Further work on those more significant amendments are expected in 2013.

These amendments focus on a more structured approach, from defining the matters to be included in a resource consent application, to the timeframes and the processes. It is all aimed at removing the 'wriggle room' for both consent authorities and applicants, which has led to applications languishing for months. This will mean that all persons involved in applications – whether it is a "medium sized" application within a six month consent period, or a standard application – should prepare well and ensure that all matters are attended to before an application is lodged. That will allow for the smooth processing of the application and compliance with the proposed amendments.

However, it is not guaranteed that

these amendments will be implemented as drafted in the Bill, it is highly likely that the general concepts will be enacted, after the Bill has been through the Select Committee. A number of issues with the Bill have been identified by submitters, so changes are likely, albeit that there may be some drafting amendments. It is, therefore, a good idea to keep the proposed amendments in mind, and to consciously think now (including while preparing applications or reports in the meantime), how you might approach these tasks differently when the amendments are enacted.

**R**

### Significance for Transport Engineers

If implemented, these amendments will result in changes to existing practices, including:

- a. If your client doesn't want the clock to stop on processing times, they should provide any requested further information within three working days of the request being made.
- b. Care will need to be taken to ensure that all information required by Schedule 4 is included both within traffic impact assessments forming a part of applications, and in the applications themselves. Before preparing any assessment that will form part of a resource application, you should read Schedule 4 and ensure that all relevant aspects are covered off in your report.
- c. If an activity that forms a part of the operations is a permitted activity, the reasons for that will need to be outlined in the application. This practice was being followed in many cases but will need to be adhered to if the legislation is implemented in this form.
- d. Transport input into Section 32 reports will need to adhere to the new analysis requirements.
- e. Those of you working for Councils will need to be familiar with, and work within, new timeframes when assessing and reviewing applications or parts of applications.
- f. If preparing Section 42A reports, you may adopt any information in a resource consent application. This will prevent reproduction of information already provided.
- g. With regard to the Auckland Plan process:
  - i. You will need to prepare your evidence to Environment Court standards at the Council level. There will only be one chance to "get it right", and no second chances in the Environment Court. This will demand a more proactive approach.
  - ii. You will need to be aware of the change in dynamics created by this very different hearing regime. There will be greater onus on submitters, and the Council, to present a case of a very high standard to the hearings.
  - iii. The ability to allow cross-examination will mean that witnesses providing evidence will essentially need to be experienced in the Environment Court. It may remove the ability for less experienced experts to be involved as clients opt for seasoned experts to provide their evidence.
  - iv. Witness conferencing is also specifically provided for, meaning that experts may be encouraged to meet and try to establish a common view on some issues. Traffic and transport evidence is amenable to this approach.

# MEMBER CONTRIBUTION

## A QUANTUM THEORY OF HIERARCHIES

**Bill Barclay**

### Barclay Traffic Planning

Roading hierarchies based on function have long been a cornerstone of traffic management - the idea that road networks should be configured to separate access and through movement functions as far as possible. Hierarchy thinking can be applied to a lot more than just function, although instead of having a continuous spectrum from one extreme to the other, many hierarchies are characterised by discrete steps needing a quantum leap from one level to another. Examples are shown in Table 1.

Mode	Vehicle	Typical cost (\$)
Air travel	Jet airliner	100,000,000
Rail	150-seat electric	4,000,000
Bus	Suburban bus	300,000
Car	Small to medium sedan	30,000
Bicycle	Commuter cycle	1,000
Walking	Pair of shoes	100

Table 1: Hierarchy of Passenger Transport Modes

Table 1 shows transport modes ranked in order of cost and sophistication, starting with walking at the bottom and ending with air travel at the top. Capital cost has been used as the indicator variable but in general it correlates with increasing operating cost and decreasing flexibility. Individual figures are debatable but the overall pattern is not: each step up the hierarchy costs at least an order of magnitude more than the previous level. The hierarchy can be used as a basis for planning, with the lower-ranked modes exploited first, and progressive use of the higher modes. Our cities long ago outgrew

walking and cycling as major transport modes, and must also depend on cars and buses. The largest cities also need rail services, as Auckland has found.

### Parking

Central business districts of most cities depend heavily on cheaply-developed surface car parks. As development proceeds however, parking demand increases at the same time as the amount of vacant land decreases, and eventually there will be a need for multi-level parking. Economic theory might suggest that at this point prices will rise to a level that supports the new cost structure, however in practice

it may be some time before fees adjust to the new level, especially if the total parking resource is still dominated by surface parks. It is almost inevitable therefore that the pioneer parking building in a city will lose money. It still needs to be built however, if development in the CBD is not to be constrained by a shortage of parking.

### Roading form

Closely related to roading function is its form, ranging at one extreme from a farm track or private driveway, to full motorway standard with dual carriageways and grade separated connections. Somewhere in between are two-lane roads, in particular the two-lane rural highways which are the backbone of New Zealand's state highway network. Once again there is a clear hierarchy of cost. A farm track can be built to minimal standards of width, alignment and paving. Two lane highways are built to higher standards, but at-grade intersections and direct access mean the

roads are still flexible in their function and relatively economical to build. Not so for multi-lane roads. The motorway builder is faced not only with construction of costly interchanges but also with a need to upgrade the secondary network so traffic can be distributed between interchanges and the surrounding land.

The quantum leaps in cost and complexity from one level to another may not necessarily be matched by benefits. Whatever its virtues cost-benefit analysis has its limitations, and may not distinguish between situations where small incremental improvements will suffice, and those where a quantum leap to a new roading form is the only really comprehensive solution.

In planning for passenger transport, parking and road form, hierarchies can be identified, each step being perhaps an order of magnitude more costly and less flexible than the previous one. While it is important to make full use of lower levels before moving to higher ones, the time will come when incremental solutions no longer work and there is a need for a quantum leap into a new regime. Greater cost and complexity is part of the price of growth, and of breaking free of inherent limitations of the previous mode. Hierarchy thinking of this type should be a much more rational basis for planning transport infrastructure than alternatives, many of which are based on factors such as apparent "green" credentials of transport modes, commercial viability of car parks, or incremental improvement of a roading form.





**Neil Caughey and Aaron Washington** are young engineers in Beca's Transportation team. They talk here about life and work, and their experiences of working in New Zealand's transportation industry.

*From left: Neil, Aaron and friend experiencing authentic New Zealand culture*

**R**Why did you decide to come and work in NZ?  
NC: My career in traffic and transportation engineering began after completing a master's degree from a UK university. I then spent a number of years bedding into the wonderful 'world of work' in a global consultancy in the UK before decided to look overseas. Through discussions, seminars and industry literature I was always been given the advice that overseas experience would be beneficial and broaden my horizons. The second, and I feel equally important reason, was to experience living

similarities to the UK that I would not be out of my depth when I touched-down, yet enough variation that I would learn a great deal.

**R**Did you find it easy to get a job?

NC: The internet is a great thing – it was surprisingly simple to find out the main organisations working to improve the country's road infrastructure (both government and private organisations) and the strengths of each. I had enjoyed working for an global consultancy in the UK and therefore decided to focus my attention

transportation work (the stuff you get involved in) and transportation generally (the way our towns and cities are organised and linked)?

NC: The differences between New Zealand and the UK range from non-existent to significant. The UK had always been home so there was an immediate shock walking around New Zealand's streets. My first impression was the width of the tree-lined streets and relatively spacious CDB streetscape. The outlying suburbs and rural areas are also noteworthy for their intelligent land designations, and more importantly the planning and retention of road designations from several decades earlier. It is clear that the road network was planned with the future in mind, rather than the UK's regular band-aid treatments for the current issues.



*Neil Caughey amongst the winners in Auckland*

among a different culture to that which I'd been brought up. Previous travels to New Zealand were a valuable eye-opener, and planted the seed in my mind that I should return to live and work in Aotearoa. Together, the ambition to work overseas and cultural-draw of New Zealand meant that it was the ideal country to apply for work. Online reading indicated that the New Zealand transport scene (and associated policy and practice) appeared to offer enough

finding a suitable consultant operating in New Zealand.

When I had an idea of a potential employer I was fortunate enough to speak with the right people reasonably quickly, and so began a string of phone interviews. The daunting part was signing the dotted line!

**R**What's your impression of the differences between NZ and the UK in terms of

My experience of driving in a New Zealand city is one of relative calm and serenity compared to many journeys in UK cities. In my opinion, passing through Hamilton in the evening peak is relative child's play. The average kiwi road corridor is golden – wide vehicle lanes, cycle lanes, appropriate planting, berms and set-back buildings give the impression of space. In contrast, UK road space often appears narrow and constricted, with buildings seemingly on top of the kerb, limited shoulders and parking available for Smart cars only. The reality is that the UK has long-since used up its clever designations and free space – something which you have to accept and work with as a transportation engineer.

**R** What have been your favourite NZ

experiences to date?

NC: My role has been refreshing in New Zealand, and I've benefitted greatly from working on a diverse range of projects. Working in a large team previously often restricted the type of projects I would work on, whereas being part of a small team in New Zealand causes all sorts of wild and wonderful projects to land on my desk. Above all I have enjoyed working on one of the Roads of National Significant (RONS) projects in Tauranga. The project has allowed me to carry out empirical and microsimulation modelling of various intersection types, sketching design options for stakeholders, initial economic assessment of the options and reporting on the benefits and drawbacks of each. The project is truly multi-disciplinary and has allowed me to learn a great deal from experts in the geotechnical, planning and environmental fields.

**R** Are you working towards professional competence (CPEng)? How are you finding that process?

NC: I have attended a number of seminars and meetings on the CPEng process and it is something which I would like to work towards imminently. The element system appears to maintain a relatively simple process, and is sympathetic to applicants showing experience in either a broad collection of small projects, or a limited number of large long-term projects. I think attaining professional recognition will be an important step for many engineers in the coming years as more employers are seeking



*A young Aaron Washington gets to grips with personal protective equipment*

professionally recognised employees. I feel I am reaching a level where I can confidently demonstrate my professional experience and therefore would like to be recognised within the industry in the near future.

**R** You started part-time study last year. Why did you decide to start the MET program?

AW: Well there were a lot of reasons really... but I think ultimately the main reason was that I actually missed being a student. When I first finished my Civil Engineering degree at Canterbury Uni, I never thought that I would want to go back to university and do anymore study. But, after a year of working as a Transportation Engineer for Beca in Tauranga, I soon realised that I wasn't ready to entirely give up "living the dream" as a university student and wanted to keep learning. In my time working for Beca, I have been lucky enough to be involved in wide variety of transportation projects and have developed an appreciation of the complexities and challenges that they involved. This also gave me an awareness of how limited my undergraduate was (having primarily focused on structural papers in my final year). I had heard a bit about the MET program during my years at Canterbury, through being taught by both Glen Koorey and Alan Nicolson in my undergraduate study and decided that the programme would provide me with a heightened level of technical knowledge.

**R** What do you think is the best part about doing more study?

AW: I think the thing that I have enjoyed the most about doing more study is seeing how beneficial it has been to my career as a consultant. I've been able to apply knowledge within my day to day tasks that I wouldn't normally have been able to do. This has allowed me to feel as though I am contributing more useful input into projects.

**R** Have you thought about doing any non-engineering papers as part of your Masters?

AW: To be honest I haven't looked into non-engineering papers. I've currently only look at those offered as part of the MET program. I did some non-engineering papers as part of

my BE(Hons) and have found that the concepts I learnt have helped me in my career as an engineer. I do believe that the skills we learn as engineers are universal and have many uses within all facets of life. The papers I have done so far have however shown me how diverse Transportation Engineering is and how relevant other qualifications and skills are to the industry. In particular, I have seen the crossover in relation to psychology and economics.

**R** Any thoughts about a research project?

AW: At this stage I have not decided on any specific topic that I want to research. But, I am interested in probably doing my MET project in something related to Road Safety. I did not do a research project as part of my undergraduate study. This will be my first experience of academic research; something that I am both nervous and excited about.

**R** What do you think about presenting your research project or project work at conferences (scary or exciting)?

AW: I think it is a wee bit of both. I've never been particularly comfortable at public speaking, but do feel that it is an essential skill to have and something that you can only get better at if you are willing to try. I therefore think the opportunity to present a research project is a great opportunity for anyone willing to put their ideas and views out there.

**R** What do you think have been the hardest aspect about starting as a graduate in the NZ Transport Industry?

AW: I think the hardest thing I have found being a graduate engineer was the level of both oral and written communication skills you need. Going through university I had a perception that calculations and equations were more important. Once I started working I realised how important it was to communicate effectively the work that we undertake for our clients.

# CONFERENCE PREVIEW

**Collaboration**  
Transporting us through



**IPENZ**  
**Transportation**  
**Group 2013**  
**Conference**

Forsyth Barr Stadium,  
Dunedin, 14-16 April 2013  
www.ipenztgconf2013.co.nz



**Sunday 14 April 2013**

**Draft Programme: Subject to Change**

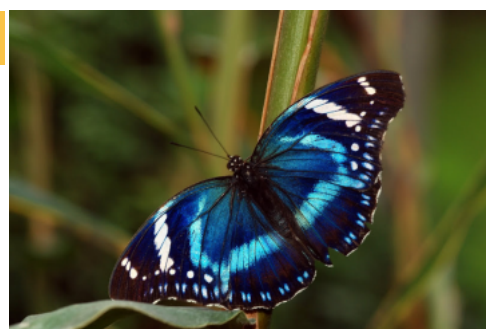
## Registration Desk Opens at the Forsyth Barr Stadium with tea and coffee

Tours and visits (self guided)

Gas Works Museum, Toitū Otago Settlers Museum, SH 88 Shared Path, Heritage Tours, Double Decker Bus and others. Check the website (Social Programme page) for more details.

## Welcome Function at Otago Museum

The Welcome Function will be held at Otago Museum and delegates will be able to visit a truly enchanting venue - Dunedin's only rainforest! Enter a lush, living, tropical environment and come face to face with some of nature's most beautiful butterflies. Hundreds of these enchanting creatures roam free all around you – some even stopping (on you) to say hello! You will also get an opportunity to visit the Southern man exhibition. Canapés and finger food will be served.



**Monday 15 April 2013**

## Registration Desk Opens at the Forsyth Barr Stadium with tea and coffee

Greg Ellis, MC

IPENZ Transportation Group Welcome

Keynote Speaker: Duncan Gibb, CEO, Stronger Christchurch Infrastructure Rebuild Team (SCIRT)

Jim Williams, Avery Dennison Reflective Products

### Collaboration for the Christchurch Re-build

Stuart Woods, MWH NZ Ltd *Collaborate or thread the eye of the needle*

Ruth Foxon, Christchurch City Council *Keeping Christchurch moving forward*

Louise Baker, Opus International Consultants A *Travel Demand Management Digital Safari*

### Collaboration in Education and Training

Jeff Waters, Fulton Hogan *Assessment of the polishing performance of surfacing aggregates*

Sarah Dove, AECOM *Travel Behaviour Change in Singapore*

Linda Anderson, RoadSafe HB (HB Regional Council) *"Just Another Saturday Night" Youth Alcohol Education Resource (DVD)*

### Collaboration on Major Projects

Renata Smit, Auckland Transport *Pakuranga to Botany Urban Busway - Collaboration in the Auckland Super City*

Quintin Howard, NZ Transport Agency *Better Public transport infrastructure through collaboration*

Mario Maldoni, VicRoads *M80 Upgrade Project Trailer Mounted Electronic Variable Speed Limit Signs*

Chris Vallyon, Beca Infrastructure Ltd *Auckland 25 Years Later: What has Changed?*

### Collaboration in Auckland

Karl Hancock, Flow Transport Specialists *Existing Cycle Infrastructure Review*

Josephine Draper, NZ Transport Agency *Using Focus Groups to Solve a Cycling Mystery*

Jarrold Darlington, Sinclair Knight Merz *Collaboratively Solving Auckland's City Centre Access*

Ian Clark, Flow Transportation Specialists *Transport Assessment of Quay Street streetscape project, Auckland*



# CONFERENCE PREVIEW

**Monday 15 April 2013**

## **Technical Tour - Quarry tour**

The technical tour is a little different from the usual with a visit to the working quarry immediately adjacent to the Forsyth Barr Stadium. The Palmer family have been associated with quarries in Dunedin for over 130 years and a fifth generation Palmer, Tony Hunter, will provide the briefing at the start of the tour. Buses will take delegates to a high vantage point at the top of the quarry with panoramic views of Dunedin and the Otago Harbour. The buses will then descend to the lunch venue 50 metres below sea level in the bottom of this huge hole in the basalt rock. Dunedin is truly fortunate to have such a valuable source of good quality aggregate so close to the centre of the City.



## **Lunch (Packed lunch while on Quarry tour)**

### **Collaboration on Economic Development**

Jeanette Ward, Abley Transportation Consultants *One Way or the Other*

Pragati Vasisht, Auckland Transport *Land Use Development through Resource Consents*

Chris Vallyon, Beca Infrastructure Ltd *Money well spent? Finding primary data for infrastructure investment*

### **Collaboration between Networks**

Hyun-Chan Kim, University of Canterbury *Freight Transport Modal Shift in NZ*

Edwin Swaris, Waikato Regional Council *Waikato PT Network Review case study*

Rob Douglas-Jones, Auckland Transport *Network Operating Plan Trial*

Ranjan Pant, NZ Transport Agency *Auckland Network Performance Monitoring and Reporting*

Graham Norman, Sinclair Knight Merz *A Collaborative Approach to Land Use and Transport Planning*

### **Collaboration with Travel Modes and Networks**

Nick Etherton, TDG *Project Team Collaboration - good interchange design in Auckland*

Stacy Rendall, University of Canterbury/Abley Transportation Consultants *How much choice is enough?*

### **3M Finalists and IPENZ TG National Committee Feedback**

## **Conference Dinner – Larnach Castle**

As we are visiting a castle, we'd like to encourage you all to dress up as character that you would expect to encounter in a castle from any era or country.

Dress up is of course always optional, however the theme makes this easy to dress up. Some ideas are Jesters, Kings or Queens from modern or old era; Serving maids; Monks, Friar Tucks, Princess or Prince; Medieval costumes, Knight (in shining armour), Peasants, Beefeater; Executioner; Butlers; Black Adder to name a few.



# CONFERENCE PREVIEW

Tuesday 16 April 2013

## Registration Desk Opens at the Forsyth Barr Stadium with tea and coffee

Keynote Speaker - Eric Howard, formally General Manager, Road Safety, VicRoads *Safe System* -

*Driving Delivery: a professional challenge*

Dr Fergus Tate, NZ Transport Agency

*Safe System Approach on New Zealand's State Highways*

Sue Walker, CSP Pacific

### Round Table Collaboration

Grant Gordon, Auckland Motorways Alliance

*Best practice for Road Safety Auditors*

Claire Pascoe, Greater Wellington Regional Council

*Let's Carpool - weaving a national web of commuter carpoolers*

Dr Shane Turner, Beca Infrastructure Ltd *Rural Intersection Risk Assessment Tool*

Jo Chang, Opus International Consultants *Customers' Requirements of Multi-modal Travel Information Systems*

Robyn Gardener, Christchurch City Council *Temporary Traffic Management After Christchurch's Earthquakes*

Umesh Easwarapadcham and Michael Topp, University of Canterbury *Delays at Pedestrian Crossing Points*

Sonia Pollard, Christchurch Transport Operations Centre *The Key to Keeping Christchurch Moving*

Bevan Wilmshurst, TDG *Balancing the Economics of Passing Lanes*

### Collaboration in Safe Systems

Bridget Burdett, TDG *What is self-explaining anyway? An investigation of rural New Zealand*

Peter Kirby, TDG *Economically Justified Traffic Control Schemes*

Rachel Blewden, TDG *Total Mobility in the Waikato - Collaborating on Improvement*

### Collaboration in Safety and Cyclists

Daniel Newcombe, Auckland Transport *Why do cyclists run red lights?*

Bill Rice, Opus International Consultants *Is a Threesome worth the risk?*

Dr Glen Koorey, University of Canterbury *Narrow Separators on Cycle Lanes*

### Collaboration in Practice

Jeremy O'Brien, NZ Transport Agency *A Conceptual Model for Better Collaboration*

Dr Bryan Pidwerbesky, Fulton Hogan *Pavement Specifications: Fit for purpose*

Kyle Donegan, TEK Services

Platinum Sponsor



Bronze Sponsors



Exhibitors



## Poster Authors present with posters for discussion

Laura Bates, Abley Transportation Consultants

*Intersections: Determining the good, the bad and the ugly*

Peter Cockrem, Abley Transportation Consultants

*Intersection transformation and the Level of Safety Service indicator*

Eddie Cook, Invercargill City Council *A Study of Pedestrian Characteristics at Traffic Signals*

John Denney, Opus International Consultants *North Canterbury SH Network, Crash History GIS Website*

James Parsons, Christchurch City Council

*The Effect of Cycle Lanes on Cycle Numbers and Safety*

Chris Morahan, Opus International Consultants

*State Highway 79: Route Upgrade Economic Analysis*

Dhimantha Ranatunga, MWH NZ Ltd

*The effect of opposing flow on the critical gap*

Dave Smith, Abley Transportation Consultants *Palmerston North Peak Oil Vulnerability Study*

Andrew Stevens, Auckland Motorway Alliance

*Bridging the Gap - Helping Pedestrians and Cyclists Cross the Great Divide*

Dr Shane Turner, Beca Infrastructure Ltd

*Pushing the Boundaries of Road Safety Risk Analysis*

# CONFERENCE PREVIEW

**Tuesday 16 April 2013**

## **Collaboration in Road Safety**

Andrew Edgar, Queenstown Lakes District Council *Should engineers be doing traffic engineering?*

Grant Gordon, Auckland Motorways Alliance *Getting the most out of the Road Safety Audit process*

Kelly Blackie, MWH NZ Ltd *Lessons from the AITPM Conference - The Traffic and Transport Merry Go Round*

## **Collaboration and More**

Amanda Douglas, Wynn Williams Lawyers *The Transport Engineer's Handy Update on Case Law*

Jay Baththana, Abley Transportation Consultants *Strategic planning and infrastructure investment planning in Auckland*

Amanda Douglas, Wynn Williams Lawyers *Proposed RMA Changes - How will it affect your transport assessments?*

## **Prizegiving and Strategic Sector Direction Update**

Ernst Zöllner, NZ Transport Agency and Andrew Jackson, Ministry of Transport *Key issues shaping the future of the transport sector*

### **Registration**

Standard : After 15 March 2013

	Excluding GST	Including GST
Conference Registration	\$ 856.52	\$ 985.00
Life Member Registration	\$ 0.00	\$ 0.00
Single Day – Monday*	\$ 456.52	\$ 525.00
Single Day – Tuesday*	\$ 456.52	\$ 525.00
Exhibitor Registration* (NB excludes session attendance)	\$ 500.00	\$ 575.00
Students/Young Professionals: Single Day*	\$ 99.00	\$ 113.85
Students - Full Conference*	\$ 198.00	\$ 227.70
Non IPENZ Transportation Group Member Surcharge	\$ 75.00	\$ 86.25

## **Keynote Speakers**

### **Duncan Gibb, General Manager SCIRT**

Since 9 May 2011 Duncan Gibb has been General Manager for SCIRT (the Stronger Christchurch – Infrastructure Rebuild Team) charged with rebuilding Christchurch's horizontal infrastructure (water, wastewater, drainage and roading) after the earthquakes. Duncan will be presenting to the conference on Monday morning. Duncan's presentation will focus on the challenges and lessons learnt associated with the rebuild of Christchurch's infrastructure. Duncan will explain how collaboration played a fundamental role in uniting the multiple contractors, owner involvement and consultant organisations towards a single goal.



### **Eric Howard, former General Manager Road Safety, VicRoads, Australia**

Eric Howard is the Principal of Whiting Moyne, a Strategic Road Safety Advisory Consultancy operating internationally since 2006, when he completed 7 years as General Manager Road Safety with VicRoads, the State Road Safety Agency/ Road Authority in Victoria, Australia. Eric will be presenting to the conference on Tuesday morning around Safer Systems in road transport and how collaboration is essential to achieve a real reduction in road trauma. He will also talk about his work in Victoria and how lessons there can be utilised in New Zealand.



**Visit the conference website:**

**<http://conf.hardingconsultants.co.nz/ipenztg2013/>**



The courses below are available for full-time or part-time students studying for the following postgraduate transportation qualifications at Canterbury:

- Certificate of Proficiency (COP) ~ for individual one-off courses (great for CPD!)
- Postgraduate Certificate in Engineering (PGCertEng) ~ typically four courses
- Master of Engineering Studies (MEngSt) ~ typically eight courses
- Master of Engineering in Transportation (MET) ~ up to six courses plus research project/thesis

Domestic student fee per course in 2013 is \$731 incl. GST, + Student Services levy (up to \$350/semester). All courses run in “block mode” to enable part-time and distance students to easily take part. Block course dates are given below. All prospective students must Apply To Enrol in courses no later than one week prior to the course starting (preferably earlier) – otherwise late fees may apply. Candidates with a Bachelor of Engineering OR other relevant degrees (e.g. planning, geography, psychology, maths) OR non-degree with suitable work experience will be considered for entry.

## COURSE

## DESCRIPTION

Anytime (contact Department)

### **ENTR401: Fundamentals of Transport Engineering**

(Self-study at home with 1-day tutorial at UC,

Transportation planning; Road link theory & design; Intersection analysis & design; Traffic studies; Accident reduction; Sustainable transport planning & design; Intro to Pavement design. {bridging course for non-transportation students}

Semester 1 (Feb-Jun 2013)

### **ENTR611: Planning and Managing for Transport**

(Block dates: 25-27 Feb, 22-24 Apr)

Road/transport administration in NZ; Transport legislation in NZ; Communication/presentation skills; Public consultation; Transport assessment; Traffic surveys; Demand management & tolling; Project economics; Construction planning & contract management.

### **ENTR 604: Road Asset Management**

(Block dates: 4-6 Mar, 29 Apr-1 May)

Road asset management concepts, levels and functions; data requirements; evaluation of functional and structural performance; intervention criteria; deterioration models; rehabilitation and maintenance strategies and priorities. Urban transport planning process; Geographic information systems; Travel demand modelling and prediction; Project appraisal; Advanced transport modelling.

### **ENTR616: Advanced Transport Planning & Modelling**

(Block dates: 18-20 Mar, 13-15 May)

Semester 2 (Jul-Oct 2013)

### **ENTR613: Highway Geometric Design**

(Block dates: 15-17 Jul, 23-25 Sep)

Human and vehicle factors; sight distance; horizontal and vertical alignment; cross-section design; design plans; land use access; signs, marking,

### **ENTR617: Traffic Engineering and Design**

(Block dates: 29-31 Jul, 9-11 Sep)

Traffic flow & queuing theory; traffic study design and analysis; local area traffic management; traffic signals; intersection safety; parking planning and design; traffic detection; intelligent transport systems.

### **ENTR618: Transport and Freight Logistics**

(Block dates: 5-7 Aug, 16-18 Sep)

Urban goods movement; transport/freight logistics; supply chain management; planning/design for other transport modes (rail, air, sea); major research project.

Note: Other relevant courses at Canterbury (e.g. Risk Management and Construction Management courses), Univ. of Auckland or elsewhere may also be suitable for credit to a PGCertEng, MEngSt or MET.

For more details contact Professor Alan Nicholson, Director of Transportation Engineering.

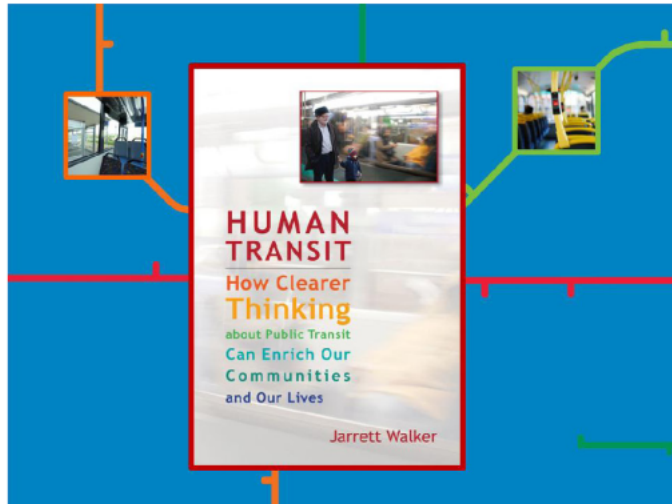
Phone: (03) 364-2233 Email: Alan.Nicholson@canterbury.ac.nz ..or see our website [www.met.canterbury.ac.nz](http://www.met.canterbury.ac.nz)

# BRANCH UPDATES



## AUCKLAND BRANCH TRANSPORTATION GROUP TECHNICAL MEETING

### Jarrett Walker – Human Transit



Jarrett Walker is an international consultant in public transit network design and policy. He is the Principal of Jarrett Walker & Associates in North America, and also serves as Principal Consultant with [MRCagney](#) in Australia and New Zealand. He holds a PhD from Stanford University in theatre arts and humanities. He is the author of the popular blog [HumanTransit.org](#), and the book *Human Transit: How clear thinking about public transit can enrich our communities, and our lives*.

In his 20 years of consulting experience Jarrett has been involved in more than 30 network redesign projects, spanning the range from rural to major urban areas, including the design of Auckland's New Network which is planned to be rolled out over the next 3 to 4 years. His experience also includes interchange planning, wayfinding, mapping, and long-range network plans. He has worked on a wide variety of tasks, from writing bus schedules through to working with architects and urban designers on the design of great urban places where public transport plays a role.

Jarrett will discuss key elements from his book and how they might apply in an Auckland context.

**Refreshments will be sponsored by MRCagney and Traffic and Transport Engineers (T<sup>2</sup>)**



**Meeting Date:**

Wednesday 20<sup>th</sup> March

**Venue:**

Auditorium, Ground Floor,  
Beca House, 21 Pitt St

**Programme:**

5.00pm-6.00pm Refreshments  
6.00pm-7.00pm Presentation

To join the meeting online (from 6pm-7pm), click this link:

<https://meetnz.beca.com/stephanie.spedding/PRPF959L> or join by phone +64 (9) 301 3793 and use conference ID: 51911 ([Forgot your dial-in PIN?](#) | [First online meeting?](#))

A Professional Society for Engineering and Technology

# BRANCH UPDATES

## Canterbury/West Coast Branch Chair – James Park

The Branch Committee has met on 10 December 2012, 23 January and 27 February 2013 primarily to progress the Branch submission discussed below and get some events going for the start of the year.

Although it might have been a very quiet start to the year for the Branch in terms of events the Branch committee has put a lot of effort into a Branch Submission on the recently released CCDU Document “An Accessible City” – the Transport chapter of the Christchurch Earthquake Recovery Plan.

Submissions closed on 1 Feb 2013 and a final submission was provided, after the opportunity for input from the Branch Members, before the due deadline. Many thanks to all of the Branch Members who contributed to, and supported, this process.

Members should now watch as any further updates or feedback comes from CERA regarding this topic and finalising the document after review of submissions in March 2013: <http://ccdu.govt.nz/the-plan/an-accessible-city>

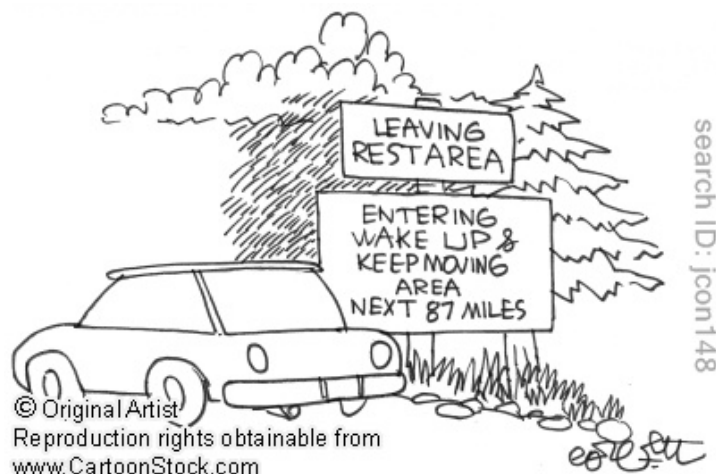
Members in the South Island should note that the IPENZ TG Conference is being held in Dunedin in April 2013 (only a month away) and since it's such a short trip please consider supporting the conference by attending.

For those who are not aware 2014 will be a centenary year for IPENZ our parent body. The Committee has commenced a discussion with the local IPENZ Branch Committee and we hope that together we can bring a range of great events to Canterbury during next year. Any ideas and inspiration are welcomed from Members that we could develop and deliver locally on how we could promote and inform both the wider Membership and Public alike around IPENZ activity.

We have a presentation planned for 21 March when Sonia Pollard from Christchurch City Council has offered to discuss “Keeping Christchurch Moving through the provision of Traveller information” following the Christchurch earthquakes, the

frequency and magnitude of change in our transport system requires an agile, reliable and co-ordinated communications regime. A discussion around what information should be provided to road users and what technology exists to improve network efficiency through the provision of traveller information. Please RSVP to Ryan Rolston at [Ryan.Rolston@ccc.govt.nz](mailto:Ryan.Rolston@ccc.govt.nz), by Tuesday 19 March at 5pm

The Committee have a numbers of possible events in the pipeline and we hope to fix dates and get the year really moving in Canterbury and West Coast areas soon. As always ideas for events or other Branch activities from Members are welcomed, to the Chair James Park ([james.park@opus.co.nz](mailto:james.park@opus.co.nz)), or Administrator Jared White ([jared@abley.com](mailto:jared@abley.com)).





# BRANCH UPDATES

## Waikato/Bay of Plenty Branch Chair - Alan Gregory

Being conscious that we have not been especially active in the last 12 months, particularly in communicating with our members, I am writing this in the hope that we can improve event turn outs and start some networking.

The committee have decided to take a more proactive approach to events and member participation.

You may recall that we held a survey and workshop last October to gauge the opinion of the Waikato-Bay of Plenty members on a number of issues. The main reason was to establish what it was that you wanted from the Transportation Group and the committee and how we could improve participation.

We had 31 responses to the survey and gained responses from a good cross section of the membership, with consultants, NZTA and local authorities all represented. The responses included a range of ideas for getting people to join, mostly focusing on increasing publicity/awareness and providing a variety of events including some training and knowledge sharing. Some were not so helpful "...promise fast cars, beer, sausage rolls and hot girls...!"

Almost half of the respondents had not been to a branch event in the last year, which suggests that there is a core of people attending most events with many not attending any events. However, this does provide a starting point from which we reviewed our progress in increasing branch activities and membership.

We also asked members about their areas of interest and any ideas for potential speakers. Road safety gained the highest interest followed by walking and cycling, PT and transport planning. Suggestions for speakers were wide and varied from police crash investigators, local speakers, MUGS and SNUGS to Eddie Murphy. So there is plenty of scope.

Workshop discussions showed that there is a desire for a mixture of social and technical events. This has been included in our programming for the coming year.

Overall the survey and workshops were good tools for interacting with branch members to gain their thoughts and ideas on how the branch can better serve them.

We have now agreed on our objectives and actions for the coming year and, subject to final details, we will publish this and the survey on the IPENZ Transportation Group Website.

Events are to be hosted alternately between Hamilton

and Tauranga areas where possible, with the aim of having something every month either technical or social.

The preliminary calendar of events is below although actual dates and details will be circulated by email when speakers and venues are finalised.

Month	Date	Event
March	15/3/13	Committee meeting
	tbc	Hamilton Technical event
April	19/4/13	Committee meeting
	tbc	Tauranga Social event
May	17/5/13	Committee meeting
	tbc	Hamilton Technical event
June	14/6/13	Committee meeting
	tbc	Hamilton Technical event
July	19/7/13	Committee meeting
	tbc	Social event
August	16/8/13	Committee meeting
	tbc	Tauranga Technical event
September	13/9/13	Committee meeting
	tbc	Hamilton Technical event
October	18/10/13	Committee meeting
	tbc	Social event
November	15/11/13	Branch AGM
	tbc	Technical event
December	13/12/13	Committee meeting
	tbc	Transportation Group AGM
	tbc	Hamilton Christmas event
	tbc	Tauranga Christmas event

Thanks to Alastair Black for all his hard work in sorting out the survey results and tirelessly organising events throughout the year. A special thanks to Bridget for an excellent presentation on her visit to India and the international conference on Mobility and Transport for the Elderly and Disabled.

Finally, we encourage all members to attend at least one event, even if it is a social one for the free drinks. Please contact any of the committee members if you want to comment, get involved or if you have any suggestions.

Chair Alan Gregory, 07 858 7919,  
alan.gregory@opus.co.nz

Deputy Chair Adam Francis, 07 927 7826,  
adam.francis@nzta.govt.nz

Event Organiser Alastair Black, 07 853 8997,  
alastair.black@graymatter.co.nz

# Transportation Engineering Postgraduate Courses 2013



Department of Civil & Environmental Engineering University of Auckland  
For Master of Engineering Studies (MEngSt) and Graduate Diploma (GradDipEng),  
with / without Transportation specialisation, or for one-off Certificate of Proficiency (COP).

Semester 1 (Mar-Jun '13)

CIVIL660 - Traffic Engineering & Planning  
(mixed mode\*, 18-20 Mar)

### ***Some dates may need to be changed***

A range of selected topics in traffic engineering and transportation planning which will provide a basis for extension into further studies. (Diploma course which is a pre-requisite for several other 700 series courses).

\* 1 x 3-days and then integrated with Civil 758, a BE course.

CIVIL764 - Highway Safety & Operations  
(block mode, 26-28 March, 8-10 May)

A range of topics on the operation of two lane highways and their safety including highway capacity, LOS, passing/climbing lanes, and economic evaluation methods. Safer Journeys and Safe Systems, Skid resistance, materials and roadside safety.

CIVIL766 – Road Asset Management (block mode, 13-15 Mar, 1-3 May)

Road asset management concepts, levels and functions; data requirements; evaluation of functional and structural performance; deterioration modelling; economic evaluation and lifecycle analysis; prioritisation and optimisation; risk management; pavement management systems.

CIVIL770 - Transport Systems Economics  
(block mode, 21-22 Mar, 18-19 Apr, 30-31 May)

Fundamentals of transport economics incl. supply, demand, pricing, congestion and other externalities; principles of economic evaluation in transport planning.

Semester 2 (Jul-Oct '13)

CIVIL661 - Highway & Pavement Engineering  
(mixed mode#, 29-31 July)

A range of selected topics in highway engineering and pavement materials which will provide a basis for extension into further studies. (Diploma course which is a pre-requisite for several other 700 series courses).

# 1 x 3-days and then integrated with Civil 759, a BE course.

CIVIL763 – Transportation Network Analysis  
(block mode, 1-3 Aug, 15-17 Aug)

Introduction to logistics and scheduling; Definitions of graph and network theory; Max-Flow problems; Minimal spanning trees and shortest path; Minimal-cost networks; Location problems.

Civil 772 – Public Transport – Planning & Operation (block mode, 8-10 Aug, 22-24 Aug)

PT Data Collection; Frequency and Headway Determination; Alternative Timetables; Vehicle and Crew Scheduling; Short-turn Design; PT Network Design; Reliability; Design of Shuttle and Feeder lines; Bus priority and BRT

CIVIL765 – Infrastructure Asset Management (block mode, 12-14 Aug, 7-9 Oct)

The integration of planning and infrastructure asset management, resource management, institutional issues and legal requirements. The process of undertaking asset management plans and specific asset management techniques across all infrastructural assets.

CIVIL 771 – Planning & Managing Transport  
(block mode, 5-6 Aug, 26-27 Aug, 14-15 Oct)

Integrated planning of transport and land use, Outline of transport planning modelling, District Plans, Requirements of the NZTS, LTMA and RMA, Travel, trips and parking. Integrated transport assessments with multi-modal transport, Travel demand management, Intro to Intelligent transport systems.

*Other relevant courses at Auckland or Canterbury or elsewhere may also be suitable for credit.*

For course details, please contact the Course Coordinator: Civil 760 + Civil 761 + Civil 762, (Dr Prakash Ranjitkar), Civil 661 + Civil 765 (Dr Theuns Henning), Civil 766 + Civil 767 (Dr Seosamh Costello), Civil 764 + Civil 768 + Civil 769 (Dr Doug Wilson), Civil 770 (Mr Bevan Clement), Civil 660 + Civil 763 + Civil 772 (Prof. Avi Ceder), Civil 771 + Civil 773 (Assoc. Prof. Roger Dunn).

**For Admission / Enrolment inquiries contact:** Assoc. Prof. Roger Dunn, Director of Transportation Engineering Phone: (09) 373-7599 x87714 or (09) 923 7714 DDI Email: [rcm.dunn@auckland.ac.nz](mailto:rcm.dunn@auckland.ac.nz)

**Further details, including the course outlines, can be found at:** <http://www.cee.auckland.ac.nz/uoa/home/about/ourprogrammesandcourses>

## **IPENZ TRANSPORTATION GROUP - RESEARCH ADVISORY COMMITTEE A BRIEF INTRODUCTION**

About a year ago, the idea of a new Transportation Group committee was hatched, with the aim of providing support for transportation research activities within New Zealand. Initiated by Dr Shane Turner (Beca) and now being looked after by Dr Glen Koorey (University of Canterbury), the idea has received general support to date from the Group membership and the National Committee. Now it is time to take things forward into a working Committee with active tasks – and we need your feedback!

### **WHAT IS THIS COMMITTEE ABOUT?**

This Committee is concerned with all forms of (mostly land) transport research in New Zealand. It will:

- 1) provide a transport industry perspective on key research topics and areas of focus for New Zealand going forward;
  - 2) support research excellence in NZ through reviewing (conference) research papers, advising on awards, and recommending research that should be published in international journals;
  - 3) establish linkages with contacts in overseas research conferences, journals and organisations; and
  - 4) ultimately, help promote high-quality NZ transport research locally and internationally.
- It would also provide an industry-wide perspective on research priorities to research funders, where such industry input is sought. The Committee will look to develop the confidence of

research funders in sharing these industry-wide views.

The model envisaged is somewhat akin to the Transportation Research Board (TRB) in the US (see [www.trb.org](http://www.trb.org)). This is an industry-led organisation that helps to identify and prioritise transport research needs in North America, much of it funded by other key agencies such as AASHTO, FHWA, and state transport departments. Such is the scale of the exercise over there that they actually have over 200 TRB Committees covering every kind of transportation field imaginable – we think we'll start with just one!

### **WHAT KIND OF THINGS WILL THE COMMITTEE DO?**

The following is just some of the possible ideas identified that the Committee could work on; it is by no means exhaustive, and we welcome other thoughts:

- Develop and promote a list of NZ transport research priorities in the short, medium and long term (including applied and “blue sky” research), and review/update this every few years.
- Establish how we can contribute to the national discussion on transport research priorities, e.g. through MoT and RCAs' Forum.
- Identify research funders that we want to engage with and provide support to e.g. NZTA, Austroads, MBIE Science & Innovation, AA Research Foundation, etc. Develop and extend relationships between Committee members and research funders.
- Organise Transportation Group sponsorship for small research-based activities, e.g. student research, overseas study

tours, research conference attendance.

- Liaise with IPENZ Transportation Conference committees and assist with reviewing conference papers and recommending papers and presentations for awards.
  - Investigate the development of special research-based sessions at the annual IPENZ Transportation Conferences, or other Group/industry events.
  - Determine which overseas research conferences, journals and organisations we want to develop a relationship with, with a particular focus on Australia (e.g. ATRF) and those groups already active in NZ (e.g. ITE, REAAA). Start developing/formalising linkages, through Committee members.
  - Consider how we might publicise and promote the best and most relevant NZ transport research to IPENZ Transportation Group members and the industry at large.
- The Committee has already got its teeth into one major task: coordinating the peer review of papers for this year's Transportation Conference (thanks to the many people who offered their time and expertise to assist with this!). This is an important process to maintain the quality of the presentations that the Conference is known for; lessons learned from this year's review process will be used to refine it for future years.
- ### **WHO CAN BE INVOLVED WITH THE COMMITTEE?**
- The short answer is anyone! But the aim would be to have a good balance of research areas, organisation types (e.g.



universities, consultants, central Government and RCAs) and ages (it would be very good to have some younger members). Ideally we want a group that represents the whole transport industry and can speak on its behalf in terms of research needs and promotion. While involvement in the Committee should be open to any interested Transportation Group members, it is sensible to have an appointed/elected Committee, of perhaps about 10-12, who will take the lead on some of the tasks mentioned above. Already a few "likely suspects" have been identified and the initial Committee will hopefully be finalised in the near future. As well as Committee members, a

very important group will be "Friends" of the Committee. This will comprise anyone who is willing to help out with tasks such as reviewing conference papers and providing feedback on research priorities. It is likely that future Committee members will come from previous Friends who have got up to speed on transport research issues and demonstrated their contribution to the Committee.

#### WHERE CAN I HEAR MORE OR PROVIDE SOME FEEDBACK?

For those of you coming along to the Transportation Conference in Dunedin in April, there will be a meeting of the Research Committee scheduled to kick-start a few initiatives (details later). I

would encourage any interested delegates to come along and join the discussion.

Even if you're not able to make Dunedin, I welcome feedback from any Group member via my contact details below. That includes letting us know if you'd like to become a "Friend" of the Committee and stay in the loop on any transport research discussions and initiatives we undertake.

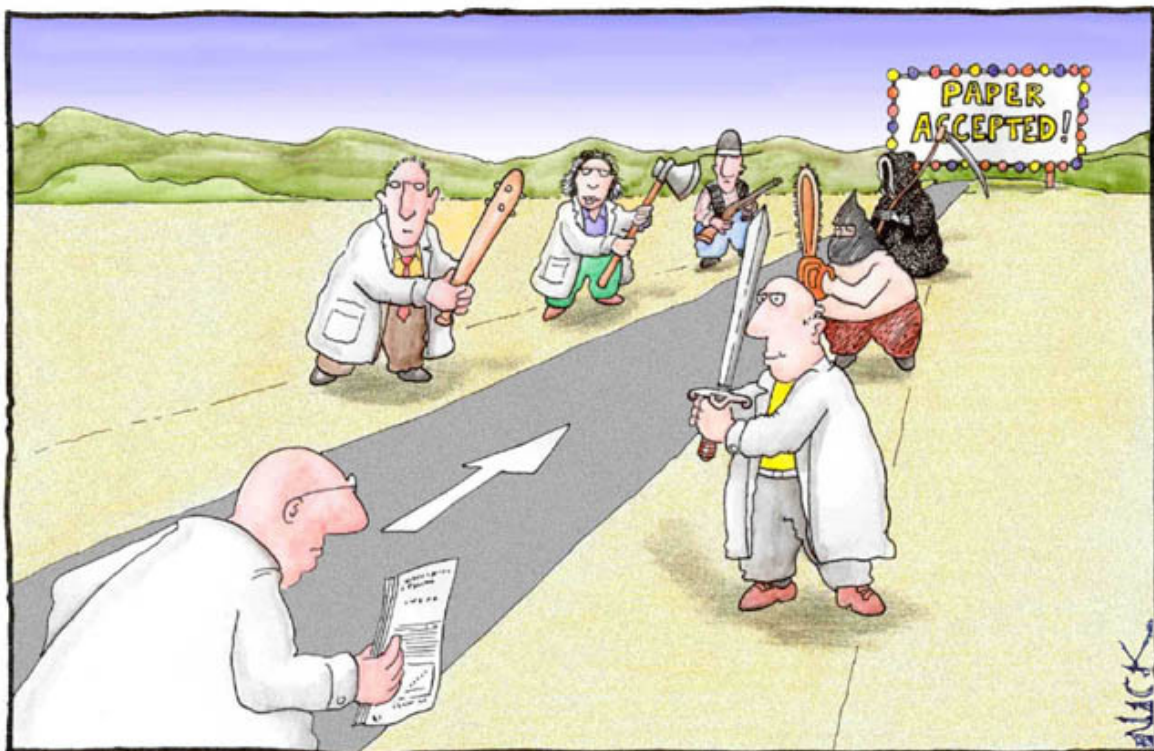
Dr Glen Koorey (Research Committee convenor)

Email:

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Ph.03-3642951 (wk)

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Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

# SUBGROUP UPDATES

## Trips Database Bureau

The Trips Database Bureau (TDB) recently launched the website [www.ita.org.nz](http://www.ita.org.nz). The website is a free resource to help planners, engineers, lawyers, consent authorities, developers and others involved in the assessment of environmental effects associated with transport and is intended to improve reporting and assessment practice.

The website promotes NZ Transport Agency Research Report 422 'Integrated Transport Assessments Guidelines' that provides a structured way of reporting the transportation effects of a proposal. An Integrated Transport Assessment (ITA) is often required to inform a resource consent, plan change or designation application. The national guidance was developed through funding provided by the NZ Transport Agency and involved nationwide workshops, international best practice, a steering group and peer review by nationally recognised experts.

The TDB is a not for profit industry organisation that operates in Australia and New Zealand. The objective of the TDB is to act as a central repository for travel and parking data and foster collaboration between members for the improvement of assessing the effects of transport proposals. The TDB welcomes feedback on ITAs including examples of best (and worst) practice so the TDB may potentially update the national guidance and provide the wider industry with on-going best practice advice. Feedback can be provided via [info@tdbonline.org](mailto:info@tdbonline.org).

If you have any queries regarding TDB, please contact Tony Brennand (Chair) or Stuart Woods (Executive Officer) through [admin@tdbonline.org](mailto:admin@tdbonline.org) or see our website: [www.tdbonline.org](http://www.tdbonline.org)



## From our Facebook page...

### Mini has made driving a game – literally.

The British icon has developed an app called the "Driving Excitement Analyser" that can be downloaded to the car via iPhone. The app encourages drivers to access the sporty nature of their Mini by scoring their driving technique.

The Connected system already allows users to access web-based streaming audio services, social media, RSS news feeds and Google local search functions, but the Driving Excitement Analyser blurs the line between real-life and internet driving games.

In addition to an exclusive vehicle systems check, g-force meter and digital sports gauges, the Driving Excitement Analyser "rates the driver's ability to pilot the Mini with a

sporty yet steady hand".

BMW says the system scores drivers on "particularly sprightly sprints, precise gear changes, controlled braking, smooth cornering and U-turns executed at well-judged speeds" and provides them with "experience points" – a common term among video games – according to how well they performed.

When drivers receive the maximum 100 points in any of the four categories they are promoted to the next level and collect badges "reflecting their accomplished acceleration, gear changes or cornering technique within the scope of special tests".

Badges are also awarded as a bonus



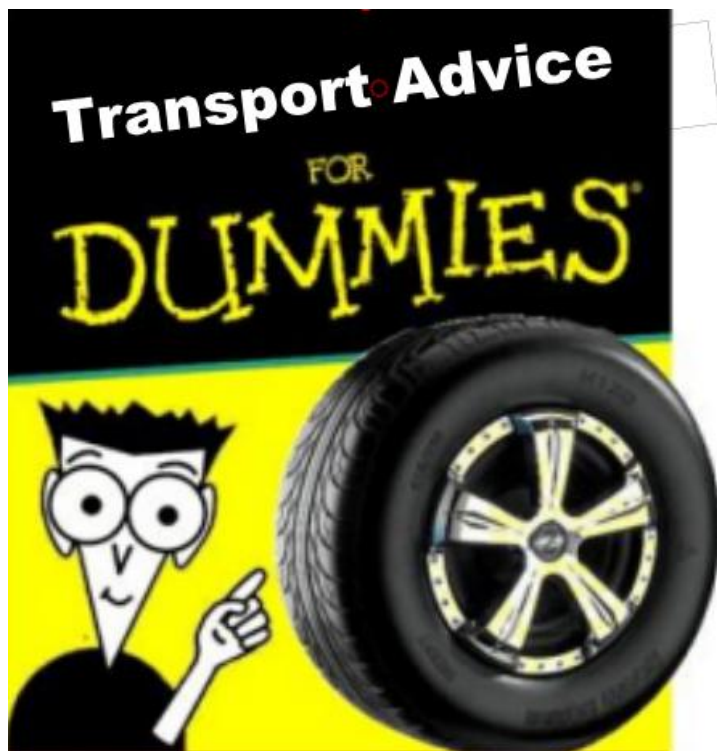
when drivers pass a number of special destinations identified in the app, such as the Mini factory in Oxford, England.

-Fairfax News Australia  
<http://www.stuff.co.nz/motoring/8382439/Minis-real-life-video-game>  
[www.facebook.com/ipenztg](http://www.facebook.com/ipenztg)

**A tongue-in-cheek column on transport matters by The Transport Guy. The contents do not represent the views of the IPENZ Transportation Group, or anyone else for that matter. Follow the advice at your own risk.**

Dear Transport Guy

There has been some hoo-haa about so-called 'self explaining roads' recently. I don't know what all the fuss is about. When I was a trainee traffic engineer, I was told to use large clear signs to make clear to drivers how many miles per hour to travel at and whether there may be any hazards about (mustered sheep, grazing horses, travelling gypsies, etc.). You can't get any clearer than a sign that 'explains' the road. If mothers insisted on walking their children along roads to get to schools, we would use fences to keep them off the road and out of the way of drivers. If everyone knows their place then all's well in the world.  
Reginald, Sunnyside retirement village



Dear Really Old

I am not surprised to note that you were trained in the last century, the last millennium actually. Things have moved on somewhat since then. 'Self explaining roads' are the opposite of putting signs up, and I can only hope that when you need to get to the pub across the road from your retirement village, passing motorists don't rely on a 'Beware of dodderly old fools' sign to tell them a safe speed at which to travel. Oh, and did you know women are allowed to drive and vote now!

~Transport Guy

Dear Transport Guy

I've lived in Auckland for many years, which means I drive a car. I'm a very successful businessman and my time is important. I'm increasingly angered as successive councils have encouraged me to take public transport, thereby infringing my right to drive and park wherever I choose. It's not my fault that transport planners haven't provided enough roads for everyone to get around. Why should I be punished by having to sit on a bus?

Disgusted, Takapuna

Dear Disgusting

You are almost right. Councils have been trying to get other people to take public transport, not you. As you already know, you are the most important person on the roads, why else would they have built a road all the way from your house to your office? Think about it this way, if all those other people caught buses or trains or ferries, the roads would be clear for you to drive where and when you wish. It is your free-market, libertarian, neo-conservative duty therefore to support public transport, vote for Len Brown and invest your savings in City Rail Link bonds.

~Transport Guy

Dear Transport Guy

Is a bell necessary on a bike?

Simon, Nelson

Dear Simple Simon

You missed the 'knock knock' part of that joke.

~Transport Guy

***Do you have a dumb question for Transport Guy? Email it to [transportfordummies@gmail.com](mailto:transportfordummies@gmail.com) and he'll do his best to answer...***



# GROUP CONTACTS

## Transportation Group National Committee

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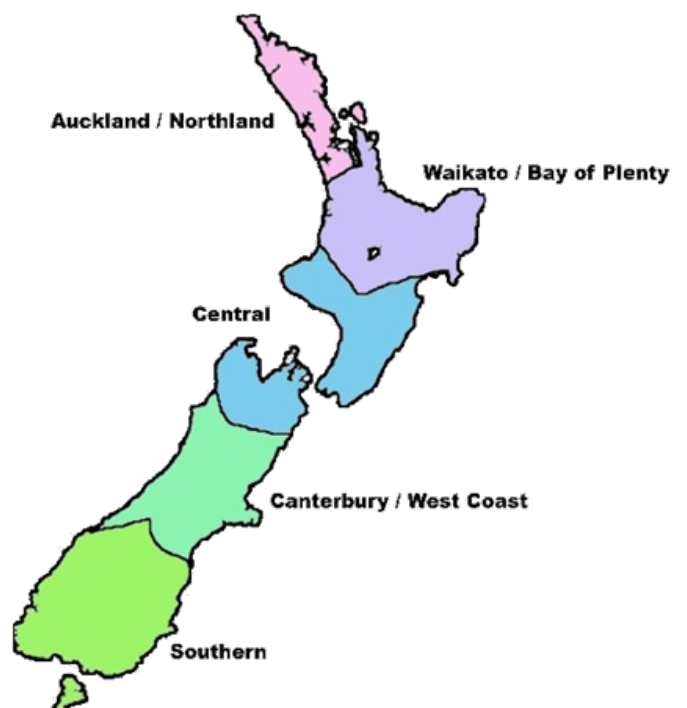
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**IPENZ Transportation Group Boundaries  
(October 2004)**



## See you in *DUNEDIN*...

### Seminar **BINGO!**

To play, simply print out this bingo sheet and attend a departmental seminar.

Mark over each square that occurs throughout the course of the lecture.

The first one to form a straight line (or all four corners) must yell out to win!



SEMINAR B I N G O				
Speaker bashes previous work	Repeated use of "um..."	Speaker sucks up to host professor	Host Professor falls asleep	Speaker wastes 5 minutes explaining outline
Laptop malfunction	Work ties in to Cancer/HIV or War on Terror	"...et al."	You're the only one in your lab that bothered to show up	Blatant typo
Entire slide filled with equations	"The data <i>clearly</i> shows..."	<b>FREE</b> Speaker runs out of time	Use of Powerpoint template with blue background	References Advisor (past or present)
There's a Grad Student wearing same clothes as yesterday	Bitter Post-doc asks question	"That's an interesting question"	"Beyond the scope of this work"	Master's student bobs head fighting sleep
Speaker forgets to thank collaborators	Cell phone goes off	You've no idea what's going on	"Future work will..."	Results conveniently show improvement

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