# Greenfield 2.0

URBIS

Urban Development Institute of Australia
NEW SOUTH WALES

# Acknowledgement of Country

UDIA NSW & Urbis acknowledge the Traditional Owners of Country throughout Australia and their continuing connections to land, waters and community.

We show our respect to elders past and present. We acknowledge that we stand on Country which was and always will be Aboriginal Land.

Front Cover Image Credit: Gledswood Hills by Sekisui House

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This work has been a collaborative process with UDIA members who have provided significant input, and time in the development of this report. A special acknowledgement to consultants, Architectus for peer review of planning recommendations and attendance at key workshops.

New South Wales (NSW) is in the midst of a housing crisis, and the government's policy response has included a suite of housing reforms, including a focus on Transport-Oriented Developments (TODs). These initiatives aim to concentrate higher-density housing around key public transport hubs, with the goal of reducing infrastructure costs to government.

UDIA NSW supports the TOD policy and its role in the broader housing solution. However, feasibility challenges have emerged, particularly for infill development across the Sydney region. Given the scale of housing demand and the complexity of delivering infill housing at pace, it is clear that additional solutions are required.

To help the NSW Government get closer to meeting its housing targets, UDIA NSW engaged Urbis to investigate opportunities to accelerate housing supply in the most feasible and efficient way possible. This has led to a renewed focus on greenfield development where the delivery of housing remains viable such as Sydney's growth areas and regional cities.

By leveraging existing infrastructure, prioritising high-quality urban design, and ensuring cost-effective solutions for government, UDIA NSW and Urbis have developed a refreshed approach: Greenfield 2.0. This approach reimagines the role of greenfield development, ensuring it contributes positively to the city's form and function while providing much-needed housing supply.

Greenfield 2.0 highlights opportunities to deliver housing more efficiently and meet housing supply targets at low cost to government. It provides solutions to overcome known development challenges and will ensure well-planned, community-focused outcomes that align with broader housing policy objectives.

This document, co-produced by UDIA NSW and Urbis, reflects a shared commitment to unlocking all viable pathways to housing supply—including both infill and greenfield solutions—to support the state's growing population and economic future and housing targets set by government. Greenfield 2.0 will ensure excellent urban design and planning outcomes enabling community focused outcomes.

*"Vibrant, flourishing and lively are some of the terms that I would use to describe the community that I live in."*

- UDIA member post occupancy user survey

# Overview

*"…its outdoor activities, local events, and the supportive neighbours, there's a genuine pride in being part of this close-knit community."*

- UDIA member post occupancy user survey

# Why Greenfield?

# Planning for Growth

## Greenfield development is feasible

- Government investment in greenfield areas can provide greater value for money compared to historical trends, and ensure more efficient housing delivery.
- Housing in greenfield areas is more feasible with a ready market for product. A strategic focus by Government on greenfield supply can significantly accelerate housing delivery in NSW.

## Deliver housing supply in well-located areas

- Greenfield 2.0 redefines well-located housing by prioritising access to transport, jobs, and amenities. A principle-based planning approach ensures development occurs in areas that maximise connectivity and liveability.
- Greenfield development leverages intra-regional transport links, bringing jobs closer to homes. Unlike traditional radial transport systems, this approach supports a more connected and efficient city with cost-effective infrastructure.
- Greenfield development makes use of existing and planned transport networks to increase housing supply. Targeted expansion aligns housing growth with infrastructure capacity, ensuring long-term sustainability.
- A mix of land uses and housing types and tenure can be delivered within walking distance of major transport infrastructure. Increased density around transport hubs supports more affordable housing while maintaining high-quality urban design.

## Build out, to move up

- Greenfield 2.0 envisions the creation of vibrant, medium and high-density urban communities, ensuring better value for taxpayer investments in enabling and community infrastructure.
- Constructing denser greenfield developments now will facilitate the future delivery of higher-density apartments within town centres and transit nodes, effectively initiating the planning for infill development from the beginning.
- Low(er) density housing delivered at the periphery of precincts, supports increased density closer to the city centre, town centres, and around transport nodes. This market-driven approach maximises housing availability at affordable prices.
- Use historical precedence and economic planning theory to guide planning and infrastructure decisions, demonstrating the role of greenfield developments in shaping broader city-defining strategies.

## Greenfield and green

- Small adjustments in greenfield design and engineering standards, supported by planning policy, can increase housing density near amenities and transport options, leading to vibrant and sustainable city outcomes.
- Greenfield developments are less constrained and can easily accommodate street dimensions that integrate green, blue, and grey infrastructure, resulting in shaded, pedestrian-friendly streets and functional open spaces.
- Greenfield development protects conservation areas, rehabilitates degraded riparian corridors, provides active and passive open spaces of various sizes and distribution, and respects cultural trails and songlines through considered and respectful planning,

*"The friendly atmosphere, beautiful surroundings, and local businesses create a unique charm."*

- UDIA member post occupancy user survey

Image Credit: Rouse Hill Town Centre

# An Improved Approach

# Recommendations

## 1 Master planning and coordination for larger areas of developable land to overcome fragmentation.

**Strategy:**

Update master planning frameworks and methodology for growth areas with delivery mechanisms integrated into the planning framework.

### Actions:

- Undertake detailed structure and master planning supported by comprehensive infrastructure plans for precincts (most important in fragmented land areas). This approach will ensure better-built outcomes, create mechanisms for staged delivery, and increase confidence for private sector acquisitions.

- Develop an integrated development sequencing plan, aligned with long-term infrastructure planning (e.g., transport, utilities, open space and stormwater) to ensure coordinated land development.
- Establish a developer-led development pathway, assigning the responsibility for infrastructure delivery and coordination to the developer.

- Integrate triggers into the planning system to implement the development sequencing plan, and ensure coordination and information sharing across delivery agencies.
- Create incentives for landowners to align their land delivery with the development sequencing plans and infrastructure delivery plans. This includes offering incentives for land amalgamation to encourage larger developers to purchase and deliver housing, as well as incentives for smaller developers to deliver their land in accordance with the development sequencing plan and master plan layout.

- Sites that can deliver at least 500 lots should be considered for an accelerated assessment pathway.

# Recommendations

**2** **Modernise planning controls to facilitate innovation in lot sizes and housing typologies.**

Strategy:

Create modern planning controls that enable innovative approaches to housing types and lot sizes.

## Actions:

- Introduce flexible zoning and planning controls that allow for a mix of housing types (e.g. apartments, townhouses, terrace houses, small-lot housing) within the same area consistent with low and mid rise housing reforms.
- Amend planning controls to streamline approval processes for alternative housing models, such as supporting the Building Commission's work on modular homes, eco-friendly dwellings, and co-living spaces, to foster innovation in the housing market.
- Create a Complying Development Certificate (CDC) pathway for integrated housing, previously assessed under the Growth Centres DCP Controls or Wilton DCP Controls, on serviced lots between 125sqm and 225sqm. This will enable Torrens subdivision and dwelling construction to occur under the Code.
- Eliminate the Development Application (DA) requirements for integrated development on lots as small as 125sqm. Instead, establish an "integrated assessment" pathway as a complying development, involving two certifiers: one for subdivision and one for dwellings.
- Increase density controls (height and Floor Space Ratio) near public transport nodes to maximise the benefits of transport infrastructure access.
- Consider minimum and/or maximum residential densities based on distance from amenity to support the delivery of the terrace house and other small lot typologies.
- Convert the Growth Centre DCP (including Wilton) controls into a model code for Greenfield Growth Area Housing Delivery Code to support location of smaller lots, achieve good design outcomes, and promote housing diversity.

## 3 Timely delivery of enabling infrastructure aligned with planning and industry intentions to deliver housing.

Strategy:

Ensure the timely provision of infrastructure, such as transport, utilities, and community facilities, aligns with zoning and land-use planning and developer intentions, to minimise delays in housing delivery. The provision of enabling infrastructure aligned with industry intentions should determine development staging.

### Actions:

- Establish an infrastructure delivery plan that aligns with rezoning to ensure a continuous pipeline of serviced housing development sites. Have land ready for rezoning only after confirming the infrastructure delivery mechanisms.
- Establish infrastructure plans during rezoning and integrate land use considerations for infrastructure at this point. Ensure that drainage and transport corridors are accurately reflected in rezoning proposals.

- Establish clear timelines for the delivery of infrastructure in relation to development schedules, through collaborative forums such as the UDP.
- Consider public-private partnerships (PPPs) for large-scale infrastructure projects to expedite the delivery of catalytic infrastructure, reshaping city design and function, while minimising costs to the state and reducing project delays.

- Utilise the WiK framework to deliver infrastructure and enable development in cases of potential delays with government infrastructure provision or when development is developer-led.

# Recommendations

## 4 Improve contribution frameworks – including local, state and Works in Kind (WiK) policy.

Strategy:

Local infrastructure must be delivered on time and coordinated with dwelling delivery. Review and update contribution frameworks to ensure fair, transparent, and effective allocation of costs for infrastructure.

### Actions:

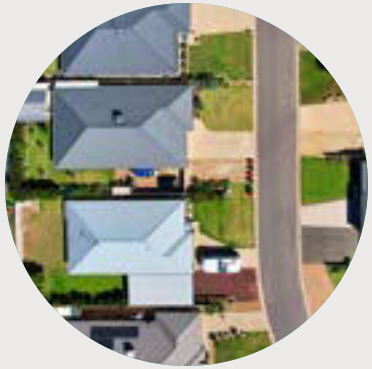
- Councils to update local government contribution plans to ensure they reflect current growth pressures and infrastructure needs.
- Reform local contribution frameworks in collaboration with key stakeholders, including councils, the NSW government, and industry, to ensure certainty for all parties and to guarantee that infrastructure is funded, staged, and delivered in a timely manner.
- Finalise a WiK framework to deliver infrastructure more efficiently.
- Ensure Housing Productivity Contribution (HPC) infrastructure prioritisation is transparent and agreed upon with stakeholders through Urban Development Program (UDP) processes. Align Infrastructure Opportunities Plan (IOP) with agency priorities and HPC by utilising a unified prioritisation process to determine infrastructure needs. Ensure these priorities are consistent with growth staging plans for each release area.
- Capitalise (seed funding) the HPC Fund to facilitate new development

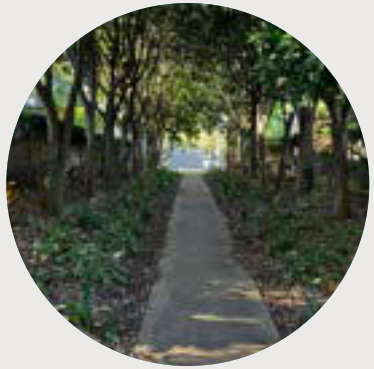
## 5 Deliver quality streetscapes, open spaces, and environmental areas.

**Strategy:**

Update and secure endorsement of engineering and design standards aimed at delivering high-quality public spaces. These standards should include guidelines for streetscapes, parks, green corridors, stormwater and environmental reserves, prioritising sustainability, accessibility, and aesthetic value.

## Actions:





- Implement standard engineering guidelines for the public domain, encompassing both streets and open spaces. Ensure the integration of green infrastructure, such as permeable surfaces, adequately sized tree pits, and Water Sensitive Urban Design (WSUD), alongside hard engineering solutions like common trenching and other service requirements. Integrate these standards into the planning system to achieve the desired constructed outcomes, including corridor preservation, Council Development Control Plans (DCPs), construction standards, and specifications.
- Move away from the historical open space benchmark of 2.83 hectares per 1,000 residents often used by Growth Areas Councils. Instead, adopt a framework that emphasises the minimum quality of open space and street design outcomes, including finalisation of recommendation as outlined in Government Architects' draft documents, including 'Greener Places' for open space.
- Adopt a landscape design-led policy for new developments incorporating the green, blue and ochre grids. Developments will improve water cycle management, urban heat mitigation and Connecting with Country. Ecological features and riparian corridors are to be considered as open space areas that facilitate diverse recreation opportunities. Passive and active open space can be developed on land that has development constraints such as periodic low intensity flood inundation, bushfire APZ and service easements.
- Strengthen public consultation and engagement processes to actively involve communities in the design of open spaces. Ensure that lessons learned and community feedback from previous development releases inform the design of subsequent releases. Investigate opportunities for co-design of new public domain spaces that integrate local community viewpoint.

*"I love how safe I feel and how lovely and kind my neighbours are. The parks are also beautifully maintained"*

- UDIA member post occupancy user survey

# Analysis


# Annotations

1. High density development adjacent to major transport nodes. Centres should be a focus for regional community amenities including cultural spaces, schools, leisure centre and public swimming pools.
2. Local Centres and village centres, with local commerce, mid- and low-rise density with walkable streets.
3. Parklands at various scales; local, regional and district levels, located close to development nodes. Ecological corridors and overland flow pathways are to be used as diverse open space opportunities and active transport connections, while protecting environmental outcomes.
4. Existing and proposed mass transit infrastructure can support additional stations along their corridors. The additional stations can accommodate higher density developments.
5. Development transitions to mid and low-rise, the further the distance travelled from the node (e.g. 400m, 800m, 1200m). Locate medium density close to other amenity items such as parks and bus stops.
6. Excellent street environments with active street frontages adjacent to transport nodes with employment and commerce. Active frontages to transition to blurred public / private courtyards for successful ground plane environments.
7. Lower density detached dwellings supporting city urban form. Street layouts should be site responsive, highly permeable with wide verges and shade trees.

# Opportunity Areas

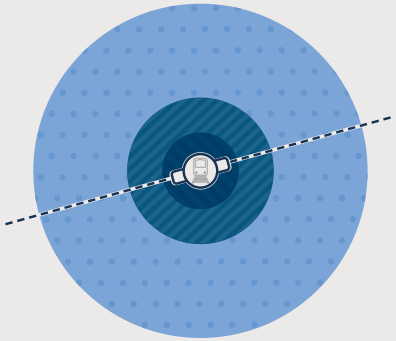
Greenfield 2.0 principles have been applied to a theoretical place (as seen on page 18), highlighting the delivery of higher densities at each of the urban centres and transport nodes. Additional stations locations have been located with dense urban development located around the transport opportunity.

The ability for centres to be economically self-sufficient and leverage existing urban hubs nearby, will generate significant local employment and reduce reliance on commuting to traditional Central Business Districts (CBDs) of large towns and cities.

The urban centres are supported by excellent opportunities for recreation and open space with the blue and green grid. City vistas are maintained with views to nearby landscape features maintaining Connection with Country and the development's local setting.

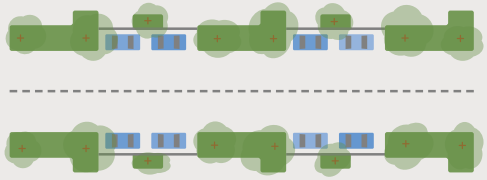
# Details

For Greenfield 2.0 to deliver the vision of a well-connected urban and sustainable city, the development needs to be delivered considering critical components. Planning for future transport, corridor preservation, open space, environmental protection, city development and land uses need to adopt the following analysis.



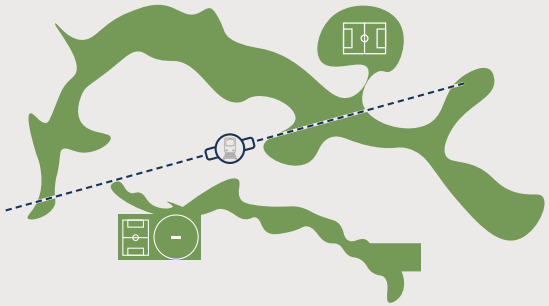
## Build Out to Move Up

Different housing typologies, each contribute to how a city evolves over time. Lower density housing at the periphery of a precinct, is more appealing early in a region's development, however this changes over time, as more amenity items are delivered, resulting in increased housing diversity.



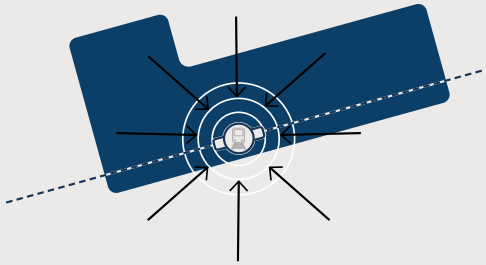
## People Streets Make a City

Public life and connectivity with each other occurs in the streets of our city. Incidental opportunities for commerce and socialisation mean streets need to accommodate the needs of people with basic elements of shade, safety, flexibility, and moveability critical to their success.



## Access to Useable Nature

Open space has multiple uses including organised sport and passive recreation such as walking and running. Protect conservation areas, rehabilitate degraded riparian corridors, provide active and passive open spaces of various sizes and distribution and respect cultural trails and songlines.

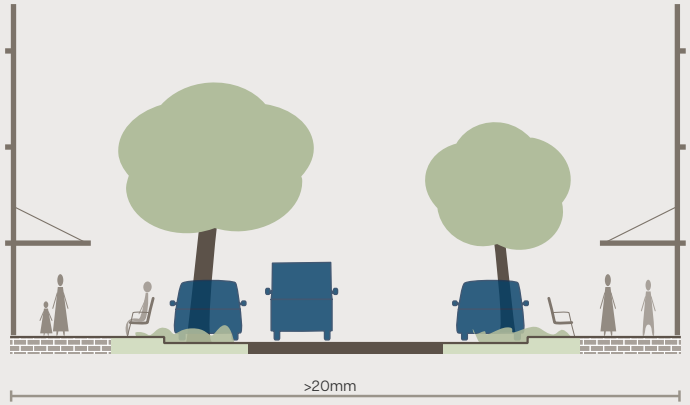


## Increased Density Adjacent To Transport Nodes

Significant investment in infrastructure has occurred across the Sydney region which should be leveraged to maximise return on investment and delivery of housing. Planning controls should reflect this opportunity and new transport nodes should be investigated.

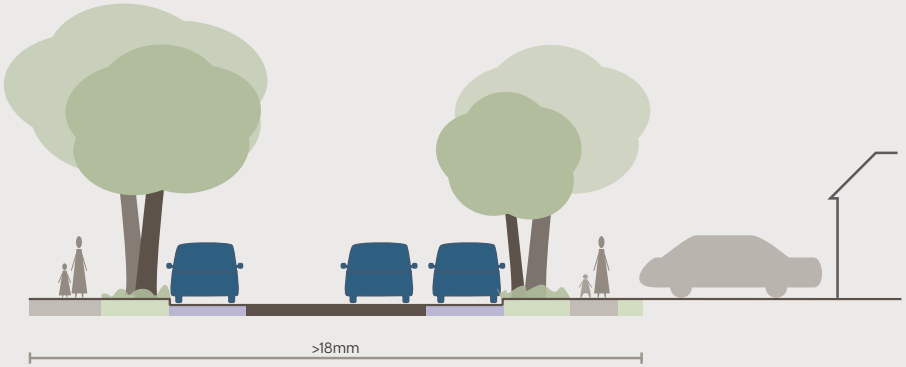
*"It's exciting to witness the region's development, with new shopping centres and schools being built. This growth enhanced the community and amenity in the area."*

- UDIA member post occupancy user survey



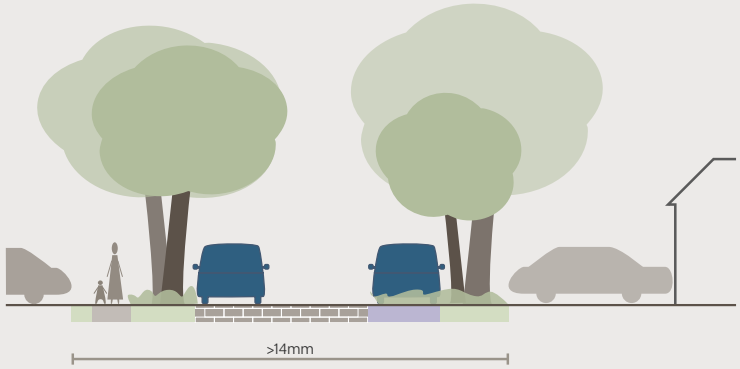

## High Street

High streets are vibrant urban spaces characterised by a dense concentration of pedestrians and commerce. To enhance the dynamic atmosphere, it is essential to incorporate areas that foster social interaction, while ensuring that nearby buildings offer views of the street. Water-sensitive urban design (WSUD) should be seamlessly integrated into both car parking and street layouts, complemented by the presence of wide canopy trees that provide shade and contribute to the cooling of the pedestrian environment.



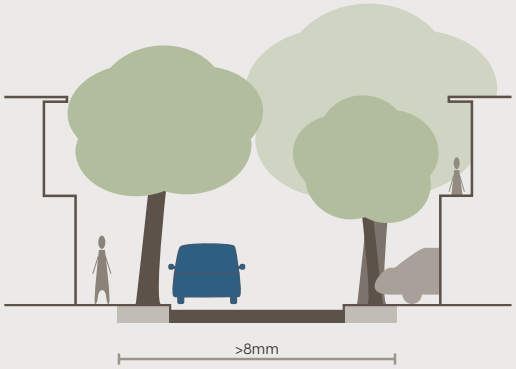

## Neighbourhood Street

Neighbourhood streets cater to the local needs of residents, fostering low-speed environments that balance active transport, local vehicle movements, parking, and stormwater management. Regularly spaced street trees are thoughtfully positioned to accommodate vehicular driveways, utilities, and pedestrian footpaths, ensuring a harmonious and functional streetscape.




## Residential Way

Local streets should prioritize creating very low-speed, shared-use environments that encourage safe interaction among all users. These streets must accommodate water-sensitive urban design (WSUD) and facilitate active transport, linking seamlessly to larger services in adjacent streets. Regularly spaced street trees should be planted to promote a cool, comfortable streetscape, enhancing both environmental and aesthetic quality.




## Residential Lane

Laneways primarily serve as access routes to the rear of buildings and garages, with on-street parking discouraged. These spaces are designed to function as very low-speed environments, featuring strategically placed trees to mitigate urban heat. Additionally, water-sensitive urban design (WSUD) elements, such as passive irrigation, are incorporated to minimise water runoff and maximise water treatment, enhancing the sustainability of the area.

# Movement and Activity

Streets and public spaces are designed to deliver useable spaces that ensure multifunctional outcomes including active transport, public transport, private vehicle movements, social interaction for pedestrians, stormwater treatment and urban canopy cover.

# Case Studies

## 1 Oran Park Town Centre

The development of Oran Park has been guided by a planning approach that integrates residential, commercial, recreational, and transport infrastructure (including future Metro Station) to create a well-connected and vibrant community. The planning framework for Oran Park emphasised sustainable urban design, with a focus on creating walkable neighbourhoods, efficient transport systems, and the preservation of natural landscapes.

Central to the planning for Oran Park is its town development, which has been designed to foster a strong sense of community through mixed-use zoning. This includes residential areas, local parks, retail hubs, and community facilities, all linked by a network of pedestrian and cycling paths.

Low density residential development has contributed to local market shifts in accommodating increased density. The staged development around the periphery of the town centre has provided infrastructure and amenity that has increased housing demand and a market desire to live in higher density housing stock, including terrace and town houses within the Oran Park town centre.

Staged roll out of development has enabled a steady release of development aligned with market needs. This has enabled development to meet changes in market demands with an iterative planning approach that has been flexible and evolved over time. Original maximum expected heights and densities have been exceeded with each review of planning controls, leading to better urban design including condensed compact urban form.

## 2 Thornton

Transport connectivity has been a key driver of the planning for Thornton. The development is situated adjacent to the Penrith CBD and Penrith Railway Station, supporting the delivery of a transport-oriented development in a greenfield setting. The urban design facilitates excellent public transport options, as well as cycling and pedestrian infrastructure. Thornton is an excellent example of high density greenfield adjacent to a transport node, that transitions to mid-rise with urban laneways and low-density development further away from the train station.

The planning for Thornton has emphasised creating a diverse and inclusive community. The development features a mix of housing types, including affordable housing, to cater to a wide range of residents, from first-time home buyers to families and downsizers. The mixed-use approach encourages a blend of residential, commercial, and retail spaces, delivering housing diversity with additional methods for delivery, in a dynamic and self-sufficient community where residents can live, work, and access services locally.

The Thornton development has aimed to deliver high-quality urban environments that support both economic growth and community cohesion. The planning for Thornton has prioritised social infrastructure, including open spaces, schools, healthcare facilities, and community centres, ensuring that the needs of a growing and diverse population are met. This integrated, holistic planning approach has delivered a well-balanced, thriving community that enhances the overall liveability of Penrith and contributes to the long-term sustainability of the suburb.

## 3 Edmondson Park

The planning for Edmondson Park has been guided by the principles of integrated urban design, environmental sustainability, and accessibility; leveraging key transit-oriented development principles, located on the new South West Rail Link and station.

The master plan for Edmondson Park was initially led by Landcom, in collaboration with other stakeholders including the local councils and planning authorities. Landcom's role in the development has been pivotal in the realisation of the development with a clear staged plan for infrastructure and housing.

Landcom played a leading role in the initial infrastructure works, including road networks, public open spaces, stormwater management systems, and utilities, which were designed to ensure a functional and cohesive development. The establishment of parks and recreational areas was prioritised to foster a community-oriented environment, offering residents accessible green spaces that were well integrated into the overall urban fabric.

Edmondson Park is an example of good sustainable growth and the creation of mixed-use communities. The area has diverse housing options, including affordable housing, and a mix of residential; low, medium and high density, retail, and community spaces. The area's planning prioritises the creation of a walkable and bike-friendly environment, with pedestrian paths and cycling routes connecting key areas of the neighbourhood.

## 4 Rouse Hill

Rouse Hill was identified for development in the late 1990s. The goal was to create a community that could accommodate the region's growing population. Master planning commenced in the early 2000s. The project was a collaborative effort including the NSW Government, The Hills Shire Council, and the community. Key players such as Lendlease, Landcom, and The GPT Group worked together to ensure the development met both public and private sector goals.

The master plan for Rouse Hill was designed to integrate residential, commercial, and recreational spaces. Planning focused on creating a balanced community with diverse housing options, a vibrant town centre, ample open spaces, and essential social infrastructure. The design included public spaces, community centres, and regular events to encourage social interaction and foster a strong community spirit focused on the town centre. The main street supports a mix of retail, dining, and entertainment options, which became a central gathering place for local and neighbouring residents.

Rouse Hill was initially linked by the bus-dedicated North-West T-way, which opened in 2007, coinciding with the first phase of the development. The Sydney Metro Northwest line, opened in 2019, connecting Rouse Hill to the broader Sydney area.

Rouse Hill's development was delivered in phases which ensured that infrastructure and services could keep pace with the growing population. While the initial stages incorporated a mix of detached and attached dwellings, apartment buildings are now being delivered in and around the Rouse Hill Town Centre.

## 5 The Gables

The Gables rezoning began with its inclusion in the 2013 Housing Acceleration Protocol as the Box Hill North Precinct and was officially rezoned in 2015. Residents began moving into the development in 2017. The site originally consisted of 25 land parcels, later amalgamated by Celestino, who envisioned a development of approximately 4,500 dwellings. Stockland acquired the site from Celestino in 2020 and has since led its development.

The Gables is designed to foster a connected, walkable community, with pedestrian-friendly pathways linking homes to parks, riparian corridors, schools, community facilities, and a planned town centre. The masterplan incorporates a variety of housing types—detached homes, terraces, apartments, and a 230-lot Over 60s development—ensuring housing diversity and inclusivity. A key infrastructure feature is an integrated water facility delivered by Altogether, including a recycled water plant that supplies treated water for non-potable uses such as irrigation, toilet flushing, and garden watering.

Over time, the development has progressed from the precinct's outskirts toward the central area, where higher density housing and the town centre, featuring 10,000m² of retail space, are planned, with the latter expected to open in early 2026. Stockland's consistent involvement has ensured cohesive design, high-quality public spaces, and active community engagement, all contributing to The Gables' growing appeal as a thriving residential community.

## 6 North Kellyville

The rezoning of North Kellyville began in 2008 under the former Growth Centres Commission and took 18 months, involving coordination with multiple government agencies such as the NSW Department of Planning and Sydney Water. Extensive community engagement through collaborative workshops was also central to the process, helping to build shared ownership in the precinct's vision. Originally comprising more than 300 fragmented lots, North Kellyville became the first precinct in the Northwest Growth Area to be rezoned for residential development, with a goal of delivering over 5,400 dwellings. Sydney Water's commitment to sewer and water infrastructure was instrumental in accelerating development, providing service certainty and supporting land amalgamation post-rezoning.

The precinct's planning approach emphasised a mix of residential types—including apartments, terraces, detached homes, and studios—to accommodate a range of demographics from first home buyers to downsizers. Integrated community services, public and active transport links, and retail and recreational spaces were planned to support a vibrant and self-sufficient neighbourhood. Sustainable design elements, such as swales in street medians and deep soil zones in backyards, enhanced water management and tree plantings. With 85% of development now complete, North Kellyville has become a sought-after location in Sydney's northwest, exemplifying the success of well-coordinated infrastructure delivery and sustainable Greenfield development.

*"Whether it's outdoor activities, local events, or the supportive neighbours, there's a genuine pride in being part of this close-knit community."*

- UDIA member post occupancy user survey

# Next Steps

# Next Steps

- Fund economic analysis for greenfield high and medium density work to understand cost / feasibility for:
  - Dwellings by typology
  - Infrastructure (e.g. new transit stations)
  - Enabling infrastructure costs
  - Site specific analysis (for potential applications of Greenfields 2.0 principles on an actual site.)
- Collaborate with NSW Government and Council stakeholders to update local contributions frameworks.
- Collaborate with NSW Government stakeholders (DPHI and agencies) to establish endorsed development sequencing plans.
- Collaborate with Councils to deliver updated and standardised Growth Centres DCP or Greenfield template, standardise construction specifications and standards
- Establish incentives with Council and DPHI stakeholders for the delivery of fragmented lands, including amalgamation opportunities and improved mechanisms for small landowners to deliver in alignment with the master plan.
- Develop an out-of-sequence development pathway with DPHI and key NSW Government stakeholders.

*"If only more people got to live in a wonderful community like mine."*

- UDIA member post occupancy user survey

URBIS

Urban Development Institute of Australia
NEW SOUTH WALES

T (02) 9262 1214 | E udia@udiansw.com.au
Ground Floor, 15 Castlereagh St, Sydney NSW 2000

www.udiansw.com.au