

**FEATURED PROJECT :** HENRY'S YALDHURST DEVELOPMENT **FEATURE ARTICLE :** USING VMS FOR INCREASED PARKING EFFICIENCY AND AWARENESS + TRAVEL PROFILE PART B **STAFF PROFILE :** JARED WHITE **AND MORE...**

## A word with the Managing Director...

**In transport terms it is now only a hop, skip and a jump until Christmas is upon us. Let me take this opportunity to wish you, your family and friends a very happy Christmas and prosperous New Year.**



Steve Abley  
Managing Director

While the holiday season is something we all look forward to with great anticipation, it is also a time of year when many people are killed or injured while travelling on our roads. This year though, New Zealand looks set to achieve a record low road toll. At the time of writing, 286 people had died on the country's roads in the past 12 months compared to 377 in the previous year. This is an incredible reduction and a massive reduction from our worst year in 1973 when 843 people died on our roads.

In my opinion, the amazing level of improvement in the past 12 months is in part likely to be a product of Safer Journeys, New Zealand's Road Safety Strategy 2010-2020. Safer Journeys aims to achieve "A safe

road system increasingly free of death and serious injury". It supports this vision by taking a Safe System approach to road safety, where all elements of the road system are taken into account. The four fundamental elements are 'Safe Roads and Roadsides', 'Safe Speeds', 'Safe Vehicles' and 'Safe Road Use'.

I had the pleasure of being invited to speak at the annual Trafanz Conference held in Hamilton in November. Presentations from the Police, local and central government, road safety coordinators, vehicle manufacturers, the community and consulting industry all appeared to be working towards a common goal – better road safety performance. The conference highlighted to me what can happen when a team works in unison. Naturally, there is more to be done, and our firm is helping.

My fellow Director, Paul Durdin, also presented at the Trafanz conference on an innovative method he and others in our office have developed to highlight intersections that have an out-of-character road safety performance. The projects we have completed for the Christchurch and Wellington City Councils combines physical and operating road characteristics with crash data. This allows various analyses to be undertaken on a citywide basis at a micro (intersection) level of detail. This technique has helped these road controlling authorities identify the parts of the transport network where road safety improvements are most achievable and therefore where road safety investigations and investments should be focussed. If you are interested in learning more about these techniques Paul's presentation is

a great summary. The presentation is available at [www.abley.com](http://www.abley.com) ([http://www.abley.com/publicdocs/Paul\\_Durdin\\_TRAFFANZ\\_2011.pdf](http://www.abley.com/publicdocs/Paul_Durdin_TRAFFANZ_2011.pdf)). Also, look out for the NZTA's High Risk Intersection Guide that will shortly be published for consultation.

Even given NZ's improving road safety record, which has been truly impressive, there is still more to be achieved. In 1996, approximately 1,500 deaths per annum were attributed to diabetes and unlike road safety, back then it was increasing at the rate of 2.3%p.a rather than decreasing. That means in 1996, diabetes killed 3 times more New Zealanders than NZ roads and the result now is probably worse. Given 30% of diagnosed diabetes is contributed through obesity, urban transport planning is a vital part of increasing physical exercise as part of everyday activities. Therefore our city and town urban form is an important part of the wider road safety (and health) equation. It is this holistic road safety approach that our firm wants to lift the information veil on. We're working on this at the moment, and I hope to be in contact soon with the outcomes.

Again, I want to wish you a happy Christmas and prosperous New Year. I look forward to seeing some of you at the Walking and Cycling conference in Hastings in February 2012.

### RECENT NEWS

TO FIND OUT MORE VISIT OUR WEBSITE [www.abley.com/news](http://www.abley.com/news)

Steve invited to speak to Auckland Transport  
2 December 2011

Abley presents at Surveying and Spatial Sciences Conference  
25 November 2011

Consent Granted for Henry's  
21 November 2011

Paul Durdin and Steve Abley Present at TRAFINZ Conference  
18 November 2011

## FEATURE PROJECT : CONSENT GRANTED FOR HENRY'S



**IN APRIL 2011, IMPERIAL DISCOUNT LIQUOR LIMITED, TRADING AS HENRY'S, SOUGHT THE EXPERTISE OF ABLEY TO PREPARE AN INTEGRATED TRANSPORT ASSESSMENT (ITA) TO ASSIST WITH A RESOURCE CONSENT APPLICATION FOR A LIQUOR STORE. THE PROPOSAL INVOLVED ESTABLISHING A LIQUOR STORE ON A DISUSED PETROL STATION SITE ON YALDHURST ROAD IN CHRISTCHURCH.**

Abley prepared an ITA for the proposal based on guidance published by the New Zealand Transport Agency (NZTA). The application was complex because the site is zoned 'Living' with a petrol station being a scheduled activity on the site and the site is located on a State Highway at a signalised intersection.

As the petrol station could re-instate on site as

of right, the assessment of the effects of the proposed store were compared to those of a petrol station. This approach resulted in Abley concluding the transport related effects of the proposal were insignificant as the liquor store would generate less vehicle trips than the petrol station.

The result of our discussions with the NZTA during the preparation of the ITA was that the

NZTA did not consider the proposed activity would raise any transport related issues from an operational or safety perspective.

The existing site also had some non-compliances with the Christchurch City Plan transport rules, such as proximity of access points to an intersection. Abley assisted with development of the site layout plan to minimise the effects of the non-compliances. Our recommendations ensured the site would operate as safely as possible for drivers and pedestrians.

In October 2011, the resource consent application was referred to an independent commissioner to decide whether the resource consent should be granted or not. Abley's Paul Durdin was called into the Hearing as the expert transport witness on behalf of the applicant. Some quick calculations undertaken during the Hearing helped to reinforce the appropriateness of transport provisions in the scheme. We were pleased to recently find out that the Commissioner ruled in favour of the proposals and granted Resource Consent.

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<sup>1</sup> Abley S, Durdin P, Douglass M (2010) Integrated transport assessment guidelines. *NZ Transport Agency research report 422*. 110pp.

## FEATURE ARTICLE : USING VMS FOR INCREASED PARKING EFFICIENCY AND AWARENESS

Northlands Shopping Centre in Christchurch is a substantial, freestanding, single level shopping centre owned by Kiwi Income Property Trust (KIP). The centre has approximately 1800 car parking spaces in the form of large at-grade carparking areas and two multi-storey parking buildings.

Following the Christchurch earthquakes, the centre and its supermarkets were operational within days, thereby significantly increasing the number of visitors to Northlands.

This increase resulted in visitors seeking a greater demand for premium parking spaces, while some areas of the carpark remained under utilised. KIP commissioned Abley to develop a parking and wayfinding scheme to increase the demand in underutilised areas and thereby decreasing circulation in busy areas.

The scheme comprised of a series of informative signs alerting customers of available spaces

and directional signage to get there. Changes to the routes through the parking areas encouraging drives to the least utilised areas were also proposed.

This wayfinding scheme is supported by variable message signs (VMS). The VMS provides real time information to visitors on the number of available parking bays and on which level of the parking buildings they are in. These systems are designed to encourage people to quickly find the nearest available space, increase efficiency and reduce congestion and circulation. Abley undertook a review and modified the VMS system to ensure KIP of the best possible outcome. Currently the VMS system is the only part of the scheme to be implemented.

Following the installation of the VMS system, data has shown more parking spaces were being occupied on the upper levels of carparking buildings as along with a reduction

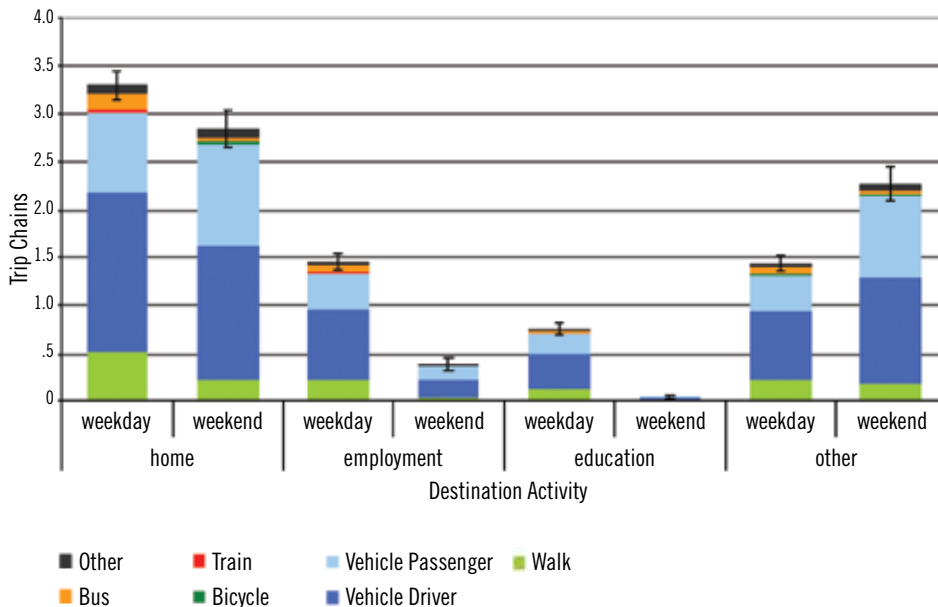


of congestion within carparking buildings.

Abley are always dedicated to high quality deliverables and successful client outcomes and are happy to see another success such as that implemented at Northlands.

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## FEATURE ARTICLE : TRAVEL PROFILE PART B



**ABLEY HAVE RECENTLY COMPLETED THE RESEARCH DOCUMENT NATIONAL TRAVEL PROFILING PART B. THE RESEARCH EXAMINES THE DATA HELD WITHIN THE 2003–2010 NZHTS\* AND DESCRIBES CHANGES IN TRAVEL BEHAVIOUR OVER TIME AND SEEKS TO DETERMINE WHETHER TRAVEL BEHAVIOURS SUCH AS JOURNEY TIMES, MODE CHOICE, TRIP COMPLEXITY AND TRIP GENERATION RATES DIFFER BY AREA TYPE AND REGION. A KEY AIM OF THE RESEARCH IS TO UNLOCK FURTHER VALUE FROM THE DATA FOR THE BENEFIT OF TRANSPORT PLANNERS AND ENGINEERS.**

The research explores, to what extent, the NZHTS data can be used in a predictive context and describes a method that has been used to extract and arrange the NZHTS data into a form that allows practitioners to quickly undertake a range of enquiries based on user specified variables such as car ownership and household compositions to reveal area specific travel behaviours.

Through the course of this research several applications of the NZHTS data have been identified including, the development of a school trip generation model and household person trip generation models that provide a first cut estimate of person trip rates to a range of destination activities. The NZHTS data can also be used to

profile travel movements by mode throughout the day enabling public transport service providers to plan services around times of peak demand and assisting TDM<sup>^</sup> measures to be directed towards specific road user groups. The findings of this report can also be used to test a lot of conventional wisdoms associated with travel behaviours.

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\*New Zealand Household Travel Survey (NZHTS). <sup>^</sup>Travel Demand Management (TDM)

## STAFF PROFILE : JARED WHITE

**SENIOR  
TRANSPORTATION  
ENGINEER**  
BE(Hons)



Jared joined Abley Transportation Consultants as a Senior Transportation Engineer in April this year. Recently, he joined the Canterbury and West Coast Branch IPENZ Transportation Group Committee and is aiming to become a Chartered Professional Engineer in 2012.

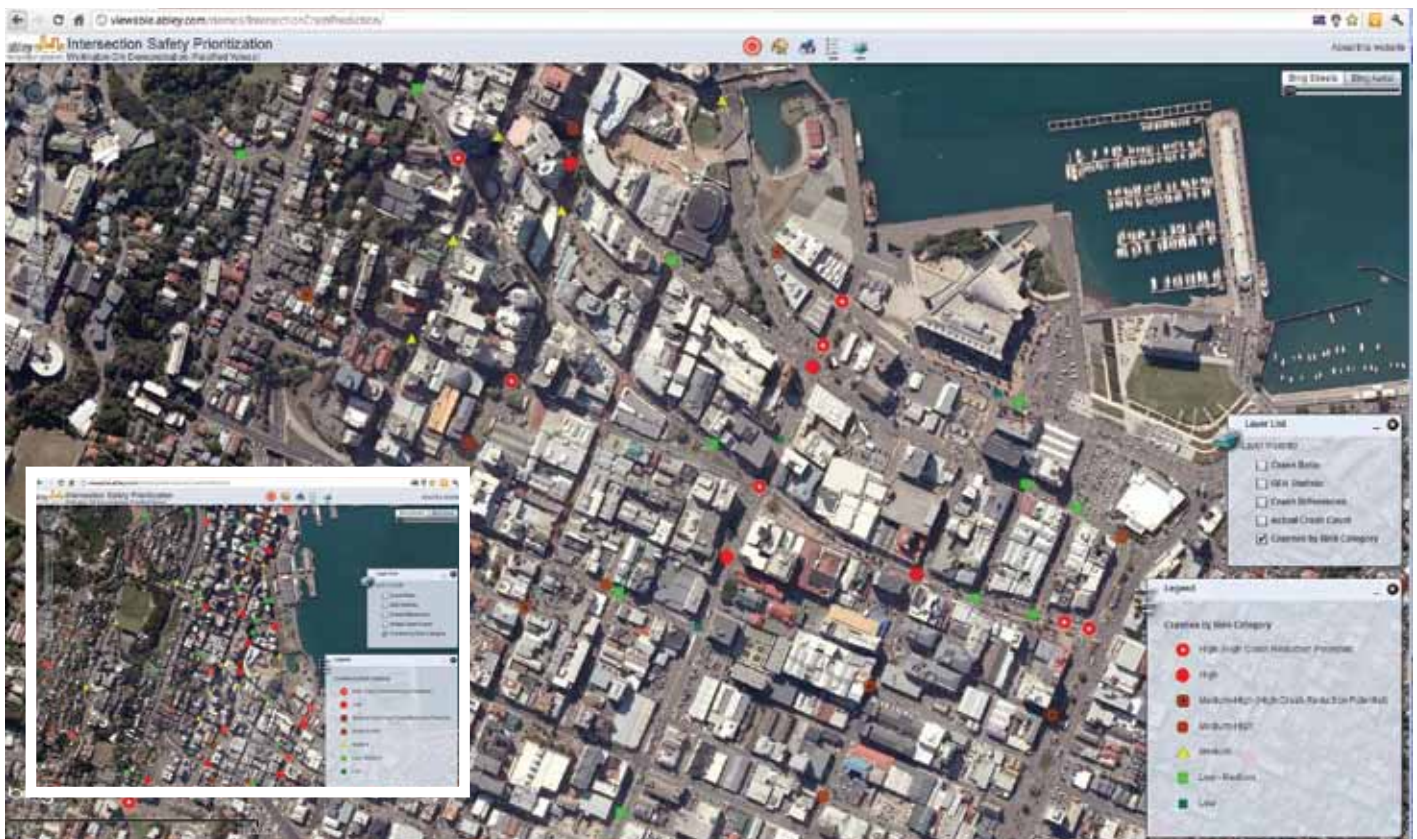
Before coming to Abley he worked within the Development Team at Colin Buchanan in London for nearly four years. Whilst there, Jared gained a high level of knowledge with UK intersection modelling software namely LINSIG, TRANSYT, ARCADY and PICADY. Prior to moving to the UK he spent the first three years of his career with Gabites Porter in Christchurch working with TRACKS strategic modelling software.

Jared specialises in transport modelling based projects, preparing integrated transportation assessments and has developed a keen interest in traffic safety projects.

Jared is currently working on a variety of interesting projects, including

- Preparing an integrated transport assessment for a Plan Change in Washdyke near Timaru;
- Assessing the implications of the right turn rule change for the Christchurch City Council and
- Safety audits for the Kaiapoi Town Centre redevelopment scheme.

Jared grew up in the sunny climes of Hawkes Bay and moved to Christchurch in pursuit of an Engineering (Civil) degree at the University of Canterbury. Jared has a passion for travel and his time in the UK provided an opportunity to visit the whole of Western Europe, Scandinavia and the Baltic States. He has travelled through South East Asia and on return to New Zealand late last year had the opportunity the travel overland through Africa from Cape Town to the Equator in Kenya. Camping in the Serengeti National Park amongst the wild animals was a major highlight. Returning to New Zealand will allow Jared to partake in the sporting and outdoor activities that he enjoys.



## ARTICLE : ArcGIS SERVER

**ABLEY HAVE RECENTLY SETUP A GIS SERVER UTILISING ESRI'S ARCGIS SERVER TECHNOLOGY. MAJOR BENEFITS ARE ALREADY BEING ATTAINED FOR ABLEY'S INTERNAL MANAGEMENT OF GIS DATASETS AND RESOURCES; HOWEVER THE MOST EXCITING GAINS WILL BE PERTINENT FOR ABLEY'S CLIENTS.**

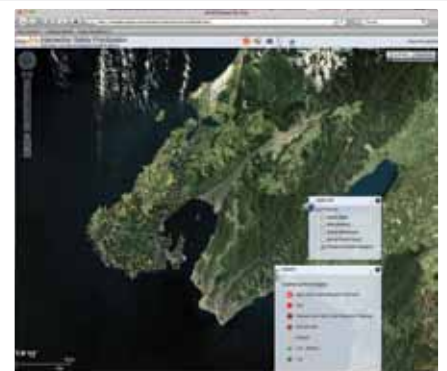
ArcServer technology allows Abley to present the often varied, massive and numerous mapping outputs resultant from our projects to our clients within a web browser. With the advent of many interactive mapping sites on the internet it is a tool with which many in today's workforces are familiar and at times reliant upon.

Abley are now able to use such technologies to alleviate issues in interrogating many complex spatial datasets giving practitioners of all levels access to the information they require at the click of a mouse. Abley's accessibility mapping projects are a prime example where massive

benefits will be gained. A typical full accessibility study to 8 key destinations across 4 travels modes results in 32 separate accessibility score maps. This results in at least 32 paper maps depending on the scale they are displayed at and the size of the region being modelled.

Abley's new web mapping technologies will allow clients to view all these datasets at their desks. They will have the ability to turn accessibility indicator layers on and off, view the underlying transport networks, view where all destinations are, change the base maps from aerial imagery to road networks and have the ability to zoom and pan to any region they need to interrogate the modelling results.

Kurt Janssen, our Senior GIS Analyst / Programmer has put together a demonstration web map using falsified data within the Wellington region. This site depicts a method of displaying outputs from Abley's Intersection Safety modelling tools comparing predicted vs. realised intersection



crashes based on numerous link attributes including speeds, number of lanes, flows and intersection type. This demonstration of web mapping technologies allows for many complex spatial layers to be displayed in one simple intuitive website in a flexible, informative and interactive manner enabling practitioners to spatially view data which is difficult to interrogate in any other form. You can view the demonstration site here <http://viewable.abley.com/demos/IntersectionCrashPrediction>

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