**3rd Australian Universal Design Conference Transcript**

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Hands up who are occupational therapists in the audience? I am an occupational therapist. I spent over a decade working in housing modifications and I got really frustrated because I thought why are we, as a government, country, nation, spending $10,000 to $50,000, in some cases, to modify one house for one family? Especially in the state housing sector - I didn't understand the economics of this. Why were we not designing these houses in the first place? Why were we not designing level-access showers as the norm, especially if you had two bathrooms? Why were we not putting a level entry into the homes? I just didn't understand it.

When I went to my Masters, I looked at universal design. It turns out there are lots of OTs in the housing space, so I started look at public buildings and public spaces. Despite the fact that we have some legislation in these areas across a lot of countries, again, we don't enforce it well.

I did some action research, and one of the things we looked at was actually ways to inspire - ways of showcasing what good universal design can look like, so that architects, designers, property developers, those making the decisions, can have examples of what to do - hence the Universal Design Tool.

As I said, there is regulation. In New Zealand, we are sadly lacking in regulation. We do have the Building Code, which is extraordinarily old, and while it gets tweaked every few years, honestly, it needs a complete rewrite. There is an entire organisation called Access Matters, a group of 12 disability organisations and partners, who are looking to enact legislation in New Zealand.

Then we also have voluntary compliance standards, such as the NZS 4121, and a lot of architects and designers say, “I have complied with 4121 - I'm good.” But 4121 was written in 2001 and has not been rewritten since. As with many other standards at the time, it was largely based on people in wheelchairs.

We also have another really good document in New Zealand, the RTS 14, about how you design pathways, crossing points, done in collaboration with the Blind Foundation. We have the Blind Foundation accessible signage guidelines, which are great. We even have accessibility for the Maraes, the traditional meeting houses in New Zealand. The thing I find about these guidelines, they are not only voluntary, but people don't know they exist.

People doing the walking tour on Saturday will see, we do have tactile signs, but 9 times out of 10 they are incorrectly laid down - by people who can see and don't understand the principles of how you lay them correctly. We have got the guideline, but it is not adhered to.

Internationally there is a range of guidance available, and this is just some of what they look like. The Irish are doing a particularly good thing, their Centre for Universal Design. There is a series of nine books available on public buildings and spaces, and they also have guidance on housing.

The problem I found is not so much the information, because the information presented is fantastic, but each of those nine books is anywhere between 60 and 100 pages. So, your average architect, designer, property developer, looks at this wealth of information and goes, "Oh..." It's just too much. They want it simplified and packaged up into a format they can understand.

The other book, Steinfeld and Maisel's 'Creating Inclusive Environments', was very influential as well. Now for a short video.

(Video plays)  <https://www.youtube.com/watch?v=XbCeOpK7aWw>

One thing I would like to say about the tool, it was two years, approximately, in development, and is an ongoing, living, breathing tool. As we continue to collect better images, examples in Auckland, we continue to update the tool.

The tool was developed in close collaboration with a number of non-governmental organisations and here are their logos. Brain Injury Support, Hearing New Zealand, Lifemark, CCS Disability Action, National Foundation for the Deaf, New Zealand Institute of Architects, and other organisations such as Auckland Transport.

The Universal Design Tool - and I apologise in advance, my own colour contrast wouldn't actually pass! Apologies in advance, the print is smaller than I would like, and the colour contrast is not ideal. I had to take screenshots and it hasn't related well.

The picture here is the image of the homepage of the Universal Design Tool, showcasing the Universal Design Centre, with people outside, including parents with a double pram, some people with visual impairment, and an adult walking with a dog.

The tool itself is in the Tools section, which explains what I've talked about. It is for before you put pen to paper. It is not an audit tool, not to use when your design is finished; it is supposed to be that inspirational 'what could I do?' to give inspirational ideas.

The tool is divided into three sections: outside and surrounds, entrances and exits, and inside the building. It is based on a mixed-use building. Increasingly, in Auckland, we have mixed-use, where it is often commercial at ground level, commercial and retail spaces with offices and residences above.

We found the guidance was sorely missing. We had guidance on housing and on commercial buildings, but not on mixed-use, so we were trying to fill that gap. Equally, a lot of the principles and ideas in this tool can be applied across a range of buildings.

Here on the slide is that landing-page image, when you go into outside and surrounds. Things like movement and connection, getting through the site, and to and from the site, how you get there from public transport. or by bicycle. or by mobility scooter.

Design elements and amenities: things like cycle parking, accessible parking, a sense of place. It is important, not just in New Zealand but everywhere, that we acknowledge the cultural elements of the places and spaces we are designing.

Here is a photographic example from outside and surrounds. This is the newly built ASB Waterfront Theatre in Auckland. On the left-hand side of the image it says 'amenities' and there are a number of design outcomes. In this case, it is outdoor space should be functional, safe and create a sense of identity.

In this case, shelter is highlighted; provide shelter from high winds, rain and hot sun… There is a range of images you can scroll through - in this case, five images, and a glass canopy above the entrance, which provides light and also shelter.

The idea is that there isn't one way of doing it. There are multiple ways you can achieve the same design outcome, and it can be beautiful as well as functional. That was the whole idea. There were a number of functional images I wanted to put in this tool, but my designers said it was ugly.

I might have had 10 or 12 examples around Auckland, but they were saying that if it didn't meet the aesthetics requirement, it would not make it into the tool. The idea was that you need to use stuff people want to do.

Outside and surrounds, we have a number of diagrams that were created. While the NZS 4121 has some diagrams, we wanted to concentrate on the diagrams that were frequently done wrong. And handrails on stairs, for whatever reason, are always done wrong. They end in the wrong place and don't turn down at the ends, and on and on. We were specific about what you need to do to get handrails right. We provided a few diagrams.

Entrances and exits. We all know that where you choose to put your entrance and exit is a huge part in whether the building will be accessible.

We looked at the main entrance, but we realised that secondary entrances and emergency exits were really poorly designed. And the design standards were not keeping up with that. Maybe the main entrance was beautiful and accessible, but every other exit in the building was a massive flight of stairs, no wayfinding, on and on. In an emergency, if you could not get out the main entrance, unfortunate for you.

Entrances and exits, a photographic example. You have a range of design elements, 'designed to be seen', 'open sesame' and the one in the picture is easy access. Providing a level entry of generous width. This Kiwibank has glazing on the doors. It is missing the vertical glazing. I will say that there is no perfect image but, as I said, it is a living document, so as we get better images we will update.

Inside the building, things like getting through the building, moving between floors. And we decided, in addition to the diagrams, to use SketchUp to show in 3D views that things in New Zealand are not well defined.

I often wondered, when I went into a cafe or a workplace, why the accessible toilets were terrible. Things were out of reach, not in the right place. I always found it a problem, and I would tear my hair out.

It is because in our NZS 4121 those things are not there. In conjunction with those groups and organisations, we drew up our own measurements and made the diagram that does not exist.

Here is a photographic example inside the building that was featured in the video. This is where the stairs, escalators and lifts are conjointly located. I like that they use blackjack tiles on a pale-green surface. It had a nice colour contrast, but looked lovely as well.

And new to the Universal Design Hub… The Universal Design Hub hosts a lot of resources, and something called 'design personas' is new. The design personas were developed in conjunction with the group. We currently have 12.

It represents the range of disabilities that we see, or the range of abilities that we see in our communities. Also, different individuals that benefit from universal design, such as ambulance officers.

I had an ambulance officer attend, and he told me that in all the city buildings, “If we have obese people on the 42nd floor, we can't put them in a lift, and we have to carry them down 42 flights of stairs to get them in an ambulance.” The lifts are not big enough.

It was a clear contrast of how we are designing our spaces. This is an ambulance officer saying they need wide corridors, lifts to accommodate stretchers, automatic doors, emergency vehicle parking and so on.

Tourists are often a missed group that can benefit from universal design. They often have English as an Additional Language. They benefit from clear wayfinding – but so does everyone. They benefit from having landmarks. I know myself, here in Brisbane, I am using the big wheel as my orientation as to where I am.

Accessible toilets, we don't often advertise them well. People who need them know where they are - if they are locals. But if you are a visitor, you may not know.

Thank you very much.