

## Designing Streets for all – Policy and Practice

### Abstract

Almost two years ago, a team working in obesity prevention and based within City of Whittlesea began a conversation with the planners and engineers about achieving slower vehicle speeds in new residential streets. Slowing the traffic improves safety, and perceptions of safety, for people of all ages and abilities. People are more likely to get out and about, to meet each other in the street, to walk and cycle to local destinations.

During initial discussions across Council, it became apparent that good design was the critical tool to deliver success for the project. Design, done well, could achieve agreement and compromise among the many regulatory, technical and political factors that contest for space in our streets. Our objective was to create streets that positively influence human behaviour and are easily understood by everyone.

Slower vehicle speeds in residential streets meet the major policy priorities of transport, urban planning and health professionals - but in practice, the initiative has rarely been attempted in the outer suburban areas of Melbourne. Rather, we have continued to develop new residential estates that favour vehicle movement and, as a direct result, discourage people movement.

Now, the City of Whittlesea is developing a socially progressive policy that will guide our practice in designing new streets, as well as the elements of the adjacent land use and development that influence behaviour. The project has required a collaborative approach to plan for the various technical and regulatory issues that are encountered throughout the “life” of a street.

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# Designing Streets for all – Policy and Practice

## Introduction

Almost two years ago, a team working in obesity prevention and based within City of Whittlesea began a conversation with the planners and engineers about achieving slower vehicle speeds in new residential streets. Slowing the traffic improves safety, and perceptions of safety, for people of all ages and abilities. When we design streets for communities, people are more likely to be out and about, meeting each other, and walking and cycling to local destinations (Beca Pty Ltd, 2010, p.13).

Slower vehicle speeds in residential streets meet the major policy priorities of transport planning, urban planning and health professionals - but in practice, the initiative has rarely been attempted in the outer suburban areas of Melbourne. Rather, we have continued to develop new residential estates that favour vehicle movement and, as a direct result, disadvantage or discourage “people movement” in their neighbourhoods.

In the City of Whittlesea, strategic plans dating from as early as 1998 and those developed since; consistently express support for the design and implementation of pedestrian friendly communities. Nevertheless, contemporary health and population data reports high rates of vehicle dependency, sedentary lifestyles, social isolation and associated poor health outcomes in our residents. Whilst the planning policy intent was clear, Council practice in a range of work areas needed to change in order to prioritise the design outcomes that encourage walking and cycling in neighbourhoods. A project was undertaken to develop a Council policy called *Prioritising Active Travel in Neighbourhood Streets*. The policy intent is to ensure that active travel options are designed into neighbourhood streets, community hubs and town centres. This will be achieved by ensuring the built environment includes the community and urban design attributes that encourage active living and social cohesion, in particular, slower vehicle speeds.

## The Use of Evidence to Support Practice Change

The City of Whittlesea is located on Melbourne’s metropolitan fringe, approximately 20km north-east of the CBD, and is one of the fastest growing municipalities in Australia. Our growth is not just taking place in our newer suburbs - there is also massive growth and redevelopment set to take place in our established areas.

Consistently, the health and wellbeing of communities in Melbourne’s outer growth areas is worse than state and national averages. In the City of Whittlesea, the rapid rate of expansion of the built environment is producing inequities around:

- Urban sprawl infrastructure gaps;
- Car dominance and congestion; and
- Long commute times contributing to lack of social cohesion and low rates of physical activity.

(Australian Dept Infrastructure and Transport, 2013, p.6; City of Whittlesea 2015, pp. 7-9)

Data from the Victorian Population Health Survey 2011-12 shows much higher rates of sedentary behaviour are reported by City of Whittlesea residents than the Victorian average (33% compared to 25%). Research also shows that 55.4% of residents in the City of Whittlesea are overweight and obese, which is significantly higher than the state average of 49.8% (Department of Health, 2014, p.25).

Nationally, there are increasing rates of obesity-linked Type 2 diabetes in children and adolescents - this is a condition which was almost unheard of 20 to 30 years ago in this particular age group. (VicHealth, 2014, p.1)

Physical inactivity is a major contributor to unhealthy weight gain, resulting in a higher risk of a number of cancers and chronic diseases including heart disease, stroke and Type 2 Diabetes. A recent study found that even small increases in physical activity can reduce a person's overall risk of mortality (Ekelund et al., 2015).

The built environment plays an important role in encouraging regular physical activity for children and adults alike. Recent community consultations in the municipality indicate that walking is nominated as the main recreational activity by the majority of residents, and the local streets are their first option for exercising. However, a survey of local school communities showed that the City of Whittlesea has generally low rates of active travel to school (walking and cycling), and that parents consider the major barrier to children's active travel is traffic and the availability of low risk routes to school (Bicycle Network Victoria Ride2School, 2014, pp. iii-iv).

A VicHealth study in 2014 identified that children who are able to play and travel without an adult and those who walked or rode to school were more likely to meet Australian physical activity guidelines, of at least one hour of physical activity every day. Parent's perceptions of "stranger danger", traffic concerns and crime were the most common reasons children don't walk or ride to school (VicHealth, 2014, p.2).

The problem we seek to solve with this policy project is summarised in the following statement from prominent Australian researchers in the field:

*If older children and adolescents are to experience the joys and child development benefits of independent mobility, a key priority must be in reducing motor vehicle use in favour of pedestrians, cyclists and transit users, thereby reducing exposure to traffic and increasing surveillance on streets (i.e. 'eyes-on-the-street' through neighbourhood and building design and encouraging others to walk locally). Parents need to be assured that the rights and safety of pedestrians (and cyclists) – particularly child pedestrians and cyclists – are paramount if we are to turn around our 'child-free streets', now so prevalent in contemporary Australian and US cities. Although the focus to date has been on providing safe routes to schools greater attention could be given to creating safe routes to all local destinations such as shops and shopping centres, which would enhance the quality and walkability of local environments for all residents, including children, adolescents and older adults.*

*(Giles-Corti et al, 2009, p.1004)*

### **The role of Healthy Together Whittlesea (HTW)**

The development of a Council policy to encourage active travel began with the introduction of a skilled health promotion workforce that utilised local partnerships and community engagement to encourage healthy eating and physical activity, and to reduce smoking and harmful alcohol use. Communities, schools and workplaces were all encouraged to take action. Whittlesea was one of 14 LGAs across Victoria that received funding under the *Healthy Together Victoria* initiative, having

been identified as an area that would benefit from intervention to prevent obesity and its related disease.

The *Healthy Together Victoria* program stemmed from a joint Federal-State funding initiative in 2010 recognising that preventing and reducing overweight and obesity is more cost effective than the costs associated with health care, lost productivity and the impact on families and communities. Unfortunately the project was de-funded in the 2013 Federal budget and State funding was discontinued beyond June 2015 following the change of government in Victoria.

The HTW program at the City of Whittlesea has been so successful that some unspent funds will be used in 2016/2017 to deliver a continuation of the *Schools Active Travel Program*, and to support the Achievement Program (quality improvement framework for health and wellbeing) in schools, early childhood services and workplaces.

#### *Partnerships and Collective Leadership to increase Active Travel*

The preventative health approach HTW brought to Council was one of ‘systems thinking’, that is, intervention at the upstream point in a process can be more effective and have wider impact than the conventional approach of engaging with individuals to deliver health messages around obesity prevention. Local government is a delivery agent, a facilitator, and a regulator of the built environment and an obvious candidate for upstream intervention.

A forum was hosted by HTW for Council staff across leisure services, planning, urban design, traffic engineering and major projects teams to identify opportunities to coordinate resources and collectively address challenges to increasing active travel rates. Processes undertaken by each of these disciplines directly impacts the design of the built environment and the extent to which that environment facilitates active travel. There was overall support for implementing the principles of *Healthy by Design*, a Heart Foundation guide to planning and designing environments for active living (Heart Foundation, 2004).

It was recognised that complementary strategies were needed that tied the implementation of the healthy built environment to a strengthening in collaborative partnerships with schools and increased community awareness. HTW seconded an urban planner to provide expertise and advocate for “healthy by design” principles to be implemented into relevant Council planning strategies (such as growth area precinct structure plans), as well as other policy areas.

The *Prioritising Active Travel in Neighbourhood Streets Policy* and associated implementation framework was identified as a project that could coordinate Council’s activities to implement healthy built environments in urban areas. During the policy development period, officers across three directorates worked together to formulate objectives for the policy, to define the environments in which it would be applied, to agree on policy outcomes, and to identify the instruments to achieve the key policy outputs.

At the same time another HTW program, the *Schools Active Travel Program*, sought to increase participation in school active travel within the municipality. There was an understanding that community education would be an essential element in the implementation of the *Prioritising Active Travel* policy, and the participation of Council’s transport engineers across both the policy project and the *Schools Active Travel Program* was critical. Council transport engineers have a major role in the timing and delivery of road, cycling and pedestrian infrastructure and can provide useful information to the school community about the infrastructure that is proximate to their school. A

*School Travel Plan Toolkit* for use by schools wanting to increase rates of walking and riding to school was developed jointly by HTW and Council's transport engineers.

Since the inception of the HTW *Schools Active Travel Program*, the proportion of City of Whittlesea schools participating in the annual Walk to School month initiative has increased from 3% in 2012 to 60% in 2015. Furthermore, an additional 4,177 children participated in walking, riding and scooting to school between 2013 and 2015.

**Organisational barriers are not insurmountable.**

The development of the *Prioritising Active Travel* policy has occurred over a 22 month period so far. It affects work areas in three directorates within Council, and the development of a Council Policy across multiple work disciplines has not previously been tried.

Council's role and responsibility for planning and development is captured, in addition to health and community development, within the scope of the policy. Council's planning and development role extends from the preparation of strategic plans, assessment of development proposals, approval of engineering and landscape plans, construction supervision of residential developments with their associated infrastructure and services, authorisation of signage and line-marking for streets, through to ongoing maintenance. The objective of the policy is to ensure that there is a consistent approach to the design and implementation of neighbourhood streets throughout all of the above processes, to achieve slower vehicle speeds and important urban design elements that encourage walking and cycling.

No-one working in local government would underestimate the difficulty where one sub-field of Council's business seeks to influence or question the output of another. The fact that HTW was an externally funded specialist workforce with a broad scope for intervention did not provide it with any authority to act in the non-health work areas of Council. In this regard, it was important to identify the common policy priorities across transport, urban planning and health and to develop awareness across Council that the health and wellbeing of the community may not be benefiting from the existing approach to street design and implementation.

There were approximately 17 internal meetings with affected work areas of Council over an initial seven month period. These meetings brought together subject matter experts from Parks and Open Space, City Design and Transport, Strategic Planning, Urban Design, Development Assessment (Statutory Planning) and Health. The meetings established that the project is supported by the strategic priorities of Health, Urban Planning and Transport however there was initial resistance to resourcing the project because it was not already built into department business plans. Other perceived barriers to development of the *Prioritising Active Travel* policy and its implementation were:

- Urban design elements that would slow speeds (road metrics, street geometry, land use mix) can be perceived as costly or challenging for developers – needs a coordinated approach from strategic/statutory planning to manage developer expectations;
- No established practice in the Traffic Operations department and there were perceived regulatory/political barriers to implementing a Council policy (in particular, acceptance by the state roads authority, the councillors and the community); and
- Community education is required to understand the purpose – who would take on this role and how would it be achieved?

The process undertaken to overcome these barriers followed these principles:

1. Provide a “vision” and models for emulation, build evidence and a local context - find locally specific case studies.
2. Reinforce the existing policy and evidence support (this is not “experimentation”).
3. Find champions within each work area that were prepared to “trouble-shoot”, work through the perceived barriers, encourage open communication and follow through.

There was general agreement across the planning and development areas of Council that the outcome (walkable neighbourhoods) could be achieved through practice change and better coordination in the way we work. There was immense goodwill in the planning and development areas to work towards high quality streetscapes that would improve amenity for all street users.

The role of the health work areas was to “close the loop” through ongoing community education and capacity building programs undertaken by HTW in schools, workplaces and the community. The aim would be to ensure that the community was aware of the intent behind the slowing of vehicle speeds at all stages in the life of a neighbourhood.

Any policy development or other strategic project in the City of Whittlesea requires approval from the Executive Leadership Team within Council, prior to the preparation of a formal project brief and the associated commitment of staff resources. As such, HTW (as the initiator of the policy) had to broaden support for the policy to the extent that:

- The Directors of the three affected work areas would sponsor the project’s presentation to Executive Leadership Team for approval; and
- A case could be made that would achieve support from the Chief Executive Officer and all Directors in Council.

The development of the *Prioritising Active Travel in Neighbourhood Streets Policy* involved the following achievable organisational commitments:

- A coordinated approach to delivering the community and design attributes in the built environment that encourage active living and social cohesion.
- Agreement on streetscape, traffic and transport criteria to achieve slower speeds in neighbourhood streets (planned to be achieved through good streetscape design, subdivision layouts tailored to encourage active travel and adjusted speed limits).
- An external Communication Plan and Community Education Program.

The policy objective is the prioritisation of pedestrian and cycling movement in neighbourhood streets, including town centre, school and community precincts to:

- Encourage a significant shift in travel mode from motor vehicles to active transport within local neighbourhood areas resulting from improved road safety and user perceptions of road safety; and
- Create attractive and welcoming streets to provide safe and easy access for all to neighbourhood destinations.

The project gained the required support from the three Directors and was subsequently presented to the Executive Leadership Team who supported the formal commencement of the project. The

Executive Leadership Team noted that the level of collaboration and buy-in already achieved in getting the project proposal this far, would drive the ultimate success of the project.

### **Locally Specific Case Studies (this is NOT “experimentation”)**

During the policy discussions across Council, it became apparent that design was the critical tool to deliver success for the project. Design, done well, could achieve agreement and compromise among the many regulatory, technical and political factors that contest for space in our streets. Our objective was to create streets that positively influence human behaviour and are easily understood by everyone. Through better design of neighbourhood streets, particularly around schools and community hubs, behaviours and travel habits can be influenced right from the start.

A key feature of the presentation to the Executive Leadership Team was a reflection on our past work practices using local examples of neighbourhood design, the learning’s from which would provide a vision for future practice and demonstrate the benefits of a coordinated and targeted approach within Council. Two local case studies (one positive and one negative) are explained in more detail below:

#### *Laurimar Town Centre, Doreen.*

City of Whittlesea has been planning and implementing growth area development (or “master planned estates”) since 2007. Laurimar Town Centre in the suburb of Doreen is a local example of neighbourhood design that is delivering good active travel outcomes.

Laurimar Primary School was constructed early in the life of the town centre and is fully integrated into a walkable town centre design. The school experiences the highest rates of active travel in Victoria – facilitated by a founding school principal who passionately believes in the value of school active travel, a committed school community, strong engagement from both the developer and Council throughout the development stage and the work of a community development officer.



Figure 1: Hazel Glen Drive, Laurimar Town Centre.



The founding primary school principal has since moved on to another school in a nearby precinct and continues to work with Council transport engineers and the Schools Active Travel Officer to facilitate an active travel school culture.

Hazel Glen Drive is the Town Centre main street (Figure 1) and demonstrates landscape and structural elements that create a sense of pedestrian scale and a high level of amenity, achieved through good urban design. The street provides:

- Continuous, accessible paths of travel for pedestrians.
- Regular crossing points, shade and rest points (seating).
- Space for medium to large canopy trees within the road reserve.
- Space for pedestrians on both sides of the street, bus stops and shelters, and street lighting.
- On-road bicycle lanes in the main street and in connecting streets.
- Buildings with diverse street frontages or facades, particularly at first and second level.

(City of Whittlesea, 2015 and Government of SA, 2012, p.27)

For practitioners working within Council, Laurimar is a locally successful example which shifts the debate from whether urban design elements are effective in slowing speeds – they clearly are – and demonstrates that the development industry and the community can be willing partners in creating streets that are accessible to all users.



Figure 2: Laurimar Town Centre central axis (from primary school gate).

### *Mernda Villages Town Centre*

Mernda Villages Town Centre was developed at about the same time as Laurimar but with a very different main street outcome. The wide carriageway provides a high vehicle traffic priority on a street that accommodates uses generating high rates of pedestrian activity, such as the Community Activity Centre and the local Primary School.



Incremental decision making has contributed to this outcome. When the original street design was approved, the town centre and school were not yet constructed and the decision was taken to deal with the immediate priority which was vehicle movement.

Later, as the town centre was being developed, the characteristics of early retail tenancies led to the majority of retail uses being re-oriented so that most of the activation was on the opposite axis to Mernda Villages Drive. This was contrary to the strategic planning direction provided for the town centre.

The signalised pedestrian crossing at Mernda Villages Drive (shown at Figure 3) has generated complaints from pedestrians (particularly the elderly) who were anxious that the signals were not providing enough time to cross the street and who perceived that the speed of oncoming traffic made the environment intimidating.

Council has recently approved a program to reduce speed limits to 40km/h in the town centre area and on the approach past the school and a local retirement village. However, with the existing street design elements not delivering a signal to drivers to slow down, it is likely that Council will have to retrofit additional streetscape measures to “enclose” the street.



Figure 3: Mernda Villages Drive (facing south), Mernda Villages.



Figure 4: Mernda Villages Drive (facing north, outside the local school), Mernda Villages.

### Existing Policy Support vs Practice

The policy project was managed for the first 11 months by an urban planner seconded to HTW from another role within Council. She was able to use her experience as a statutory planner working in growth area subdivision to raise awareness within Council of the existing planning policy support in the Whittlesea Planning Scheme for encouraging walking and cycling through neighbourhood design, including the use of design to slow traffic speeds. Council's land use planners and transport engineers were also well aware of this policy support and keen to see it incorporated in Council practice.

The policy support in Health (Community Services) is provided by Council's Disability Action Plan, Community Building Strategy, Gender Equity Strategy and directions from the Municipal Health and Wellbeing Plan. The City of Whittlesea takes a prevention approach to health issues and health policy (Council Plan 2013-2017, p. 47). Such an approach considers:

- The complex interplay between human behaviours and the social, economic and built/natural environment; and
- The need to employ the appropriate mix of actions required to achieve the desired change.

(VRGF 2015, p.7)

The prioritisation of active travel is supported by the City of Whittlesea transport strategies such as the integrated Transport Strategy, Walking Strategy, Bicycle Plan and Road Safety Strategy. Apart from the proven economic benefits associated with the aforementioned avoided health costs, increased walking, riding and access to public transport also contributes to reduced traffic congestion and reduced road infrastructure provision (Department Infrastructure and Transport, 2013, p.6). These are important considerations in the design, development and funding of residential areas to accommodate population growth, whether in new suburbs or within the established areas.

Further encouraging walking and cycling in the community has, and will, require actions across multiple work areas in Council from community engagement and education to the implementation of a supportive built environment – including its ongoing management.

Council actively promotes the delivery of walking and cycling infrastructure in the greenfield subdivision and development process, and has put a program in place for early provision of temporary path infrastructure where gaps exist. Areas in proximity to schools and town centres are afforded the highest priority.

Council already provides a range of programs that encourage physical activity and seek to remove barriers to participation, particularly for more vulnerable members of the community. There is direct support for active travel in local schools through a partnership established by HTW with Council's City Design and Transport Department to coordinate and deliver information about local infrastructure that can facilitate active travel (such as new path connections and open space improvements). This is particularly relevant in the City's growth areas, and the newest schools have been and will be a particular focus as we seek to establish healthy travel habits early.

### **A case for “implementing whilst developing”**

At the time that the policy project was first proposed, it was recognised that there was an immediate opportunity to advocate for the policy objectives in the Growth Areas master planning process for new residential communities.

In the state of Victoria, proposed “Growth Areas” have Precinct Structure Plans (PSPs) prepared, setting out locations for roads, shopping centres, schools, parks, key transport connections and areas for housing and employment. Council has a significant level of input into the preparation of PSPs and in 2014-2015 were providing input to the Wollert, Donnybrook-Woodstock and English Street PSPs which will accommodate as many as 87,000 future residents within the City of Whittlesea.

Existing planning policy support, as well as policy support from the aforementioned Council strategies, meant that there was an immediate opportunity to strengthen these documents to achieve pedestrian and cycling friendly neighbourhoods. The PSP document sets out typical road cross-sections and this provided an opportunity to influence the design of streets to achieve reductions in traffic speeds.

The PSPs have recently each been reviewed through a Victorian Planning Panel process and we now know that these elements of street design are likely to be retained in the approved strategic plans. They include target design speeds of 40km/h in some road cross-sections and shared spaces (10 km/h) in the main streets of town centres. The approach is further strengthened by housing density considerations in proximity to town centres, as the land use mix in either side of a street is critical to reducing traffic speeds.

This strategic support will ensure that, in the event that the *Prioritising Active Travel* policy is approved by Council, there will already be consistent strategic objectives within the planning policy hierarchy to support its implementation.

## **What does the Policy mean for Community and External Stakeholders?**

At the time of writing, the policy had yet to be reported to a Council meeting for final Council endorsement and approval. As such, the implementation framework associated with the policy has not been actioned. Nevertheless, the existing policy support and the work of practitioners within Council to develop the policy have already begun to influence the work of Council in a positive direction.

External stakeholders such as VicRoads, the Metropolitan Planning Authority (MPA), Department of Education and Training, and sections of the land development industry have deepened their engagement in the promotion of active travel in residential neighbourhoods over the past two to three years. This momentum is strengthened by the ongoing advocacy of health professionals and other special interest groups such as Victoria Walks and Bicycle Network Victoria.

The HTW *Schools Active Travel Program* has involved working directly with the community to increase understanding of the benefits of children's independent mobility. Traffic congestion and lack of car parking at peak school commute times are a present reality, and continuous upgrades in road infrastructure and parking to meet the increasing demand from population growth is, essentially, unsustainable. The program has promoted alternative strategies for the trip to school that have Council support and engagement such as:

- Improved walking and cycling infrastructure and connectivity around schools.
- Activation of parks and community spaces as vehicle drop off points a walkable distance from schools.
- Identification of preferred routes to school with footpath markers and school crossing locations.
- Supporting school principals to take leadership to promote active travel.
- Supporting School Travel Plan adoption in schools.
- Promoting Victorian Walk and Ride to School initiatives.
- Promoting communication amongst the relevant stakeholders through the formation of a School Active Travel Network.

(City of Whittlesea and Plenty Valley Community Health, 2015, pp.1-3).

The successful HTW *Schools Active Travel Program* has had ongoing councillor support and engagement. The support that the *Prioritising Active Travel in Neighbourhood Streets Policy* provides to the active travel in schools initiative should also build support for the policy as it proceeds through to a Council decision.

The implementation of the policy is planned to involve setting 40km/hour speeds limits in neighbourhood streets. Community education and engagement will be required to manage expectations around speed limits and enforcement, in accordance with the policy objectives and as advised by Council transport engineers, VicRoads, and Victoria Police.

Within new urban areas, subdivision layouts will be designed and built to suit a posted "operating" speed limit of 40km/hour within a 400-800m radius of community hubs and town centres (800m equates to a ten minute walk). This design approach promotes walkable neighbourhoods by creating neighbourhood streets that are inviting, social spaces rather than just channels for movement (City of Whittlesea, 2015).

Within established areas, *Local Area Traffic Management Investigations* are an existing process whereby Council can consult with residents regarding local accessibility, traffic speed/volume and amenity for pedestrians and cyclists. Where there is community support for modifications to the road network to reduce speeds, these modifications are planned to be implemented within Council's works program.

## Conclusion

The City of Whittlesea has drafted a socially progressive policy that will guide our practice in designing new streets, as well as the elements of the adjacent land use and development that influence behaviour. The project has required a collaborative approach to plan for the various technical and regulatory issues that are encountered throughout the "life" of a street.

Over the next few months, formal Council approval of the policy will be sought. It is anticipated that this will test the perceptions relating to community sensitivity and acceptance of reduced speeds. However, whether we succeed or fail, the journey we undertake will provide rich information for anyone else seeking to implement a universally designed built environment, with significantly positive impacts on the health and wellbeing of residents.

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