

Executive Summary

The timely and coordinated sequencing of infrastructure is critical to the success of our growing cities

Australia's largest cities are growing and changing at an unprecedented rate. To support this growth and prepare for the future, we need to deliver new housing and substantially upgrade the capacity of many of our infrastructure networks. However, to maintain the world-renowned liveability of Australian cities, we also need to make sure we appropriately sequence the delivery of housing and infrastructure to ensure people have access to necessary facilities and services, such as a good local park and playground, or reliable local bus.

Sequencing the delivery of infrastructure and housing is a complex task. 'Sequencing', for the purpose of this paper, refers to the planning for, and timely and coordinated delivery of, new or upgraded infrastructure alongside additional housing supply, or prioritising the delivery of housing development in areas with additional infrastructure capacity. It includes the full range of infrastructure required to make a place 'work', from essential utilities to transport, schools, hospitals, parks, cultural institutions, and other community facilities.

Done correctly, sequencing will ensure that new or upgraded infrastructure is delivered in time to service communities where additional housing is being delivered and demand for community infrastructure is increasing.

It is important to note that infrastructure sequencing is not about providing all future infrastructure needs upfront. This is not practical or affordable for governments and taxpayers, nor does it deliver the best outcomes for communities. Rather, best-practice sequencing is about proactively identifying and methodically planning for the trigger points that will necessitate new and upgraded infrastructure across our cities as they grow and ensuring infrastructure is operational at these trigger points. Good sequencing requires

collaboration across levels of government and with industry, as well as a shared understanding of infrastructure needs through the lens of outcomes for a place and community, rather than outcomes for a sector.

This paper provides advice to governments, industry, and the community on how to enable best-practice sequencing. It calls for an overhaul of the way we deliver new housing and infrastructure in our largest cities, proposing changes to current planning systems, governance frameworks, and funding arrangements to better manage our rapid population growth.

Population growth can benefit our cities, but we need to ensure they remain liveable

Between 2017 and 2047, Australia's population is projected to increase by over 11 million people.¹ Around 80% of this growth will occur in our five largest cities – Sydney, Melbourne, Brisbane, Perth and Adelaide.² This growth will be accompanied by other major shifts that will have a significant impact on the structure and operation of our cities, such as the changing nature and location of work, the ageing of the population, rapid technological transformation, an increasing urban freight task, and climate change.

More than ever before, Australia's long-term prosperity is linked to the performance of our cities. Cities are increasingly the generators of the nation's wealth and where a growing number of people choose to live and businesses choose to locate. Between 2000–01 and 2015–16, even with the mining boom, 70% of Australia's economic growth occurred in our capital cities.³ Trends indicate this contribution will continue to increase over coming decades.



While Australia's cities are the economic powerhouses of our nation, we need to remember that cities are also fundamentally about people. People are choosing to live in cities because of the access to jobs and amenity they provide. Liveability and sustainability are essential to attracting and retaining people and ensuring the efficient and productive operation of our cities. People want to live in places with easy access to parks, schools, community facilities, and reasonable travel times to work and services. Creating liveable places is not optional for governments; it is essential. Liveability is intrinsically linked to economic growth and will play a key role in maximising the opportunities of population growth in our cities in the future.

Communities suffer without timely infrastructure delivery

There are places in Australian cities where housing and infrastructure delivery have been well planned and coordinated – often where development is large scale and actively managed through specific governance structures, like a development corporation or master planning process. However, there are too many examples from the past decade of delivering new housing without adequate infrastructure and services to support it. This has occurred in both new greenfield developments (large-scale housing developments located on master planned land releases on city fringes) and infill developments (incremental densification of already developed areas, including development focused around transport nodes or regeneration of former industrial sites in established areas).

These lags in infrastructure provision affect everyday life, reducing the liveability of these communities. In inner areas, this can often translate into over-enrolment in schools, increased congestion on roads, overcrowding on trains and buses, and competition for space at parks. In greenfield areas, this can mean public transport networks or local community services are not delivered until well after new residents move in and patterns of behaviour, such as car use, have become well entrenched. In turn, community trust in governments to deliver the services they need, and act in their best interest, can diminish significantly.

Communities have also witnessed the delivery of poor-quality housing development that is not sympathetic to the local character of their neighbourhoods. When density is not well integrated into the local area and not accompanied by the amenity and services expected in large cities, communities are understandably apprehensive about further growth and change.

While these concerns should not be dismissed out of hand as 'nimbyism', the solution is not to limit growth or the provision of infrastructure in our cities. It is possible to grow our cities and retain their liveability and unique character. To achieve this, we need to modernise the way we plan and sequence housing and infrastructure in our cities.

Current planning and sequencing practices need to adapt to support growth

The combination of the scale and pace of population growth set to occur in our cities poses material challenges for governments, industry, and the community. Supporting the additional housing that will be needed in both greenfield and established areas will place pressure on existing planning, funding, and governance practices. Our cities will need to become more agile and innovative in accommodating growth and delivering services.

Australian cities need to transform from ‘suburban’ cities into ‘urban’ cities. While detached housing and lower-density living will still play a role in our cities into the future, the changing nature of our cities – including their new economic geography, physical geographic constraints, cost of development, and increasing trends towards more urban living – means there will need to be a greater focus on delivering infill development.

Delivering infrastructure for infill development presents governments with new challenges that our planning, funding, and governance arrangements were not designed to address. For example, construction of new infrastructure is often more expensive, due to the need to tunnel under existing structures or purchase land at higher costs. The small scale, incremental nature of growth in established areas can also lead to an over-reliance on existing infrastructure, which can result in congestion and overcrowding.

The dual challenges of rapid population growth and the increasing urban infill task place us at a crucial moment in the development of our cities. Governments need to act now to preserve and enhance their world-renowned livability. To do this, our urban planning, funding, governance, and delivery practices need to evolve and adapt.

Infrastructure Australia reviewed infrastructure sequencing practices in our five largest cities

Infrastructure Australia conducted a ‘process and practice’ review of how Australia’s largest cities sequence housing-related infrastructure and housing development in Sydney, Melbourne, Brisbane, Perth and Adelaide, at both state and local government levels.

The first component of the research was a review of the legislative and planning processes in place for each city, at both state and local government levels. This included planning systems, overarching governance frameworks, and funding arrangements for delivering new housing and infrastructure.

The second component was interviews with representatives of local government, state government, and industry (both the property and infrastructure sectors) in each city. This qualitative research was conducted to gain insight into the way planning processes are translated into practice. The interviews focused on each participant’s views on the differences between the realities ‘on the ground’ of delivering supporting infrastructure to developments in cities, and the formal processes and practices.

Participants also identified challenges and successes of sequencing practices, and circumstances in which sequencing practices align poorly with intended outcomes.

Australia’s major cities face six common challenges when sequencing infrastructure and housing

Infrastructure Australia has used the outcomes of the ‘process and practice’ review to identify six common challenges facing Australia’s largest cities as they grow. Each of the five cities is unique, having different geographies, planning systems, infrastructure networks, and rates of growth. However, our research found that common challenges exist across these five cities. These are:

- **Finding 1: Infrastructure delivery is struggling to keep pace with rapid population growth and change.** Our largest cities are ‘playing catch up’ in delivering infrastructure to support population growth. In fast-growing cities, housing development tends to lead infrastructure delivery, making it difficult for governments to plan strategically for the long term and meet the needs of growing communities.
- **Finding 2: Australia’s three-tiered governance structure can make it challenging to consistently deliver liveable places.** Different levels of government have different responsibilities and priorities for delivering and maintaining infrastructure in our cities, which can lead to fragmented decision-making and investment.
- **Finding 3: Sector-led infrastructure planning can lead to uncoordinated outcomes for communities.** Governments are structured to deliver sectoral outcomes, such as transport, education, and health services, rather than ‘place’ outcomes. Sector-based governance structures, particularly at the state level, can lead to siloed planning and infrastructure decision-making, inconsistent outcomes, and unintended consequences for places and communities.

■ **Finding 4: Communities are increasingly disappointed by their experience of growth.**

Communities are understandably resistant to growth when they witness development that is poorly designed and not accompanied by commensurate increases in infrastructure. Community trust in governments to deliver infrastructure and services in growing cities is diminishing, as outcomes for a place are often not well defined and communities can feel left out of conversations about the future of their area.

■ **Finding 5: Our infrastructure funding mechanisms have not kept pace with growth.**

There are limitations with the current funding mechanisms for timely delivery of local and state infrastructure. Funding mechanisms lack consistency and transparency, and vary in their effectiveness as a means of raising revenue. This creates uncertainty for governments and industry.

■ **Finding 6: Governments and industry lack a shared understanding of the capacity of different infrastructure networks.**

Governments and industry differ in their understanding of the current quality or performance, and projected growth and capacity across infrastructure networks in our cities. While the different levels and arms of Australia's governments increasingly use common population assumptions, information about the available and potential capacity of infrastructure networks is often fragmented, resulting in uncoordinated decision-making and planning.

Governments and industry must work in partnership to address these challenges

As Australia's population grows, it is crucial that we improve the way we plan for housing and infrastructure in our cities. Ensuring we have the right planning, funding, and governance models in place will help to improve outcomes for the community and re-establish trust between communities and governments.

Drawing on the findings of our 'process and practice' review, this paper provides nine recommendations for action at different levels of government and for industry.

While these recommendations are relevant to all five cities, and other parts of Australia experiencing growth and change, governments in each city should seek to implement solutions that respond to their city's respective characteristics and contexts.

This paper builds on Infrastructure Australia's previous research on cities and population growth

The *Australian Infrastructure Plan* and the recent Reform Series paper *Future Cities: Planning for our growing population* made recommendations to all levels of government on managing population growth for the benefit of all Australians. *Future Cities* presented growth scenarios for Melbourne and Sydney to 2046 and found that a business-as-usual approach to land use and infrastructure planning in our largest cities is not sustainable. It recommended that governments improve planning and delivery processes to accommodate growth, particularly through integration and coordination in delivering strategic metropolitan plans.

This paper builds on this work by providing more detailed advice to governments, industry, and the community on how we can improve the way we plan for and deliver housing and infrastructure as our cities grow.

A guide to reading this paper

This paper is split into three chapters:

- 1. The state of planning in Australia's largest cities:** Identifies the changes already occurring in our five largest cities and provides an overview of the current processes and practices in place to deliver housing and infrastructure.
- 2. Challenges with the current approach:** Evaluates the challenges being faced across the cities in aligning the delivery of housing with appropriate infrastructure, including planning, funding, and governance challenges. The chapter outlines our six key findings across the five cities studied.
- 3. Recommendations for more integrated planning and delivery:** Details nine recommendations for action within governments and industry to improve processes and practices in sequencing infrastructure and housing development to retain liveability and productivity in our cities as they grow.

Each chapter begins with an 'At a glance' box. These provide the reader with a snapshot of the content and structure of the chapter.