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Guest Editorial
Transport and the future of our cities
Garry Glazebrook

“Its all about the poles and wires” was the headline in The Sydney Morning Herald on the eve of the recent State election. All pre-election polls showed electricity privatization was very unpopular. But despite this, the Government, which promised big spending on transport infrastructure in exchange for leasing the poles and wires, was returned. This suggests that voters were ultimately more interested in new infrastructure than preserving public ownership of the electricity network.

It is appropriate then that this issue of New Planner focuses on transport, a major component of the infrastructure budget and the element with the greatest impact on how our cities will develop in the future.

From a transport perspective, the election result means that the North West Rail Link and the CBD and South East Light Rail will be completed by 2019, and that other major new transport projects will commence, including the second Harbour rail crossing, the WestConnex motorway and the Parramatta light rail.

Despite this progress, some key questions remain:

• How will current transport initiatives affect our lifestyles and our city, and are they the best investments?
• How do we finance transport infrastructure once the boost from leasing the poles and wires runs out?
• What will our transport systems look like in the future, and how can we use them to shape more desirable and sustainable urban living?

This issue includes a range of articles addressing these questions. Anthony Mifsud, for example, looks at how the CBD and South East Light Rail project will not only transform George Street, but also open up the possibility of a CBD-based light rail network serving Green Square, which is undergoing large-scale redevelopment. Brett Maynard describes how this project also requires major re-organisation of CBD bus services and traffic management. Darren Holloway’s article examines the Government’s plans to replace Newcastle’s heavy rail line with a modern, light rail system. He highlights the need for complementary land use policies in order to realise the potential urban renewal benefits associated with light rail.

Liz Develin from NSW Planning and Environment outlines the Government’s approach to integrating transport and land use planning around new or enhanced transport corridors. This is encouraging, as all too often transport infrastructure has been built in the absence of land use policies designed to maximize the benefits of enhanced accessibility. Daniel Cavallo from TNSW highlights another form of integration – multi-modal transport planning – which represents an important step away from the “silo” approach adopted in the past, where buses frequently failed to integrate with the rail system.

However, sustainable transport solutions demand more than just public transport improvements. Measures to encourage walking and cycling are key, while new transport innovations such as car share – discussed by Jennifer Kent and Robyn Dowling – need to be supported by the planning system. Freight movement is also critical, but often overlooked. Carl Wulff offers a thought-provoking piece on the Moorebank intermodal, arguing that it should be built adjacent to Badgerys Creek airport.
While the level of public involvement in the development of the State’s transport master plans is to be commended, we are still far from world’s best practice. Laura Stewart critiques the current approaches to community engagement, arguing that we need to involve the community much more meaningfully in the planning process.

Alison Ziller explores the important issue of social infrastructure, arguing for a wider appreciation of its scope and role, and Joe Langley discusses infrastructure funding. Joe makes a passionate call for planners to advocate new funding options such as value capture mechanisms, for greater Federal Government involvement in our cities, and for reform of the powers of local government in planning and urban renewal.

Looking further into the future, Rod Simpson argues for “transformational” infrastructure, which not only responds to unmet demand but also positively shapes a better city. He proposes a staged plan for Sydney, commencing with a “Metro Circle” linking the city’s major commercial and retail centres, universities, and hospitals. Further stages expand the metro network, add key rail freight routes, and incorporate high-speed rail linking both the CBD and Parramatta to Badgerys Creek airport. This is truly visionary thinking, aimed at positioning Sydney for the next 50 years and beyond with a transport system and land use pattern that will markedly improve social equity, environmental sustainability and economic vitality.

This leads us to the final question – on the future of transport and our cities. Like many cities, Sydney was developed around rail in the late 19th century, but then expanded around road networks. Although Sydney is now beginning to use space more intensively, implying a much greater reliance in the future on mass transit for trips to major centres.

The need to provide high quality access to lower density areas of our city will remain a challenge. This is where a mix of options – from bicycles to car share, “Google” cars and demand responsive transport like Boston’s new “BRIDJ” system of minibuses – is needed. In combination with improved rail and express bus networks, these options can significantly reduce traffic, parking requirements, energy and oil consumption, and greenhouse gas emissions. For example, bicycles take up one-tenth of the parking space and one-fifth of the road space of cars, while a single automated “Google car” could remove the need for ten private automobiles, saving space, enabling cheaper housing and providing mobility options for our growing army of older Australians.

Future growth cannot be based on the unsustainable and increasingly uneconomical car-based models of the last 60 years

In this context, one must question the wisdom of Sydney’s biggest current transport investment – WestConnex. The City of Sydney and others have argued that spending $15 billion on motorways headed towards the CBD is shortsighted. Melbourne has decided to scrap an inner city freeway and instead allocate funds to build a new metro rail link through the city centre. Is it too late for Sydney to learn from this example? One option worth examining before the final contracts are let would be a downsized road tunnel from the end of the M4 to the Port Botany/Airport complex, focused on commercial vehicles in peak periods, which in general have no public transport alternative. The funds saved could then be reinvested in accelerating the West Metro between the CBD and Parramatta, via Strathfield and Olympic Park. This would strengthen Parramatta as the second CBD, cater for future development in the CBD to Parramatta corridor, and take advantage of the additional capacity provided by the second Harbour rail crossing. Completion of the “Metro Circle” proposed by Rod Simpson would only then require the Epping/Macquarie – Camelia/Parramatta link, transforming Sydney’s entire geography.

Other longer term transport infrastructure issues affecting NSW include a re-examination of High Speed Rail between Melbourne and Brisbane, which would alleviate some of the population pressures on the Eastern state capitals and re-invigorate regional cities along the route. With both Sydney and Melbourne headed for a population of 8 million and Brisbane for a population of 6 million by 2090, these options need to be addressed.

Similarly, the Southern Sydney freight line and Enfield intermodal terminal (now completed), and the construction of the Northern Sydney freight line and further intermodal terminals, must be supported by appropriate road pricing measures to achieve a significant mode shift of long distance and container freight to rail. This would relieve pressure on our overtaxed road networks. Finally, Badgerys Creek airport promises to relieve pressures on Eastern Sydney and stimulate job growth in Western Sydney, but the airport must be well-connected by rail if it is to minimise car- and truck-based traffic.

There is no shortage of transport challenges ahead, but the signs are more encouraging now than for many decades. Hopefully this issue will help stimulate further big picture thinking and continue the current momentum. Happy reading! —

Garry Glazebrook has over 30 years’ experience in urban and transport planning, ranging from government agencies to consulting to academia. He initiated The Sydney Morning Herald’s independent public inquiry into a long-term public transport plan for Sydney, and has a longstanding commitment to improving the sustainability of our cities, especially in relation to transport.

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President’s Message

David Ryan MPIA CPP, PIA NSW President

The NSW election has now passed with the re-election of the Coalition Government and I look forward to PIA’s continuing strong engagement with the new Ministerial team on the important planning issues facing the State. The timely delivery of infrastructure to match significant forecast growth will be key.

I have written to congratulate the new Minister for Planning, Hon. Rob Stokes, and Assistant Planning Minister, Hon. Mark Speakman, on their appointments to these challenging roles.

Minister Stokes has been a great supporter of PIA, having addressed our conferences, including our most recent in the Hunter Valley. Having authored numerous articles and academic papers on the subject of planning, and following his stint as Assistant Planning Minister, he has a very strong and impressive background for this role.

PIA’s NSW Executive Committee and I look forward to meeting with the Minister in the near future to discuss the priority issues for planning over the next four years, as articulated in PIA’s pre-election manifesto, “Better Planning for Growth”.

The Minister has a tremendous opportunity to shape planning in NSW and I hope he takes a bold approach to its transformation.

Planning is too important to the economic, social and environmental performance of the State to be allowed to languish.

Planning in NSW seems to have been in a holding pattern since the stalling of the Planning Bill in the Parliament in December 2013. I think there has been widespread anticipation (or at least hope) that once the election was out of the way, there would be a flurry of activity in planning policy and governance.

Some announcements were made in the lead up to the election, including significant expenditure promises on infrastructure. Regardless of where one stands on the issue of electricity privatisation, a major injection of capital expenditure on infrastructure is much needed across metropolitan and regional areas. In particular, PIA has been calling for significant spending on public transport infrastructure to cater for the forecast population growth in NSW.

I recently had the pleasure of attending an industry lunch addressed by the head of Infrastructure NSW, Graham Bradley. I was impressed with INSW’s professional and rigorous approach to its recommendations to government on infrastructure prioritisation. I hope this rigour flows through to land use and infrastructure co-ordination at the subregional planning level – the phase we are now entering into following the release of A Plan for Growing Sydney.

Another pre-election announcement that we await with anticipation is the roll-out of the Greater Sydney Commission. Based on the number of mentions in A Plan for Growing Sydney, there appear to be a lot of expectations placed on the Commission to resolve many of Sydney’s planning problems. I hope that it can live up to these expectations and not just add another layer of bureaucracy. In light of this concern, PIA has called for a ‘root and branch’ review of governance in all facets of planning in NSW. As part of this, we wait with interest to see what the future holds for the highly charged issue of local government reform.

So much to be done – let’s hope that it’s done well! As always, PIA will be strongly advocating to improve and strengthen the planning system for its participants and the NSW community.

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Executive Officer’s Report

Maurene Horder, PIA NSW Executive Officer

The PIA NSW Division has been involved in a range of interesting activities during the first half of this year. During the recent State election, for example, we were able to advance the position and views of planners, and hear from politicians at key PIA events, including our annual Planner’s Dinner.

Our education and professional development program, showcasing new and improved formats, has got off to a good start. This has included webinars and the planning reform series, as well as the more familiar toolbox series.

The recent presentation of PIA Fellow and Life Fellow lapel pins was a historic event. It was great to see so many of our elevated members in one location, sharing stories – new and old – and discussing the future of planning in NSW.

Plans are progressing for another state conference to be held in Sydney this year. The conference theme is ‘Planning to Manage Change’ and all members are encouraged to attend this exciting event in September.

We have just opened the 2015 NSW Awards for Planning Excellence and are looking forward to a good response from across the state. The Awards are a timely opportunity to recognise innovation, leadership and excellence in the planning profession, and to emphasise the importance of good planning to communities throughout NSW.

PIA’s NSW Life Fellows pictured with Brendan Nelson, PIA National President, and David Ryan, PIA NSW President, at the recent pin ceremony at Doltone House, Hyde Park.
A recent decision of the NSW Land & Environment Court has held that compliance with the ‘Rules of Thumb’ for apartment sizes, as set out in the Residential Flat Design Code, did not protect a development application from refusal. In this update we examine the broader implications in terms of the relevance of the ‘Rules of Thumb’ established under the Code and how that may impact the proposed reforms to State Environmental Planning Policy No. 65 [Design Quality of Residential Flat Development] (SEPP 65).

Background and statutory context

The RFDC contains detailed design provisions for residential flat development in NSW. The RFDC is afforded legal weight under SEPP 65. The provisions of SEPP 65 must be considered by a consent authority when assessing development applications for residential flat development and modifications of those applications.

Clause 30A of SEPP 65 provides that a consent authority must not refuse a development application for carrying out residential flat development where the development in question meets or exceeds certain minimum standards specified in the RFDC.

Minimum apartment area standards

In the Botany Case, the relevant standard applied to “apartment area”. Clause 30A of SEPP 65 provides that, if a development application includes a proposed area for each apartment that is equal to or greater than the recommended internal area and external area for the relevant apartment type set out the RFDC, then apartment area cannot be used as a reason for refusal of the development application.

Turning to the RFDC, the standards for minimum internal and external apartment areas are set out in a table. Immediately below the Table are a number of ‘Rules of Thumb’ for apartments which, in relation to apartment sizes, reproduce “as a guide” certain suggestions from the Affordable Housing Service.

The issue in dispute in the Botany Case was whether the relevant minimum apartment areas to be applied for the purpose of determining whether clause 30A of the SEPP was engaged, were those listed in the Table (which referred to internal and external apartment areas) or those in the Rules of Thumb (which did not and which, in some cases, allowed for smaller apartment sizes than the Table). Justice Sheahan held that the apartment areas contained in the Table were the relevant standards for the purpose of clause 30A, noting that clause 30A refers specifically to “internal and external” areas and that these were only set out in the Table and not in the Rules of Thumb.

Analysis and broader implications

The Botany Case demonstrates that it is necessary to test whether the relevant Rule of Thumb corresponds directly with the language used in clause 30A of SEPP 65. If, as here, the language in the Rule of Thumb does not precisely correspond with Clause 30A, the Rule of Thumb cannot be relied upon.

Currently, clause 30A only sets two standards: apartment size and ceiling height. Applying the rationale of the Botany Case:

• for apartment sizes, the ‘cannot be refused’ requirement of clause 30A is only engaged where the minimum internal and external areas specified in the Table are complied with, despite what appears in the Rules of Thumb; and

• by extrapolation, it may also be unsafe to rely on the ceiling height ‘Rules of Thumb’ where they do not precisely align with the language used in Clause 30A.

Implications for reforms to SEPP 65 and the provision of car parking near railway and light rail stations

In September 2014, the NSW Government announced a proposal for major amendments to SEPP 65, including replacing the RFDC with a proposed draft Apartment Design Guide – Tools for improving the design of residential flat development (Draft Guide).

The reforms propose to expand the scope of clause 30A to include the provision of car parking. The Draft Guide proposes that the requirement to provide car parking will be significantly reduced and, in some circumstances, removed for proposed developments located within the vicinity of railway and light rail stations.

The Draft Guide introduces the opportunity for developers to provide one of the specified ‘acceptable solutions’ as an alternative to the relevant ‘performance criteria’. These ‘acceptable solutions’ will replace the ‘Rules of Thumb’. It will therefore be necessary to ensure that the car parking ‘standard’ intended to be adopted is expressed in language which precisely aligns with clause 30A, as amended, and identifies whether the scope of clause 30A is intended to capture development which satisfies ‘acceptable solutions’.
The post-war years were not kind to George Street. As elegant landmarks fell to bulldozers, their high-rise replacements turned inwards and away from the street, seeking respite from growing vehicle and bus traffic. Today, pedestrians are confined to narrow footpaths, with few spaces to pause, to sit, or to escape the noise. But it need not be this way.

The Nantes tramway, opened just over thirty years ago on France’s Atlantic coast, boasted no particular technological innovation. And yet it was the beginning of a new way of thinking about surface transport in those cities that had abandoned their first-generation tramways. The idea rediscovered in Nantes – and perfected later in Strasbourg and Bordeaux – was simply that high capacity transport could be part of the surface fabric of the city, not always buried, fenced or elevated.

Since 2008, the City of Sydney has argued strongly that George Street is the right corridor for a modern tramway. Only on George Street can a public transport project transform what is now a main road into a genuine civic street.

With $220m of Council money on the table, the City put forward a strong design vision. Generous and uncluttered, it introduces distinctive street trees, lighter paving, new public furniture and lighting tailored to pedestrians. Informed by precedents...
in Europe and elsewhere, the step-free design is practical, safe and beautiful.

Like its contemporaries in Europe and North America, the project includes a number of public art installations. When the first trams roll down George Street in 2019, they will pass beneath the most prominent of them, Junya Ishigami’s Cloud Arch at Sydney Town Hall.

Is the George Street and South East line the start of a larger inner-city network? Sydney is dotted with reminders of abandoned or extravagantly delayed rail extensions. But transport must ultimately follow population, and inner Sydney is booming.

In nine of the last ten years, more new dwellings have been constructed in the City of Sydney than in any other metropolitan municipality. Over this time neighbourhoods such as Rushcutters Bay, Potts Point and Darlinghurst have each seen hundreds of new apartments. Elsewhere – in Zetland, Rosebery, Alexandria, Waterloo, Chippendale, Ultimo and Glebe – they number in the thousands.

Of all the potential light rail corridors, none have the intensity of land use, or the rate of growth, as Green Square. Yet the case for light rail is too often dismissed: Green Square has a heavy rail station already, doesn’t it?

The Green Square Town Centre is a project of some 3,000 apartments and 20,000 jobs. As significant as the Town Centre is, it isn’t all – or even most – of ‘Green Square’. The Centre will house only one in nine residents living in the declared Green Square Urban Renewal Area.

The remainder of this population is distributed – densely – across 2.8km² of the Green Square Urban Renewal Area. The area, incorporating most of Zetland, and parts of Waterloo, Alexandria, Beaconsfield and Rosebery, is Australia’s largest and densest urban renewal precinct, averaging 19,000 people per square kilometre, with some neighbourhoods exceeding 30,000p/km². This density exceeds that of Kings Cross or Pyrmont by a factor of two and is much larger in scale.

State and City transport plans have long recognised that residents in the east and north of the renewal area will be beyond the walking catchment of Green Square railway station. Given that increased bus services have failed to keep pace, resulting in severe overcrowding, and unit construction continues apace, light rail is an obvious choice: a corridor of only 4.5km could see peak line loads in excess of 3,000 passengers per hour. There is no shortage of demand.

New (or extended) light rail services, be they from Parramatta Road, Maroubra or Green Square, will inevitably face the capacity limits of the George Street corridor. One obvious solution would be to restore the Oxford and Flinders Street corridor from Moore Park to central Sydney – perhaps initially only to an interchange at Museum Station. Not only would the revival of this corridor be welcomed by local traders and residents, but it would also serve as a ‘relief’ line to the City’s south east, freeing up capacity for the network to absorb trams from a Green Square or Parramatta Road corridor – and, indeed, to accommodate further southern extensions along Anzac Parade.

Ultimately, Sydney will need more than one tram corridor, as it has in the past. The transformation of George Street should demonstrate just how much more is possible.

Anthony Mifsud is the manager of transport policy at the City of Sydney.
Transport planning to get ahead of the rail corridor curve

**Liz Develin**, Deputy Secretary – Growth Design & Programs, NSW Department of Planning and Environment

Planning transport corridors must go hand in hand with the process of planning the communities that will sit alongside them. The NSW Department of Planning and Environment takes this approach to ensure we have the right frameworks to create vibrant neighbourhoods with the shops, parks and transport that communities need.

Informed and coordinated planning will be required in order to make the most of Sydney’s potential and to create new communities that people will want to call home.

Over the past few years, the Department of Planning and Environment has been working in tandem with other agencies like Transport for NSW (TfNSW) to take a coordinated approach to local and state infrastructure provision, in order to support housing and job supply in Sydney’s key growth areas.

In 2013, the Department and TfNSW released the North West Rail Link Corridor Strategy to guide the development of new transit oriented communities close to the new stations over the next 25 years.

**North West Rail Link station precincts**

The North West Rail Link project forges a new 36 kilometre rapid transit railway line from Chatswood to Rouse Hill and beyond. It includes a 15 kilometre tunnel between Epping and Bella Vista, and aims to prepare for one of the largest areas of train customer growth over the next 20 years.

When the line opens in 2019, eight new railway stations will provide rail access to more than 300,000 residents living from Cherrybrook to the North West, where the last station at Cudgegong Road is situated.

As the country’s largest public transport infrastructure project, it makes sense to ensure other government agencies work together to coordinate the delivery of homes, schools, parks and other services that the communities along the train line will need in the future.

From a planning perspective, the areas around each station will generate interest from home buyers and renters who want to live close to convenient and accessible public transport. By 2036, it is expected that more than 40 per cent of residents in the North West Growth Centre will travel to the Sydney CBD by public transport in the morning peak period.

The North West Rail Link Corridor Strategy and strategic planning for this area provided a strong evidence base to inform the 2014 declaration of the Showground, Bella Vista and Kellyville precincts as Priority Precincts, following the Hills Shire Council’s unanimous support for the Strategy.

The vision and community needs for each precinct have been informed by extensive stakeholder feedback via local community meetings, and online and telephone surveys, in close collaboration with Hills Shire Council.

**A Plan for Growing Sydney** builds on this approach. It outlines two further strategic planning projects that integrate land use planning especially around transport corridors and identifies opportunities to revitalise areas around train stations.

**Glenfield to Macarthur Priority Urban Renewal Corridor Project**

The Glenfield to Macarthur Priority Urban Renewal Corridor Project will build on Campbelltown’s status as a regional city and make the most of the opportunity to provide more jobs closer to homes, along with the necessary infrastructure, restaurant, shops, cafés and parks that locals want.

We’re working closely with Campbelltown City Council to answer important questions like:

- What infrastructure is required to unlock potential of the corridor?
- What is the role and vision for each precinct?
- What type of development is economically feasible?

The local community will have an opportunity to help us shape the future of the corridor through a community survey and public information sessions.

**Sydenham to Bankstown Corridor Study**

The other key project is the Sydenham to Bankstown Corridor Study, which will build on the potential of the proposed Sydney Rapid Transit project.

Subject to government and planning approvals, this transformational public transport initiative will extend from the end of the North West Rail Link at Chatswood under Sydney Harbour, through new stations in the CBD, and west to Bankstown, with capacity to run up to 30 trains per hour in each direction through the Sydney CBD.

These projects will collect the evidence and information we need to support and deliver a strategic framework for urban renewal. Eventually this will help us make the most of the infrastructure investment and unlock the potential of what will become some of the most strategically important transport corridors in the country.

**Liz Develin’s experience spans across a number of NSW government agencies, and the not-for-profit and academic sectors, with much of her career focusing on public health policy.**
How local urban planning makes carsharing work

Jennifer Kent, Research Fellow, Faculty of Architecture, Design and Planning, University of Sydney and Robyn Dowling, Head, Department of Geography and Planning, Macquarie University

Carsharing programs demonstrate some success in challenging private car use by reducing private car ownership and personal vehicle kilometres travelled by private car. The City of Sydney has a target of 10 per cent of households becoming members of a carsharing provider by 2016. The relationship between what local urban planners ‘do’ and carsharing has, to date, been relatively informal and undocumented. Yet, urban planning will be integral to the ongoing success of carsharing.

What is carsharing?

Carsharing is a broad concept that encompasses a variety of different business and operational models, including peer-to-peer, one-way, or schemes affiliated with a specific public transport network. In Australia, carsharing is most frequently a for-profit service that provides members with access to a fleet of vehicles – though peer-to-peer services, such as Car Next Door, are emerging. Australia’s first carsharing service, GoGet, started in Newtown in late 2002.1

Carsharing and urban planning

The practice of urban planning comes into contact with carsharing in two main ways. First, carsharing’s success is largely dependent on its relationship to public transport and road networks, as well as land-use patterns. Carsharing complements other alternatives to the privately-owned automobile. It is only financially viable in areas where public transport, walking and cycling are feasible options for day-to-day travel. Higher residential and commercial densities, a good pedestrian and cycling environment, a mix of uses and reliable public transport networks all help carsharing to succeed. Planning for these infrastructures and urban form outcomes is therefore also planning for carsharing. It is increasingly common to see this articulated internationally in strategic plans.2

The other key space in which planning and carsharing regularly connect is not related to the mobile shared car but instead to the place where the car is kept when it is immobile. Carsharing relies on the guarantee of parking space. The localities in which carsharing has flourished – well-serviced by public and active transport infrastructure, and with high residential densities – are also characterised by parking congestion. The streets where carsharing is likely to be successful are therefore also those where parking is hotly contested. The attractiveness of carsharing is subsequently heightened through the allocation of reserved parking space for carsharing vehicles (see image). As the gatekeepers to parking policy, planners exert substantial influence over carsharing’s success.

How are we planning for carsharing in Australia?

Local governments in areas where carsharing is popular generally maintain a carsharing policy – primarily, to regulate the provision of car parking space for carsharing cars. These policies allow carsharing companies to apply for dedicated parking space, outline a hierarchy of where space should be provided and detail conditions that need to be met subsequent to space provision. It is also increasingly common to see provisions for carsharing parking spaces in development controls, requiring allocated parking spaces for carsharing vehicles in certain development types. In addition, carsharing parking is sometimes used in flexible parking provisions, where the allocation of dedicated carsharing space is accepted as a concession for any shortfall in the development’s compliance with other specified parking requirements. This form of concession is usually applied to large-scale residential developments where on-street parking is particularly constrained and the level of service provided by surrounding public transport networks is superior.

Thus, we see that the success of carsharing rests not on the regulation of the vehicle, but on the humble parking space. Yet parking space is land, and its requirement emerges at a local council level. Parking space is land, and its requirement places carsharing in the middle of well-established battles over space and power. Local government policies and plans for carsharing provide an invaluable source of support for the nascent carsharing industry. It is somewhat inspiring that a local council will bravely defend the shared car’s right to space in the heated arena that is car parking – and in doing so, make possible a sustainable mode of transport.

Dr Jennifer Kent is an urban planner and postdoctoral research fellow at the Faculty of Architecture, Design and Planning, University of Sydney. Professor Robyn Dowling is an urban geographer and head of the new Department of Planning and Geography at Macquarie University.

Endnotes

1 See: www.goget.com.au
2 See, for example, The London Plan (March 2015), Chapter 6.
Integrated service planning for public transport in Sydney – strategy becoming reality

Daniel Cavallo MPIA CPP, Principal Manager, Integrated Service Planning, Transport for NSW

Transport for NSW (TfNSW) was established in November 2011 as the integrated transport authority for NSW. An important role of the transport agency is the planning and delivery of public transport services. To assist, a new function was established in TfNSW – integrated service planning – which provides the mechanism to translate strategic plans into operational plans for the short and medium term delivery of public transport services and their supporting infrastructure and systems.

Integrated service planning brings together requirements for individual public transport systems with land use and infrastructure. This approach provides an alternative to transport mode ‘silos’, better aligning service delivery across public transport with customer demand and available or planned infrastructure capacity. It also supports a sustainable approach in targeting additional resources in line with population growth across Sydney, as outlined in the NSW Long Term Transport Master Plan and the metropolitan strategy, A Plan for Growing Sydney.

An integrated service planning framework was developed to conceptualise the application of this function for public transport services (see Figure 1). The framework comprises three key areas – integrated planning, growth management, and service optimisation and improvement.

**Integrated planning for the Sydney Ferries network**

Integrated planning supports the implementation of strategic plans by developing a detailed service plan to meet customer needs and future demand, as well as identifying the necessary infrastructure and systems required to support the service plan. The task for the Sydney Ferries network required translating ferry initiatives outlined in the NSW Long Term Transport Master Plan into short and medium term improvements. The modal delivery strategy, *Sydney’s Ferry Future*, released in May 2013, proposed a future ferry network for Sydney Harbour (see Figure 2) as well as other improvements including modernising and growing the current fleet and upgrading wharf infrastructure. An integrated approach was undertaken by matching service levels with customer demand, prioritising connections between bus and ferries at selected wharves, supporting urban development at key locations on the Parramatta River and at Barangaroo, and identifying new service offerings to meet commuter and leisure needs.

The use of integrated planning has supported a number of service delivery initiatives for the Sydney Ferries network, including:

- the introduction of an additional 220 weekly ferry services across the Inner Harbour and Parramatta River;
- improved bus connections at key wharves including Manly, Inner Harbour and Parramatta River;
- wharf upgrades to meet future service requirements;
- the delivery of new Inner Harbour ferries from 2016; and
- planning for new Parramatta River ferries to align with customer demand and urban development growth.

Customers have responded positively to improvements on the Sydney Ferries network,1 with overall satisfaction the highest of all public transport systems at 96% in 2014, and with a 10 per cent increase in passenger boardings in four years from 14,502,758 in the 2010-11 financial year to 15,977,360 in the 2013-14 financial year.2

**Growth management in South West Sydney**

Growth management supports the introduction of new and enhanced public transport services in key greenfield and urban renewal precincts by closely aligning service delivery initiatives with development uptake and major transport investments.

An integrated service planning approach was used in South West Sydney to support new residential areas and provide public transport connections with the newly opened South West Rail Link. In February 2015, a number of new and enhanced bus services were introduced (see Figure 3), including:

- introduction of new and enhanced public transport services in key greenfield and urban renewal precincts by closely aligning service delivery initiatives with development uptake and major transport investments.

**Figure 1: Integrated service planning framework**

2. Source: TfNSW Annual Report 2013-14
• timed bus connections to the new stations at Edmondson Park and Leppington on the South West Rail Link;
• new bus route 869, providing access to the train station at Edmondson Park for Prestons and Edmondson Park;
• new bus route 858, providing access to the train station at Leppington for Oran Park; and
• local connections for existing bus routes 855 and 856 to the train station at Leppington.

These new and enhanced bus routes provide over 890 weekly services to Edmondson Park and Leppington stations.

Informing service optimisation and improvement

Service optimisation and improvement is a planning approach to deliver better public transport outcomes for customers through analysis of operational performance, options testing and service validation. It also identifies opportunities for improvements through current resources, ensuring value for money if additional resources are required.

This approach is supported through the use of service planning guidelines. These provide the foundation for short and medium term service planning by TNSW across government funded bus, ferry, light rail and train services in metropolitan Sydney. The Integrated Public Transport Service Planning Guidelines: Sydney Metropolitan Area covers the following areas:

• strategic transport planning framework for metropolitan Sydney;
• principles for integrated public transport service planning;
• integrated and modal public transport service planning guidance, including service capacity, service coverage, service provision and service performance; and
• service planning interfaces, such as interchanges and community transport.

The guidelines have been used to inform service optimisation and improvement initiatives, including the 2013 Customer Timetable for bus, ferry and light rail services, the ferry network review during 2012-13, and annual service reviews of metropolitan bus services. Since March 2011, the NSW Government has introduced 12,800 extra weekly public transport services.

Planning for the future

A solid foundation has been achieved using an integrated service planning framework, but there is more to do. TNSW will continue to turn strategy into reality by focussing on integrated service planning to support customer demand in key corridors, responding to urban growth in Priority Precincts and Growth Areas, and integrating public transport services with new transport investments, such as the North West Rail Link and CBD and South East Light Rail.

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Endnotes
Newcastle light rail project: considering future planning implications

Darren Holloway MPIA CPP, Principal Planner, Monteath & Powys

The NSW State Government has recently terminated part of the rail line into Newcastle at the western end of the city’s CBD, in preparation for a light rail system. This article examines some of the broad planning implications of the proposed light rail system.

Up until the late twentieth century, heavy rail segmented Newcastle’s CBD into two distinct halves. The northern half contained a working port and the southern half contained the city’s commercial precinct. In the 1980s, the disused industrial and port areas to the north of the rail line were transformed into a modern commercial, residential and entertainment precinct, known as Honeysuckle. As the Honeysuckle precinct developed, Newcastle’s CBD expanded northwards, creating a more diverse mix of uses on either side of the rail line.

The NSW state government has recently terminated the heavy rail line at Wickham (at the western edge of the CBD) and proposed a light rail system that will transport people from Wickham to the eastern extremities of the CBD (particularly the east end); ensuring that the interchange from heavy rail to light rail is seamless; and reducing the current high level of car use for travel to the CBD.

While light rail may help to revitalise Newcastle’s CBD, it will not be able to renew the city on its own. Organisations such as the Hunter Development Corporation and UrbanGrowth NSW will play important roles. And all levels of government will need to participate in the renewal process if it is to be successful.

The debate in Newcastle about the pros and cons of light rail has raised a number of issues, and in this short article it is difficult to do justice to this debate and the complementary polices that are needed to ensure the successful renewal of the CBD. Light rail is unlikely to serve as a renewal tool for the Newcastle CBD without complementary policies and plans – and the resources needed for their implementation.

Darren Holloway is a Principal Planner with Monteath & Powys. He has over 15 years’ experience in statutory and strategic planning in both the public and private sectors. Darren has managed planning and environmental approvals for residential, aged care, tourism and industrial developments, and has undertaken planning and environmental approval works in mining, coal seam gas, wind farms and infrastructure projects. Darren is also a Certified Practising Planner.

Endnotes

1 NSW Government 2014, Revitalising Newcastle: Light Rail from Wickham to the Beach, NSW Government, Sydney.
Social infrastructure and A Plan for Growing Sydney

Alison Ziller, Director, Australia Street Company

When planners refer to social infrastructure, they invariably mean buildings or facilities and write as if this definition is uncontested. But many other professions treat social infrastructure in broader terms. Using a broader definition, it becomes apparent that planners are often engaging with social infrastructure without acknowledging it.

The recently released metropolitan strategy, A Plan For Growing Sydney (2014), provides a clear example. The Plan frequently refers to ‘social infrastructure’ without specification or examples, assuming that readers know what social infrastructure is. When examples are given, a small list is repeated several times – primarily, education and medical facilities, childcare centres, recreation facilities, and parks and open spaces. Although it is implied that these facilities will host relevant services, the services themselves are rarely mentioned.

It is concerning that the meaning of social infrastructure is taken for granted in the Plan, particularly when given such a limited meaning. Social infrastructure need not be limited to built form. Non-built forms of social infrastructure include social structures, such as social class, social networks and interest groups as well as those established by institutions, such as hierarchies of governance. These structures, which underpin society, are forms of infrastructure.1

Another issue is that other forms of infrastructure mentioned in the Plan – such as jobs, houses and the transport systems to get people from one to the other – are not regarded as ‘social’. However, offices, houses and railways are no less social infrastructure than hospitals or schools. In the Plan, social infrastructure has been consigned not only to built form, but also to a narrow range of built works.

This classification of infrastructure is not helped by confusion about who owns the Plan. All of the Plan’s actions commence with the phrase, ‘The government will...’ or some variant thereof. This seems to be because many actions fall outside the Department of Planning and Environment’s remit, and require the establishment of the Greater Sydney Commission – to assist sub-regional implementation of the Government’s vision and ‘make sure’ it happens.

The actual role of this Plan is to provide a set of permissions. The Plan establishes two permissions structures. The first is the assistance and enforcement (governance) structure of sub-regional partnerships and the Greater Sydney Commission; the second is the permissions themselves.

Local permissions are expected to put broad-scale aims into local effect. Some of these broad aims have been mapped and have a clear social geography. These permissions are a form of social infrastructure – not because the Department has mapped how hospitals, schools, childcare centres and swimming pools should be distributed across the metropolitan area (indeed it has avoided this task) but because it has mapped how jobs and housing – two primary forms of social infrastructure – should be permitted to be distributed.

Further, the permissions infrastructure is described without an accompanying social impact assessment of the proposed geography, notwithstanding the distributional inequities proposed. This is a startling oversight given the abundant evidence of the adverse public health impacts of spatial segregation by income.2 For example, while knowledge and IT work is to be distributed in the more socio-economically advantaged parts of the metropolitan area, most manufacturing jobs will be in the less-advantaged parts (see Figures 15 and 18 in the Plan). New housing is to be concentrated in Priority Precincts and strategic centres (Actions 2.1.2 and 2.2.2), and thus the Plan proposes and endorses a metropolis spatially segregated by housing type as well as job type and income.

These segregations are major public health inputs, but their importance is overlooked in the Plan. This article is not arguing that sports facilities and medical services are not needed – but rather that there is no sign that they remedy the gross public health impacts of spatial income segregation. I can think of no valid reason for failing to consider the Plan’s impacts on public health in terms of these social infrastructure dimensions – after all, protection of public health is one of the reasons that town planning exists.

Spatial segregation of metropolitan areas is a major challenge but today’s planners have some advantages. Ease of mapping Census, health and similar data provides planners with the evidence needed to make the case for spatial social equity and give renewed energy to the public health issues on which the profession is based.

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Endnotes

1 While sometimes called ‘soft infrastructure’, they are infrastructure nonetheless. See, for example, Casey, S 2015, Establishing standards for social infrastructure, University of Queensland, Ipswich.

2 See, for example, the Centre of Full Employment and Equity, Employment Vulnerability Index for Australian SA2s –Edition 2011.
My aim is to outline an alternative approach to the structure of the city, starting with the idea of ‘one city’ centred on a ‘metro circle’ line, and extending this to form a network that will enhance accessibility across the region and beyond, providing a lasting solution to our geographically divided and constrained city.

The problem

A fundamental tenet of planning is that social, economic and environmental conditions can be maintained or improved through the spatial organisation of the city. Most of the investment in city making is by the private sector, industry or local citizens, and is strongly influenced by decisions about the location of major institutions, airports, universities, hospitals and transport. These infrastructure decisions are critical because they are the only direct interventions available to government and are such strong shapers of the city. Few people would argue with the four principal goals of the current metropolitan plan for Sydney.1 The reformulation of these goals as ‘problems’, and their proposed solutions, are now matters of urgency and some alarm.2

While currently proposed transport projects aim to address well-known problems with our roads, rail, airports and ports, these have been largely developed in the absence of a broad consensus around what our city should look like in the future, and do not appear to have considered the transformative potential of Badgerys Creek Airport.

For example, projects proposed prior to the announcement of the Airport (e.g. the Moorebank Intermodal) are still progressing. The massive WestConnex road project aims to address capacity constraints around Sydney Airport and Port Botany, yet the development of Badgerys Creek Airport and the emerging rail freight network could provide an alternative solution.

Parramatta is proposed as the Sydney’s second CBD, and significant development is possible around Camellia, Olympic Park and the Parramatta Road corridor. Government commitment and private sector interest in light rail3 to improve access is likely to need a high capacity metro service, given the amount of development that could occur (see Figure 1). However, the West Metro, which was proposed some years ago and would facilitate these shifts in land use and employment in the region, does not appear in the Metropolitan Transport Plan. Despite several Federal Government studies into high speed rail (HSR), there appears to be no real understanding at Federal or State level of the more realistic approaches to introducing this technology and integrating it with existing rail networks as well as airports, as has been the case elsewhere and suggested by non-government actors.4

The problem with augmentation is that while it may appear to build on strengths, it may also further embed inequities and imbalances – that is, in addressing a short-term problem, we may exacerbate the problem in the longer term.

Every piece of major infrastructure should take into account its potential to ‘transform’ or reshape the city, but to do that, there must be a clear, future-oriented vision for Sydney in the 21st century, and a staged investment strategy to deal with current problems and facilitate the city’s transformation. Without this, there is a real danger that we will simply reinforce the geographic patterns that have produced existing problems.

Although a holistic understanding of how transport modes interact with land use –
including the patterns of living that may result – is not straightforward, it is not impossible to achieve.

**An alternative scenario**

The ideas that follow are not intended to be the answer or even an answer. My aim is to show that formulation of holistic alternative scenarios and their evaluation could provide the basis for engagement with the public about the sort of city we want.

This is not just about transport. A scenario needs to take into account changes in behaviour. We need to recognise the ‘mosaic’ of subcultures and the adaptability of individuals, and allow for such adaptation and difference. So questions of governance, planning and taxation should be considered in concert with physical infrastructure.

1. **One city**

Sydney needs to be seen as an integrated entity. A key to achieving this would be to extend the ‘global arc’ to Parramatta and complete a ‘metro circle’ through the Olympic corridor, roughly following the original West Metro alignment. This link could accommodate both a fast metro with eight to ten stops serving the key development opportunities along the route, and an express 15 minute non-stop service connecting Parramatta to the centre of Sydney (see Figure 2). The objective would be to spread the ‘agglomeration benefits’ of the traditional CBD to a much wider region, recognising that innovation and ‘spill-over effects’ can be more equitably dispersed if there is efficient transport to overcome spatial separation. The very notion of a ‘central business district’ should be scrapped and replaced by dense, mixed use ‘urban social districts’.

2. **Urbanity**

Living patterns in the City of Sydney and inner suburbs are quite different to other parts of the city due to the greater accessibility of services, employment and education. Yet we still encourage car parking in such locations: 14 storeys of underground parking in a development proposed for St Leonards provides just one example. The question is whether we need private cars and car parks in highly accessible locations that are dominated by light rail, bicycles, car share and Google cars. To quote William Gibson, “the future is already here, it is just not evenly distributed”, to which I would add, “we just need to recognise it and foster it” (see Figure 3, showing the proportion of residents and jobs that might be part of this new urbanity).

3. **West pole**

The potential for Badgerys Creek Airport to shift the balance of the entire Sydney Region has not been sufficiently recognised in current metropolitan and transport plans. The Airport provides the opportunity to ‘move all the pieces on the board’ – including the potential to close or convert Kingsford Smith Airport (KSA) in the longer term – but there is no evidence of this potential having been explored; Badgerys Creek’s relationship and connection to Parramatta is conspicuously absent from current planning documents (see Figure 4).

4. **Emergence**

We currently have neither the mechanisms nor the culture to achieve a ‘cascading of strategic intent’ from the metropolitan plan to local responses. Each local place should be able to evolve and respond to the changed potential of an area that would result from improved infrastructure in its own way. The principle of subsidiarity should apply – that is, control and decision making should be devolved to the lowest level possible where issues of inefficiency, equitability and conflict are best addressed.

The threshold for genuine public consultation and engagement in local planning is around 10,000 people; while it may be 300,000-400,000 people for garbage services, shared procurement, amalgamations, and decisions about rail freight and air transport. As the LEP template continues to make contextual
planning more difficult, the benefits of a uniform approach across the metropolitan area should be questioned.

5. Funding
One of the main complaints of communities and businesses about planning changes is the lack of forewarning and the uncertainty this creates for investment. As recommended by the Henry Tax Review, a broad based land tax is potentially the most equitable, efficient and effective form of tax. This could be designed to capture the increased value of major infrastructure investment that could be phased in over time – say, a decade – giving all landowners sufficient forewarning, and allowing them to plan for their business and families.

A staged approach
A staged approach to planning and delivering new infrastructure is needed – one that achieves a vision of a more equitable and accessible city rather than one that simply focuses on fixing current problems.

1. Metro circle
The second harbour rail crossing – a current Government commitment – will provide the capacity for up to two metro lines south of the Harbour. The Bankstown line is planned to be converted to “rapid transit”. Neither initiative adds a new rail corridor, nor addresses the need to link Parramatta to the CBD and harness the potential of the Camellia-Olympic Park-Parramatta Road corridor.

The ‘metro circle’ modifies the current Sydney Rapid Transit (SRT) plans. It would follow the original West Metro alignment to Strathfield, then swing north to Camellia, opening up the redevelopment potential of Camellia, Rose Hill and Silverwater. It would then be extended, linking Parramatta to the North Shore and the North West Metro. This link could, in the first instance, duplicate the Cartlingford line, or be in the form of a tunnel from Epping to Westmead.

It should be possible to construct a double level tunnel (with rail below) even if WestConnex proceeds. If, on the other hand, the WestConnex tunnel was planned for a metro instead, the proposed four-lane tunnel is unlikely to be much larger than that required for a quadruple track. This would allow an express service from Martin Place to Parramatta in 15 minutes – not very different to the 11 minutes it currently takes to get from Circular Quay to Redfern. Such a fast connection effectively incorporates Parramatta into the Sydney core; more importantly, it relieves pressure on the city centre and allows an increase in (car-free) residential which does not simultaneously ‘displace commercial’.

It would effectively extend the city core to the entire ring. 7.5 per cent of the total resident metro population of 6,250,000 are expected to live within walking distance of the circle in 2036. Modelling for the Olympic Corridor shows that this could be increased to 10-11 per cent with increased access to other parts of the circle.

2. Metro 8
The second stage of the ‘metro circle’ would follow the existing Waterloo alignment to relieve pressure on the East Hills line. Current plans have the service terminating at Bankstown; however, the line could continue north to Regents Park and then join the circle at Camellia, providing counter flow, and more convenient and direct access to Parramatta for the Bankstown line. Closing Bankstown Airport would allow a direct metro connection to Liverpool. The ‘metro circle’ concept would increase access to public transport and reduce car-dependency, which, in turn, would allow very different living patterns. Running a car is a significant burden for households. In highly accessible locations many households make the trade-off of doing without a car. Many more would do so if public transport were provided as a more comprehensive interlinked network, supplemented by car-share.

3. Metro to Badgerys
Current planning suggests a continuation of the South West line to St Marys. An additional long-term option would be to have a metro service connecting Badgerys Creek to Parramatta on a more direct route. Trips of 15 minutes to Parramatta and 30 minutes to Martin Place would then be possible, further reinforcing Badgerys Creek and Parramatta as employment centres. A metro service is estimated to be viable once employment density reaches 50 jobs/Ha. Structuring the Broader Western Sydney Employment Area (BWSEA) to have a high-density spine of higher-order ‘aeropolis’ business services could facilitate such a service. The alignment should be planned to allow for integration of a HSR service.

4. Freight
Easing freight congestion on the M4 and M5 has been cited as one of the principal reasons for building WestConnex. Improvements to freight handling processes and infrastructure at Port Botany have allowed a 40 per cent (1,000,000 TEU) rail share to be maintained. This highlights whether ALL of the containers destined for western Sydney (currently the majority of all import containers) could be consigned to rail for breaking down at the Inland Intermodal Terminals (IMTs). The rail connections to the west should be upgraded to form a ‘chain’ of IMTs.
culminating in an enlarged Western Sydney IMT to the north-west of Badgerys Creek Airport. As early as 2005 the need for a Western Sydney Intermodal at Eastern Creek and a ‘Western Sydney Freight Line’ to connect to the Main Western line was recognised.9 The potential for this to incorporate the planned 1,700,000 TEU capacity of the Moorebank Intermodal Terminal needs to be investigated, given the synergies with Badgerys Creek, the BWSEA, and direct rail and road – M12 –connections that are planned. This would be in lieu of the expensive and disruptive IMT at Moorebank, opening the potential for housing for 40,000 residents on riverside land with direct access to Liverpool.

5. Aeropoli and high speed rail
Current planning for Badgerys Creek Airport allows for dual 3.7km runways with capacity for 80 million passengers, close to the current capacity at Heathrow.10 HSR could work in concert with the Airport in three ways: as a shuttle to the Sydney CBD, by serving regional corridors, and by ‘extending’ the city further to Goulburn (44 minutes), Canberra (56 minutes), the Central Coast (23 minutes) and Newcastle (34 minutes).11 These services would significantly increase the capacity of Badgerys Creek as a combined HSR/air hub, questioning the continuation of KSA as a full “type 1” airport past 2040. The seaward end of KSA could be converted to a ‘city airport’, taking the place of Bankstown.12 This would release about 500hHa of land at KSA and 270hHa at Bankstown (see Figure 5).

Conclusion
The above scenario is intended to be a conversation starter for formulating alternative comprehensive scenarios for the city to reform the planning system, governance and taxation.

And perhaps to question whether WestConnex, the SRT network and Badgerys Creek, as currently planned, hit the mark.

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Endnotes
2 In response to the hue and cry about the closed processes at Barangaroo, the government seems to have made processes for Darling Harbour, the Bays Precinct, WestConnex and Parramatta Road even less transparent.
4 Tipping Point Institute 2012, Liveable Sydney: How Would High-Speed Rail Change Sydney and NSW?, TPI, Sydney. This report, commissioned by the NSW and Sydney Business Chambers, sets out a pragmatic and achievable integration of HSR, existing rail and SRT.
6 Excluding the Central Coast.
8 TEU = ‘twenty foot container equivalent unit’
9 Freight Infrastructure Advisory Board 2015, Railing Port Botany’s Containers: Proposals to Ease Pressure on Sydney’s Roads, NSW Department of Infrastructure, Planning and Natural Resources.
12 The distance between the outer edges of the existing runways at KSA is 1.2km – not much less than the 1.4km length of the longest runway at Bankstown Airport.
In Australia, the figures are even more compelling; over 80 per cent of Australia’s population and GDP comes from our cities. Despite the significant contribution that cities make, the lack of investment in urban transport networks in Australia is a major drag on the national and NSW economies. A study by the Bureau of Infrastructure Transport and Regional Economics (BITRE) estimated that the “economically unjustifiable” cost of transport congestion in Sydney alone was $5.4 billion in 2012.4

Urbanisation is a worldwide phenomenon, with the fastest growth in cities occurring among our Asian trading partners. While 50 per cent of the world’s population resides in urban areas, this is rapidly changing, particularly in Asia. Seven out of 10 cities with over 5 million people are in China, and China’s biggest cities are growing at 3.9 per cent, twice the rate of the rest of the world. Among the world’s 100 fastest growing cities, 46 are in Asia and 33 are in China. Because of their faster rates of growth and larger scale, Asian cities are expanding rapidly in greenfield locations, allowing their governments to build at higher densities and to provide modern public transport and civil infrastructure. For example, after only eight years, China has built a 16,000 km high speed rail (HSR) network, more than the combined total of the rest of the world’s HSR networks, to promote the growth of second-tier cities.5 In contrast, Australia’s slower rate of urban growth is taking place primarily in existing cities, which requires reconfiguring the urban footprint, amalgamating key sites and upgrading civil and transport infrastructure constructed in the 1890s. It can be a time consuming and expensive process.

This challenge becomes all the more formidable when our political leadership does not appear to recognise the important role that modern cities play in the national and global economies. In addition, the tools at our disposal are inadequate for the task at hand, and the infrastructure and planning reforms needed to fix them are bogged down in bureaucratic processes and election cycle politics.

Funding infrastructure

Since Australia can’t match the rate of growth or scale of infrastructure investment of its Asian neighbours, what can planners do to maintain or even improve the competitiveness of our cities?

The answer to this question lies in reforms in the ways critical urban infrastructure is planned, procured, funded and delivered. Present funding and financing methods in particular will not serve our cities in the future. The need for innovation in these areas has been urged by numerous publicly funded studies, reports and commissions and demonstrated by international experience. For example:

- BITRE estimates that public investment in 128 road and rail projects in Australia returned $2.65 for every $1 invested;
- the Productivity Commission’s 2014 Public Infrastructure report urged governments "to utilise opportunities for users and other beneficiaries to fund a project before resorting to government funding";6
- the Commonwealth Government’s 2013 investigation into HSR on the east coast of Australia concluded that an integrated urban renewal program around an HSR station at Sydney’s Central Station could increase public revenues by $6.3 billion.
over 30 years, providing an additional source of funding for that project; and
• in the UK, London’s Crossrail project is using value capture methods to pay for 28% of the project’s $27 billion cost.

Planners need to expand their technical arsenals to include advocacy of innovative user-pays funding methods and smart growth planning principles. These tools can help close the growing infrastructure funding gap and mitigate the “economic climate change” confronting our cities.

**Claytons reforms**

Planning and infrastructure reforms in NSW are the reforms you are having when you’re not really having reforms. For instance, after the planning fraternity slogged through 2013 chest deep in green papers, white papers, growth infrastructure plans, facts sheets, industry briefings and workshops to reform the Environmental Planning and Assessment Act 1979, the NSW Parliament failed in rather unspectacular fashion to pass the new Planning Bill 2013. The Bill promised to set a new benchmark for planning and development control in Australia. Instead, planners were left frustrated and confused about how to guide and pay for urban growth in the 21st Century.

Local government reform, forever the red-headed stepchild in the NSW planning family, also remains prescriptive and under-funded. The Independent Local Government Review Panel report is a case in point. Local government’s recurring plea for the elimination of state government-imposed rate pegging, which limits a council’s ability to increase its main source of revenue, was once again met with a tepid response. “The Government is committed”, said the Office of Local Government, “to a rating system that protects local ratepayers from unfair rate rises”. Meanwhile, the NSW Office of State Revenue reported that stamp duty rises”.7 Meanwhile, the NSW Office of State Revenue reported that stamp duty rises.8

The global landscape is shifting, with profound implications for Australia’s cities. Mining and agriculture are declining as the nation’s economic backstop. Demographic changes are dragging down productivity. Improvements in international freight, internet bandwidth and manufacturing technology are enabling developing countries to compete directly with local businesses for high value services and products. If Australians are going to continue to enjoy high living standards, our cities must be made competitive on a global scale. The planning profession needs to demand action in several key areas to ensure this happens.

First, the Commonwealth Government needs to establish a Ministry for Cities and Urban Development in recognition of the key role that cities play in the national economy. The Ministry should be tasked with:

• working with state planning and infrastructure agencies and local government to set national planning standards and guidelines;
• supporting research on national urban policy issues; and
• developing model legislation for state, territory and local governments in key reform areas.

Second, local government and urban renewal agencies need stronger powers and new funding arrangements to address housing supply and affordability, increase infrastructure funding, and support broad scale urban regeneration. This will require:

• concerted and genuine stakeholder engagement with the voting public and other stakeholders;
• reforms to planning and local government legislation to strengthen urban renewal powers; and
• new legislation to expand funding and financing options.

Third, Commonwealth and state agencies need to implement infrastructure forms recommended by the Productivity Commission in its 2014 Public Infrastructure Report and by Infrastructure Australia in its 2013 National Infrastructure Plan.

And finally, planners need to get mad as hell and not take it anymore! ■

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**Endnotes**

1 Dow, A 2015, ‘City planning “not our jurisdiction”, Joe Hockey reported as saying’, The Sydney Morning Herald, 18th March 2015.
2 A notable exception to the Commonwealth Government’s lack of interest in urban planning was the establishment of the Major Cities Unit in 2008 by the Rudd Government. The Major Cities Unit was subsequently disbanded by the Abbott Government in 2014.
4 ACIL Tasman & University of Wollongong 2012, Pricing Congestion in Sydney, ACIL Tasman, Melbourne.
5 See: www.en.wikipedia.org/wiki/High-speed_rail_in_China
The simple fact is that the Badgerys Creek airport announcement is a game changer for Sydney. It demands a rethink of the existing strategic framework for the city and more broadly NSW, and casts serious doubts on the merits of locating a new intermodal freight terminal at Moorebank. By building the intermodal at Badgerys Creek instead, the facility can service the airport, be properly integrated around new infrastructure and generate economic activity at the airport site from day one.
twenty-foot equivalent units (TEUs) per annum; however, the PAC only granted approval for a maximum of 250,000 TEUs, with the potential for a further 250,000 TEUs, should stringent road network investment, redesign and monitoring sufficiently increase capacity.

**Sydney Freight Terminal at Chullora**

With an intermodal at Moorebank only able to operate at a capped capacity, it is pertinent to consider the ability of the two neighbouring terminals at Enfield and Chullora to cover existing and future needs between them. We know they are able to do this.

In February, Premier Mike Baird launched two new $30 million Rail Mounted Gantry Cranes at the Sydney Freight Terminal (SFT) at Chullora that will double the site’s current capacity to handle freight movements from 300,000 to 600,000 TEUs each year, and provide capacity for the SFT to operate as both an interstate intermodal rail terminal and an import-export terminal through its rail links to Port Botany.

Its operators, Asceano, say the SFT can easily service the projected growth in the NSW market.

**Riverfront no place for industry**

Cities all over the world are rethinking their relationships to their rivers – and in Liverpool we’re doing the same.

Making the most of the Georges River and reconnecting it with the city is also one of the foundation projects for Building Our New City, Liverpool’s City Centre revitalisation strategy. The State Government’s new metropolitan strategy, released late last year, also recognises the importance of the river for Liverpool, and was followed by a $273,000 funding commitment to improve transport and cycling connections around the city, including plans for a new pedestrian and cycling bridge across the river connecting directly to the railway station.

With Sydney’s population rapidly expanding, the Moorebank site – which is prime, urban, riverfront land – can make an important contribution towards solving Sydney’s future housing challenges. It has the capacity to deliver up to 16,500 dwellings close to established transport and rail infrastructure.

The revenue raised from the sale of the site, which is valued at more than $482 million, could also be used to fast track the infrastructure necessary to support a Badgerys Creek intermodal. And, importantly, it will give this piece of our riverside back to the people of Sydney to access and enjoy.

**The solution: Badgerys Creek**

For each argument that points to Moorebank as the wrong location for the proposed intermodal, there is an argument for why Badgerys Creek airport is the right one.

In an economic climate in which cost efficiency is becoming increasingly important, an intermodal at Badgerys Creek airport looks attractive, as it would generate economic activity from its first day of operation.

We know there are substantial efficiency opportunities when intermodal and international airports are co-located. In this case, the creation of a strategic intermodal transportation hub connected to the outer Sydney Orbital and the rail network could provide world-class global logistics to international and domestic transportation companies while also being more cost effective. Truck and rail access can be configured into the $3.5 billion already allocated to the surrounding road infrastructure network for the new airport as opposed to the costly road and rail upgrades necessary at the Moorebank site.

An intermodal at Badgerys Creek would also be closer to the Western Sydney Employment Area [WSEA], and is next to future industrial areas and future freight markets in Western Sydney, which is where two-thirds of the containerised freight received at Port Botany is transported.

Creating a site for the intermodal in the vicinity of Badgerys Creek airport would mean a facility that could be built specifically to handle the number of container movements required for Sydney into the future – up to 1.1 million TEUs per year of import-export freight and another 500,000 TEUs per year of interstate freight, with room to expand.

Incidentally, one of the names favoured for the new airport is Bradfield, after leading engineer Dr John Bradfield, the man who built the Sydney Harbour Bridge. Let’s apply some ‘Bradfield thinking’ to where to build the proposed new freight intermodal for Sydney while we have this opportunity to do so – and locate it at Badgerys Creek airport.

**Carl Wulff** is CEO of Liverpool City Council. Prior to this, he was the Director of Strategic Consulting Services, a management consulting business based in Queensland. He has held a number of CEO and senior management roles in Local Government in NSW, Victoria and Queensland over the past thirty years. He has extensive experience in civil engineering, in construction and mining, as a Director of BRW Constructions in the Hunter Valley of New South Wales.

**Endnotes**

1 NSW Department of Planning and Environment, 2014; SGS Economics and Planning, 2015.
2 Moorebank Intermodal Company modelling, 2014.
The policy behind the practice: community engagement in infrastructure planning

Laura Stewart, Senior Communication and Stakeholder Engagement Consultant, Aurecon

While the value of community engagement is widely accepted, it continues to be deployed as a mechanism for mediating relationships between governments and the public, rather than one used to openly discuss issues and solutions. If the benefits of community engagement are so widely acknowledged, why do communities continue to oppose infrastructure proposals? This article describes key findings from a recent study on Australian community engagement policies in infrastructure planning.

As the chief decision makers for infrastructure, state governments hold the key to meaningful community engagement. A search of state government community engagement policy reveals a diversity of documentation. While each of these policies has been developed to reflect specific state government priorities, reviewing these policies through a critical lens identified key insights to better understand community engagement in infrastructure planning.

Varying definitions of community engagement
Australian community engagement policies use a variety of definitions and principles to outline ‘community engagement’. These varying definitions indicate an inconsistent understanding of community engagement between state governments, which, in turn, can be linked to inconsistencies in how community engagement in infrastructure planning is carried out. Researcher Dr Lyn Carson discovered similar findings when surveying government leaders. She concluded that differences in how community engagement is defined/how community engagement takes place has led to different expectations among decision makers. Ultimately, this has weakened links between community engagement and influence in decision making.¹

Sharing the decision making power
Sharing decision making power remains the most critical issue for meaningful community engagement. For the community to see value in taking part in engagement and offering their time and energy, community engagement needs to be an integrated part of the planning process. Governments need to share decision making influence through deliberative processes. Based on current community engagement policies there is little evidence of devolved power sharing between government and communities. While there is a demonstrated move towards more democratic processes and greater transparency, an overtone of government control remains, with all policies caveated with statements indicating that ultimate decision making power lies with the government.

Legislative loopholes
Although it is recognised that governments are trying to engage more with communities, there is contradictory evidence in planning legislation where loopholes allow selected proposals to avoid the need for community engagement. It remains possible for a State Minister to ‘call in’ a project of significance, or controversy, and make a decision, thus bypassing community engagement. For example, in NSW, the Environmental Planning and Approvals Act 1979 outlines the requirements for community consultation for all new applications; however, it also includes an option for the Planning Minister to call in a decision of state significance under Section 101.² While these loopholes exist there will always be barriers prohibiting meaningful engagement.

Lack of regulation and enforcement
It is clear that there is a lack of regulation or legislated means of enforcement, which makes many community engagement policies futile. Government policies attempt to promote good planning practice by encouraging engagement and transparent decision making; however, these policies are just guidelines. If democratic planning is to be achieved we need tighter government legislation, stricter policies and a more critical focus on community consultation. ‘Without strong legislative backing, community consultation remains vulnerable to manipulation and case by case interpretation’.³

State government policies or guidelines have been developed to guide and influence community engagement. They outline the state’s commitment to the level of engagement, the style and ultimately determine the level of influence the community has over a decision. For best practice community engagement to occur, it must be demonstrated through policy and supporting legislation. If community engagement is to be truly meaningful, it needs to be embedded in planning and decision making processes.

For the past 10 years Laura Stewart has worked in community engagement on a range of infrastructure projects, from roads and rail to water and electricity. Laura has facilitated positive relations between the community and infrastructure projects. More recently, Laura has taken her industry experience and moved into research, advocating for ongoing development of community engagement. Her research seeks to understand policy drivers for community engagement in infrastructure planning.

Endnotes

Investment in transport and other forms of infrastructure can have a significant impact on the economic geography of a city. With infrastructure being a key focus of the current NSW Government, as well as the Commonwealth Government, understanding how infrastructure can shape our cities and how to plan for it has become increasingly important.

‘City shaping’ (or strategic) infrastructure “comprises a relatively limited number of projects, almost exclusively in the transport domain, which have the power to shift relative accessibility across the metropolis. These projects can drive the location decisions of households and firms, thereby influencing urban structure, and they can create new agglomeration economies thereby boosting productivity”.1

It is important that planners understand the impact that infrastructure can have on the economic geography of the city. Infrastructure can increase the desirability of a particular location for different land uses. For example, public transport infrastructure will increase the desirability of an area for residential or commercial land uses, whereas access to port and airport infrastructure via road or rail will increase the desirability of a particular location for industrial land uses.

Decisions relating to investment in infrastructure are often based on servicing existing and future demand such as gaps within the public or private transport network. This can improve connectivity and productivity within a city; however, it reinforces existing trends and patterns of development such as funnelling transport into the Sydney CBD to connect residents with the jobs that are concentrated there.

Whilst it is important to improve connectivity in Sydney, transport infrastructure investments should not just ‘predict and provide’ for the existing flows of an established city structure. They should be a proactive force that shapes the economic geography of Sydney, creating a more socially equitable, ecologically sustainable and economically successful city.

Between 1996 and 2011, 51% of Sydney’s population growth was concentrated in western Sydney, whilst only 38% of employment growth occurred in this region of Sydney (see Figure 1). If the centralisation of the workforce continues, the population of western Sydney will be increasingly disconnected from the jobs growth occurring in eastern Sydney. Investment in city shaping infrastructure can help to ‘correct’ this problem and facilitate employment growth in western Sydney.

Importantly, city shaping infrastructure should be led by a purpose that aims to redress any existing imbalances. The proposed second Sydney airport at Badgerys Creek provides a significant opportunity for planners to shape Sydney and shift growth. The success of this investment is reliant on not only the land use mix surrounding the planned airport, but also the transport connections with the existing transport network and key centres across Sydney. Likewise, improving public transport accessibility to Parramatta, while reducing investment in motorways that entrench the existing monocentric structure of the city, would be another way to create a more sustainable economic geography in Sydney.

Laura Schmahmann has been employed as a Consultant at SGS Economics and Planning since she graduated with a Bachelor of Planning (Honours Class 1) from UNSW in 2012. Her main interests include strategic land use planning and urban policy issues. In 2014 she was accepted as a Masters of Philosophy research candidate within the Faculty of Built Environment at UNSW. Laura’s research is focused on knowledge spillovers within industry clusters in Sydney. She has been an active member of the PIA NSW Young Planners Committee since 2013.

Endnotes


2 Western Sydney comprises 14 local government areas across Sydney: Auburn, Bankstown, Blacktown, Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Holroyd, Liverpool, Parramatta, Penrith, The Hills and Wollondilly.

NSW Young Planners Committee

Christina Livers (State Convenor) | AEC Group
Harry Quartermain (NSW National Rep) | JBA
Alice Reilly | Hames Sharley
Andre Szczepanski | JBA
Camille Lattouf | Architectus
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Chris Forrester | JBA
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Ellie Clouston | Hill PDA
Holly Patrick | Urbis
Laura Schmahmann | SGS
Mitchell Davies | UNSW
Rachel Gardner | DFP
Vijay Prabhu | Architectus
The Sydney CBD & South East Light Rail (CSELR) project is a major undertaking being implemented by the NSW Government. Underlying the visible changes the CSELR will bring to the spatial and physical environment along its route are a number of transport planning investigations that GTA has been involved in. These investigations will help ensure that the overall transport system continues to support Sydney’s transport needs.

Construction of the CSELR is now underway. It commenced with preparatory works and investigations earlier this year in the Sydney CBD. The new line will run from Circular Quay to Central Station, through Surry Hills to Moore Park, then divide near Centennial Park, with one line terminating at Kingsford and the other at Randwick.

While much attention has focused on the new light rail vehicles and the associated public transport service they will provide, a significant amount of the transport planning and engineering work associated with the project relates to the interfaces with other transport modes and the surrounding environment, particularly the road network.

GTA’s involvement in the project began in 2012. We developed a new Sydney CBD transport model for Transport for NSW (TfNSW) to test light rail integration scenarios. In partnership with software developers Transport Simulation Systems (TSS) and Azalient, (developers of the Aimsun and Commuter transport modelling packages, respectively), GTA developed an innovative, multi-layered modelling approach encompassing the strategic level (using the EMME and Aimsun software packages), the mesoscopic level (using Aimsun), and the microscopic level (using Commuter). The concept extracted the best elements out of each software package, with the aim of enabling government agencies, including TfNSW and the Roads and Maritime Services (RMS), and the City of Sydney, to better plan and manage their systems in response to the introduction of light rail. The associated bus plan, along with issues such as road closures and network changes during the project’s construction, were considered.

GTA was subsequently commissioned to upgrade the transport model to simulate the dynamic nature of how traffic signals operate. The upgraded model addressed the limitations of the traditional modelling approach, which uses fixed-time traffic signals. It was able to simulate how the Sydney Coordinated Adaptive Traffic System (SCATS) would operate to optimise signal timings at intersections (known as SCATSIM), in order to cater for growing congestion in the forecast years. Through the Aimsun-SCATSIM model, GTA was able to assist agencies by producing a more responsive assessment of the traffic impacts of proposed network changes in the CBD and South East. This model was subsequently used by the CBD Alliance team for testing details of the Sydney City Centre Access Strategy (2013).

As with any project that involves significant alterations and reconfiguration of the road network, road safety and addressing potential road safety risks through the design process is particularly important. GTA undertook an independent concept design road safety audit prior to tender submissions for the contract to design, construct, operate and maintain the project, to inform tenderers of road safety risks identified with the project’s reference design.

Following this, TfNSW awarded GTA (in association with PWC Strategy) a contract to provide traffic and transport planning advisory services for the project’s delivery phase. This role has so far included:

- construction traffic management advice for early works in the CBD;
- assessment of potential traffic and transport impacts relating to the project modifications (approved February 2015);
- further modelling using the hybrid transport model to test a number of transport scenarios throughout the corridor, including consideration of light rail priority, likely traffic changes, refinement of the project’s design, implications for bus operations and construction staging scenarios; and
Autonomous cars on the horizon

Fully autonomous vehicles will likely be driving themselves on city streets and highways in the next 20 years. Self-driving cars will have a number of social and economic effects. In addition to freeing drivers to engage in tasks other than driving, autonomous vehicles promise to reduce traffic collisions by removing humans, and thus human error and negligence, from behind the wheel. By allowing closer platooning and lowering the number of collisions, self-driving vehicles will also increase effective road capacity, particularly on highways.

Self-driving cars also could have profound, though highly uncertain, impacts on sustainability and urban form. Planners should pay close attention to the technology, start thinking about which regulations (particularly on-site parking requirements) could change quickly in response to new technologies, and perhaps redirect capital investments away from infrastructure-heavy projects with a long lifespan to shorter term, more flexible projects that are insulated from some of the uncertainty around the timing and impacts of self-driving cars.

Erick Guerra, Planning (USA), May 2015

Walking towards healthy cities

For well over 3 million years, the hunter-gathering communities from which we descended adapted to life revolving around small-scale societies. That is the lifestyle we were genetically, metabolically, physiologically and psychologically designed for. However, society has changed dramatically in the last 10,000 years – far faster than we have evolved anatomically or genetically.

If we are really to achieve healthy human-friendly cities, we may need a step-change in attitude to promoting walking. In effect, the health and wellbeing agenda should be no less deserving, strategic or systematic than safety or accessibility agendas. There is a danger that the long-term strategies for cities will be dominated by large-scale projects such as new rail lines or road tunnels, which may simply perpetuate current patterns of ‘sedentary mobility’, while improvements for pedestrians are in danger of being restricted to smaller-scale, shorter-term fixes.

Suggestions for microbe-friendly malls and ‘pocket’ pensioners’ playgrounds may sound frivolous, and radical re-prioritisation for pedestrians over motorised modes overambitious. But if we are serious about future healthy cities for Homo sapiens, we should not discount any innovative measures simply because they look unfamiliar or difficult to achieve in the short term.

Stephen Marshall et al., Town & Country Planning (UK), March 2015

International Snippets

David Winterbottom LFPIA

Autonomous cars on the horizon

While the CSELR will improve day-to-day public transport outcomes for the Sydney CBD and Eastern Suburbs, as well as for patrons travelling to and from Moore Park and the Royal Randwick Racecourse during special events, the most exciting benefit could be the redevelopment opportunities along the corridor. The CSELR will provide additional public transport capacity and increase development thresholds around the light rail stops.

Finally, GTA’s involvement in the project has extended to other development projects, including Brookfield’s One Carrington Street development at Wynyard. Here, we prepared a detailed construction traffic management plan that took into account complications such as the simultaneous construction of the light rail.

The CSELR project is a significant and complex undertaking. The challenges go well beyond the tracks, stop platforms and rolling stock. GTA looks forward to continued involvement with the project and a successful outcome that benefits all who use the light rail and its surrounding built environment.

Brett Maynard is a Director in GTA’s Sydney office. He has worked on major transport infrastructure projects in Sydney, including the CBD & South East Light Rail, Wynyard Walk and Transport Access Program projects, and undertaken numerous transport assessments and road safety audits for land development projects. He has over 15 years’ experience in design, development and assessment projects encompassing pedestrian and cyclist facilities, transport network improvements, road safety engineering, road layout and design, and traffic engineering and assessment. He is an accredited Level 3 (Senior, Team Leader) Road Safety Auditor.

At left: CSELR Map
(Source: Transport for NSW)
The emphasis on preparing Infrastructure Plans for our regions saw the release of the new breed of Growth and Infrastructure Plans by the NSW Government in late 2014. This came in the form of a draft for the Illawarra Region. A year earlier the three tiers of government combined to publish the Hunter Strategic Infrastructure Plan (HSIP). This article examines how these two Plans have approached planning for regional infrastructure.

**Hunter Strategic Infrastructure Plan (HSIP)**

The HSIP was prepared by the Hunter Development Corporation (HDC) with significant financial assistance from the Commonwealth Government, NSW Government and Hunter Councils. The Plan has a focus on productivity, sustainability and liveability in line with the Council of Australian Governments’ (COAG) approach to improving our major cities. The main aim of the Plan is to provide a strategic infrastructure framework to inform urban growth in the Lower Hunter.

A detailed analysis of the Region’s economic base is provided in the HSIP, and conclusions are drawn about the economic and technological changes that are likely to occur in the next 20 to 40 years. This provides the context for the infrastructure capability assessment presented later in the report. Some of the key areas highlighted are the need for further economic integration with Asia, the evolving digital economy, changing settlement patterns and the move to a less carbon-intensive economy.

**HSIP investment priorities**

The HSIP identifies employment sectors in the Region with growth potential, including Newcastle Airport (which has been expanding at a rate of 5% per annum), the RAAF Base in Williamtown, and research institutes such as the Hunter Medical Research Institute (HMRI), the Clean Energy Innovation Centre (CEIC) and the University of Newcastle (which has over 40,000 students).

Amongst the infrastructure projects identified as being a priority to receive funding over the next five years are the expansion of Newcastle Airport Terminal (this project is under construction – see artist’s impression), the construction of an inner city campus of the University of Newcastle (also funded and will accommodate up to 5,000 students), the acceleration of the National Broadband Network (NBN) to provide high speed connectivity, and the construction of a new hospital near Maitland. All these projects have significant employment generation potential.

**Draft Illawarra Regional Growth and Infrastructure Plan**

The Draft Illawarra Regional Growth and Infrastructure Plan, prepared by the Department of Planning and Environment, incorporates a growth strategy as well as an infrastructure plan. This plan was informed by specialist reports which examined how the Illawarra could function if key strategic infrastructure investments were made.

**Illawarra investment priorities**

Priorities that have already secured funding in the Region include Port Kembla Outer Harbour development, water and wastewater infrastructure to facilitate the development of the West Lake Illawarra Release Area, upgrades to Wollongong and Shoalhaven Hospitals, and Shell Cove Boat Harbour and Tourist Precinct (privately funded). Investment in superfast broadband networks and 4G mobile networks are prioritised to facilitate teleworking, e-commerce, and the development of smart infrastructure.

**Conclusion**

The potential to support economic growth sectors through key infrastructure investments is a common theme in both the Lower Hunter and Illawarra Infrastructure Plans.

The Draft Illawarra Infrastructure Plan recognises that the Plan is needed to provide confidence and certainty to encourage investment. This is particularly relevant when it comes to infrastructure planning and delivery, which depends, to a large degree, on the allocation of public funds through annual budgetary processes.

Subregional Delivery Plans and Growth Infrastructure Plans were proposed in the Government’s White Paper in 2013 to strengthen the delivery mechanisms available in the planning system. While the release of these two infrastructure plans is a positive move, there is clearly still a need for improved delivery mechanisms.

**Endnotes**

1 Department of Planning and Environment 2014, Draft Illawarra Regional Growth and Infrastructure Plan, NSW Government, Sydney.

Healthy Built Environments
Sharing the path

Peter McCue, Executive Officer, NSW Premier’s Council for Active Living (PCAL)

Susan Thompson FPIA, Professor in Planning and Associate Director (Healthy Built Environments), City Futures Research Centre, UNSW Australia

As our cities grow to accommodate more people in high rise apartment buildings, close living will become more the Australian norm. So too will sharing public facilities such as recreational facilities and pathways. Together with the popularity of active transport, cycling and walking along shared pathways will be commonplace. Planners need to be aware of the issues related to shared pathways as more and more people use these facilities for transport and recreation.

Walking and bike riding are healthy, cost effective and efficient modes of transport. Encouraging more people to walk and cycle for short trips is an economically beneficial solution to many of our urban transport challenges. Numbers have been steadily increasing for both modes of transport. The 2013 Sydney City Centre Access Strategy reports that 92% of all weekday journeys in the City are walking trips and, along with cycling, this mode of transport is expected to continue growing.

There is mounting pressure for active transport infrastructure provision, with shared pathways providing one design solution. Integration increases the likelihood of conflict, particularly for pedestrians. As our population ages, mobility devices will be more regularly utilised on shared pathways, and a greater percentage of pedestrians will have vision and hearing impairment.

Safety

The interaction between pedestrians and cyclists on shared pathways is causing increasing safety concerns. However, the perception of danger is much greater than the actual risk. Observations of 50,000 pedestrians and 12,000 bicyclists on NSW shared pathways found only five near misses and no actual contact between cyclists and pedestrians. Nevertheless, we cannot simply dismiss perceptions, as the perceived risks can be a significant barrier for walking, particularly for older people. Management of shared pathways is becoming increasingly important as cities densify and we compete for limited space to commute and recreate.

While there is no single conflict generating mechanism, numerous factors have been identified as significant. The behaviour of people using the shared path and the physical environment, together with interaction between these two factors, can impact upon shared path conflict. Path widths and cycling speeds are also key factors influencing pedestrian perceptions of safety on shared paths.

Solutions

To minimise conflict, we need holistic solutions that meet the requirements of both bike riders and pedestrians. A suite of solutions are necessary to address local environmental, demographic and cultural circumstances. Broad measures to minimise conflict between cyclists and pedestrians include integrated strategy and planning, engineering works, traffic management, urban design, place making, and education/behaviour change programs.2,3

A special session at last year’s Walk21 conference explored evidence based measures for managing conflicts between cyclists and pedestrians on shared paths.4 Practical solutions include duplicating paths to promote walking and cycling separation, widening shared paths to increase capacity, safety reviews and subsequent design solutions to minimise potential shared path hazards, rule enforcement, and behaviour change programs.

Where to from here?

One well researched behaviour change program is the City of Sydney’s ‘Share the Path’ awareness campaign, which aims to educate pedestrians and bike riders on how to use shared paths safely and considerately. The program uses face-to-face sessions between bike riders, pedestrians and council staff at sites with high foot and bike traffic during peak commuting periods to disseminate key messages and reward target behaviour (such as cyclists’ bell ringing). The program also provides suggestions for establishing a similar program in other local government areas.

Other specific conflict management strategies and numerous best practice case studies from across the country are provided on the Australian Bicycle Council website5 and there are NSW specific case studies on the PCAL website.6

Endnotes


4 See: www.walk21sydney.net/presentations/

5 See: www.bicyclecouncil.com.au

New platforms make it possible to live-stream your next meeting, walking tour or public event

John O’Callaghan, Director, JOC Consulting

Just before you thought we couldn’t get more ‘instant’ online, along comes a new app from Twitter to live-stream your every move [or lack thereof]. Thanks to Periscope we can now watch someone having a BBQ, another person singing to Taylor Swift in the car and another drinking their morning coffee. It can be pretty mundane footage at times, but Periscope’s relevance to planning shouldn’t be underestimated.

If you’ve been following the hype, or signed up already, you would have noticed the ability for Periscope to give us access to people’s lives, quicker and easier, than we ever have before. Since its launch, I’ve been watching, interacting and sharing my own content to better understand this rapidly evolving subculture of digital users.

As part of the ur[BNE] Festival in April, I worked with QLD and ACT Young Planners to deliver a cross State collaboration using Periscope. The aim of the ‘Ideas Rumble’ was to solve place activation issues in pre-identified urban spaces across the different States. The use of live-streaming enabled us to ‘be in the space’ with the QLD team, who were introducing us to the square at the Queen Street and Albert Street intersection, and the ACT team, who were showing us The Gazebo at Tuggeranong. The insights gained from this live-streaming enabled us to identify (and potentially speak with) different audience groups, understand the urban-design morphology of the place and give us a sense of the place character – which pictures often fail to communicate.

While Periscope was used throughout the Ideas Rumble, Twitter and Padlet were also used as complimentary and collaborative tools for communicating each team’s thoughts and ideas for improving the public spaces. In its most simple form, Periscope enabled the sharing of content across state borders, in real time and at little expense.

Five ways Periscope can be used by planners

The Ideas Rumble was just the beginning – it highlighted one way planners can use Periscope to their advantage. Here are five more:

1. Stream conferences, events and public forums with local decision makers and experts.  
2. Take the community behind the scenes and invite them to remotely explore your workplace, construction site or parkland opening. Periscope did this themselves, with authors showing Periscope community the areas they write in. The series was called #WhereIWrite.  
3. Keep clients and the community informed with planning news with a weekly Periscope update – same time, same day each week.  
4. Ask for feedback in real time – like I did while writing this article – and ask the Periscope community, or just your followers, for feedback on designs, policy and strategy.  
5. Selling places: consider a social media strategy for ‘selling liveability’ and review what makes products, like Periscope, go viral. Then implement your learning into your place design.

Lessons learnt so far

In providing these examples, it’s also important to understand the parameters around new technology and risks associated with its use. Here are a few insights gained from my experience on Periscope so far:

• Film interesting content and introduce what you’re seeing, replying to comments and engaging with users [like a webinar but much easier];  
• An option within Periscope allows you to toggle on/off tweet option, which means you can decide which videos you’d like shared via Twitter;  
• Periscope saves live-streams so they can be included in future presentations or added to your website;  
• Watch out for issues with copyright infringement [avoid game of thrones streaming and stick to planning]; and  
• Block users that are inappropriate or trolls.

As we can see, live streaming, like digital technology itself, is evolving quickly. When barriers such as entry and costs are low for uptake of these new apps, they quickly become popular and are embraced by the public.

I’ve spoken before about the need for planners to take up new technology quickly – and Periscope is the latest example. Following in the footsteps of clunkier, older versions of live streaming, such as Skype, Google Hangouts and, most recently, Meerkat, Periscope gives us the opportunity to better understand our urban spaces. This is the new infrastructure we need to consider when designing new places or engaging communities.
Thumbs down to residential flat development

Peter Williams MPIA, Senior Lecturer in Planning, Faculty of Built Environment, UNSW Australia

The Residential Flat Design Code contains two sets of provisions relating to minimum size of residential flat units. In Botany Bay City Council v Botany Development Pty Ltd [No 2] [2015] NSWLEC 55, the Land and Environment Court recently determined which of these competing provisions applies in the determination of development applications.

This matter involved an appeal to a Judge under s 56A of the Land and Environment Court Act 1979 against a decision of a Commissioner. The Commissioner had granted consent for the construction of a residential flat development, and the appellant Council contended that the Commissioner erred in law in determining that residential flat unit size was not a reason for refusing consent.

Central to the proceedings was the interpretation of relevant provisions of State Environmental Planning Policy No 65 (Design Quality of Residential Flat Development) (‘SEPP 65’) and the Residential Flat Design Code (‘RFD Code’). Clause 30A(1)(b) of SEPP 65 provides a number of grounds on which a consent authority must not refuse development consent to a residential flat development. One of these grounds is apartment area – with the clause stating that consent cannot be refused if the proposed area for each apartment is equal to, or greater than, the recommended internal area and external area for the relevant apartment type set out in the RFD Code.

The Commissioner had determined that the apartment sizes met the recommended areas in the RFD Code, and therefore the development could not be refused on the basis of unit size. On appeal, the Council submitted that the Commissioner misconstrued cl 30A(1)(b), and that on the clause’s proper construction, the apartment sizes failed to meet the recommended areas in the RFD Code.

Cause of disagreement over compliance with apartment size stemmed from the fact that, in addressing the issue of unit size, the RFD Code specifies two different sets of sizes. There is a table which specifies internal and external areas for nine different apartment types, and there are ‘Rules of Thumb’ which provide for the areas of 1, 2 and 3 bedroom apartments. All of the apartments in the proposed development exceeded the areas identified in the Rules of Thumb, but not all met the areas in the table. If the Rules of Thumb areas were the recommended areas to which cl 30A(1)(b) of SEPP 65 referred, then the development could not be refused on the basis of unit size. Conversely, if the areas in the table were to be the minimum areas, consent could be refused on the basis on non-compliance with unit size.

The Commissioner decided that the relevant minimums were those in the Rules of Thumb, and therefore consent could not be refused on the basis of unit size. On appeal, the Council submitted that, on its proper construction, the ‘recommended areas’ referred to in cl 30A(1)(b) of SEPP 65 are those in the table, not the Rules of Thumb. The Commissioner erred in finding that the unit sizes met the relevant minimums, or, more particularly, which statement of such minimums – the Rules of Thumb or the table – was the correct one to apply.

Specifically therefore, the Court determined the question whether, on its proper construction, cl 30A(1)(b) refers to the minimum sizes contained in the table, or those in the Rule of Thumb. The Court concluded that, when considered in its context, the wording of cl 30A(1)(b) dictates that the relevant minimums are those referred to in the table. Reasons provided included: [1] cl 30A(1)(b) refers to the recommended internal and external areas for the relevant apartment type set out in the RFD Code – and internal and external areas are set out only in the table, and not in the Rules of Thumb; and [2] the term ‘relevant apartment type’ clearly refers to the nine apartment types identified in the table.

The Court therefore held that the ‘recommended internal and external areas’ referred to in cl 30A(1)(b) of SEPP 65 are those in the table of the RFD Code. As the Commissioner had used the incorrect set of unit sizes, the appeal was upheld and the matter remitted to the Commissioner for determination.

In the Courts

In Botany Bay City Council v Botany Development Pty Ltd [No 2] [2015] NSWLEC 55, the Land and Environment Court recently determined which of these competing provisions applies in the determination of development applications.

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Cause of disagreement over compliance with apartment size stemmed from the fact that, in addressing the issue of unit size, the RFD Code specifies two different sets of sizes. There is a table which specifies internal and external areas for nine different apartment types, and there are ‘Rules of Thumb’ which provide for the areas of 1, 2 and 3 bedroom apartments. All of the apartments in the proposed development exceeded the areas identified in the Rules of Thumb, but not all met the areas in the table. If the Rules of Thumb areas were the recommended areas to which cl 30A(1)(b) of SEPP 65 referred, then the development could not be refused on the basis of unit size. Conversely, if the areas in the table were to be the minimum areas, consent could be refused on the basis on non-compliance with unit size.

The Commissioner decided that the relevant minimums were those in the Rules of Thumb, and therefore consent could not be refused on the basis of unit size. On appeal, the Council submitted that, on its proper construction, the ‘recommended areas’ referred to in cl 30A(1)(b) of SEPP 65 are those in the table, not the Rules of Thumb. The Court therefore held that the ‘recommended internal and external areas’ referred to in cl 30A(1)(b) of SEPP 65 are those in the table of the RFD Code. As the Commissioner had used the incorrect set of unit sizes, the appeal was upheld and the matter remitted to the Commissioner for determination.

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In the Courts

In Botany Bay City Council v Botany Development Pty Ltd [No 2] [2015] NSWLEC 55, the Land and Environment Court recently determined which of these competing provisions applies in the determination of development applications.

This matter involved an appeal to a Judge under s 56A of the Land and Environment Court Act 1979 against a decision of a Commissioner. The Commissioner had granted consent for the construction of a residential flat development, and the appellant Council contended that the Commissioner erred in law in determining that residential flat unit size was not a reason for refusing consent.

Central to the proceedings was the interpretation of relevant provisions of State Environmental Planning Policy No 65 (Design Quality of Residential Flat Development) (‘SEPP 65’) and the Residential Flat Design Code (‘RFD Code’). Clause 30A(1)(b) of SEPP 65 provides a number of grounds on which a consent authority must not refuse development consent to a residential flat development. One of these grounds is apartment area – with the clause stating that consent cannot be refused if the proposed area for each apartment is equal to, or greater than, the recommended internal area and external area for the relevant apartment type set out in the RFD Code.

The Commissioner had determined that the apartment sizes met the recommended areas in the RFD Code, and therefore the development could not be refused on the basis of unit size. On appeal, the Council submitted that the Commissioner misconstrued cl 30A(1)(b), and that on the clause’s proper construction, the apartment sizes failed to meet the recommended areas in the RFD Code.

Cause of disagreement over compliance with apartment size stemmed from the fact that, in addressing the issue of unit size, the RFD Code specifies two different sets of sizes. There is a table which specifies internal and external areas for nine different apartment types, and there are ‘Rules of Thumb’ which provide for the areas of 1, 2 and 3 bedroom apartments. All of the apartments in the proposed development exceeded the areas identified in the Rules of Thumb, but not all met the areas in the table. If the Rules of Thumb areas were the recommended areas to which cl 30A(1)(b) of SEPP 65 referred, then the development could not be refused on the basis of unit size. Conversely, if the areas in the table were to be the minimum areas, consent could be refused on the basis on non-compliance with unit size.

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Architectus had a primary role in the urban design and planning of Central Sydney and Ryde and Ultimo.

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