

# Walking in suburbia – obstacles to implementing good practice

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**Abstract:** This paper tells the story of what happened when a Sydney local council set out to review the walkability of its suburb and take steps to make improvements. What it reveals is that there is no shortage of national and state policies and guideline documents on how to develop a local strategy and what interventions represent the most cost effective investment. However, very little attention has been given to the many significant challenges confronted when attempting to implement good practice.

The paper draws on the experiences described in the case study to identify two underlying systems phenomena that need to be addressed before real progress can be made in enhancing the walkability of an existing suburb.

The first is the disconnect between who bears the cost and who gets the benefit. While the community as a whole clearly benefits from reductions in health expenditure that can be expected with higher levels of fitness associated with increased walking, the local council who pays for the walking infrastructure, doesn't see any of that benefit in its financial bottom line. Similarly, but in reverse, when utilities minimise their costs by ignoring impacts on walkability, it is the community as a whole that bears the cost.

The second, related, problem is that interventions to improve walkability often involves trade-offs. The intervention may negatively impact on vehicular traffic flows, parking provision or green space. Different stakeholders, be they children, the elderly, cyclists, utilities, property owners or public transport providers may all be impacted and some form of compromise will need to be worked out. As the composition of councils change with the election cycle, the level of influence of different stakeholder groups will wax and wane. Furthermore, generic standards designed to ensure that contested space is equitably shared, often mitigate against getting solutions that are optimally adapted to the precise circumstances at hand.

The paper concludes with certain policy recommendations that would address these systematic problems

## Introduction

Decades of research have established that physical activity is good for your health [1-3]. The message has not been lost on governments concerned about rising health costs. Most governments have set themselves the goal of increasing physical activity and in particular the physical activity that is a by-product of choosing to walk, cycle or use public transport for local trips [4].

Strategies to encourage active travel for local trips are focused on identifying and removing barriers to walking enjoyment. Issues addressed include making walking routes more direct, improving the width and quality of the walking surface, eliminating physical obstacles, reducing delays experienced at signalised crossings, reducing conflict with other path and road users, improving safety, providing protection from the elements and installing seating.

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Improvements to walking infrastructure won't be sufficient in themselves, but they are a necessary first step[5].

### **We know what needs to be done – and it is being done in some new developments**

There is no shortage of government publications giving guidelines on how streets in new developments should be designed to provide inclusive access and encourage walking and cycling. [6-13]. These guidelines consider the entire road reserve from the property to property boundary as an area to be designed rather than just let happen. The design needs to take account the context of the street in terms of the relative significance of its role as 'place' and 'movement'. The design needs to strike the right balance between the needs of pedestrians, cyclists and vehicles as well as providing for trees and vegetation, and accommodating services including electricity, water, gas, telecoms, sewerage, stormwater drainage, waste collection, public transport and emergency vehicles. Examples of redevelopment of extensive brownfields sites where the guidelines have been implemented can be found in most countries around the world. In Sydney some of the Landcom developments are excellent examples [14].

### **Retrofitting existing neighbourhoods is more difficult**

The streets for people movement is slowly transforming existing residential areas in some European countries. The Dutch 'Woonerf' concept that involves the conversion of local residential neighbourhoods into kerb-less shared spaces with very low speed limits has been replicated in many countries.

Across the globe another driver of change to improve walkability is disability legislation which requires new works to meet certain access standards. Any access driven improvement is likely to improve amenity for all pedestrians.

Conversion of existing neighbourhoods is going to take time. The rate of progress will depend on many factors. The ideal scenario is one where the local authority has a clear vision of the transformation needed and is prepared to allocate funding each year that is at least sufficient to ensure that as maintenance works on existing infrastructure are needed, the opportunity is taken to at the same time reconfigure the area to improve walkability.

Unfortunately this ideal scenario is not being played out in most local authorities. Maintenance works more often than not simply restore the status quo and other developments are permitted that actually erode rather than enhance walkability. This paper takes the form of a reflection on the issue by two local authority participants in the process, one of us a former elected member and the other a staff member of Mosman Council. We try to answer the question, why, in spite of all the fine words and glossy guidelines publications, progress is relatively slow.

We begin by giving some background information about Mosman. We then trace through the process by which an aspiration expressed in council's 10 year strategic plan is finally materialised as works on the ground. Next we identify the many points along the way where good intentions can be stopped in their tracks. We end on an optimistic note with some recommendations applicable to all jurisdictions, including our own, which draw on evidence of how the obstacles we have identified have been successfully addressed elsewhere.

### **Mosman's story 1 – who we are**

Mosman is a harbour-side suburb North East of Sydney CBD. It is surrounded on three sides by water and has 28 km of coastline but covers just 8 sq km in area. It was developed in the late 19<sup>th</sup> and early 20<sup>th</sup> century when the dominant transport modes were walking, cycling and the tram. Virtually every home is in walkable distance the shops and foreshores. There is an extensive network of foreshore walks and pedestrian steps that link the contour hugging roads. Buses have replaced trams but the district is still very well served by public transport. Mosman has formally adopted the Walk21 Charter[15].

Despite all these walking friendly attributes, and despite the high participation rates in sport and active recreation, Mosman residents almost always choose to use their cars for local trips - even trips to the gym.

Council has an Active Transport Working Group and also an Access Committee. While Council recognises that preference for the car is deeply embedded in the culture and unlikely to change anytime soon, it is still keen to improve walking infrastructure to make the suburb more inclusive by addressing factors that restrict the mobility of the aged, children, residents without cars and residents with a disability. Over the last few years Council has adopted a Pedestrian Access and Mobility Plan, an Access Plan and Bike Plan. For pedestrians, the works proposed in these plans include making road crossings safer and more convenient, widening footpaths, improving footpath surfaces and removing footpath obstacles.

In justifying expenditure on infrastructure to remove mobility barriers for disadvantaged groups, part of the argument is that the works will also encourage members of wider community to walk and cycle more and drive less and that this in turn will have benefits in reduced congestion as well as community health. Experience elsewhere has shown that a virtuous circle operates in the more people seen walking and cycling, the more are encouraged to do so, and by this means the culture of car dominance is gradually transformed.

### **Mosman's story 2 – how decisions are made**

Like all councils in NSW, Mosman structures its work via the Integrated Planning and Reporting Framework. This involves a suite of planning documents starting with a ten year Community Strategic Plan (CSP), a four year Delivery Plan and a one year Operations Plan along with a Resourcing Strategy. The Community Engagement Strategy sets out the processes that will ensure that the plan is properly aligned to community aspirations.

Active/sustainable transport and access objectives appear in Mosman's CSP along with objectives covering every other area of council's responsibilities. Given there is a finite source of funds, these objectives are to a certain extent in competition as clearly more expenditure in one area leads to less in another. This competition plays out via the political process and the outcome is reflected in each year's Operations Plan. Because of the car-oriented transport culture in Mosman initiatives to improve traffic flow and provide more parking have a much easier run than access and walkability initiatives, although the balance is a little redressed by the availability of grant funding specifically for the latter.

The best opportunity for making walkability improvements is when a stretch of footpath is being renewed. Ideally, rather than simply restoring the path as it was, the design would be modified to

be better aligned with good walkability practice. Unfortunately, even at the design level there are competing interests within council. In order to minimise costs there is a temptation to renew the footpath with a reduced width. It is easy for council to justify the reduced width, despite its negative impact on pedestrians, by using Water Sensitive Urban Design (WSUD) arguments. This argument is spurious as path widths could be maintained while accommodating WSUD principles – all that would be required would be to replace some parking with green space. Politically it is much easier to sacrifice path width than to cut back on parking, so that is what happens,

Even when the design of the works cannot be faulted from the walkability perspective, a perfect outcome is by no means assured. Small details in such matters as kerb ramp design (width, slope, location) can have a big impact on accessibility for example. There just aren't enough council staff available to supervise contractors to the extent needed to get every detail right. Any detail left to a contractor's judgement is unlikely to be decided on grounds of walkability,

A further threat to good walkability outcomes is the fact that cash-strapped councils have to exploit every revenue-earning opportunity available. The fact that a good income stream can be derived from prominently visible bus shelter advertising means that bus shelter design and placement is optimised for visible impact on passing motorists, not compatibility with pedestrian interests such as minimal obstruction and sight line maintenance. Outdoor dining, though good in itself is another revenue raiser that, if not well managed, can compromise pedestrian access.

### **Mosman's story 3 – limits to authority**

Obstacles to implementation are not confined to Council as many of the improvements that would make active travel more attractive require the approval of other agencies. All matters relating to traffic for example have to be endorsed by a committee in which the roads authority and the police have effective veto power. The representatives who serve on this committee are well versed in the policies of their agencies and are required to ensure that nothing happens that is contrary to those policies.

This is a situation that is inimical to finding creative solutions. Solutions which for example may represent a better adaptation to the context than could be obtained by strictly adhering to the code. Codes can only be changed by a cumbersome process, consequently they embody best practice as it was many years ago, not now. In Australia the code covering pedestrian facilities was last revised in 1995[16-17]. Restricting interventions to those compliant with this code means ruling out many approaches, developed elsewhere, that have proven to be highly effective in making conditions safer for pedestrians and cyclists. The standout example is reducing speed limits in residential streets to 30 km/h

A code ought to be an instrument or means to achieve a higher order objective, not an end in itself. The use of codes by the roads authority and the police as grounds to veto, or impose impossible conditions on interventions to improve conditions for pedestrians proposed by Mosman Council reflects the absence of a clearly articulated higher order objective applicable to all agencies promoting active travel. In the absence of such an objective, the individual agency objectives implicit in the codes apply. When council proposals are evaluated the dominant concern of the roads authority tends to be traffic flow, and for the police, enforceability.

An example from Mosman illustrates the point. A six lane highway which carries the bulk of traffic between the CBD and Sydney's Northern Beaches bifurcates Mosman. This highway causes long deviations for pedestrians in order to get to a signalised crossing. Wait times are long and crossing times are short. But council attempts to get a better deal for pedestrians have always been rejected by the roads authority.

#### **Mosman's story 4 – impact of utilities**

The road reserve is used by utilities for their distribution networks and under NSW Planning legislation (the Infrastructure SEPP) they do not require council consent to install equipment. This removes from the utilities any obligation to take into consideration the likely impact on pedestrians when deciding the design of the equipment they will use, and where precisely it will be located. There is also no requirement for utilities to coordinate their maintenance, or to complete their works in a timely manner. Their only obligation is to notify council and make good any damage they do.

When utilities were in government hands, they were as responsible as any other government entity to work towards the achievement of government broad strategic policy objectives while at the same time delivering the service that was their primary goal. For example, if improving walkability was a strategic goal of government, the government utility could be expected to factor this in and be prepared to adopt more expensive design solutions in order not to compromise walkability. A corporatised or privatised utility on the other hand is required only to abide by the law in maximising the return to its shareholders. The problem for the government is to devise regulations that can keep up with the utilities ceaseless efforts to exploit new technologies to reduce costs.

In Mosman, and in other parts of Sydney, the appearance on our footpaths of hundreds of 320 x 270mm green pillars is a manifestation of the lack of appropriate regulatory control. The pillars are about knee height and represent a severe hazard to night joggers, particularly when they are first installed as, they are unexpected. Their placement is such that they often severely restrict the useable width of the path. The pillars also detract from the aesthetics of the street, and provide a site for graffiti.

From the electricity distributor's point of view, the boxes provide a lower cost, more reliable and easier to maintain way of connecting underground power to consumer premises. Underground pits, that have been used in Sydney up until now, and are still used elsewhere, are more expensive to construct, liable to flooding, and pose a safety threat to linesmen.

These are valid issues for the utility, but the questions that need to be asked are these. Are so many pillars required? Could not some of them be replaced by pits? Could the pits not have been located off the footpath or on the consumer's property? Was it not possible to come up with a slimmer, more pedestrian friendly design?

#### **What could make a difference**

We believe that three systemic changes are called for. Firstly the method of appraisal used by councils for prioritising infrastructure projects needs to be expanded. Secondly, the road reserve needs to be reconceptualised as a space that is as worthy of planning as the land which it services and equally is amenable to good design. Finally a high level policy (in Australia, at the level of state government) is needed which embodies the government's commitment to the promotion of active

transport in actual legislation. Such legislation would become the ultimate authority for resolving disputes between councils and other agencies and provide all stakeholders with an interest in the road reserve with the legal protection needed for adopting, evidence based, context sensitive innovations, even when these were not strictly compliant with existing codes.

In this section we expand briefly on each of these reforms.

On the matter of appraisal, Macmillan and Givoni [x] point out the limitations of conventional Cost Benefit Analysis when walking and cycling projects are being compared with the more traditional transport infrastructure projects. They argue that the way that the elegant simplicity of CBA which attempts to monetise, through market pricing and social opportunity costs and extensive range of predicted costs and benefits over time comes at a cost of transparency for. The democratic process would be much better served if elected representatives were presented instead with appraisals based on the Multi Criteria Analysis (MCA) framework. In MCA, impacts are expressed either quantitatively or qualitatively, then, a weight is assigned to each criterion to reflect the difference of importance of each criterion. MCA gets away from crude (and often unethical) assessments of 'willingness to pay' and makes quite explicit its assumptions that can in turn be varied. As well as creating a more 'level playing field' for the evaluation of walking and cycling projects, MCA also provides a better basis for sharing the costs of the project (for example via grants) between different levels of government to better reflect the distribution of benefits.

The road reserve is highly contested space. Single-mindedly striving to meet one goal or support one user group is likely to compromise meeting another goal or make things worse for another user group. Conceptualising the road reserve as a site for planning and design excellence is a way of accommodating the understandable reluctance of elected representatives to challenge directly the automobile-dominated culture that currently shapes our cities. Imagining alternative ways of configuring each residential street is an exercise that would have minimal impact on council budgets but would get a conversation started on how best to design the space to balance a sense of place and the need for movement, to meet the needs of the mobility impaired, to self-enforce safe vehicle speeds [18], to balance the needs of pedestrians, cyclists and motorised traffic, to provide quality green space and sufficient parking. Generic guidelines on such matters as where the footpath should ideally be located, what surface quality it should have, and how wide it should be could apply to all streets.

Even though funding for transforming the street might not be likely for the foreseeable future, the very existence of the plan would provide guidance so that when works needed to be done in the street, they were consistent with the long term vision. In Mosman there already is a plan which specifies what street trees will be planted in each street. What is being suggested here is much more ambitious, and that is a plan for the complete re-design of the street from first principles. It is encouraging to report that some Mosman streets have been redesigned and the designs implemented. Waverley Council in Sydney has developed a vision for the redesign of streets in its CBD [19]

For councils to have the control needed to progress towards their street design visions they need legislative backing that allows them to challenge the positions taken by other agencies and even the design rules embodied in relevant codes, on the basis of whether or not that position is consistent with the active transport promotional intent of the legislation. Finding ways of meeting their own

objectives in a way that does not impact negatively on pedestrians, may for example trigger the roads authority the use of image recognition technology at pedestrian crossings so that crossing times can be matched to the mobility of those seeking to cross, or the electricity distribution authority to design of slim line electricity pillars.

One jurisdiction where there has been significant movement towards overarching legislation is Scotland. Two policy documents, *Designing Streets* [20] and *Planning Places* [21] set out government aspirations and the role of the planning system in delivering these. Both documents are national planning policy and are supported by a range of design-based planning advice notes. This quotation from *Designing Streets* indicates reveals the underpinning zeitgeist.

*“In the more recent past, vehicle movement has often dominated the design of streets, resulting in many streets being out of context with their location and overly influenced by prescriptive standards. The prime concern of Designing Streets, in contrast, is to reverse this trend and shift the focus firmly back to the creation of successful places through good street design.”*

*“Streets exert an immense influence upon our lifestyles and behaviour. Street design also has a direct influence on significant issues such as climate change, public health, social justice, inclusivity and local and district economies. Designing Streets recognises these pressures and seeks to build a collective response through the design of new streets and the regeneration of existing streets that is informed by as wide a range of issues and stakeholders as possible. Through the introduction of this policy, the Scottish Government seeks to ensure that specific interests are no longer promoted without an appreciation of the wider context. Collaboration and awareness between what have often previously existed as singular processes is vital if the aims of Designing Streets are to be met.”*

Some of the specific street design policies of the Scottish government which are then mirrored with sensitivity to local conditions in the policies of individual councils, and implemented via quality audits and checklists for all public realm developments in Scotland are:

- Street user hierarchy should consider pedestrians first and private motor vehicles last
- Street design should be inclusive, providing for all people regardless of age or ability
- Design should be used to influence driver behaviour to reduce vehicle speed to levels that are appropriate for the local context and deliver safe streets for all
- Signs and street markings should be kept to a minimum and considered early in the design process
- Street furniture should be located for maximum benefit and to reduce pedestrian obstruction
- Junctions should be designed with the considerations of the needs of pedestrians first
- Street layouts should be configured to allow walkable access to local amenities for all street users
- Streets should allow for and encourage social interaction
- Parking should be accommodated by a variety of means to provide flexibility and lessen visual impact
- The accommodation of services should not determine the layout of streets or footways

In Edinburgh Council the Quality Audit [22] includes assessment against the following criteria

- Shared use areas and unmarked uncontrolled areas have been considered and included to manage the movement of different street users
- Pedestrians, cyclists and public transport users have been prioritised in the design of the street
- Signs markings and street furniture have been used in a balanced way where they are providing a positive function for street users.

Finally, the Scottish government's street design policy addresses head on the issue of risk:

*"A major concern expressed by some road authorities when considering more innovative designs, or designs that are at variance with established practice, is whether they would incur a liability in the event of damage or injury. This can lead to an over-cautious approach, where designers strictly comply with guidance regardless of its suitability, and to the detriment of innovation. This is not conducive to creating distinctive places that help support thriving communities. In fact, imaginative and context-specific design that does not rely on conventional standards can achieve high levels of safety. The design of Poundbury in Dorset, for example, did not comply fully with standards and guidance then extant, yet it has very few reported accidents. This issue was explored in some detail in the publication Highway Risk and Liability Claims 2009. Claims against road authorities relate almost exclusively to alleged deficiencies in maintenance. Claims for design faults are extremely rare. The duty of the road authority to maintain the road is set out in the Roads (Scotland) Act 1984, and case law has clarified the law in this area."*

## Conclusion

In recent years governments around the world have recognised the important role that physical activity has in promoting health. This recognition has led to the establishment of agencies such as the NSW Premiers Council for Active Living which bring together representatives of agencies that might have an impact on community physical activity, and to the publication of guidelines for local councils on street design principles that recognise the importance of walking as a travel mode.

However the key difficulty is less to do with knowing what to do than making the changes happen and overcoming the considerable barriers to change which include perceived costs, lack of political will, entrenched attitudes and complexity of interactions between agencies with an interest in the road reserve.

Streets take up a significant proportion of the land of every local council. Up until now, certainly in Australia, this valuable public realm asset has not been seen as something that needs to be planned and designed. Rather it has functioned as a commons, exploited by different agencies to meet their own objectives. What regulation existed took the form of rigid design codes.

Reappraising its street assets with a design perspective gives LGA's such as Mosman considerable opportunity for enhancing the liveability of the suburb. The transformation could take place over decades as funding allowed but it would require sustained leadership, ideally starting at the State and National level in the form of policies that gave legitimacy to the innovative approaches needed.

A starting point would be for council to articulate a vision for the way it wanted its streets to evolve over coming decades, followed by a commitment to use every opportunity that arose where street works were needed to drive forward that ambition. The mechanism could be a simple quality audit in which this question was asked: "Taking into account what we have learned from developments

across the globe, is the current road reserve design the best use of the available space considering the balance between its place role and movement role and our objective of inclusivity and our desire to fairly accommodate the sometimes conflicting needs of all stakeholders?

Complementing this approach would be a shift away from simplistic cost-benefit analysis evaluation of projects to an evaluation based on multi-criteria analysis.

### Disclaimer

This paper solely represents the views of the authors as individuals. It should not to be interpreted in any way as conveying the official position of Mosman Council.

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