

Magazine of the Transportation Group MZ

Issue 155 March 2018

The New Us: Meet Your New Transportation Group NZ



Also in this edition:

- Will technology doom public transport? - Motoring myths revealed - Associate Transport Minister goes spotty - Shoes which double as train passes

Contents

- 3 Editorial
- 4 Chairman's Message
- 6 Will technology doom public transport?
- 8 Associate Transport Minister goes spotty
- 9 Contestable EV fund
- 10 Letter to the editor
- 11 ITS members cast doubt on driverless cars
- 12 Study: cyclists don't break rules more than drivers
- 13 Transport system fails seniors
- 16 How Seattle got more people to ride the bus
- 18 AITPM conference
- 19 Dinosaur pet guide
- 20 Bike to the Future
- 21 Active Modes Infrastructure Group update
- 22 Call for papers World Conference on Transport Research
- 23 Adidas shoes double as transit passes
- 24 Motoring myths: what black boxes really say
- 27 Interesting from the air; terrible on the ground
- 29 Photo competition
- 30 Branch updates
- 32 Roundabout of the Month
- 33 Caption Competition
- 34 Transport Advice for Dummies
- 35 Group Contact Details
- 36 Kids Explain Traffic Engineering

"We were creating ideal communities for young families, but weren't thinking what it'd all look like 30 years down the road."
Page 13

"Hold on there, sunshine." Page 34

"Speed is the root of all motoring evil. If there's one thing drivers need to do, it's to slow down. Speed is the single biggest contributor to risk." Page 24

"The results do not support the assumption that cyclists are reckless rule-breakers."

Page 12

Roundabout is the magazine of the Transportation Group NZ, published quarterly. It features topical articles and other relevant tidbits 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. Opinions expressed in Roundabout are not necessarily the opinion of the Transportation Group NZ or the editor, except the editorial of course. There is no charge for publishing vacancies for transportation professionals, as this is considered an industry-supporting initiative.

Correspondence welcome, to Daniel Newcombe: daniel.newcombe@at.govt.nz

Roundabout is published around the 15th of March, June, September and December each year, and contributions are due by the 10th of each publication month.

A monthly Mini-Roundabout email update is circulated on the 15th of in-between months and contributions are due by the 12th of each month.

If somehow you have come to be reading Roundabout but aren't yet a member of the Transportation Group NZ, you are most welcome to join. Just fill in an application form, available from the Group website: www.transportationgroup.nz

ISSN 01 1 3-9053

Editorial



The NZ transportation profession is unique (for example, we appear to be the only part of the world that widely uses the term 'roading' – who knew?).

For decades, the **IPENZ** Transportation Group has tried to be a voice for the profession, promoting new engineering and planning techniques, and examining ways to improve the way transport supports communities.

Now we stand at the precipice of a major change in our Group.

We have a new name, a new logo and a new set of operating procedures. This editorial has been written prior to the AGM where members will vote on changes to our Group rules (which will become our new Group 'operating procedures'), so I know some changes will be made but I don't know the specifics.

We appear to be the only part of the world that widely uses the term 'roading' – who knew?

The two I am sure of are: adopting our new name – Transportation Group NZ – which is a result of Engineering NZ dropping the old 'IPENZ' moniker; and our new logo, which is proudly displayed on the front cover.

Thanks to Jeanette Ward for getting a graphics designer to develop such a cool new logo – we hope you like it.



A rare photo of a shark stepping on a piece of Lego

transportation And thanks in advance to Jeanette and her team for unique (for organising this year's conference. I know what a difficult appear to be the and time-consuming exercise it is.

I'd like to thank all those on branch committees, subgroups like NZMUGS, SNUG and TDB, and those who have served on the National Committee for their effort and dedication

Attendees may not realise the sheer effort behind the smooth running of all the events – both formal and informal – but trust me, even with Glenda Harding's professional expertise on board, it is hard work and late nights.

If you happen to reside in the branch area of next year's conference (I'm guessing it will be Wellington), put your hand up to help.

The more people who chip in, the easier and better the conference organisation is.

Speaking of organisation, the National Committee has spent a lot of time – mostly unseen by members – over the last year keeping the Group's affairs going in one way or another, and I think it is worth acknowledging.

It has been interesting to collate feedback from members on the proposed Rule amendments.

Some people with strong views on the way the Group should be run take no part in event, branch or national organisation. If you care about the role of the Group, step up and take part.

The Group runs on a spirit of goodwill and integrity from passionate and conscientious transportation professionals, but it is virtually always hard, thankless and unpaid effort (if you are thinking of volunteering, skip this bit. Really, it's great!).

As we transition from the IPENZ Transportation Group to the Transportation Group NZ, I'd like to thank all those on branch committees, sub-groups like NZMUGS, SNUG and TDB, and those who have served on the National Committee for their effort and dedication.

As a Group, we move into a new era healthier because of you.



Daniel Newcombe Roundabout Editor @newcombe dan

Chairman's Message



A much belated Happy New Year to all our readers.

2018 is heralding the dawn of a new era in the Transportat

ion Group with a new name, brand and website, all will be revealed at the conference.

At the time of writing this, there was still no news on the GPS, although Minister Twyford has given the industry a steer on what to expect. There is a lot of nervousness out there that we won't get anything built this year unless it is already in progress.

Although I have to admit that I support some of the policies that underpin the funding priorities, particularly improvement of access to transport to create more liveable cities and reduction of carbon emissions which should see better investment in more sustainable transport with greater emphasis on urban mass transit, EVs and possibly passenger rail between Hamilton and Auckland so I don't have to make that 3 hour drive.

One of the take homes from this is the theme of "mode neutrality" in planning and investment in transport. This could be a challenge



as there are significant economic, social and geographical factors that influence this, the most prevalent will the rural be population who are wholly dependent on private vehicles for transport, including people living in satellite or dormitory townships who rely on their own vehicle to support their lifestyle.

This is definitely something that needs further discussion as it is definitely a good idea to be considering an alternative from the outset.

I had the honour of being invited to the launch of the Yoogo share service in Christchurch last month, this is a brilliant and innovative approach to EV rental. Basically you download their app and register. You then book a vehicle and pick it up at your allotted time, returning it to the same location.

At the moment it's only based in a central city parking building but they are looking to expand to different locations, such as the airport, with a point to point hire. Makes a lot of sense for local businesses, no need for fleets of vehicles and car parking for local trips. They are also in discussions with Wellington, Auckland and Hamilton. This is definitely the future of urban car hire, support it if you are in Christchurch.

For more information, click HERE

We had a stark reminder of the fragility of our infrastructure as well with two major storms disrupting travel and essential services. I managed to get stranded in Blenheim for two days, although I was at a winery, so it wasn't a major problem.

There is an overwhelming need to look at the resilience of our networks, especially the lifelines to isolated communities. According to the climate change experts, this kind of event will be more prevalent in the future. I wonder how autonomous vehicles will cope with this kind of weather. But that is an aside.

On the subject of AVs, I see that there are a couple of trials of vehicles in the real world due in the coming months. Cruise Automation are teamed up with GM and already testing in Detroit and San Francisco, they are aiming to introduce their vehicles to Manhattan early next year.



Nissan in partnership with mobile game maker DeNA are now trialling an autonomous taxi in Yokohama called Easy Ride, with plans to take on Uber in 2020. Does anyone know if there has been progress in the Christchurch Airport autonomous shuttle bus? There was a demonstration by Ohmio Automation (HMI Technologies who do ITS in a big way) back in September last year...

I hope to see many of you at the conference. Please try to attend our AGM. Last year was a virtual no show from members and it was very disappointing. This year we have allocated a time slot and there are some important matters to present.

Please also support your local branch and remember if there is anything you want to see happen, please tell us as we want to give you what you want.

And finally, I spotted this bike repair stand at the Mount at the weekend while we were at the triathlon, great idea and well used by people, well done Tauranga City Council.

Alan Gregory National Committee Chair







LinSig training courses in Australia

JCT is running **LinSig courses** in Australia in July 2018 as follows:

23 & 24 July 2018 - Brisbane: Two Day LinSig Junctions and Networks Computer workshop AU\$1680

26 & 27 July 2018 - Auckland: Two Day LinSig Junctions and Networks Computer workshop NZ\$1860

30 & 31 July 2018 - Perth: Two Day LinSig Junctions and Networks Computer workshop AU\$1680

A draft programme can be found here and you can book using this form here

If you have any questions, please contact Emma Davey emma.davey@jctconsultancy.co.uk

Keep up to date with IPENZ Transportation Group happenings:

www.transportationgroup.nz www.twitter.com/ipenztg www.facebook.com/ipenztg











A transit professional can't open a browser these days without encountering prophets of doom.

"New technology is changing everything," we're told.

"Everything you do is obsolete!"

"You represent tired, old thinking."

"You are going to be left behind."

We are bombarded by messages that transit as we know it will soon be swept away by various kinds of mobility "innovation." Often this is coupled with the notion that the private sector will now break "transit monopolies."

For a sample of this popular genre, here's Paul Comfort, a former CEO of Baltimore's transit agency, in the newsletter of the American Public Transportation Association. The piece is called "Left Behind: The Wave of Disruptive Technology."

Within a few years, the era of a monopolistic, taxpayer subsidized, utility-style public transit agency providing all the public transportation in a city/region will be over. These technology-driven, largely private-sector innovations to mobility will challenge our traditional model of public transportation and allow consumers a real choice for the first time. Have these coming realities sunk into the decision-making matrixes of our public transit industry?

If we don't want to be overtaken by these new and disruptive technologies, we need to put up our sails and catch the winds of change that are blowing.

There is some truth here. Few transit professionals would deny that U.S. transit agencies can be bureaucratic and that they have some intrinsic features that make them resistant to change. In the area of network design, I've worked on those issues as a

consultant for 25 years. Transit agencies must always be challenged (and supported) to be more nimble, and any impulse can be helpful for this.

But we must also hear, in Comfort's words, the eternal language of marketing. If you are trying to sell a new technology product, of course you imply that everyone who doesn't use it is a dinosaur. And while technology is certainly bringing great new opportunities for urban transportation, that doesn't change the fundamental skepticism that people must bring to what is obviously the language of sales.

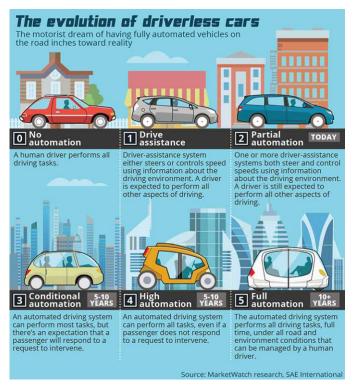
Salespeople have always played on our fear of being "left behind," and the phrase has long been an effective way to intimidate local governments: "You must build freeways through your city, or you will be left behind." "You must spend taxpayer dollars to build us a stadium, or you will be left behind." "You must go easy on environmental and civil rights regulation, or you will be left behind." And now: "You must get ready for disruptive technology, or you will be left behind."

Technology is a tool, not a goal. The job of local government—including transit agencies—is to serve the goals and aspirations of citizens. That, not fear of technological change, should be the foundation of their decisions.

The tone of Comfort's piece, and of so much writing in this topic right now, is that transit agencies are at risk of being "swept away." The assumption is that transit agencies are like IBM's PC business facing the challenge of Apple, or GM facing the challenge of Toyota. Claiming that transit agencies are monopolies deepens this impression, since everyone wants to break a monopoly, except those who profit from it.

But transit agencies are not businesses. They are not monopolizing a profitable business and preventing others from entering. They are running an unprofitable service for reasons unrelated to profit: the functioning of a dense city, the liberty of its citizens, and connecting disadvantaged people to opportunity. Nobody has proposed a way for the private sector to deliver, profitably, on all of those goals.

Private firms are muscling-in on the elite end of the business. Uber and Lyft may be responsible for about a 6 percent shift in ridership away from transit. But they are also unprofitable, which means they may be unsustainable, even while charging fares that most



citizens could not afford for routine travel. To argue that these firms should replace transit is to argue that everyone who can't afford those fares should be "left behind," even if our cities had room for the resulting explosion in car traffic. Not even Lyft and Uber make this argument. Both are eager to partner with transit agencies rather than replace them.

Once we have wide uptake of full automation—sometime between 2020 and 2100 (or never), depending on who you ask—labor cost goes away and driverless taxi fares theoretically get cheaper. But labor cost of fixed transit also goes away. Labor is the dominant element of transit's operating cost, so driverless buses and trains could be vastly more abundant. Driverless rail has already proven this point. Do you want a train every 4 minutes, even at midnight on a Tuesday? Vancouver's driverless rapid transit system has been doing this for over 30 years.

So when making comparisons between private and public sectors around automation, you must assume automation on both sides. At that point, the most important issue becomes the efficient use of space: More people in fewer vehicles—high capacity transit—will always be the key to using limited space to liberate the lives of great numbers of people.

In this future, government, including the transit authority, must still have a crucial role: So long as transit isn't profitable—just as roads aren't profitable—government ensures that the services all fit together as an efficient network, even if pieces of the service are purchased from private sector operating companies.

The alternatives have been tried. British privatization of bus service in the 1980s was based on the notion that if Joe's Red Buses and Jim's Blue Buses both run down the same street, an empowered customer will be able to choose between them, fostering competition. But as it turned out, the customer wants to get on whichever bus actually comes. Who knew? So Joe and Jim just divided up the turf and each became a monopoly.

As a transit consultant, I've worked on untangling some of the crazily wasteful networks that resulted. In 2011, the city of Auckland in New Zealand had essentially no crosstown service but way too many quarter-full buses trying to enter the center city at the same time.

And if there's one thing worse than a monopoly answerable to the voters, it's one over which they have no control, as many customers of cable providers and utilities can attest. Much of the expertise about how to design great transit lies inside the transit agencies that the tech industry so reviles, and in the network of consultants like me who work with them, so dismissing us all as dinosaurs may not be a good idea.

Like all bureaucracies, transit agencies can be inefficient and slow to change. By all means, let's look at ways to improve these things. Some U.S. agencies (Austin, New Orleans) are now contracting with the private sector for all their operations. Some are merged with city or county governments, which gives them better potential to coordinate with land use and street design. Many are looking at network redesign to get more useful service out of the same dollar.

Meanwhile, U.S. agencies suffer from some of the lowest funding levels in the developed world, with per capita service quantity often around half what it is in comparable Canadian cities. Practically no U.S. transit agencies are able to grow their service even at the rate of population growth, let alone get ahead of that growth, as densifying cities require.

This is a problem, because in dense cities where space is scarce, and where huge numbers of people are moving in generally the same direction, there is no alternative to the fixed route bus or train. Nothing else fits in the limited space.

A general message of "technology changes everything" has become one of the most powerful arguments for letting fixed transit wither, even though this means worse traffic and higher transportation costs for cost-sensitive people.

In this context, transit agencies' first priority should be a robust defense of their basic product and of the need to invest in improving it. The last thing we need is more voices telling transit agencies to panic about being "left behind." Because when we panic, we don't think clearly.

Source: Jarrett Walker, an international consultant in public transit planning and policy. He writes the blog Human Transit

Swedish speed camera pays drivers to slow down

In January, Kevin Richardson won Volkswagen's The Fun Theory, a contest for ideas to make obeying speed-limits fun. Now, less than a year later, his entry is in use in Stockholm, Sweden.

Is it possible to make road-safety fun? Yes, it turns out. Kevin's idea is both smart and simple. As well as ticketing you when you run through a speed-radar too fast, Kevin's "Speed Camera Lottery" also notices you when you come in at or under the speed-limit.

It then automatically enters you in a lottery. And here's the really smart part: the prizes come from the fines paid by speeders.

This would probably never work in the US (or NZ), where speeding fines and red-light cameras exist as revenue streams for the police rather than as deterrents to bad driving, but the Swedish National Society for Road Safety, which worked with Kevin, has found it to be a success.

The average speed of cars passing the camera dropped from 32km/h before the experiment to 25km/h after. Now, if only there were a way to pay car-drivers to be polite to cyclists.

Source: Wired



Associate Transport Minister helps with spotty cycleway installation

Associate Minister of Transport Julie-Anne Genter has helped install the new contra-flow cycleway on Federal Street, Auckland, as part of the walking and cycling improvements for the area.

The associate minister painted a section of the new cycleway and found out more about the project, which includes polka dots at intersections to slow vehicles.

"I think trialing walking and cycling improvements is a great way to test new street designs with the community," she says.

"It's something I'd love to see more of in all our cities."

Auckland Transport's Walking, Cycling and Road Safety Manager, Kathryn King, says even though the installation is not finished yet, the benefits are already being realised.



Associate Minister of Transport Julie-Anne Genter helps install the contra-flow cycleway on Federal St "Drivers are slowing down around intersections and more people are stopping to look at the changes. It's made this part of the city really colourful and already it's much more pedestrian-friendly."

The project, once complete, will go from Victoria Street to Fanshawe Street. The installation is a trial and AT will be asking for feedback on the changes after it is complete, to get users' views on their experiences.

The works are expected to be completed later this month.

The project includes:

- A protected south-bound (up Federal Street) 'contraflow' cycle lane, allowing people cycling to travel in the opposite direction to traffic on Federal Street.
- Improved pedestrian facilities in the lower section of Federal Street through upgraded footpath surfacing, road marking and signage.
- An easy north/south route through central Auckland for walkers and cyclists, providing an alternative to Hobson Street and Albert Street.
- A link in the City Centre Cycle Network to the Nelson Street Cycleway, via the future Victoria Street Cycleway.

Given Federal Street's relatively low traffic speeds and volume, people cycling north-bound can do so in the general traffic lane, guided by 'sharrows' — road markings designed to guide bike riders and alert motorists to their presence.

Next round of contestable funding opens for innovative EV projects

The latest round of the Government's Low Emission Vehicles Contestable Fund has opened for applications. Up to \$4 million will be available for investment during this round.

The fund offers up to 50 per cent funding towards projects that support the uptake of electric vehicles (EVs) in New Zealand. Applicants must match or exceed the amount granted. Companies, councils and organisations can apply, or partner together to apply.

Applicants have until 11 April 2018 to submit proposals to The Energy Efficiency and Conservation Authority (EECA).

Projects should support practical, sustainable ways to increase EV uptake, particularly in the light fleet market, close gaps in charging infrastructure and demonstrate the uses of heavy electric vehicles across the economy.

For more information visit the EECA website

Christchurch's first 100% electric vehicle sharing service launched



On 15 February, Prime Minister Jacinda Ardern officially launched Christchurch's first 100% electric vehicle sharing service, a scheme the Christchurch City Council hopes will drive transformational change in terms of carbon emissions and attitudes about future vehicle ownership.

The scheme provides businesses and the public with access to a pool of 100 electric vehicles from hubs around the city, making it the largest scheme of its type in the southern hemisphere.

Led by the Christchurch City Council in partnership with Yoogo the initiative received funding from round two of the Low Emission Vehicles Contestable Fund and the Christchurch Agency for Energy Trust.

The foundation partners using the scheme are: Ara Institute, Aurecon, Beca, Canterbury District Health Board, Chapman Tripp, Christchurch City Council, Environment Canterbury, Meridian Energy, Tonkin and Taylor, Warren and Mahoney, Christchurch International Airport and Jacobs.

See more photos and info about Yoogo in Alan's Chair's Chat on page 4.

Letter to the Editor

To Editor Roundabout.

The article 'Thank You Websters Dictionary' [Roundabout, December 2017], gives Roger Boulter an opportunity for an obscure argument to support more cycle routes, pedestrian areas and active mode use areas in our inner city centres.

By referring to Jane Jacob's use of the word 'bollix' he infers that may be Jane Jacobs was in favour of the need to break away from network hierarchy planning and let things get in a muddle. Apparently the resulting 'bollix' might possibly encourage more people to use active travel modes.

I find it hard to believe this was the intent of Jane Jacobs when in 1961 she observed in 'The Death and Life of Great American Cities' - 'the kind of problem which cities pose is a problem of handling organised complexity'.

True some areas may best be left as we found them in the 1950s. But we find many other areas have required a change in function and form over time. These changes can only be initiated through rational studies on a city, district and local analysis including network hierarchy analysis.

In the 1950s most of our city streets were similar and many were mixed with trams, bicycles, cars and trucks so grinding to a halt and meeting Roger's suggested 'bollix' situation. Fortunately we have come a long way since then in rationalising and creating better balanced and less conflicting road systems.

Personally I hungrily devoured Jane Jacobs epic book when published in 1961. Then in 1966 I had the pleasure of meeting and working with Colin Buchanan ('Traffic in Towns') and he pointed out to the Christchurch City Council: 'The essence of the problem is to establish a hierarchy of networks related to different situations within each part of the metropolitan region. Such a hierarchy would guarantee on some individual links, to accommodate different types of movement and different levels of activity, from pedestrian areas, to cycle ways, bus routes , through to high speed rapid transit corridors'

I believe both these path finding giants had much in common and they both focussed on environmental and community values in all their publications and reports. They understood in their description of the problems the logic of how to resolve them.

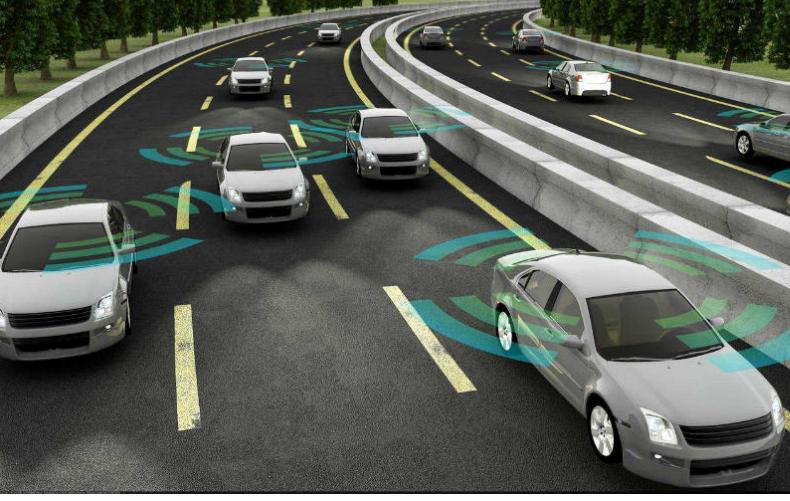
Both knew the importance of thorough surveys, analysis and the necessity of network hierarchies. They recognised that without the appropriate hierarchies the handling of the 'organised complexity' of metropolitan areas would not be successful.

Sorry Roger lets avoid the 'bollix' and the inter modal battle for funds. I plead for better networks for all modes in all parts of our urban regions with strategic urban planning looking out 30 years.

Malcolm Douglass (Life Member) Nelson



How people in 1900 thought we'd be travelling in 2000



ITS UK members cast doubt on predicted driverless vehicle timescales

A survey of intelligent transportation system professionals in the UK suggests that they do not think that fully driverless cars will be on the country's roads by 2021, as suggested by UK Chancellor Phillip Hammond in his autumn budget statement.

Only one member of the UK's Intelligent Transport Society (ITS UK) who answered the survey thought that this timescale was realistic, while the rest were largely split 50/50 between those who expect SAE Level 5 driverless cars, which operate completely independently of humans, to be available within 15 years, and the other half think it will take more than 15 years to become widespread.

The members raised concerns about the public's willingness to 'let go of the steering wheel', and that while the vehicles themselves may be ready, the road network will not be able to support them and that it will be a 'long and rocky road' to full autonomy. Others believe that regulations surrounding insurance and liability will hamper the implementation.

However, there was more belief that some vehicles would be able to drive in certain circumstances much sooner, such as on dedicated roads or motorway lanes.

It was widely agreed that the technology has many benefits, but that there was a danger of over-promising and under-delivering in the short term.

There was also concern that the publicity for driverless cars is harming the implementation of technologies that could be used to improve safety now.

Half of the respondents thought that the driverless vehicle publicity was hampering public awareness of existing automatic driver assistance systems (ADAS), such as automatic braking and lane departure warnings, which are currently available, but tend to be only on higher-level vehicles.

One member commented that there is far too much focus and investment in driverless cars, and not enough in solving current real-world problems.

It was widely agreed that the technology has many benefits, but that there was a danger of overpromising and under-delivering

It was suggested that the right solution would be to focus on the stepping stones to autonomy that deliver benefits now. Only a quarter of members said they thought this was not an issue.

"Our survey suggests that even among those who work on transport technology that there are clear differences of opinion on timescales and benefits of autonomous vehicles," said ITS UK's secretary general, Jennie Martin.

"However, understanding that there may be a problem is the first step to solving it, and we are ideally placed to help shape the future of our transport system to ensure that it is safe, efficient and fit for purpose." Source: Traffic Technology Today



A study commissioned by the Florida Department of Transportation provides new insight into how cyclists and drivers interact, and found that motorists and dangerous street design — not cyclist behavior — the primary factors that put cyclists at risk.

Researchers from the University of South Florida gathered data from 100 bike riders in and around Tampa. Participants' bikes were mounted with sensors, cameras, and GPS to record their movements for a total of 2,000 hours.

The results do not support the assumption that cyclists are reckless rule-breakers.

According to the study, bicyclists were in compliance with traffic laws 88 percent of the time during the day and 87 percent of the time at night.

The observed compliance rate for drivers who interacted with participants was slightly lower, at 85 percent during the day. (There weren't enough nighttime driver observations to report a compliance rate.)

During the study period there were three incidents involving right-turning motorists that were characterized by researchers as "close calls." Two were caused by drivers who failed to yield.

In one case the cyclist crossed during the "Do Not Walk pedestrian signal." This implies he was riding on the sidewalk, though the study does not specify street conditions.

There were 21 "no close call" right turn instances involving motorists and cyclists. Cyclists were compliant with the rules in every instance, and in four cases drivers failed to yield.

There was one recorded collision. In that case, a motorist hit the bicyclist from behind as she waited to turn left.

The crash occurred on a road with no bike lane or sidewalk, forcing the bicyclist to use the general travel lane. The study authors determined the cause of the crash was lack of bike infrastructure and driver error.

"The driver was impatient and tried to pass at a relatively high speed since the oncoming traffic was

about to stop for the bicyclist to turn," the report says.

The study found bicyclists favoured bike lanes or the sidewalk to riding in the general travel lane.

"Sharing the road with vehicle flow was usually associated with higher crash risk than the other two locations and, therefore, was the least favourite choice," wrote the researchers.

When there was a bike lane, bicyclists chose to ride in it 87 percent of the time, while 8.7 percent rode on sidewalk and 4.3 percent rode in the motor vehicle lane.

The study recorded 19 "close calls" involving drivers who passed cyclists with less than three feet of clearance. The data seemed to show that the presence of bike lanes was a key factor: Five incidents happened when a bike lane was present and 14 occurred when there was no bike lane.

"The lack of dedicated bike lanes, wider bike lanes, and/or sidewalks is a primary reason for close calls with passing vehicles, where bicyclists have to share the limited road space with vehicle flow," says the report.

The study is not without its shortcomings. It's unknown how much the presence of monitoring equipment influenced cyclist behavior.

Researchers classified cyclists by level of "risk" and "distraction" based on a questionnaire. But the study authors did not, for example, account for situations where complying with traffic laws actually makes cyclists less safe.

The study recommended a few strategies for Florida, which has a bike fatality rate that is three times the national average.

Though they found that nearly nine out of 10 cyclists obeyed traffic laws, researchers' suggestions were heavy on cyclist "education," which does nothing to protect people on bikes from dangerous drivers on roads that force them to ride with motor vehicle traffic.

The more pertinent recommendations were for more and better bike infrastructure. *Source: Streetsblog*

Once seniors are too old to drive, our transportation system totally fails them

A few years ago, my grandfather gave up his car.

During the early years of his retirement, he'd been very active, volunteering at the local library and chauffeuring older folks who couldn't drive themselves. Over time, he slowed down, but remained independent — so much so that after a year or so in a retirement home, he stubbornly moved back into his own apartment. Though he was in his 80s, he didn't like the idea of being surrounded by — as he put it — "old people."

Eventually, his health declined to the point where it really wasn't safe for him to drive anymore. And though he used to take long walks daily, he could no longer traverse the vast parking lots and six-lane arterial roads surrounding his suburban Maryland apartment.

Ultimately, he ended up largely stuck at home, entirely dependent on family to bring him food, give him rides, and provide simple human contact. In his final years, the car-based transportation system he'd relied on for his whole life really failed him.

His story is shared by millions of other American seniors, about 80 percent of whom live outside of urban areas. "As people have aged in the suburbs, they've been left behind," says Phil Stafford, director of Indiana University's Center on Aging and Community.

And the problem is growing. Americans are getting older: 14 percent are currently over the age of 65, and that's expected to surpass 20 percent by 2030. Modern medicine has extended people's lifespans — and people are spending more years with less physical independence. And yet a smaller percentage of seniors move in with family or to retirement homes than in the past.

"We were creating ideal communities for young families, but weren't thinking what it'd all look like 30 years down the road."

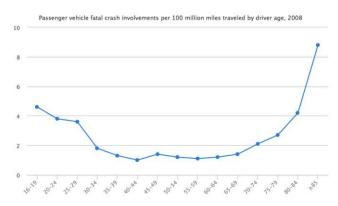
Sprawl forces seniors to drive (even when it's not safe)

Anyone who lives long enough will likely lose the ability to safely operate a car. But most states don't require driving tests for elderly drivers renewing their licenses.

Many keep driving for longer than they should — and that can be seen in data on fatal crashes (see graph).

Drivers are way more likely to be involved in fatal crashes past the age of 75. And for those 85-plus, the data is even worse than it is for teens.

This is mostly because in the event of a crash, older drivers are more likely to die from injuries than younger ones. But it's partly because older drivers have deteriorating vision and reaction time, which leads to more crashes overall.



This doesn't mean we should blame senior citizens for wanting to drive — it's an overlooked cost of a system that gives them no choice.

Once seniors stop driving, those who remain in suburban homes are marooned in an environment designed to be traversed by car. The most obvious problem, says Stephen Golant, a gerontologist at the University of Florida, is access to goods and services.

But seniors who are isolated also have worse health outcomes and lower life expectancies, even after adjusting for preexisting health conditions and other factors. This may be because they're less likely to get health advice and monitoring from family and friends and also because they miss the emotional benefits of regular human contact.

Isolation also means less tangible losses for both seniors and society at large. "Pursuing the new relationships and learning opportunities that give meaning to life becomes more difficult if you're isolated," Stafford notes. And those who aren't seniors miss out on the chance to benefit from the millions of senior citizens who can no longer drive, but are capable of volunteering or contributing to society and our personal lives in other ways.

Retirement homes partly solve this problem by providing contact with other residents and through shuttles for transportation to the outside world. But as part of the aging in place movement, fewer seniors are moving to them than before.

In surveys, more than 90 percent of senior citizens say they want to stay in their current homes as long as possible. Right now, if they want to avoid isolation, they're often forced to give that up.

The good news is that some communities and organizations are experimenting with new approaches.

Some are attempts to change development patterns in areas where seniors live. Stafford, for instance, is involved in planning a Lifetime Community District: an area that incorporates a series of neighborhoods in Bloomington, Indiana, arranged along a three-mile multi-use path. It will include grocery stores, doctors' offices, parks, and community centers that seniors can reach by walking or using a wheelchair.

There's also the increasingly popular Elder Village model, implemented by dozens of organizations in different cities. It allows seniors to stay in their homes, with a mix of paid staff and volunteers giving rides, delivering groceries, and organizing social activities.

Other experts are optimistic that new technologies can help fill in the gap. "I think the Uber model is increasingly going to be important," says Golant. "All kinds of products and services will increasingly be at the fingertips of all people, including seniors."

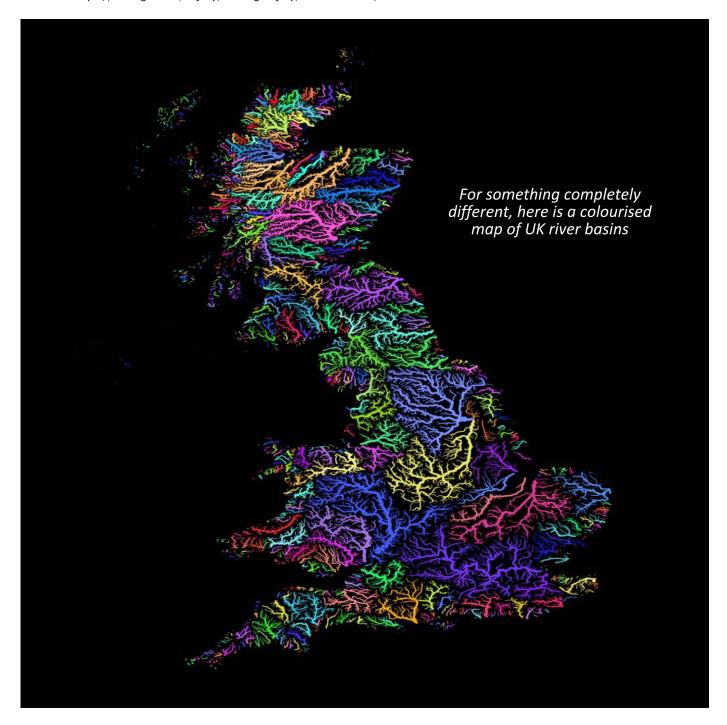
He suggests that cities might start subsidizing Uber or Lyft rides for people who qualify for paratransit, as a more efficient way of allocating transit money. As an alternative, Stafford envisions nonprofit ride-sharing apps specifically tailored to seniors — and perhaps delivery of groceries and other goods as well.

More than anything else, self-driving cars could revolutionize seniors' transportation options. Widespread self-driving technology is still years away, but Google has programmed cars that can safely navigate a heavily mapped area in Northern California.

Some experts are skeptical that they'll ever be functional in real-world driving conditions across the country. But if they do, they could provide an easy means of getting around for people who can no longer drive — allowing millions of seniors to remain in their homes without becoming isolated.

Source: Joseph Stromberg, Vox.com

Also see: https://nzta.govt.nz/safety/driving-safely/senior-drivers/



Transportation Engineering **Postgraduate Courses 2018**



NZ TRANSPORT AGENCY

Department of Civil & Environmental Engineering University of Auckland For Master of Engineering Studies [MEngSt] and Post Graduate Certificate [PGCert], with / without Transportation specialisation, or for a one-off Certificate of Proficiency, COP

CIVIL758 - Traffic Systems Design (Mon 4-6pm, Tues 1-2 pm, 12 weeks)

CIVIL764 – Highway Safety Operations (14 -16 March and 16-18 May)

CIVIL761 - Planning & Design of **Transport Facilities** (21-23 March & 9-11 May)

CIVIL770 - Transport Systems Economics (5 & 6 March, 16 & 17 April, and 21 & 22 May)

Semester 1 (Mar-Jun 2018)
Traffic signal timing analysis, gap acceptance parameters, intersection analysis of performance (priority, roundabouts, signals), introduction to transportation planning and modelling techniques, RMA and other requirements, computer modelling and simulation.

> Topics on the operation of two lane highways including highway capacity, LOS, passing/climbing lanes, & economic evaluation methods. Safer Journeys and Safe Systems, skid resistance, materials & roadside safety.

A range of topics on planning and design of transport facilities including fundamentals of traffic flow, modelling and simulation of transport facilities, macroscopic traffic models and traffic signal safety and operations.

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

Semester 2 (Jul-Oct 2018)

CIVIL759 – Highway & Transportation Design (Mon 11am-12noon, Tues 11am -1pm, 12 weeks)

CIVIL765 – Infrastructure Asset Management (8-10 August & 26-28 September)

CIVIL 771 – Planning & Managing Transport (23-24 July, 20-21 August & 8-9 October)

CIVIL 773 - Sustainable Transport: Planning and Design (new course) (2-3 August, 20-21 September & 18 -19 October)

Economic and environmental assessment of transport projects, land transport funding, road safety engineering, crash reduction & prevention, design of at grade intersections, pavement asset management and rehabilitation techniques, heavy-duty pavements, highway drainage.

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.

Integrated planning of transport and land use, Outline of transport planning modelling, LTMA and the GPS, District Plans and RMA, Travel, trips and parking. Transport assessments and multi-modal transport, Travel demand management, 'Smart roads', Intelligent transport systems, EV's.

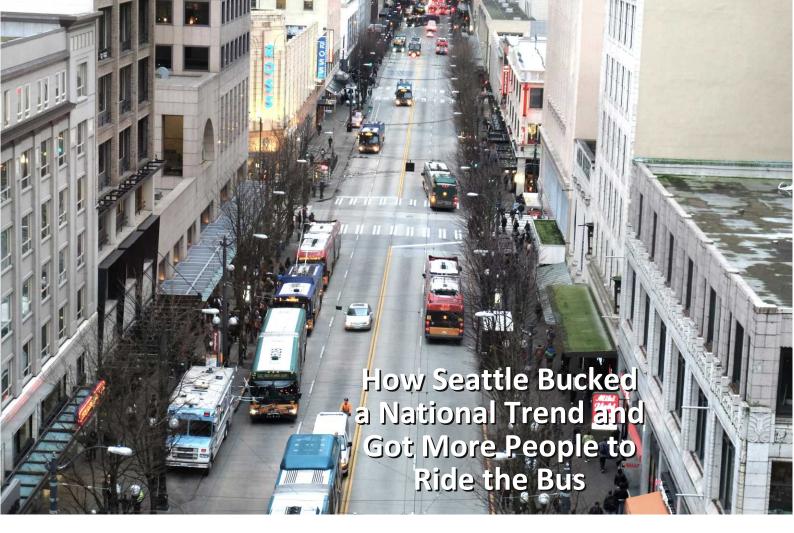
Pedestrian and cycle planning and facility design using best practice (network and route planning, trails, roundabouts, footways, terminals, plazas, footways, escalators, etc.); public transport (bus. rail and LRT) and vehicle operations for compact central urban areas and transit orientated developments, shared spaces and user safety in design assessments.

NOTE: Other relevant courses at the University of Canterbury (e.g. Civil / Transportation) or at Auckland (e.g. in Civil / Construction Management) or elsewhere can be suitable for credit – prior approval is required.

For Admission / Enrolment inquiries contact: Assoc. Prof. Roger Dunn, Director of Transportation Engineering Email: rcm.dunn@auckland.ac.nz Phone: (09) 923 7714 DDI, Mob 021 309 600

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

Our Masters degree Brochure https://cdn.auckland.ac.nz/assets/engineering/for/futurepostgraduates/documents/Transportation final print.pdf Our Transportation Research Centre www.trc.net.nz



Almost every major U.S. city has seen years of decline in bus ridership, but Seattle has been the exception in recent years.

Between 2010 and 2014, Seattle experienced the biggest jump of any major U.S. city. At its peak in 2015, around 78,000 people, or about one in five Seattle workers, rode the bus to work.

That trend has cooled slightly since then, but Seattle continues to see increased overall transit ridership, bucking the national trend of decline. In 2016, Seattle saw transit ridership increase by 4.1 percent—only Houston and Milwaukee saw even half that increase in the same year.

Bus service is crucial to reducing emissions in the Seattle region. According to King County Metro, which serves the region, nearly half of all greenhouse gas emissions in Washington state come from transportation and its operation displaces roughly four times as many emissions as it generates, by taking cars off the road and reducing traffic congestion. The public transit authority has been recognized for its commitment to sustainability and its bus fleet is projected to be 100 percent hybrid or electric by 2018.

So what exactly did Seattle do to improve ridership in a city famously clogged by cars? Three people with different positions in the Seattle transit community: Advocate, official, and bus driver, weigh in.

On Third Avenue, where Adelita Ortiz's routes usually begin, her only traffic obstacle is a stream of other buses traveling down the road. The street blocks off cars and becomes a transit-only corridor during the morning and afternoon rush hours (private vehicles are supposed to turn off after a block on the street).

Third Avenue is one of a few transit malls in the United States that restrict private automobile use. Only the Portland Transit Mall or Boston's Silver Line bus tunnels come close to dedicating as much space to public transit as Seattle's arterial rush hour north-south escapeway.

Ortiz says that not only helps buses to move faster, but it allows drivers to execute a technique called "the weave"—where the buses take turns picking up passengers on the side of the road.

Since the buses pick people up at only some stations, they stagger when to yield the right of way, while other buses behind pull over to pick up more people. Without cars in the way, it's easier for buses to trade off pickups.

"There's a gazillion buses during rush hour," Ortiz says. "We can't all stop at every stop, so we alternate taking the right of way as a courtesy to each other." This priority to buses also has helped expand the city's RapidRide, a lite bus rapid transit system that makes fewer stops and features off-board payment and all-door boarding.

Ortiz, who has driven for King County Metro for nearly 17 years, remembers a time when things didn't run so smoothly. "Back in the day, we'd be on Third Avenue making stops with completely full buses and sitting in traffic," she says.

"We'd be at a light for maybe five or six light cycles and



before you knew it we're down twenty minutes on a route where we should have been already uptown dropping people off and coming back to pick up more."

Since 2010, the city has absorbed an additional 45,000 new workers—47 percent of whom commuted by some form of public transit in 2016 and only 2,225 of those newcomers drove alone to work.

"Over the years I've noticed we've gotten a lot more people moving through Seattle, a lot more traffic and a lot more passengers," she says.

Ortiz says that dedicated bus corridors, bus lanes, and other improvements make her job easier. The city is planning its first complete bus rapid transit route to be built in 2018.

"It's all very helpful," she says. "We're picking up hundreds of people per day. They're depending on us to get them home safely. We do our best to get them there on time."

As great as it would be to maximize the bus's reign on the roads everywhere, that's not always possible. Scott Kubly, the director of Seattle's Department of Transportation, says making the system better mostly means spotting small fixes.

"We don't just focus on the big corridor projects," Kubly says. "We are focused on making the small, surgical improvements that add up to something big."

SDOT and King County Metro have worked together for a spot improvement program, where they identified bottlenecks and slow spots on bus routes. Kubly notes an example at a challenging intersection along Rainier Avenue and Dearborn Street.

"That's a super busy street carrying tens of thousands of cars a day and there was a signal where the bus was experiencing a lot of delay," Kubly says. They identified a center turn lane that was low enough volume that it could be turned into a transit-only lane for just a block, which allowed buses to pull up to the front of the line at the traffic signal.

With buses moving about a minute and half faster along that road's one-mile stretch, Kubly says the service improvement speaks for itself.

In other trouble spots, they inject more traditional solutions. They added bus bulbs on the side of the road to pick up passengers without blocking traffic. They introduced queue jumps, where buses get to take a designated lane to the front of the traffic and get a few extra seconds at the light to get a head start on traffic. They put transit islands in busy corridors for easier boarding. All this accumulates into more frequent and faster bus service.

"There's not a big communications campaign around 'hey, we just put in this queue jump and your bus just saved 10 seconds every trip'," Kubly says. "Making small tweaks helps the bus maintain its level of reliability and people are going to choose it because it is producing the results that they want."

Another example of good coordination is along Westlake Avenue, where a SDOT-owned streetcar lines now share their dedicated transit lane with King County's RapidRide C line and 40 bus. "That's right in the heart of Amazon [headquarters]," Kubly says.

"So we put buses on the streetcar lane and went from having a streetcar every 10 minutes to a bus or streetcar every two and a half to three minutes. By not getting bogged down in disputes about ownership, we were able to really improve the customer experience."

"What's happened with the city of Seattle was an interesting and important experiment," says Shefali Ranganathan, the executive director of Transportation Choices Coalition. Ranganathan has led the organization for nearly a decade, advocating for better transit, biking, and walking infrastructure across Washington state.

"For years, the county has known what its unmet needs are in terms of frequency and reliability to provide high quality [bus] service. But the issue around funding was that there were never enough resources to allow for [planning] flexibility."

King County relies on a sales tax to fund about half of the bus system's operating budget. When the recession hurt revenue, the system eventually faced a funding gap. A ballot initiative was proposed to increase the sales tax and a car-tab fee.

And Ranganathan says people voted to pay more for transit because of the clear and expansive picture provided by the city of just what a budget shortfall would do their service.

King County Metro released guidelines calculating route productivity and equity for low-income communities where some 74 routes would be cut and another 107 routes would be revised for reduced service.

That transparency made Ranganathan's job of conveying information to the public easier—her organization was able to use that city data to build a campaign around transit accessibility. "Data-based decision making has been really essential," says Ranganathan.

Source: CityLab



Registrations for the 2018 conference are now open with early bird specials available until the 25th May.

The 2018 National Conference is shaping up to be the biggest we have ever had with more keynote speakers than ever, a new Freight, Ports and Aviation Stream and a fourth day of events added to the programme.

As well as an exemplary technical program during the days, we have put together a diverse range of networking events that take place at a range of unique venues across the Perth CBD.

Please note that if you would like to take advantage of one of our exciting tours on Tuesday 24th July, we recommend completing your registration early as places are strictly limited and its first-come-first-served.

The AITPM Conference Committee is committed to making your stay in WA as enjoyable as possible. In this spirit- for the very first time, thanks to the generous support of Austraffic, we have partnered with TASA to bring all conference delegates, speakers, sponsors and their family exclusive travel discounts and packages ready for you to book in one easy online platform.

Packages are available including flights, accommodation and transfers. We have also put together an exclusive program for the partners and family so you can take advantage of your time over here and travel together. Finally, in 2018 we have an amazing AITPM family and friends post-conference getaway planned in Margaret River. This relaxing weekend away is the perfect way to wrap up your stay in WA so we hope you can join us on this break.

CLICK HERE FOR DETAILS





THE DINOSAUR PET GUIDE



FAVOURABLE CAUTION BEWARE!









SMALL SIZE



EASY UPKEEP



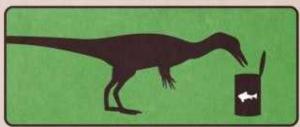
REQUIRES SPACE / FREQUENT EXERCISE



COMPSOGNATHUS



SMALL SIZE



EASY UPKEEP



A BIT NIPPY



LAMBEOSAURUS



BEAUTIFUL CREST



PEACEFUL DISPOSITION

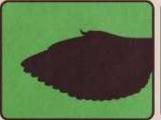


LOUD



DIFFICULT TO HOUSE





BEAUTIFUL PLUMAGE





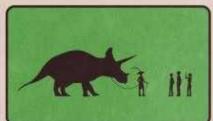
BAD WITH OTHER PETS



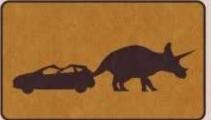
RISK OF DISEMBOWELMENT



TRICERATOPS



IMPRESSIVE TO FRIENDS



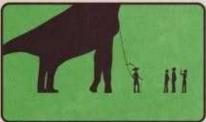
ACCIDENTAL DAMAGE



RISK OF GORING



GIRAFFATITAN



IMPRESSIVE TO FRIENDS



EXPENSIVE UPKEEP



RISK OF TRAMPLING



TYRANNOSAURUS



IMPRESSIVE TO FRIENDS



CERTAIN DEATH



... OF NEARLY EVERYONE

BIKE TO THE FUTURE



More than 14,300 New Zealanders set their wheels in motion in Aotearoa Bike Challenge

The second national Aotearoa Bike Challenge has encouraged thousands more New Zealanders to cycle, with more than 14,300 people from over 1,600 organisations taking part, including over 2,600 new riders.

Throughout the month of February participants made more than 159,000 trips by bike, cycling an impressive 2,156,800 million kilometres in total. That's over 150,000 more kilometres than 2017's effort.

To find out more about the event and prizewinners go to www.aotearoa.bike

Work begins on He Ara Kotahi shared pathway in Palmerston North

Minister of Transport Hon Phil Twyford (below) officially marked the start of construction on He Ara Kotahi, a new 7.6km shared path for cyclists and pedestrians through Palmerston North and over the Manawatū River on Thursday 8 February.





Once complete, He Ara Kotahi, which means 'a pathway that brings people together', will improve the city's connectivity by helping to join up Linton Military Camp, Massey University, Ag Research, Fitzherbert Science Centres and FoodHQ with the urban transport network.

He Ara Kotahi's most visible feature will be a 195m long and 4.2m wide bridge (right). It will have a 10m wide viewing platform midspan and be designed to replicate a karaka tree that has fallen across the river. It will



be positioned near Dittmer Drive opposite Ruha Street.

Associate Minister of Transport opens Auckland's 30th Bikes in Schools project

The Associate Minister of Transport Hon Julie Anne Genter attended the opening of Auckland's 30th Bikes in Schools project at May Road School in Mount Roskill on Monday 5 March.

The Minister joined students, teachers and other members of the school community for a ribbon cutting and photo opportunity as they opened their new bike track, pump and skills track, and fleet of new bikes in the school. The Bikes in Schools programme project was part funded by the NZ Transport Agency with the aim of giving all Kiwi kids the skills to ride a bike and benefit from regular exercise.

Active Modes Infrastructure Group Update

The Active Modes Infrastructure Group (AMIG) continues to tick along, with the latest meeting held in Wellington on February 16th.

Convened by the RCA Forum and the Transport Agency, AMIG's role is to consider developments in best-practice design and guidelines for walking and cycling, including signs, markings, and rules.

It was good to see a number of new (or "long-lost") participants at AMIG in February, all the way from Whangarei to Dunedin. Here's what the 16 or so attendees discussed at the meeting:



 The directional cycle signal trials, reported in the Sep 2017 issue of Roundabout, are now being assessed their following implementation Christchurch (High/Madras/St Asaph); this entailed video monitoring and intercept and online surveying. Two further trial sites have

now been installed in Auckland, at Beach/Te Taou and Nelson/Victoria intersections; monitoring will continue there.

• Draft advice on cycleway separators for the Cycling Network Guidance (CNG) was circulated and discussed. There are a range of different separator options either already in use here or potentially, and a selection matrix discusses their relative attributes.

The new advice identifies factors that may affect the choice of treatment, including available width, mountability, and colour/conspicuity. AMIG attendees also gave good suggestions regarding the degree of permanence, construction methods, and choice of end treatments. Further amendments will be made before updating the CNG.



- Many of you will be aware that NZ Post has been trialling using small Paxster delivery vehicles on footpaths over the past year or so. Hamilton reported on their findings since their introduction last September. A user survey in Nov/Dec identified no significant concerns identified by people sharing paths with them, although there is a small group (<10%) who felt that they were inconsiderate towards pedestrians. Further surveying and monthly meetings with key stakeholders are ongoing.
- There was a very detailed discussion about what is best practice for a 'Copenhagen lane', i.e. a cycleway vertically separated between road and footpath. Auckland Transport has been doing some investigation of various design options regarding the height and slope of the separator kerbs. Key things to determine are whether they are safely traversable and not trip hazards. Further trials are planned to test these things out
- Another issue that Auckland is looking into is how to delineate a cycling space on a common path, so that it is detectable by vision-impaired pedestrians. Some thermoplastic tactile guide lines have been used overseas; just need to ensure that they don't create a new trip hazard.



• Further work continues by NZTA to consider options for cycle safety on rural roads; this is especially important for key cycling routes like Heartland Rides. Pinch-points such as narrow bridges create particular problems that may require low-cost solutions such as waiting spots with holdrails or conditional lower speeds (see example sign).

As usual, there were a heap of other topics also covered; for

more details, check out the group's webpage, where links to recent meeting minutes and key policy decisions made are recorded in due course: CLICK HERE

The next AMIG meeting will be about mid-May 2018, again planned for Wellington. If your RCA is doing lots of stuff in the walking/cycling space (or would like to learn more about what others are doing), contact coconvenors Wayne Newman (RCA Forum; wayne@cresmere.co.nz) or Gerry Dance (NZTA; Gerry.Dance@nzta.govt.nz) about attending future meetings or at least being on the email group.

Transportation Group members are also welcome to contact me about any ideas or issues regarding walking or cycling treatments and I will raise them on your behalf at AMIG.

Glen Koorey (Trptn Group AMIG rep)
ViaStrada Ltd (glen@viastrada.nz, ph.027-739-6905)

Call for Papers

15th World Conference on Transport Research 26-31 May 2019, Mumbai, India

The World Conference on Transport Research Society (WCTRS) is happy to announce that the 15th World Conference will be held from 26-31 May 2019 in MUMBAI (India) at the Indian Institute of Technology (IIT) Bombay.

The aims of the conference are to bring together experts in all areas of transport research from all parts of the world and to stimulate the exchange of ideas in the field of transport policy and practice.

Authors are invited to submit one or more full papers to the following topic areas:

A. Transport Modes: General

B. Freight Transport and Logistics

C. Traffic Management, Operations, and Safety D. Activity and Transport Demand

E. Transport Economics and Finance

F. Transport, Land Use, and Sustainability

G. Transport Planning and Policy

H. Transport in Developing and Emerging Countries

I. Infrastructure Design and Maintenance

Authors can choose to submit their work either for the non-review track or the review track. The latter offers a thorough review process for each full paper in order to assess its potential for publication and short-listing for the award of a prize.

Similar to the previous WCTR, a close cooperation with major scientific transportation journals will be agreed, to support publication of excellent papers in special issues shortly after the Conference. The organisation of the Conference is supported by Elsevier.

Detailed information on the content of each Topic Area, registration, the venue and accommodation is provided on the conference website: http://www.wctrs-conference.com

Important Deadlines:

Submission of full paper for review: July 6, 2018

Submission of full papers under non-review track: October 26, 2018

Notification of paper acceptance: November 2, 2018

Registration of author presenting paper: December 14, 2018 Submission of final papers under review track: February 8, 2019

Guidelines for submission: papers should be submitted using the paper template and the Elsevier online submission system

We look forward to your contribution and participation in the next World Conference on Transport Research in Mumbai 2019.

Yoshitsugu Hayashi, Chubu University, Japan (President WCTRS) Lóránt Tavasszy, TU Delft, The Netherlands (Chair WCTRS Scientific Committee) K V Krishna Rao, IIT Bombay, India (15th WCTRS Conference Director)





Outside Overkill, a hip shoe store in Berlin's Kreuzberg district, breakfast is being served: Mettbrötchen, minced raw pork on a bread roll. "This isn't a hipster breakfast," explains Julian Kalitta of Overkill. "It is typical old-school Berlin – something you can imagine one of the city's tram drivers eating before work."

It's a fitting treat for the hundreds of people who have camped out in the snow, some since Saturday, waiting for the limited release of 500 pairs of the new EQT Support 93/Berlin shoe — an unlikely collaboration between Adidas and BVG, the city's transport company.

The shoes, which feature the same camouflage pattern used on the city's train seats, double up as an annual transit pass.

It's embedded in the tongues of the trainers, which are styled as a fabric version of the BVG annual ticket, and can be used just like a regular ticket covering the bus, tram and underground in zones A and B. While the cheapest annual ticket available from the BVG is currently €728 (\$NZ1200), the shoes cost just €180 (\$NZ300).

As a result, the sale has drawn an unusual mix of trainer collectors and those simply looking to make a saving on their daily commute.

"We often see people camping outside for new shoes but this is different," says Kalitta. "It's not just the 'sneakerheads'."

Mihai Vătafu, 28, A graphic designer originally from Bucharest, has been camping in the bus stop across from the shop since Sunday. "I fell in love with the city when I moved here six months ago and I've always loved the trains," says Vătafu. "Wearing the shoes will be a statement; it doesn't matter where you are from, they represent how you feel about the city. Plus I can't wait for the moment a ticket inspector gets on the train and I can just point to my shoes."

But Jana Sträter, 20-year-old student, sees them as practical. "I'm not a big Adidas fan, but I think the idea of getting a ticket for the train is really cool," says Sträter. "Some people will sell them on but I will wear them."

Riders will need to wear both shoes, rather than carrying them in a bag or giving one to a friend, to use the ticket.

The collaboration between a transport company and sportswear company is unusual, but the BVG saw it as a way of encouraging ridership.

"The motivation behind the collaboration is really to get young people on to public transport," says Petra Reetz, who says at first she was skeptical of the idea. "I said, 'We are a public transport system, not Michael Jordan' ... But in a big city like Berlin, the quality of life and quality of the air are important. We wanted to tell young people public transport is cool – you don't need to buy a car."

It's also an attempt to modernise the image of BVG, which although attracting more than 1 billion rides last year, is ageing (it turns 90 this year).

The visual lynchpin of the rebranding is the camouflage design, which has also been spun into a range of merchandise including baby bibs, swimming shorts and teapots. The agency has also taken an irreverent tone on social media, including a tweet encouraging Donald Trump to become a Berlin bus driver rather than run for president.

The collaboration is also about repositioning the BVG as central to the brand of the city itself. "We Berliners, we are like Londoners – we know we are cool," says Reetz. "And now we are very cool because we have our own sneakers."

Source: Guardian



Billions of miles have been driven on Britain's roads this decade in cars fitted with "telematics" boxes recording every detail of a driver's behaviour — whether they are speeding on a 30mph urban road, how they are cornering on a country road, and how they are braking or accelerating on a motorway.

Installed in about 1m cars by insurance companies, they offer drivers — usually 17 to 25-year-olds — less costly insurance if they drive more carefully. But the telematics black boxes also reveal a wealth of data about how Britain drives - debunking a lot of modern myths, but confirming many others.

Insurethebox, Britain's biggest telematics insurance provider, now holds more than 3bn miles of driving data and associated claims since 2010. Marmalade is the other major black box player in the young driver market, while Coverbox is a newer entrant focusing on extending telematics to middle-aged and older drivers.

Here's what their data and findings is telling us about driving behaviour – and how much you might save (or not) from installing a black box recorder in your own car

17-year-olds are safer drivers than 18 and 19-year-olds

According to Sarah Vaughan, head of pricing at Insurethebox, youngsters passing their test at 17 drive relatively safely: "Seventeen-year-olds are not the worst drivers. Actually, many new drivers at age 17 drive really modestly in speed terms. Maybe they are just gaining confidence. Their behaviour then deteriorates over the age of 18. It is two to three years after obtaining a licence that speed risk is highest."

Women are better drivers than men

The telematics data confirms that women drive more carefully, at lower speeds, and have fewer accidents than male drivers. EU rules prohibit insurers from discriminating on the basis of gender and were very controversial when introduced, as they meant insurers could no longer charge higher premiums to young men than women.

"The data supports the old insurance model where males were historically priced more highly than females. On average, they do driver faster – that's what the telematics tell you. But you can use telematics to prove that you are a good driver, irrespective of your gender," says Vaughan.

Marmalade says men (54%) make more claims than women (46%), with the average male claim costing £2,566 compared with the average female payout of £2,345.

Country roads with 60mph limits are a deathtrap for young drivers

Telematics devices know which type of road the driver is on, and find that young and inexperienced drivers handle winding roads poorly.

"When you are on a country road with a 60mph limit, you shouldn't be doing anywhere near 60mph," says Vaughan. "What young people need is more help in understanding where it is inappropriate to drive near the limit."

Crispin Moger of Marmalade says: "Many newly qualified drivers still are too scared to drive on motorways. This results in them spending more time on

rural roads. With narrow lanes, blind corners and slow-moving vehicles, these can be far more dangerous than the motorway: according to information published on gov.uk, 80% of young driver fatalities occur on rural roads."

Erratic driving that causes accidents starts from the moment you leave home

The data shows that drivers often handle a vehicle erratically for some time before becoming involved in an accident, for example after having an argument. Coverbox says it generates a 30-page report on every claims incident, which includes detailing the driving behaviour prior to the accident.

"We see a trend of very fast and erratic driving which is different from the driver's normal behaviour. Quite often it's during the day rather than at night," says Coverbox director Howard Collinge.

NHS workers are probably the safest drivers

Insurers have always discriminated according to occupation. "Motor racing driver" is the most expensive insurance category, with "funfair employee" not far behind. Telematics is finding that NHS workers are the least likely to cause an accident. But Marmalade has found that gamers are relatively safe drivers, while customers with "reading" among their hobbies are among the riskiest drivers.

Younger drivers are worse at driving in the dark than older drivers

Long, dark nights seem to be more of a problem for young drivers. Insurethebox says its analysis of claims

data shows that accident risk increases threefold at night for the under-25s compared with a 50% increase for over-25s.

Speed is the root of all motoring evil

"If there's one thing young drivers need to do, it's to slow down. Speed is the single biggest contributor to risk. About one-third of drivers drive too fast for the conditions on the road," says Vaughan. Her data shows that drivers who speed 20% of the time increase their risk of having an accident by 87%.

Young males can be made to slow down

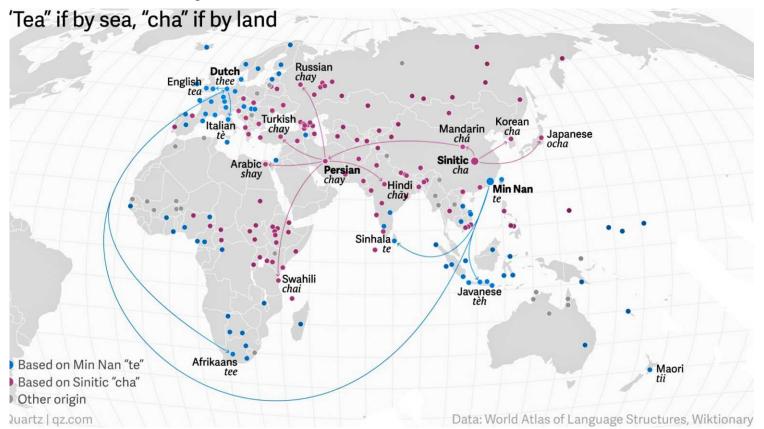
"We contact the ones who are driving too fast through text messages and emails. We give their driving a red, amber and green status. People who we contact reduce their speed by an average of 15%," says Vaughan. Good drivers receive bonus miles on their policy.

Coverbox says most drivers slow down after a warning, but add that with a small hard core of mostly male drivers, the speed pretty soon goes back up.

Marmalade warns persistently bad drivers of a £125 to £250 charge, and if it is not paid the policy is cancelled. "If a journey is flagged as red, meaning it contained some potentially dangerous driving, we will call our customers to discuss the problems. And yes, if it keeps happening, our customers understand that there will be a charge of £250. This is a hugely effective disincentive to poor driving, and over 95% of our customers consistently drive well."

Source: Guardian

Important information about tea



If tea was brought to your country by sea, it is likely to be called a variant of 'tea'. If it was brought by land, it is likely to be called a variant of 'cha'. Who knew?

WHAT ARE YOU LOOKING FOR?



RETAIN GROW

WELCOME TO THE ENGINEERING EMPLOYER RESOURCE PORTAL

Access information, tips and tools to Recruit, Retain and Grow your team.

ree.org.nz















As a rule of thumb: If a street network looks geometrically interesting from 10,000 feet. It's probably a terrible place to walk.



Te Whare Wānanga o Waitaha CHRISTCHURCH NEW ZEALAND

Transportation Engineering Postgraduate Courses 2018

Dept of Civil & Natural Resources Engineering **University of Canterbury**



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 or thesis Please see the website of the University of Canterbury for fees per course in 2018: http://www.canterbury.ac.nz/courseinfo/MyGetCourses.aspx?course=&year=2018

All courses run in "block mode" to enable part-time and distance students to easily take part. In 2018, the contact time will be four days (i.e. a 2-day block of 2 blocks), and students taking the courses will be expected to do more reading and learning in their own time.

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 qualification and suitable work experience, will be considered for entry.

COURSE Semester 1

ENTR 401: Fundamentals of Transport Engineering

(Self-study course, with 1-day tutorial)

ENTR615: Transport Network Modelling

(Block dates: 5-6 Mar, 7-8 May)

of Sustainable Transport

(Block dates: 19-20 Mar, 21-22 May)

Semester 2

Traffic Management and Monitoring

(Block dates: 23-24 Jul, 17-18

Sep)

ENTR604: Road Asset Management

(Block dates: 30-31 Jul, 01-02

ENTR617: Traffic Network Modelling & Optimization

(Block dates: 13-14 Aug, 24-25

ENTR616: Transport Planning and Modelling

(Block dates: 20-21 Aug, 15-16

DESCRIPTION (see flyers on website for more details)

Bridging course for non-transportation students: Transportation planning; Road link theory & design; Intersection analysis & design; Traffic studies; Accident reduction; Sustainable transport planning & design; Intro to pavement design. Course coordinator: Dr Kun Xie

Advanced concepts of macro-, meso-, micro-scopic traffic models; Applications of Bayesian estimation techniques for real-time traffic monitoring; Microscopic simulation package (AIMSUN); Model calibration and validation using heuristic optimization techniques. Course coordinator: Assoc. Prof. Dong Ngoduy

ENTR614: Planning & Design Pedestrian planning & design; Planning & design for cycling: Audits/reviews of walking & cycling; Planning & design of bus public transport facilities; Travel behaviour change & travel plans. Course coordinator: Dr Diana Kusumastuti

> Introduction to control theory; Implementation of control theory in traffic control; Large-scale urban network modelling and control; Application of microscopic simulation AIMSUN, Macroscopic or Network Fundamental Diagram; Introduction to motorway control: ramp metering, variable speed limit; Coordinated urban network control, traffic signal design (TRANSYT), traffic state estimation. Course coordinator: Dr Mehdi Keyvan-Ekbatani

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. Course coordinator: Assoc. Prof. Mofreh Saleh

Principles of transport network modelling: user equilibrium and system optimum; Basic concept of linear programming and optimization; Traffic Network Assignment package (SATURN); Optimal signal control designs in SATURN. Course coordinator: Assoc. Prof. Dong Ngoduy

Urban transport planning models; Geographic information systems; Travel demand modelling and prediction; Project appraisal; Transport modelling.

Course coordinator: Dr Diana Kusumastuti

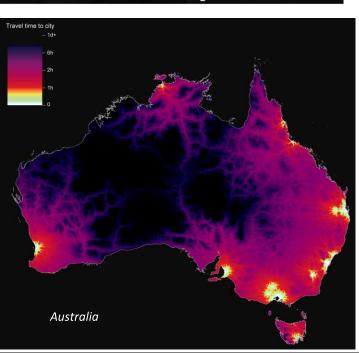
Note: Other relevant courses at the University of Canterbury, University of Auckland or elsewhere may also be suitable for credit to a PGCertEng, MEngSt or MET (contact Assoc. Prof. Saleh for approval). For more details contact:

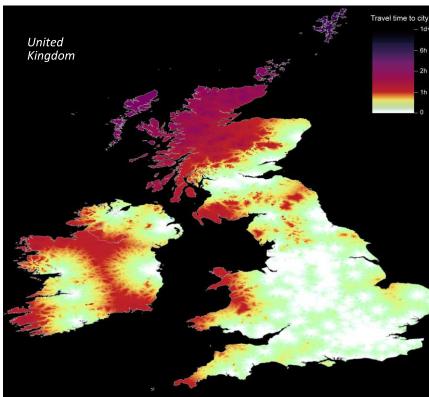
Associate Professor Mofreh Saleh (Ph. 03 369 5118; Email: mofreh.saleh@canterbury.ac.nz) Or visit the website: www.met.canterbury.ac.nz

Roundabout Issue 155 March 2018 28

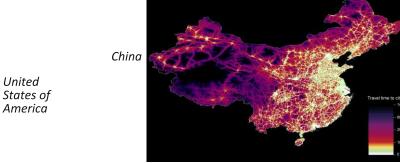


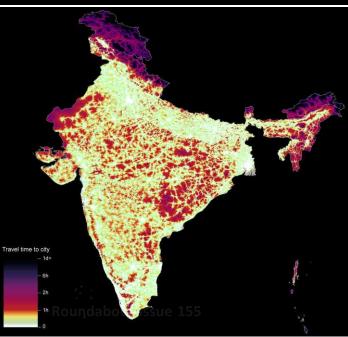
New maps showing travel times to the nearest urban centre reveal huge differences between countries. Using Open Street Map and Google, a University of Oxford team have created a visual breakdown that suggests major inequalities when it comes to commuting. Due to a high density of urban centres in Britain and Ireland, accessibility is largely unimpeded in the UK – shown by light colours. Only in the highlands of Scotland are travel times increased, as indicated by dark colours. The photo competition returns next edition. Send photos to: daniel.newcombe@at.govt.nz

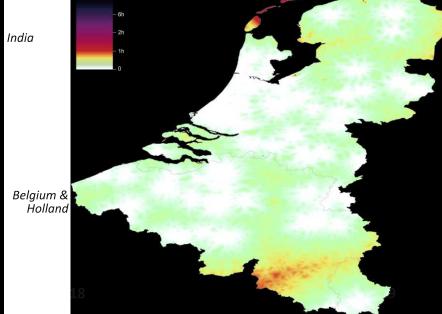














Branch updates

Auckland/Northland Branch

The Auckland / Northland branch held its AGM on Thursday 1 March along with the annual welcome back summer party. The committee would like to thank Jensen Varghese as the outgoing Chair but will still remain on the committee. We would also like to welcome new members to the committee. Matthew Hoyle, Lewis Thorwaldson and Ngan Truong.

Upcoming event - Tomorrow's Transport Today: Mobility on-Demand

Based on Roger Jefferies presentation at the Conference, Roger will present on a new 'on-demand' transit service, using technology enabled minibuses running on flexible routes. It has been developed under the NSW Future Transport Technology Initiative to support Sydney's response to the transport challenges we are experiencing through rapid population growth. The service is being tested and will be launched in early 2018 for people traveling to and from the Macquarie Park precinct, one of Sydney's employment, education and leisure hubs. This presentation will further discussion around this topic

Date: Monday 26 March, 5.30pm

Location: AECOM House, Level 2, 8 Mahuhu Crescent

Light catering and drinks will be provided.

Waikato/Bay of Plenty Branch

Alan is working on it.

Central Branch

Upcoming events in March

Kaikoura Earthquake Transport Links Re-Building Forum

The forum is being hosted by the Engineering New Zealand Wellington Branch, together with Engineering New Zealand Transportation Group Central Region and the New Zealand Chapter of the Railway Technical Society of Australasia.

What is it?

An afternoon forum on rebuilding the transportation links after the November 2016 Kaikoura Earthquake. The forum will celebrate and showcase the human and technical requirements, challenges and achievements that have enabled the rebuilding and reopening of State Highway 1, and the Main North Railway Line, following the enormous damage caused by the earthquake.

Where?

Level 3, Engineering New Zealand Offices, Customhouse Quay, Wellington 6011

When?

Tuesday 13 March 2018, 1pm-6pm

March Lunch Time Seminar - The effect of transport outcomes on location choice in Australian cities

presented by Stuart Donovan.

When: 3pm afternoon tea provided for 3.30pm start,

Wednesday 14 March

Where: Holmes/Pickering Room, Engineering New

Zealand, Level 3, 50 Customhouse Quay

In this talk, Stuart will discuss his ongoing research into how transport outcomes, such as travel-time, affect where people choose to live and work. Using commuting and transport data from three Australian cities, he finds robust evidence that transport outcomes affect location choice. Whereas most existing strategic transport models focus on predicting mode and route choice, Stuart argues that one's choice of location is more fundamental and largely determines other transport choices. To finish, he will consider implications for transport and land use policy.

RSVP's not required but we warmly welcome you to attend and hope to see you there!

ENZ Transportation Group Central Branch AGM and Social Evening

Message from the Chairperson, Tom Small:

The Central Branch of the Transportation Group will be having their AGM and social drinks on Thursday 5th April. Please put this in your calendar, the AGM will be a short affair, followed with a great opportunity to network and welcome our new members to the branch.

The AGM will kick off at 4.30pm at Engineering New Zealand Offices, Level 3, 50 Customhouse Quay followed by networking at Munchen, 6 Queens Wharf.

I would like to express my thanks to the committee for all the hard work and dedication over the past 12 months. In 2017 the branch had 7 lunch time events and the quiz night. The committee consists of:

- David Huang
- Louis Bargh
- Michelle Lewis
- Roger Burra
- Diana Munster
- Catherine Mills
- Claire Pascoe Denis Mander

Also thanks to Jo Draper who left the branch during the vear due to relocation to Auckland.

The team have already lined up a few exciting events this year already; including the Kaikoura Transport Links Re-Building Forum, a combined event with the New Zealand Chapter of the Railway Technical Society of Australasia! I look forward to seeing you at the event.

50 Canterbury-West Coast Branch

The Canterbury/West Coast branch has been beavering away at the conference and we can now breathe a sigh of relief that it's finally upon us! Big thanks to all our paper reviewers, our conference subcommittee and especially Jeanette for putting in a(nother) massive shift. We hope everyone in attendance has a worthwhile time and takes home at least a few new We would like to invite you to join us for a talk friends, good memories and interesting ideas to share with their colleagues.



Branch updates

Our East Frame walkabout and welcome to 2018 function with the Urban Design Forum took us through the planned and developing East Frame anchor project in the Christchurch CBD. Here we were able to get a glimpse into the future, hear about how and when things are progressing and even challenge Otakaro on a few things. Big thanks to Otakaro for taking the time to show us through (and to Dux Central for rehydrating us afterwards on a very hot day!)



We've also got a few exciting events coming up:

- As the conference is on, the Canterbury branch is having lunch with keynote speaker Rod Schebesch on his way through to Queenstown.
- Our ENZ TG conference local speakers session will be held shortly after the conference where we'll be asking some of the top Canterbury speakers at the conference to present. Keep an eye on your emails for details.
- The Chartered Institute of Logistics and Transport has invited our Transport Group members to a 'Robotics and the Future for Logistics and Transportation' forum on Thursday 12th April. With 10 sessions all allowing for questions on forward looking topics such as robotics, blockchain, drones, internet of things and how these interact with logistics and transport this is for anyone with an eye to the future. The forum runs from 12 noon until 5:30pm at the University of Canterbury, with networking, nibbles and drinks to follow. The cost has been discounted for TG members and is \$75 (\$35 for student members). RSVP to Chris from CILT (clangunn@snap.net.nz) noting that you're a TG member.

Southern Branch

This branch is hard at work.

NZ Modelling User Group

The NZMUGs committee has been hard at work early in 2018, with work proceeding on a number of fronts:

- · Planning for the 2018 Conference in Auckland is coming along well, with a short list of dates and venues being assessed at the present in the usual late August / early September window;
- · Now that it has been in circulation for a few years, we have recently reviewed the Transport Model Development Guidelines. Bevan and Tony have suggested changes for consideration, and we expect this to culminate in a revised version soon;
- · You will have seen the 'Future of NZMUGs' survey which has been live for the last couple of weeks. The

aim of this is to better understand what our members value from NZMUGs, and whether this needs to change in the future. The survey will have closed by the time you read this, so be on the lookout for the results; and · lan continues to scope up how to proceed in developing forecasting guidelines, which we see as the next major project.

With all of these things on the go, the committee is meeting for a strategy day on the 15th of March in Wellington to work through the next steps. Remember if you are a Transportation Group member, it is free to join NZMUGs. All you need to do is email tech.groups@engineeringnz.org and ask to sign up.

SNUG

The SNUG mini-Workshop, held at Novotel Auckland airport on 20 February, had nearly 60 attendees (despite the best efforts of Cyclone Gita) and was kindly sponsored by Spunlite Poles and Fusion Networks.

This was a new one-day interactive format for SNUG, covering signals-related topics such as pedestrian and cycle facilities, detection, public education and compliance, SCATS, and consistency of standards, which we have had good feedback on. Given the success of the first one, we intend to hold a mini-Workshop of a similar interactive style every year or two going forward.

The SNUG AGM was also held at the mini-Workshop, with some committee members stepping down, many staying on or returning, and some new blood to keep us invigorated. The 2018-2019 committee is:

Jeff Greenough (Jacobs) – Chair
John Kinghorn (Hamilton City Council) – Vice-chair
Samantha McCarthy (TDG) – Treasurer
Matthew Hoyle (Mott MacDonald) – Secretary
Sean Lewis (Green Signal) – Website/communications
Michael Daley (Aurecon)
Sergio Prieto (SpElectrical)
Steven Wright (Christchurch City Council)
Paul Donegan (CSL)
Dan Burgess (NZTA)
Joe Connolly (Downer ITS)
James Ellison (Beca)

Thanks to Katie Dugan from for her work on the committee over the last year! Going forward, the committee will set up working groups to address the issues raised on the topics discussed during the mini-Workshop. Please let us know if you are interested in joining a working group on pedestrians, cycling, standards consistency, or public education and compliance.

Although we now have a full committee of 12, we would like to have all traffic operations centres represented, so if anyone from the Tauranga or Auckland TOCs would like to get more involved, please let us know. Next event will be a standard 2.5 day SNUG Workshop with technical tour and presentations in Hamilton in late October/early November. Keep an eye out for more announcements on dates and call for presentations/papers.



Roundabout of the month



This edition' image comes from a mock up of a further application of Swindon's famous 'magic roundabout'. As with the original, this complex interchange actually consists of five separate smaller roundabouts supporting clockwise traffic, all situated around one larger central roundabout that runs counterclockwise.

Despite its frightening appearance, this configuration is far more efficient than the conventional single-ring roundabout. It has been adapted to create other ring junctions around Britain.

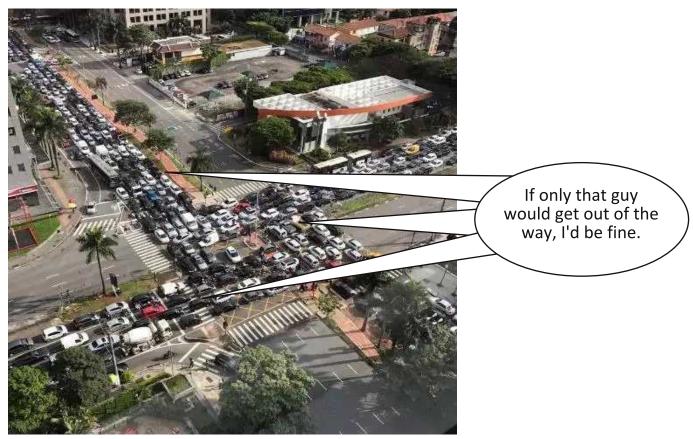
In such roundabouts, each peripheral circle facilitates car entries and exits from an associated feeder road. Experienced drivers can traverse the intersection in more direct and efficient ways, saving time. Less proficient motorists may choose to go with the flow, cycling around the edges until they reach their desired exit. For drivers going from one end to the other, a magic roundabout can enable traversals that are up to twice as fast as conventional roundabouts would allow.

Seen a better pic? Email daniel.newcombe@at.govt.nz

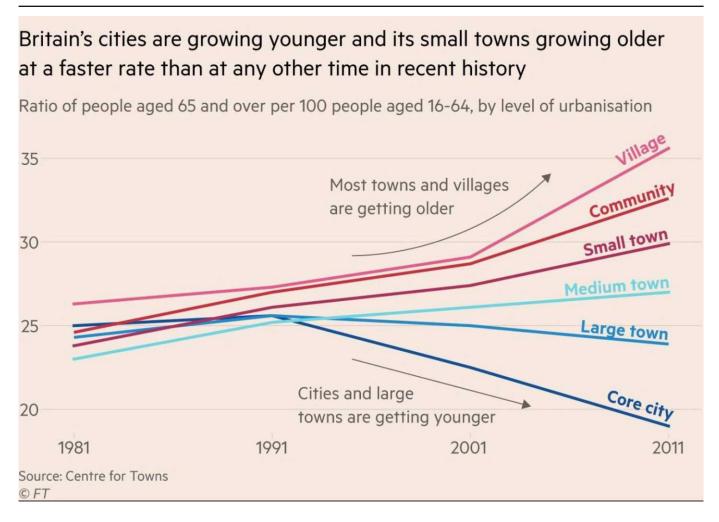


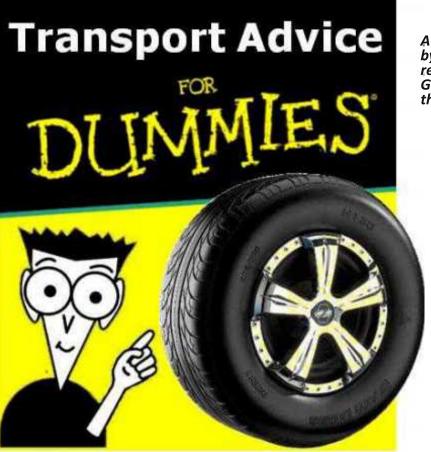
A murmuration of starlings creating a bird image.

Caption competition



It's a truism - you're not stuck in traffic, you are the traffic. This edition's image of a slight problem with traffic congestion represents a classic example of individual versus collective efforts. A caption has been suggested. If you have a better suggestion, send it to daniel.newcombe@at.govt.nz





Dear Transport Guy

I really like the new Group logo. It looks like a wheel. That was really smart, because most of our transport modes (maybe except walking or ferries) are based on wheels. Was the idea to make it like a wheel?

Marjorie, Kilburnie

Dear Marginal

Actually the logo represents the cycle of transport processes from problem definition through analysis, option selection, implementation and then benefit realisation, and so on in an unending cycle of review and application in order to best address society's transport needs through vital phases of problem solving and consideration, noting that no problem is ever really solved but just transformed into an alternate situation for whom other customers may judge there to be remaining unresolved inadequacies.

"The logo represents the cycle of transport processes from problem definition through analysis, option selection, implementation and then benefit realisation, and so on in an unending cycle of review and application."

Yes, it's a wheel.

~Transport Guy

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

Dear Transport Guy

So we are finally ditching the IPENZ tag? Hurrah! That was really dragging us down. Now we can run wild and do all the things we coudn't do before!

Angus, Whangarei

Dear Anglegrinder

Hold on there, sunshine. The Group has just swapped the title 'IPENZ' for 'Engineering NZ'. We are still under the umbrella of Engineering NZ and their rules. We have a strong history with engineering knowledge and learnings. Which, if you think about it, means we are a lot like engineering school students - who are reknowned for rowdy boozy parties. So maybe we're already closer to your aspiration than we may think.

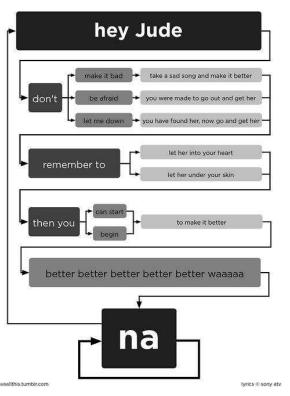
~Transport Guy



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



Group Contact Details



Transportation Group National Committee National Chairperson, Submissions Coordinator, Membership Coordinator, Treasurer

Alan Gregory AGregory@tonkintaylor.co.nz

Vice Chairperson: Jeanette Ward jeanette@abley.com

Immediate Past Chair: Pravin Dayaram p.dayaram@harrisongriersont2.com

Auckland Branch Chair: Stephanie Spedding

stephanie.spedding@jacobs.com

Waikato/Bay of Plenty Branch Chair: Alan Gregory

alan.gregory@tonkintaylor.co.nz Central Branch Chair: Thomas Small

thomas.small@jacobs.com

Canterbury/West Coast Branch Chair: Katie Dugan

katie.dugan@abley.com

Southern Branch Chair: Russell Nicholls

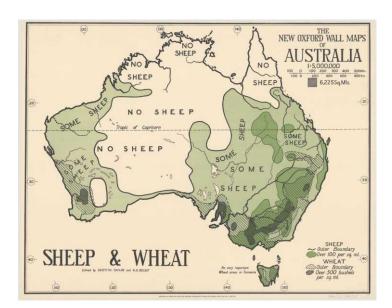
russell.nicholls@opus.co.nz Website Administrator: Vacant

Branch Administrators

Auckland: Stephanie Spedding stephanie.spedding@jacobs.com Waikato/Bay of Plenty: Clara Hechei Clara.hechei@ghd.com

Central: Josephine Draper josephine.draper@nzta.govt.nz

Canterbury/West Coast: Jared White jared@abley.com **Southern:** Lisa Clifford lcliffor@dcc.govt.nz



Causes of death in Shakespeare plays All the deaths depicted by The Bard

Pursued by bear
Throws oneself away

Buried to neck starvation
Indigestion
Baked into pie
Dismemberment then fire
Grief
Hanging
Shame
Lack of sleep
Smothered by pillow
Drowned
Beheaded
Stabbed and poisoned

Highcha

Roundabout Editorial Team

Editor: Daniel Newcombe daniel.newcombe@at.govt.nz

Immediate past editor and dogsbody: Bridget

Burdett bridget.burdett@tdg.co.nz **Additional dogsbody:** John Lieswyn

john@viastrada.nz

