



# 101 Design Ideas

from 5 years of  
the NSW State Design  
Review Panel

GOVERNMENT  
ARCHITECT  
NEW SOUTH WALES



Government Architect NSW acknowledges the Traditional Custodians of the land and pays respect to Elders past, present and future. We honour Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to place, and their rich contribution to our society. To that end, all our work seeks to uphold the idea that if we care for Country, it will care for us.



# GANN SW



# The public value of design review



**Abbie Galvin**  
Government Architect NSW

**Five years ago the NSW *Environmental Planning and Assessment Act 1979* was amended to promote good design of the built environment. This was a crystallising moment for design in New South Wales.**

In response, the NSW State Design Review Panel (SDRP) was established by Government Architect NSW (GANSW) as a pilot project in 2018 to improve design quality of state significant projects. Two years later the pilot was formalised and now, 5 years on, over 300 large-scale state significant projects, valued at over \$60 billion, have been reviewed in nearly 750 individual sessions.

The 101 ideas in this book aim to capture the complexity of the projects the panel has reviewed, the breadth and depth of advice, and the collective endeavour of all involved to achieve the best possible outcomes for the people of New South Wales.

At its core, design review is about learning how to share knowledge, make better places, and generate public value through better design. We've all learnt a lot over the past 5 years.

Over half of the projects reviewed by the panel are led by our state agency partners: schools, public housing, hospitals, transport infrastructure and the urban design of new precincts. Private projects, such as aged care facilities, build-to-rent housing, private schools and private hospitals, make up the rest.

The NSW SDRP program is rigorous, robust and independent. By testing and improving public outcomes, it helps ease projects through the planning system, providing greater certainty and better outcomes.

The NSW SDRP program has constantly evolved to meet demand. Research projects in 2020, 2022 and 2023 have been used to benchmark the NSW SDRP against local and international standards. The program has recently adapted to cater for an expanding range of projects by developing centres of excellence that specialise in specific project typologies.

At the same time, we are all learning more about Country. The *Connecting with Country Framework* evolved alongside and through the NSW SDRP program. Its development drew extensively on research from the NSW SDRP and on pilot projects undertaking review. It can be challenging, but we all recognise the significance and benefit of Country informing the design of our built environment.

The next 5 to 10 years will require a step change in how we build as we face the combined challenges of climate change, affordability and liveability. To meet the demands for net zero, resilient and healthy cities, buildings and landscapes, while constructing thousands of places for people to live, work and play, we will need to use our precious resources carefully and with skill and imagination. The NSW SDRP has a small but vital role to play, championing good design and helping us learn from each other to maximise shared and public benefit.

Good design is everyone's business.

# About this book

***101 Design Ideas from 5 years of the NSW State Design Review Panel* has sprung from the combined experience of the panel members and the GANSW team. This publication is one part of a continuous process of reflection and knowledge sharing. The aim is to capture the breadth and depth of the advice, and share the 5 years of lessons learnt, for the benefit of future projects.**

The advice is expressed as high-level, general principles and recurring themes for consideration. Most of the ideas apply to all types of built environment projects, from master plans and infrastructure projects through to buildings. A few are specific to particular types of projects such as housing.

101 ideas are a lot to digest at once, so the book is designed for browsing and to stimulate discussion.

## **Who the book is for**

*101 Design Ideas* is for everyone involved in the delivery of built environment projects in New South Wales: government agencies planning and procuring buildings, infrastructure and places; private developers; project managers; planners; design teams; technical consultants; assessment teams; end users; communities – and their neighbours.

## **This is not a step-by-step design guide**

The chapters group the advice around a condensed set of core principles, phases and issues which typically emerge, overlap and re-emerge during the design development of projects.

We hope you enjoy and learn something new from browsing *101 Design Ideas*.

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# Climb your neighbour's fence



Look beyond your site boundary and connect with the broader landscape.

Understanding the context of an individual site within Country and the wider landscape is critical. This provides the potential for the greatest amenity while also mitigating against future climate, transport and energy challenges.

Integrating developments on individual sites with existing urban infrastructures is the key to achieving strong urban design outcomes.

— Commission for Architecture and the Built Environment, UK, *The Value of Urban Design* (2001)

Selecting the right site, adapting the project to the broader landscape, knitting into the existing links and pathways, and taking advantage of new opportunities will improve outcomes for everyone.

Architects, landscape architects and urban designers are trained to understand the potential opportunities and the collective value each project can produce. Each site is different and requires care and attention to create the best results.

# 01 Start with Country

Good design starts with learning and awareness of Country, respecting the layers and deep stories of a place, and acknowledging its Traditional Custodians and cultural heritage.

Starting with Country requires rethinking and reframing your whole world view and approach, from the business case and project conception onwards.



# 02 Look beyond the site boundary

How a site relates to its broader context of built and natural systems – strategically, spatially, culturally and socially – should inform your project.

Understanding the influence of the broader context is essential. Many of the factors that will play an important role in the ongoing success of your project – such as public transport, green spaces, waterways, local shops and services – are outside your project boundaries. Access to these factors, or their amenity, may improve if your development becomes a good neighbour.

For guidance see [Connecting with Country Framework \(GANSW 2023\)](#).



## 03 Site selection is key

Site selection is a pivotal decision. Strategic alignment between the choice of site and its intended purpose is critical.

Is this the most suitable site for the purpose? How does the site contribute to the broader place? Seek advice on the choice of site from those who understand its cultural heritage, its past and future resilience, and how it sits within a broader strategic planning framework. At all scales, development should be planned holistically with each site recognised as being part of an integrated, interconnected, dynamic and sustainable system.



## 04 Every site is unique

Good design takes time to understand and respond to the specific characteristics and inherent opportunities of each site.

No project site is identical to another. Characteristics such as prevailing breezes and rainfall, topography, geology and vegetation demand place-specific design responses.

Every built environment project needs to carefully respond and adapt to specific site conditions and attributes. Taking the time to understand each unique situation is a first step in building resilience. The next step is responding to those conditions through creative design.



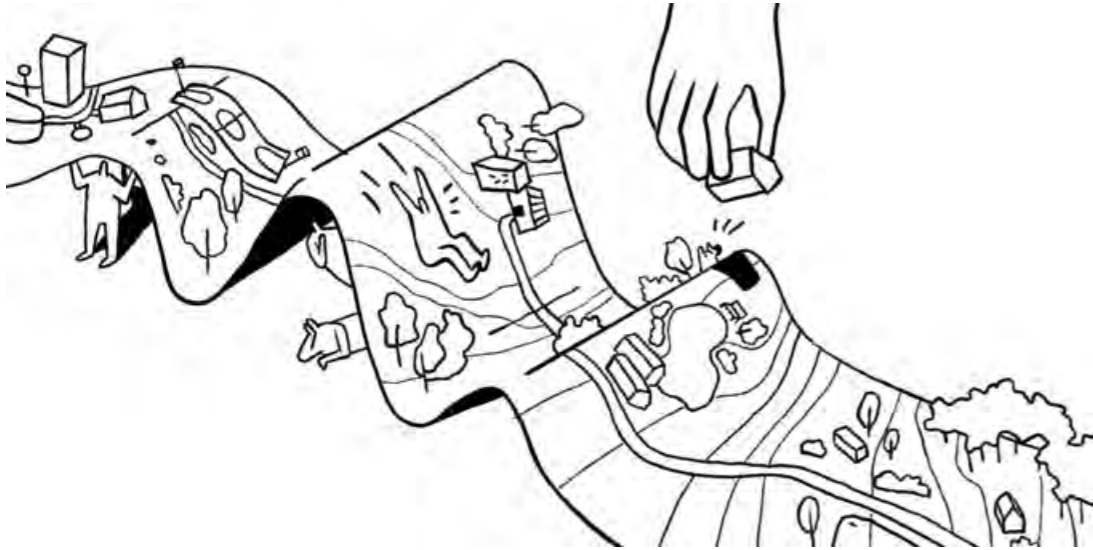


## 05 Respond to the shape of the broader landscape

Connect into and work with the macro-scale topography and landscape.

Work with orientation, elevation, natural contours and natural drainage. The processes that have shaped the landform are given, and relevant even in urban contexts; work with them rather than against them.

The broader landscape may also be part of a cultural landscape embodying traditional Aboriginal cultural knowledge and aligned with underlying natural systems. For example, natural waterways and ecosystems are often the basis of cultural practices and current physical conditions, but their potential for regenerating and creating better places is often overlooked.



## 06 Be place specific

Respond to the specific character and identity of a location, informed by rigorous and thoughtful place analysis.

Place analysis means taking a deep dive into your project's context, looking at all the factors that influence its current state of being, for example its history and heritage, demographics, local economy, and public life and identity. Consider how the place has evolved under the influence of these factors, and how it will continue to change.



## 07 Make connections

Find the desire lines – movement seeks the most efficient routes, sometimes disregarding formal pathways. Recognise broken links and join them, making networks.

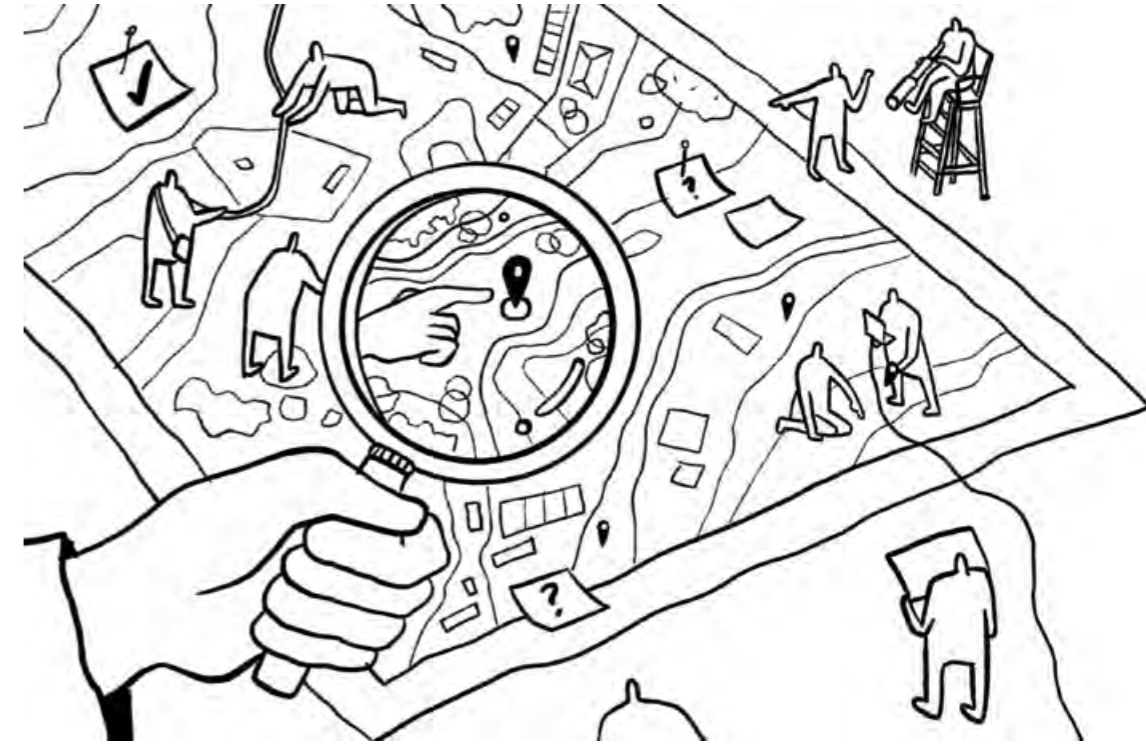
Good design builds efficient and intuitive connections between core spaces across a landscape, within a site, between indoors and outdoors, and with adjacent places. Create visual connections too – borrowing neighbouring sky and views for example. Physical and visual connections can support safety, orientation, wayfinding and belonging – for human and non-human kin.



## 08 Recognise and explore opportunities

Being open to opportunities can add great value for the long term.

Opportunities might emerge from place analysis or consultation with local community and end users. By seeing inherent potential for doing more or doing better, and allowing time to take advantage of these opportunities to add value, you can deliver more than the brief.



# Lend your ear



Draw wisdom  
and inspiration  
from all ages  
and cultures.

Evidence shows that when people participate in the planning and design of their cities there are better outcomes for everyone in relation to design quality and wellbeing. Also, the individuals that participate are happier and more connected to the places where they live.

At the individual level, participation does indeed make you happier, even once a variety of demographic factors have been controlled for. At a societal level, higher levels of participation go hand-in-hand with a higher aggregate score of subjective wellbeing and positive assessment of various aspects of public life.

— Wallace and Pichler, 'More participation, happier society?' *Social Indicators Research* (2009)

Participatory processes are opportunities to draw knowledge and insight from all ages and cultures including First Nations and the rich diversity of modern multicultural Australia.



## 09 Listen well

### Take time to listen.

Allow consultation and engagement to challenge your assumptions and throw change in your path. Engagement can build enduring relationships and bring a deep understanding of community and place.

Australia is a diverse, multicultural place with a rich Aboriginal history; our places and architectures should reflect this. Listen to multiple stories – there may be more than one version – and design with empathy, informed by others' experiences and insight.



For guidance see [Undertaking Engagement – Guidelines for State Significant Projects](#) (DPE 2022).

## 10 Listen to the quiet voices

### Welcome all voices – everyone has a right to participate.

Make sure all stakeholders have been invited to participate, and that participation accommodates different languages and cultural backgrounds. Everyone has a right to describe what they need and give feedback on what is being proposed. Sometimes people need encouragement or reassurance about how knowledge will be shared and used.



## 11 Talk to Elders

Engage respectfully with Traditional Custodians, Knowledge Holders and Elders.

Begin by taking the time to listen and building a relationship of trust and mutual respect. Provide multiple opportunities for engagement, and allow Aboriginal communities to choose how and when this can happen. Be open and transparent about the exchange of information such as what form engagement might take, what topics might be discussed, and who can speak about particular topics. Listening is key.



For guidance see [Practice Note – Engaging with Aboriginal Communities](#) (DPIE 2021).

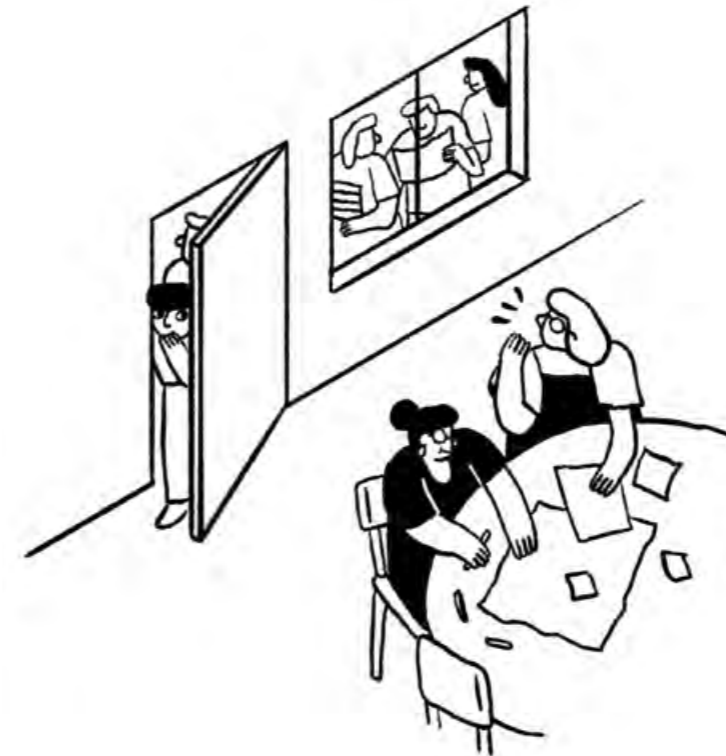
## 12 Avoid consultation fatigue

Many Aboriginal communities welcome the opportunity to share their knowledge, but have only so much time and capacity, so use it wisely.

So many questions! What's most important? Work with Aboriginal community to prioritise which projects are most significant, and what they can allocate time for.

you ask that already? Where appropriate, coordinate engagement across projects or agencies to avoid having to repeat the same consultation for different project teams.

Be sure you have clear, documented agreements about privacy and sharing of traditional Aboriginal cultural knowledge: what can refer to knowledge and how it will be used. It's imperative that Indigenous Cultural and Intellectual Property (ICIP) is acknowledged and respected in practice and through agreements, protocols and licences.



## 13 Walk Country

Spend time on site with community, learning from sharing time on Country.

Walking Country, guided by Traditional Custodians, is a way of learning about a place through the gentle movement of walking, activating all the senses. Walking Country is also an opportunity to talk to Elders, share traditional Aboriginal knowledge, and build relationships that can make projects valuable for the long term.

Walking Country is a good way to start the process of rethinking our approach to built environment projects, starting with learning about Country and making a commitment to a Country-centred way of working.



For guidance see [Connecting with Country Framework](#) (GANSW 2023).

## 14 Avoid superficial use of cultural symbols or motifs

Connection to Country is more than a mural.

Good design supports Aboriginal peoples' connection to Country in multiple ways, respecting and making visible the relationship between a place and its broader cultural landscape, and supporting ongoing cultural practice and access to Country.

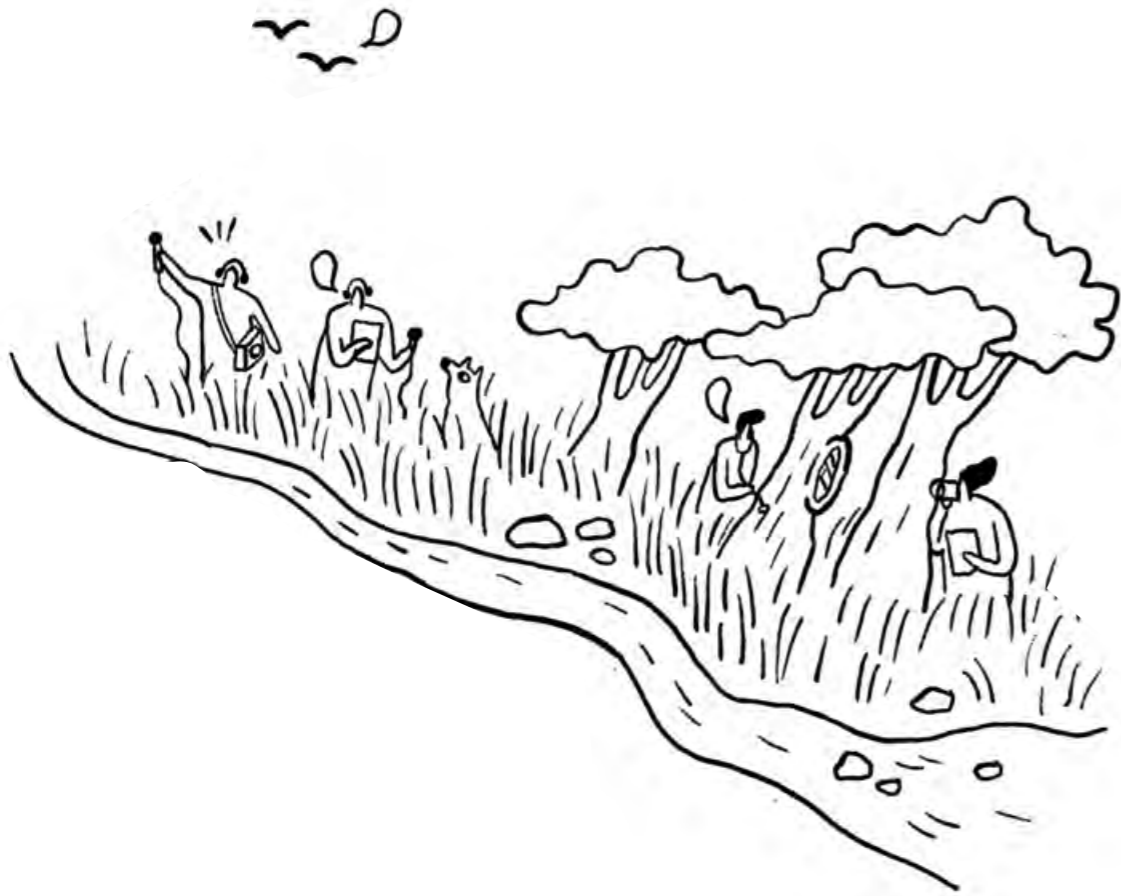
In collaboration with Aboriginal designers and artists, a design response can draw from traditional knowledge to support connection with Country in a meaningful way, such as through using First Languages in placenaming, restoring natural systems, or re-establishing sightlines.



## 15 Allow Country to speak

Let Country inform your design response.

Shed your preconceptions and open your senses. Allow Country to talk to you, with the guidance of Aboriginal community who know Country best. Take time to listen and re-evaluate what you see and hear, and to better understand the reciprocal nature of our relationship with Country.

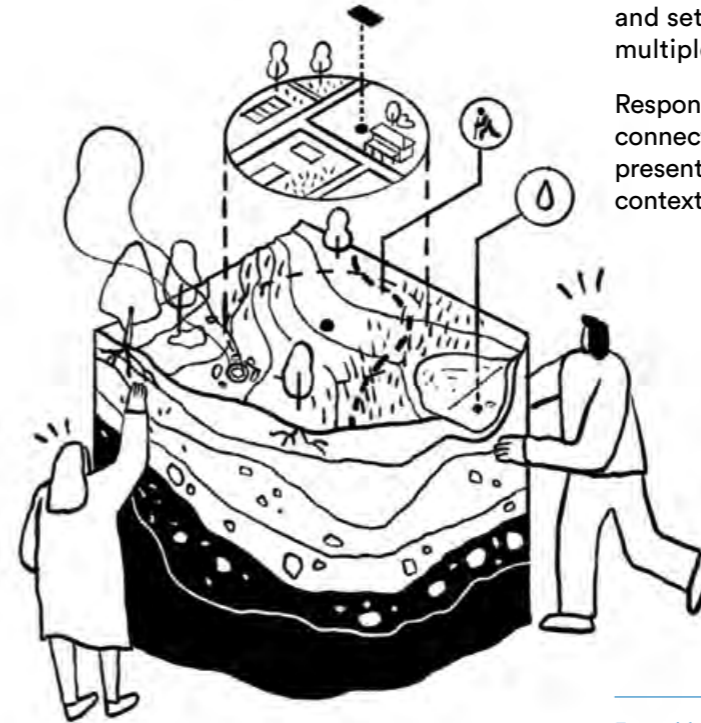


## 16 Understand the layers of heritage

Investigate multiple layers of past uses and site conditions, from ancient origins to more recent history.


Heritage is imprinted in landscapes, cultural practices and social contexts as well as buildings and objects. Ancient Aboriginal hunting grounds and gathering spaces, healing places, travel corridors and ceremonial sites all have a place for a reason. Aboriginal places were often overlaid by colonial development reflecting a similar use, such as ancient travel routes becoming colonial roads. Further migration and settlement have each contributed to multiple layers of heritage.

Respond to heritage by understanding the connection between a place and its past and present uses including the social and physical context of recent history and events.



For guidance see [Design Guide for Heritage](#) (GANSW 2019).

# Connect the dots



Transport systems, biodiversity and climate change are interconnected problems and opportunities.

Human settlements are rich tapestries of places made possible by complex and layered transport and ecological systems. Connecting places and protecting ecologies through well-designed infrastructures are the foundation of a productive and healthy city – tasks made even more critical by the challenges of climate change.

In 2022 our transport sector made up 19% of Australia's carbon emissions. Without intervention, the transport sector is projected to be Australia's largest source of emissions by 2030.

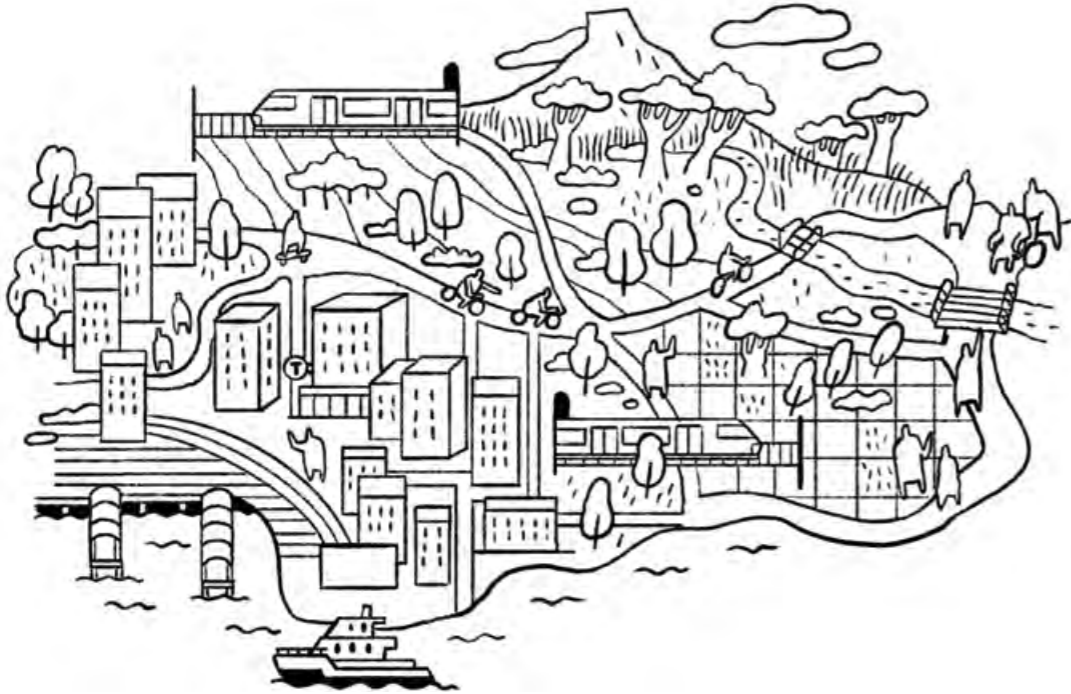
— Department of Climate Change, Energy and Environment, *Reducing transport emissions (2023)*

Through better land-use planning and better design, higher-density urban development coupled with greater use of public and active transport, we can lower emissions and provide more people with greater amenity. If this is combined with green corridors and open space, wellbeing and biodiversity will also improve.

## 17 Balance movement and place

Good design balances efficient movement of people and goods with the quality and amenity of places, understanding how they need to align and interact.

Serving the interests of all is a balancing act. Make sure all users have a voice and are considered – pedestrians, people of all ages and abilities, families, residents, workers, neighbours and visitors.



See [Movement and Place](#) (TfNSW) for more details.

## 18 Consider active transport first

Prioritise healthy and efficient movement – provide for pedestrians and cyclists before cars and trucks.

Who doesn't admire the liveliness and walkability of overseas cities that don't let cars dominate their urban areas? Well-designed cycling and pedestrian infrastructure enhances the experience of cities and places by making them more efficient, accessible, affordable, healthy, vibrant and attractive – so design this in from the start.



For guidance see [NSW Guide to Walkable Public Space](#) (DPE 2022).



## 19 Location location! Let's walk to the station

Let's be smarter about urban density and what constitutes a good quality of life.

How should our cities and suburbs grow? New housing should be well located, near transport hubs and everyday services. It should also make good use of existing infrastructure. Density done well has a lot to offer.



## 20 Urban infrastructure is city shaping

Investment in urban infrastructure can be an influential, city-shaping and culture-setting opportunity for intervention and renewal.

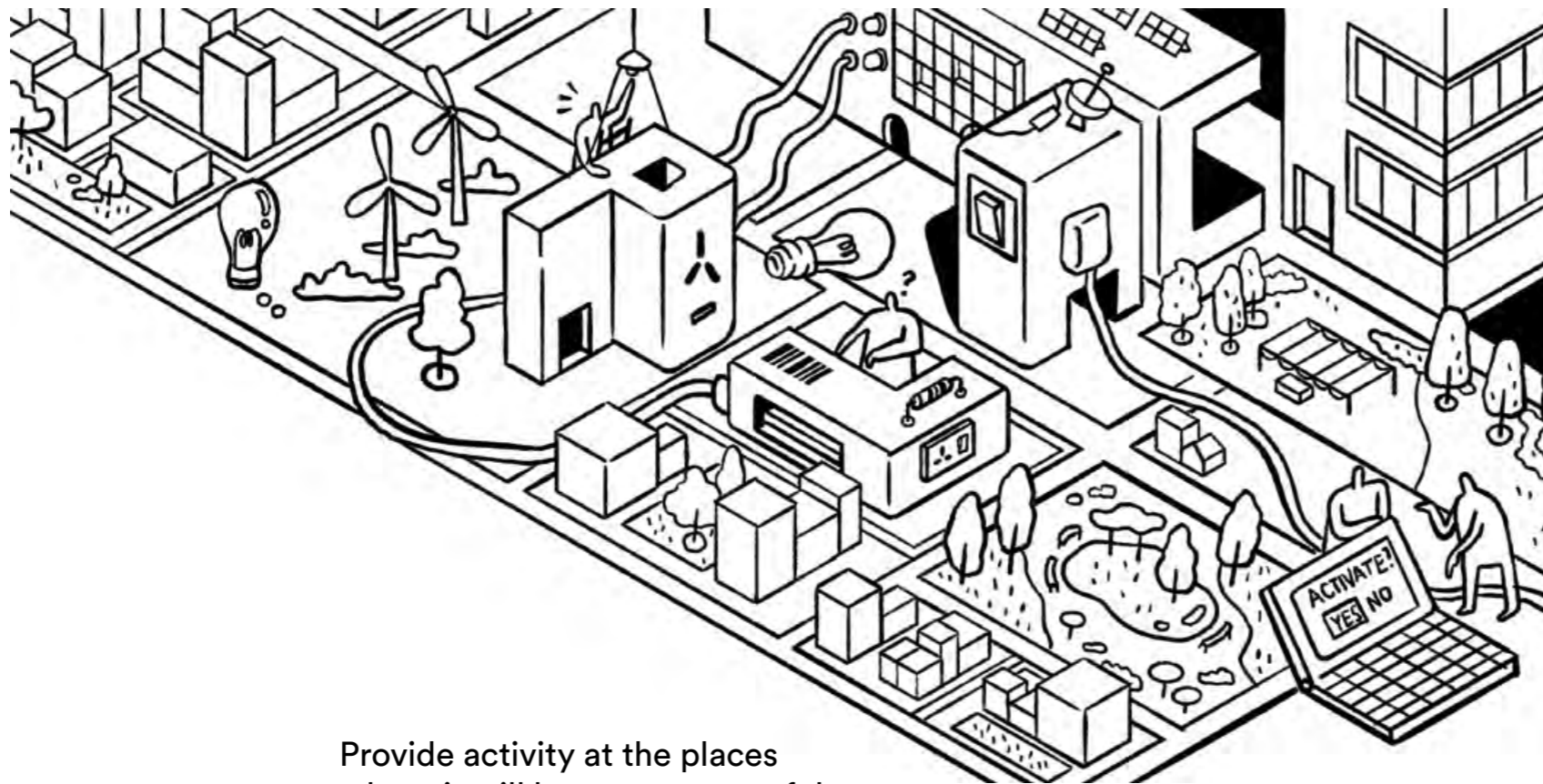
Grey, blue and green infrastructure all contribute to the quality and amenity of the public domain. Consider their potential for influencing the shape, character and liveability of new places, or improving connectivity and amenity within existing precincts.

## 21 Activate ... but not everywhere and not all the time

Provide activity at the places where it will be most successful and beneficial.

Vary the type and level of activity to suit the context, with the right mix of offerings and appropriate variations in intensity – quiet in some parts and busy in others. Public places need to offer respite as well as vibrancy.

For guidance see the activation guides: [NSW Guide to Activation](#) (DPE 2022) and [NSW Guide to Preparing an Activation Framework](#) (DPE 2022).



## 22 Check the mix

Good density caters for the variety of needs.

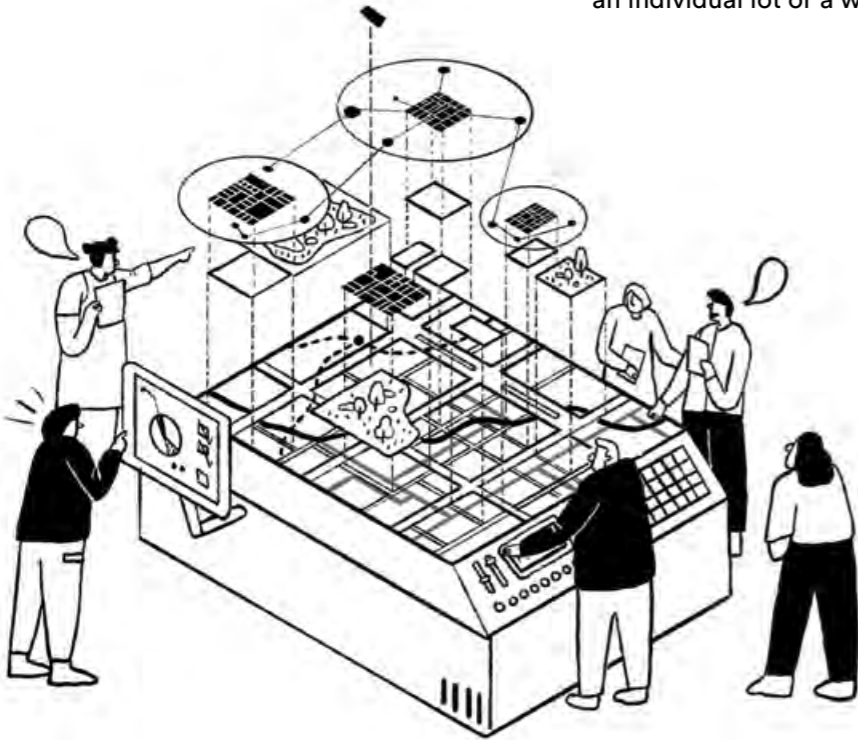
Dense environments need a mix of different building forms. Density has to suit the diversity of needs in the community and to create a vibrant and varied urban character.

Density is more than high-rise towers everywhere. Good density provides a mix of tall buildings, street walls that vary in scale according to context, smaller flat buildings, medium-density apartments, lower-density duplexes, granny flats, and single houses. All types of people on all incomes need to be accommodated: large and small families, single people, seniors and students.

## 23 Understand urban structure

Good urban structure planning successfully integrates multiple layers and elements.

Many interconnected layers and elements constitute a place: natural and cultural systems, tree canopy, public open space, the street network, active centres, public facilities, blocks and lots, and built form. Understanding how best to integrate these elements is essential for any scale of development, whether you are designing for an individual lot or a whole new suburb.



For guidance see [Good Urban Design](#) (GANSW 2019).

## 24 Connect green spaces

Turn green dots into green lines.

Parks, sports fields, cemeteries, outdoor facilities, nature reserves, gardens, infrastructure corridors, waterways, walkways and streets can all be linked by envisaging public space as a continuous green corridor.

Tree canopy, landscaping, open space and private development can be designed to connect through sites and across adjoining boundaries. This is critical to creating a connected and biodiverse green infrastructure network.



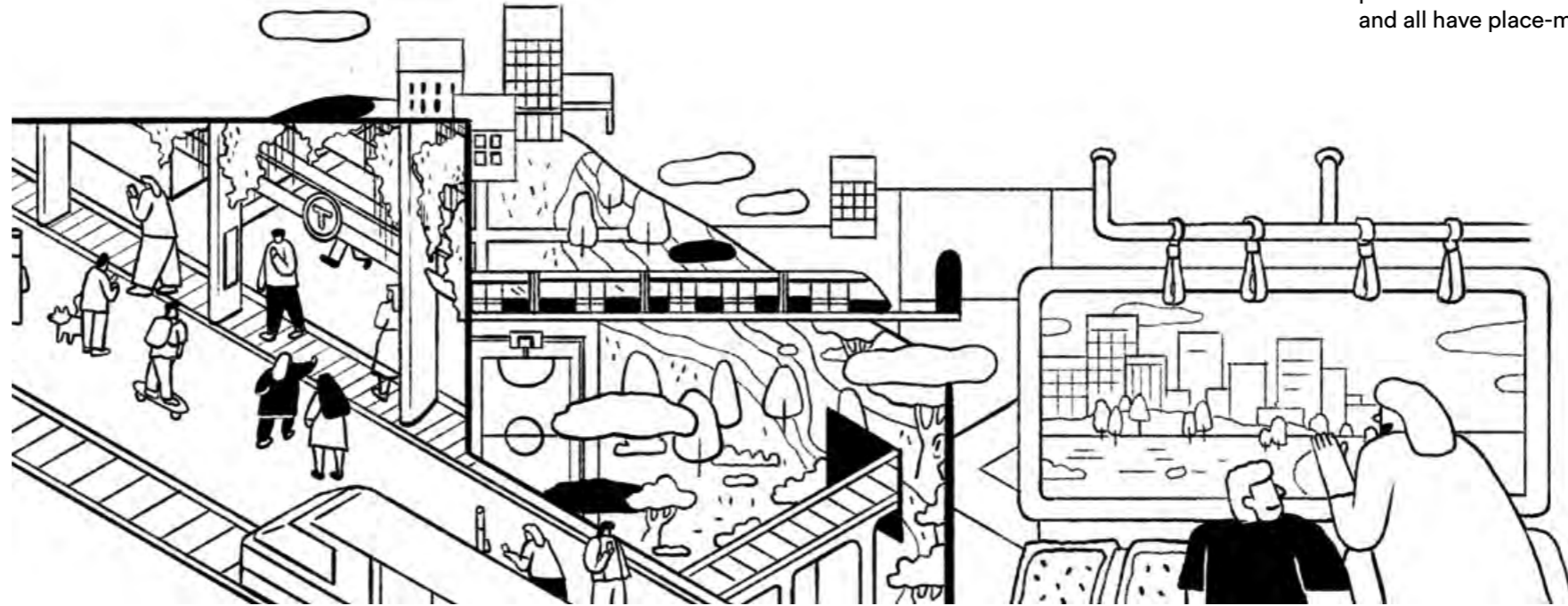
See [Greener Places](#) (GANSW 2020).



## 25 Make transport nodes great public spaces

Every transport node is a portal to a neighbourhood, town or city quarter, marking an entrance to a locality and a transition from one place to another.

Often open around the clock, station entrances and concourses are important public spaces, and they need to be designed as such: well located, easily found, welcoming, attractive, safe, durable, well serviced, and accessible by all.



See [Movement and Place \(TfNSW\)](#).

## 26 Transport corridors can shape places

Consider a corridor's impact at different scales, from multiple vantage points, and across its span and length.

Transport corridors enclose, encircle, define and connect the places they serve. Sometimes they bisect places too.

Look for opportunities to contribute to the suburbs and centres the corridor traverses. Short cuts, active transport pathways, overpasses and underpasses, intersections, interfaces, bridges, towers, easements, maintenance corridors and accessways are all part of an urban fabric, or a regional landscape, and all have place-making potential.



# Good process, better outcomes

A line-art illustration of a person's head and shoulders in profile, facing right. They are pointing their right hand towards a screen. The screen is divided into two sections: the left section shows a topographic map with contour lines and some rectangular shapes, while the right section shows a flowchart with several rectangular boxes connected by arrows.

Set up good processes supported by collaboration and research.

Good design outcomes are the result of good processes. Good designs produce better investments for owners, contribute to the collective public good, and create places that improve the health and wellbeing of users. However, good processes require expertise, skill, and care to implement.

Design processes are not linear; they are iterative, collaborative and at times circular, where feedback and ideas are continually intertwined.

— GANSW, *Better Placed: An integrated design policy for the built environment of NSW* (2017)

The positive outcomes of good design are most likely to occur when good processes are put in place to support them: consider design early in the process, develop briefs collaboratively and through participation with end users, test ideas before implementing them, learn from precedents and study results, and engage openly to arrive at the inevitable trade-offs complex projects involve.

## 27 Design is a process and an outcome

‘Design’ is both a creative process and the end result of that process.

Design thinking draws knowledge, insight and inspiration from many diverse sources. Considering the enormous complexity and interdependence of the built and natural environments, successfully reimagining and reconfiguring infrastructure, buildings and landscapes requires empathy, enthusiasm, energy, skill and experience. Design outcomes have to be precisely resolved, resource efficient and robust. Given these demands, good design process is essential.



For guidance see [Better Placed: An integrated design policy for the built environment of NSW \(GANSW 2017\)](#).

## 28 Design is integral to the business case

Design thinking enriches a business case by investigating needs and uncovering opportunities.

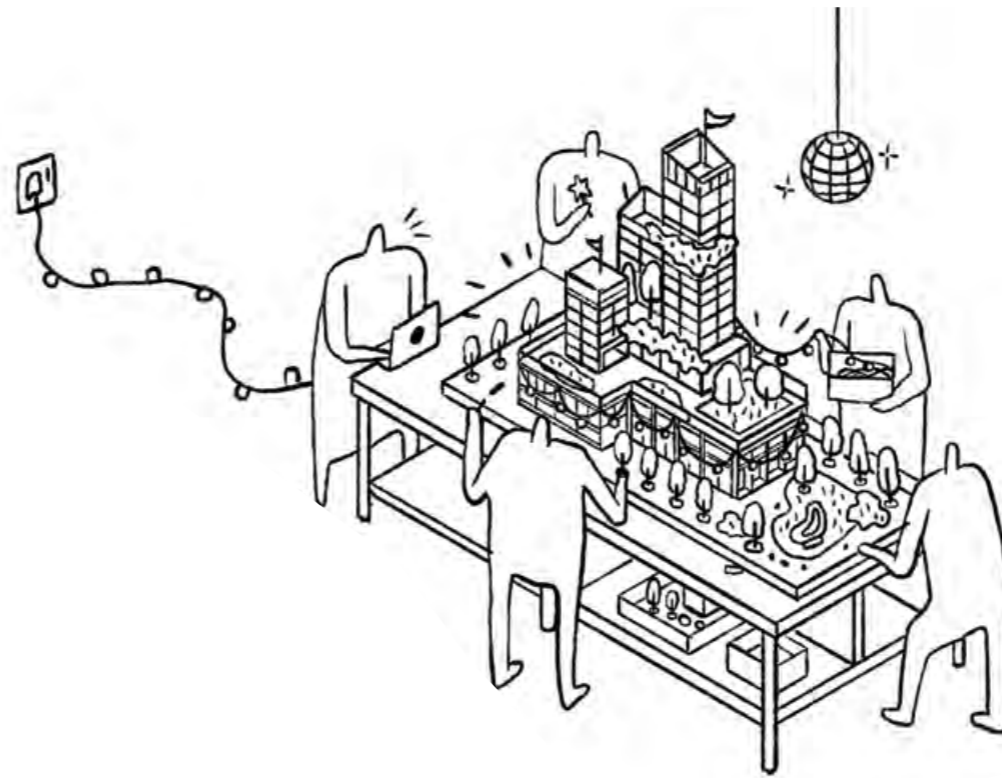
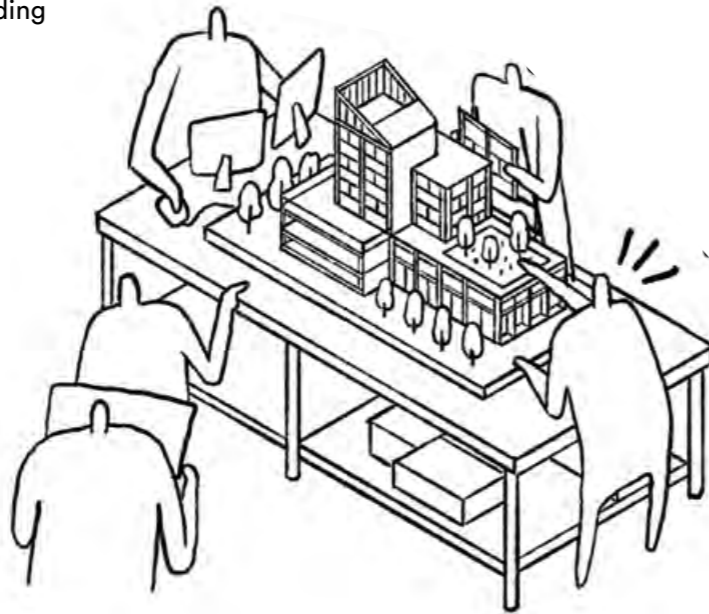
The fundamental questions – ‘what’, ‘for whom’, ‘why’ and ‘how’ – are critical elements of any project and the genesis of the design process. Bringing both a creative and investigative approach, design thinking and design skills, such as early spatial testing, have a lot to offer while a business case is being proposed and analysed.



## 29 Follow the brief (but follow a good brief)

A good brief is realistic, aspirational ... and flexible enough to support testing through design.

A good design follows the brief. But as part of the cycle of exploring and refining a response to the brief, the design process often informs and reshapes the brief itself, questioning its assumptions. The brief may improve over time through testing, leading to a better outcome.



## 30 Go beyond the brief

Treat the brief as more than a finite to-do list. Valuable opportunities might emerge after project conception.

Contextual factors such as local community aspirations, connections to adjacent places, or links to transport might unearth new opportunities. Don't be constrained – consider design options that explore the potential for adding value to what was initially envisaged.

## 31 Embrace diversity

Diverse project teams bring a breadth of experience and are receptive to different points of view.

Value the strength that can be gained through a variety of ages, genders, cultural backgrounds, languages, identities, abilities and lived experience. Check your assumptions, re-pack your luggage and seek fresh perspectives.



## 32 All together now – a coordinated approach

Let's work across networks and disciplines.

Let's all – across all levels of government and industry – collaborate on strategic planning rather than working independently.

A dynamic, collaborative master planning process can unite local knowledge with agency and industry specialism. Working with multiple disciplines at multiple scales can support greater social equity, resource efficiency, ecosystem health, climate resilience and economic development. Councils, state government agencies and the private sector can all collaborate on the big picture, place by place.



## 33 Learn from what's come before

Good research sets up good design. Look for precedents, benchmarks and case studies.

There may be valuable lessons from similar sites, communities, engagement processes, urban contexts, building typologies or landscapes – demonstrating what works well, or doesn't work. This evidence could help to demonstrate to others (clients, assessors, neighbours, end-users) why a particular process or design option is a good way to go.

Others' research and experience – from traditional Aboriginal knowledge, shared heritage, local stories, past uses and ongoing cultural practice – can contribute to a richly layered understanding of place.



## 34 Learn from what comes afterwards

Post-occupancy evaluation is essential.

Don't skip this invaluable step. Post-occupancy research and evaluation can harvest a wealth of evidence to inform future projects and demonstrate experience and expertise. Plan for this from the outset by including assessment criteria in the project brief.

## 35 Push-me- pull-you

Acknowledge and explore competing interests.

Investigate conflicts and look for solutions through consultation, testing, negotiation and multiple iterations. Strive for a balance that recognises trade-offs and new opportunities while serving multiple different needs.

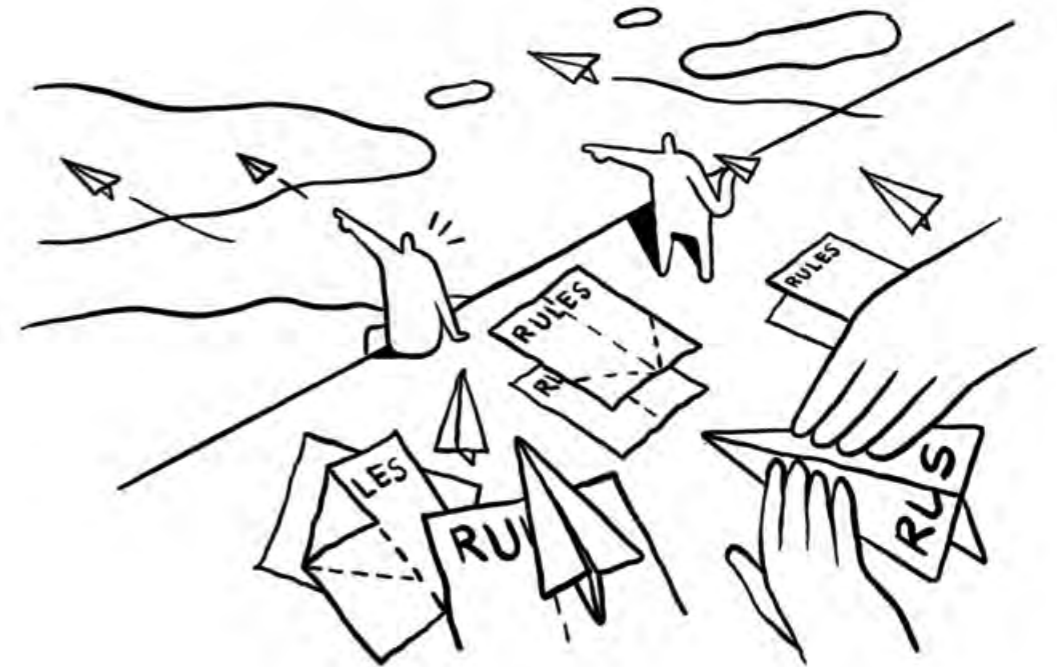


## 36 Make rules, then break them

Design rules are guides – sometimes they need to be broken.

On each project, internal design rules are developed to guide the architecture – the spacing of the grid, the size of openings, the way materials meet. These rules are implemented purposefully and intentionally, but they also need to be tested.

For example: proportion, hierarchy, repetition, rhythm, pattern, movement, variety and contrast might all be subject to design rules. Where necessary, these rules can be broken, using creative and problem-solving design skills to achieve the best site-specific and project-specific results.



# Look ahead



Be adaptable  
and ready  
for change.

Our age is characterised by new technologies, transforming economies and a rapidly changing climate. Recent events have shown us that it's impossible to predict what might happen tomorrow or next year. The future is uncertain.

A vision of sustainable and equitable urban futures will not be guaranteed unless cities take bold and decisive actions to address both chronic and emerging urban challenges.

— UN-Habitat, *World Cities Report, Envisaging the future of cities* (2022)

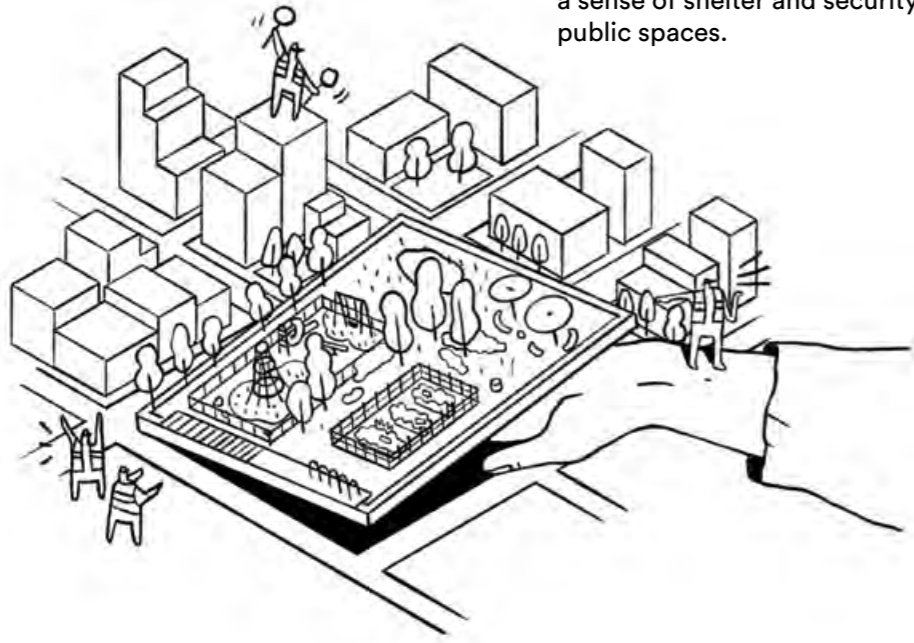
Bold action is difficult in the face of such uncertainty, but smart design strategies can help create flexible options for adaptive futures.

If approached in the right way, these big challenges can help us improve our cities and towns. Key strategies include planning for growth, being adaptable, looking after the soil, and always looking to maximise public value over the long-term.

## 37 Create enduring public value

The public is your client too. Make good use of opportunities to contribute to the public domain, such as creating shelter, greening, activity or delight.

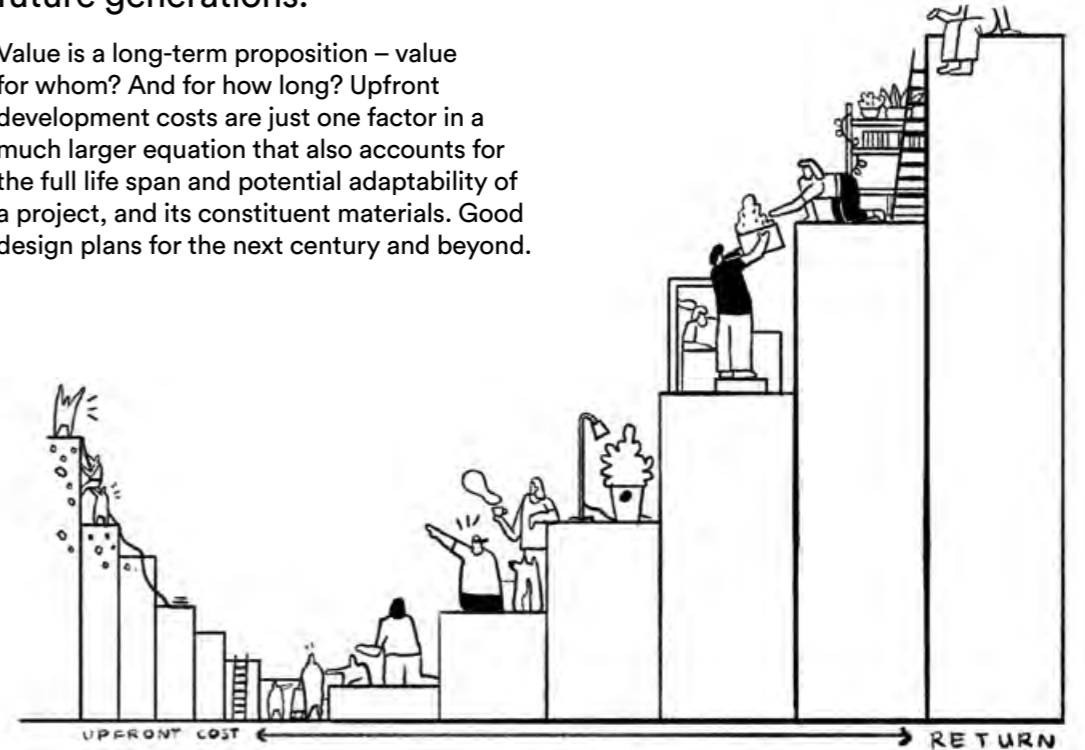
Good design makes better places on all fronts and at all levels. Well-designed street frontages, walls and access points all influence their surrounding spaces and can improve the design quality of the public domain. Human-scale edges, clear entrances, activity at street level, navigable footpaths and crossing points that prioritise pedestrians over cars can all contribute to safe and welcoming street environments. Well-designed podiums can provide desirable through-site connections, while well-designed facades add character and a sense of shelter and security to adjoining public spaces.



## 38 Look for long-term value beyond the price tag

True value equates to more than financial gain – good design also delivers social, environmental and cultural value for its clients, the broader community, and future generations.

Value is a long-term proposition – value for whom? And for how long? Upfront development costs are just one factor in a much larger equation that also accounts for the full life span and potential adaptability of a project, and its constituent materials. Good design plans for the next century and beyond.

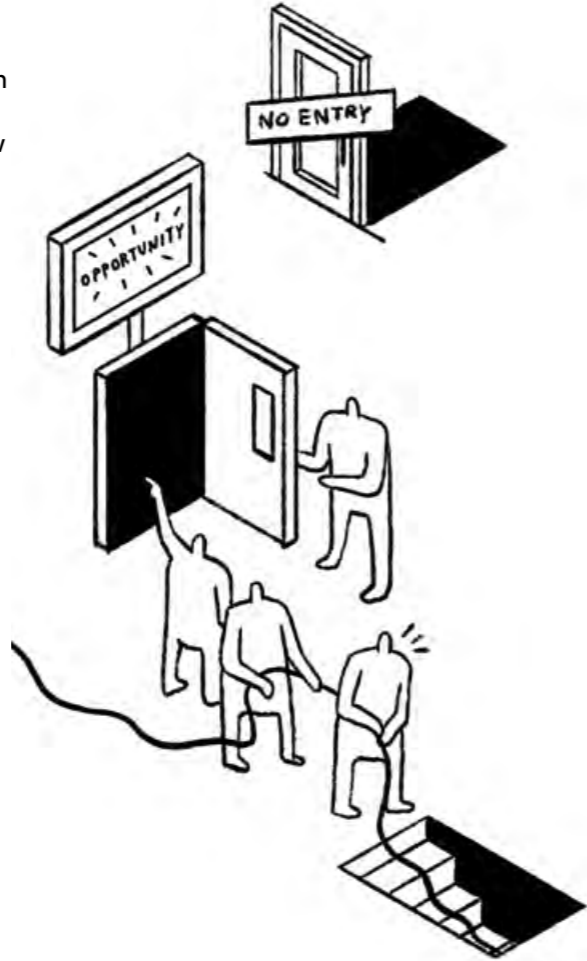




## 39 Be nimble

### Embrace positive change.

Projects can literally and figuratively unearth hidden objects, stories and connections. A surprise discovery might take you in a new direction. Seize the opportunity and allow it to influence how you work, with whom you engage, and what you produce.



## 40 Be flexible

### Ensure flexibility in the design process as well as the design outcome.

The design process needs to be flexible enough to adapt to opportunities and challenges that emerge.

Spaces should be designed to be similarly flexible and multifunctional to allow adaptation to suit new uses, needs and activities over time. Flexible spaces can also allow for greater user control to adapt to specific needs, such as operable building elements to suit different uses, or adapt to climate conditions.



## 41 Lay the groundwork

Prepare the ground and grow trees well in advance of when they will be needed.

Plan ahead by preserving contiguous, hydrated deep soil networks, embedding water infrastructure (built or natural), allowing space for trees to mature, and supporting canopy growth not just at the edges but within sites and across boundaries. For precincts and larger staged developments, start with landscaping works first.

## 42 Give back

Good design shares the benefits.

Good design reciprocates the benefits, respect and goodwill gained through engaging with communities who have shared their knowledge and experience to make a project better. For example, projects can support access to Country, provide public or community space, enhance the public domain, or support local businesses. Projects can also reciprocate benefits drawn from nature, for example through regenerative design that improves water quality or produces cleaner air.



## 43 Build the school first!

If you want to attract people to an area, build the community facilities first.

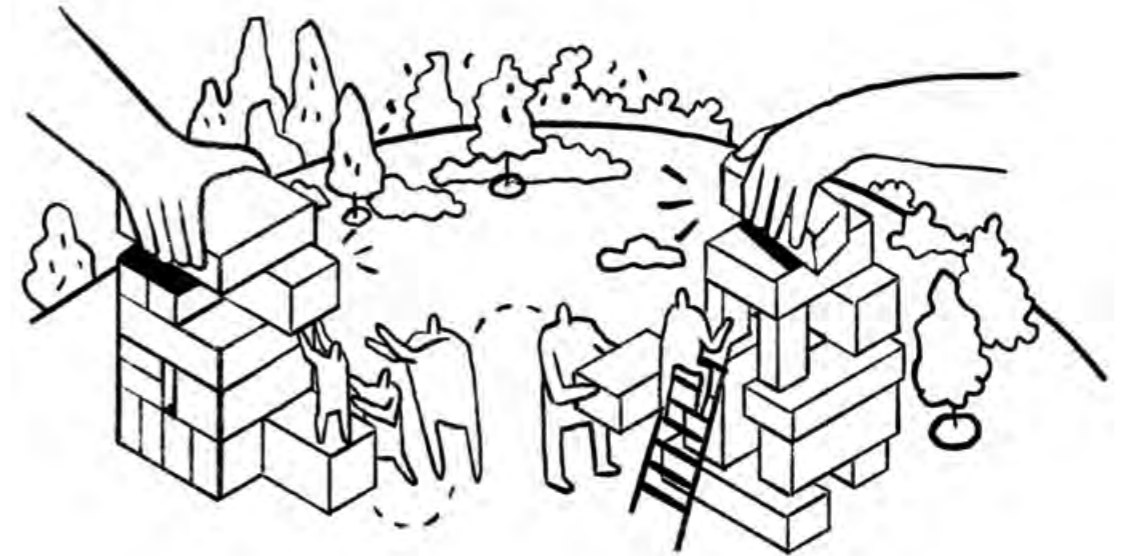
Build parks, sports fields, schools, community centres, walking paths and cycleways, and prioritise walkable connections to public transport. If you leave community facilities to the end, you may be missing the opportunity to create a thriving community.



## 44 Expect the unexpected

Anticipate future uses and scenarios.

Future needs might evolve from population growth, new technology, new working or living habits or changing weather patterns ... and the unexpected. Design for adaptability and re-use, as well as durability and longevity.



It's going to be...



hot, cold,  
wet and dry



Design for  
climate resilience,  
and expect the  
extremes.

Climate change is going to have a profound impact on the Australian cities where 90% of us live. Urban heat will affect health systems, wellbeing and productivity. There will be increased droughts and increased flooding, with all major coastal cities needing to deal with rising sea levels.

The interconnectivity of urban settings introduces the risk of cascading infrastructure failures; urban resilience to climate impacts is vital.

Increasing resilience to extreme weather and climate change should become a key component of urban planning, infrastructure design and building standards.

— Climate Council of Australia,  
*Compound costs: How climate change is  
damaging Australia's Economy* (2019)

To mitigate these impacts and improve our cities there are a range of options. We need to learn from Country, explore nature-based solutions, integrate planning and design with natural systems, plant more trees ... and join forces.



## 45 Learn from the ‘wetting and warming’ of Country

Learn from Country to understand the extremes of hot, cold, wet and dry.

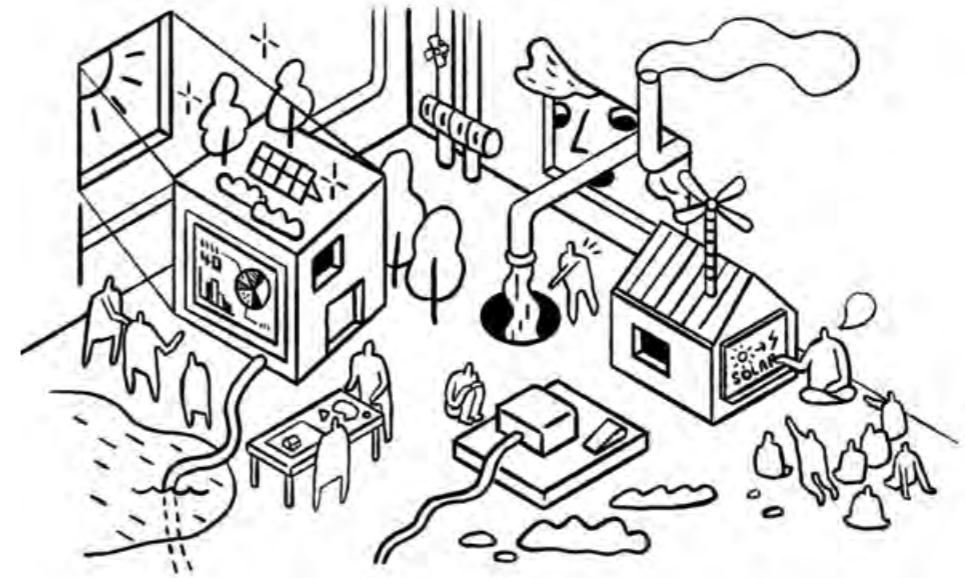
With the guidance of those who know Country well, walk Country, listen to Country, and work with its environmental conditions rather than trying to control or manage them. Earth, Water, and Sky Country are dynamic living systems under stress; design needs to respond to climate and culture.



## 46 Use landscape and building as learning tools

Consider how landscape and building design can encourage awareness and respect for ecological systems.

Infrastructure that supports ecosystem health can be expressed as part of a building or landscape, or part of the public domain. For example, design can draw attention to systems that capture, filter and store water; elements that create habitat and support biodiversity; places for growing food; or systems that generate energy or track energy usage.



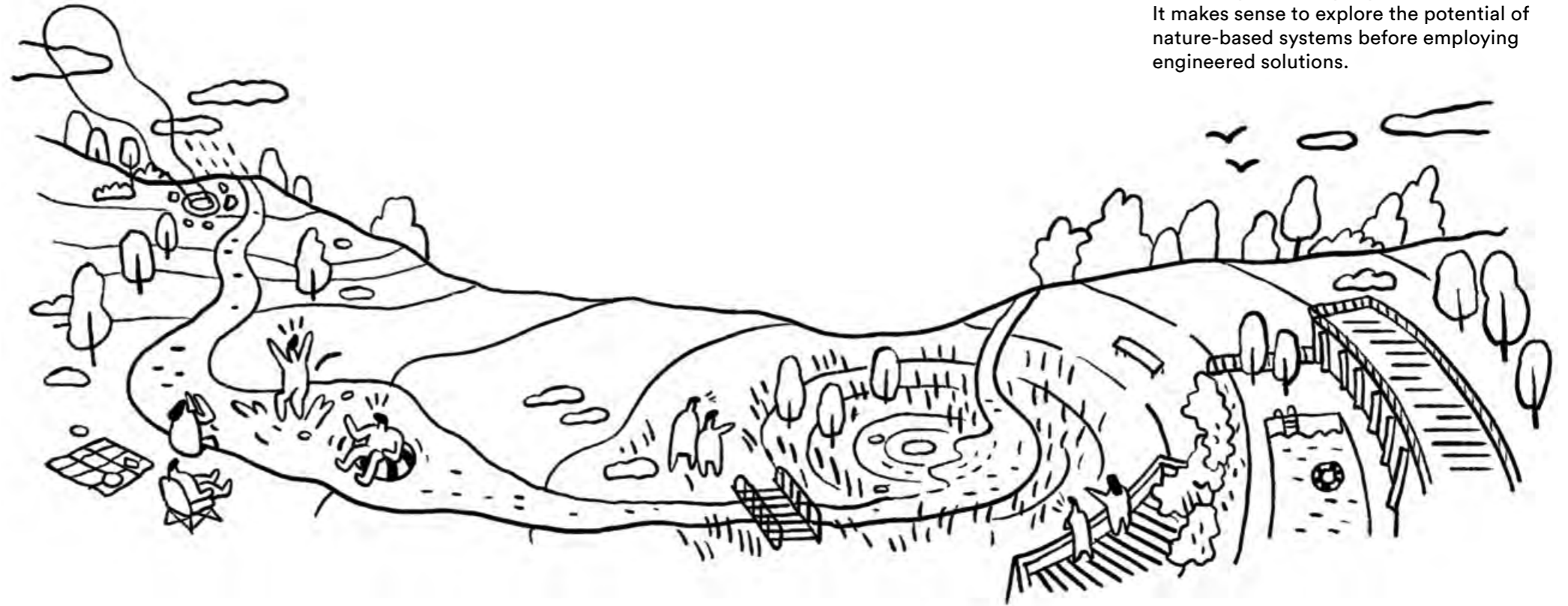
For guidance see [Environmental Design in Schools](#) (GANSW 2018).

## 47 Celebrate water

Celebrate the importance of water through integration with natural systems.

Integrate site planning with water systems, topography, geology, soils and vegetation across the broader landscape. Water can embody connection with Country. It can be playful, peaceful, symbolic, sculptural or recreational as well as functional.

Water management can be a design element, for example a planning framework or a landscaping feature. It may be possible to trace or reinstate pre-colonial water flows. Water-sensitive urban design principles can support healthy waterways, soil rehydration, tree canopy and urban cooling, and minimise flood risk.



## 48 Explore nature-based solutions

Biophilic design is inspired by natural elements, systems and processes and seeks to enrich the experience and understanding of these things.

Buildings and landscapes can protect and restore natural systems and use their inherent strengths and qualities. From simple measures, like using natural daylight and cross-ventilation as design elements, to more complex measures that improve water quality or regenerate habitat, this approach can lead to better places for people and for nature. It makes sense to explore the potential of nature-based systems before employing engineered solutions.



## 49 Good design is resilient

Neighbourhoods and cities need to be resilient: able to thrive in ideal conditions but also survive and recover from stress and extremes.

Buildings, landscapes, suburbs and urban centres need to be robust, adaptable and future-focused from the outset and from the ground up. Resilient and future-focused buildings, landscapes, suburbs and urban centres can be simultaneously sustainable and adaptable. Through retrofitting and using new materials sparingly and cleverly, and by augmenting essential infrastructure, development can minimise its footprint and maximise its ability to cope with extremes.



For guidance see [Net Zero Plan Stage 1: 2020–2030](#) (DPIE 2020)

## 50 Good design is regenerative

Human settlement has moved beyond the need for climate-neutral projects that ‘do no harm’.

The greater challenge is to shift to being regenerative by positively influencing the environment. Sensitive development can expand nature rather than reduce it, and in the process of doing this create more resilient communities.

For example, energy-positive development can produce more energy than it consumes, and water-sensitive urban design can regenerate ecosystems by filtering water to rehydrate soils and improve downstream conditions. Locally native plants and trees can improve biodiversity.

## 51 Trees are good

Keep existing trees and plant many more new ones – consciously building density and species diversity in the urban tree canopy.

Trees speak to the history and culture of a place, and are intrinsic to its character. As moving forms, shade and shadow, trees lend depth and dynamism, create amenity, reduce maintenance, and provide a sense of wellbeing and identity.

Trees are also ecosystem heroes, producing oxygen, cleaning the air we breathe, keeping us cool in summer, stabilising soil, filtering and buffering strong winds, reducing stormwater run-off and providing habitat for many species.



## 52 Keep it permeable

Be wise about material properties – go soft and be cool!

What kind of surfaces are you creating? How much heat will be absorbed or stored, and what will be radiated? Neighbourhoods and centres need to be much cooler in summer – beware the scorching urban heat island.

Use planting and permeable surfaces in place of heat-absorbing paving or concrete, and design landscaping to absorb excess water in a downpour and hydrate soil systems.





## 53 Think beyond certification

Good design needs to achieve more than environmental certification.

Make climate and biodiversity considerations integral to your design process. Compliance may tick some boxes, but certification requirements are not keeping up with the urgent need for stronger action on climate and biodiversity. Think of certification as a baseline rather than an end goal.



## 54 Join forces

Integrate design practice across projects and landscapes.

Projects benefit from collaboration across disciplines and clients. Single, sustainable buildings are just a first step; projects need to integrate with and positively influence other projects and their broader systems and networks, for example by contributing renewable energy that benefits the whole grid.

Landscapes need to be integrated by design too. Use project sites to build connections and contribute to wider blue-green grid networks of waterways, mature tree canopy, hydrated deep soil, habitat corridors and walkable neighbourhoods.



# Waste not



Rethink, reduce,  
re-use and  
repurpose.

The building and development industries have become inefficient users of materials and energy. The sector needs to rapidly improve its practices by reducing its use of resources and re-using and repurposing existing materials and components.

Architecture, engineering and construction employ 1.2 million people in Australia and account for 9% of GDP. But our biggest services sector also produces roughly 40% of landfill waste and accounts for 18.1% of Australia's carbon footprint. The sector must change its practices fast for Australia to meet its commitments to cut emissions under the Paris Agreement.

— Hosseini and Kocaturk, 'Building activity produces 18% of emissions and a shocking 40% of our landfill waste', *The Conversation* (6 June 2023)

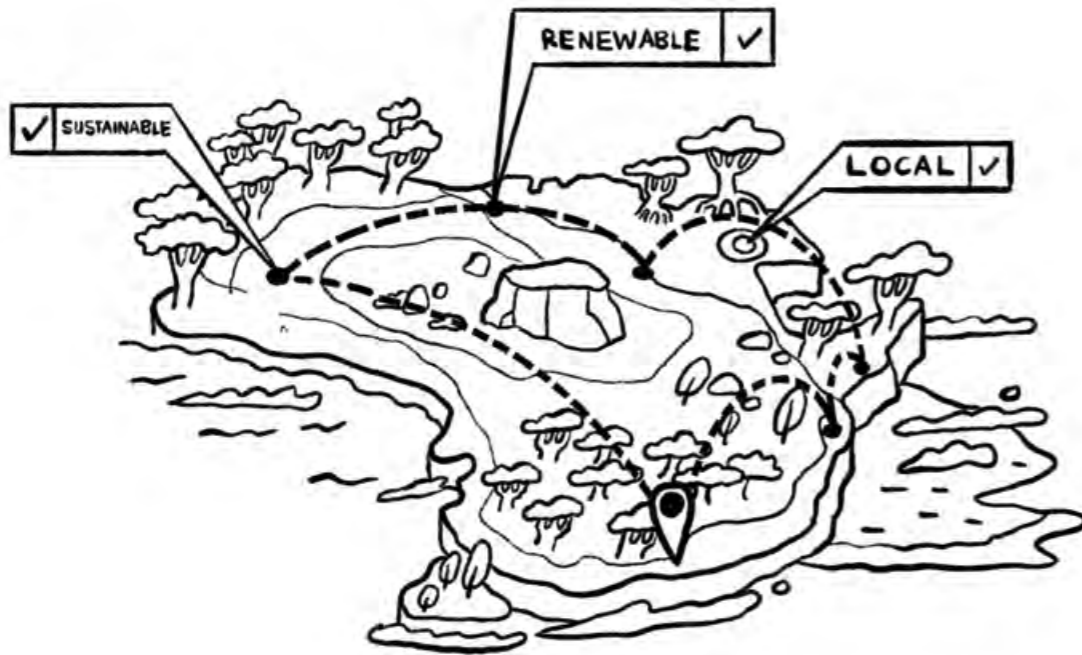
There are numerous opportunities for minimising waste by design – respecting how and from where materials are sourced, using materials efficiently by being frugal, re-using what exists, and designing for future re-use.

## 55 Respect local material

Where possible, use materials that are local and readily available.

You could start by making an inventory of materials, components and resources. What is available nearby that can be sustainably retrieved, harvested or quarried? Weigh up the combined impact of the materials, labour and transport. Local materials can also make buildings more place specific.

Re-using existing building and landscaping materials can also lead to savings in materials and transport, and can tell the story of a place. At the end of the project life cycle, materials used for construction can be disassembled and repatriated to Country by returning them to their place of origin.

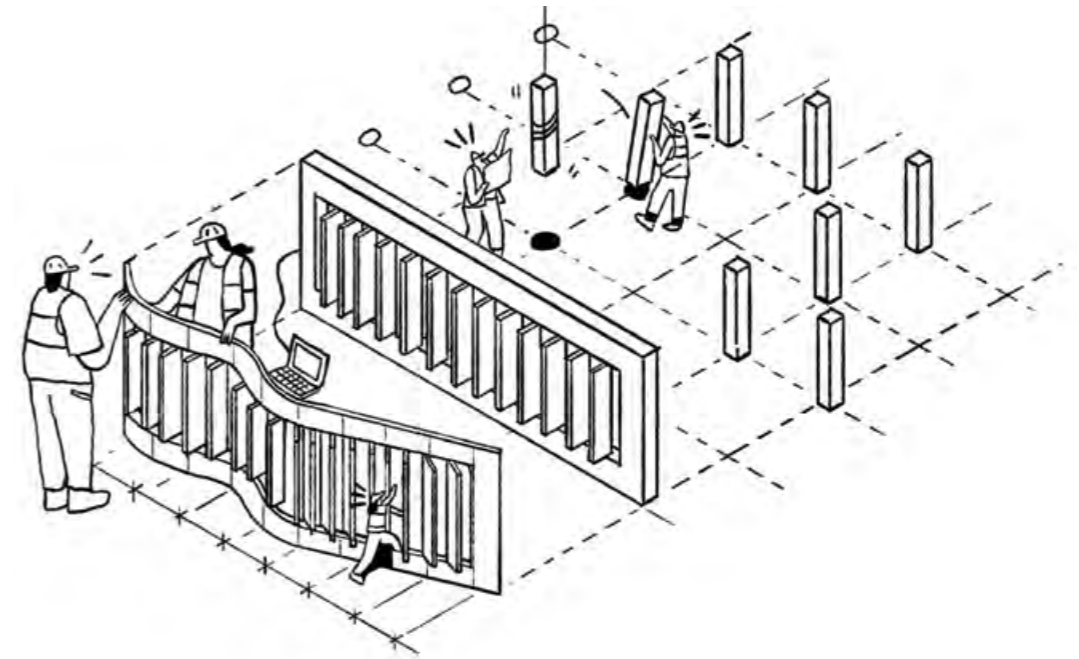


## 56 Be elegantly efficient

Do more with less – aim to generously accommodate users' needs while being frugal, waste conscious and sustainable.

Efficiency in design can earn longer-term benefits – making buildings easier (and therefore less costly) to operate, maintain, repair and adapt. Efficiency in design counts the carbon footprint too, in both embodied carbon and ongoing energy consumption.

Review, revisit and refine your design response, making it more efficient – and more elegant – with each iteration.



## 57 Embrace intelligent technology

Explore new approaches and technologies for minimising waste.

For example, parametric design can use AI-driven geometry to generate material-saving building forms, and DfMA (design for manufacture and assembly) can reduce waste by using components that are manufactured and assembled off site. By collaborating across disciplines such as software development and industrial design, architecture can embrace new technologies for efficiency.



## 58 Expose it

Consider exposing the inherent qualities of materials and components – and their role.

Exposing materials, rather than covering them up with cladding or finishes, can add a sense of place and character to buildings and landscapes while using fewer resources. Exposing underlying structure can be beneficial too – revealing how components fit together to span a space, create an opening or support a wall. Exposing services can be educational – drawing attention to the use of resources such as power or water.





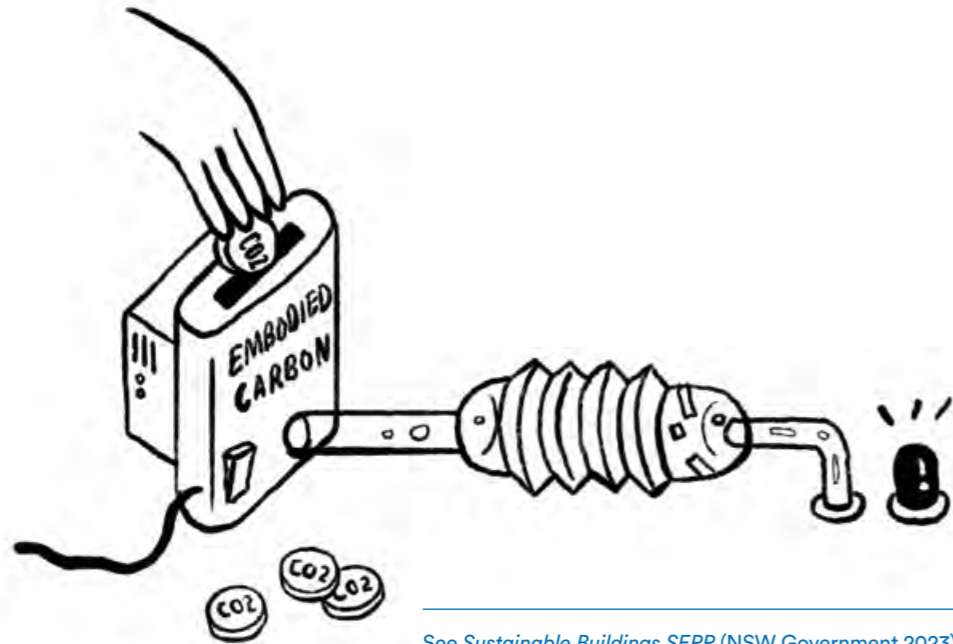


## 61 Count the carbon

Track your efforts, trade-offs and success in reducing carbon emissions.

Minimising carbon emissions is an urgent priority for development projects worldwide. Starting with the design brief, minimising carbon means building less, using less material, keeping building materials in circulation for longer, making the production of new materials more energy efficient, and shifting to specifying low-emission building materials.

Counting carbon can inform project decision-making such as choosing between locally sourced versus imported materials.

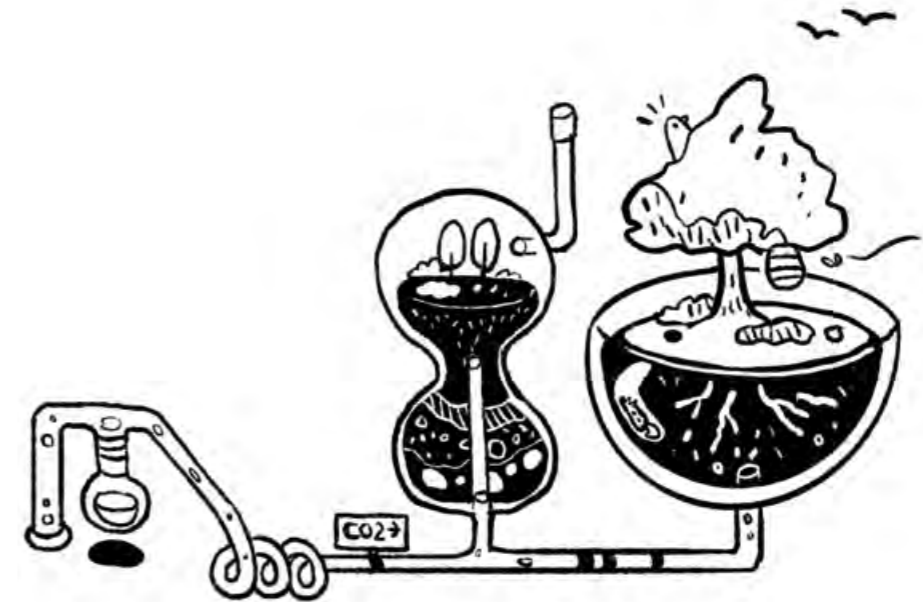


See [Sustainable Buildings SEPP](#) (NSW Government 2023).

## 62 Support the soil system

Soil is a valuable, inherited resource. Keep soil healthy, intact, hydrated and connected as it is vital to the resilience and capacity of the wider soil system.

Where soil is damaged, seek advice on restoring its health and original condition. Future generations will thank you! Accommodate existing soil into your building and landscape design and protect it from erosion. Soil absorbs stormwater run-off, grows food, provides habitat for birds and insects, and supports greenery that absorbs carbon dioxide and reduces urban heat.



## 63 That's enough

Embrace 'enoughness' – use resources sparingly and with respect for others' needs (human and non-human) and for future generations.

Question the need – what is sufficient? Can less be just as satisfactory? Question the method too – can the impact be reduced? Respecting the value and scarcity of resources, and the impact of extracting them, consider how to use fewer materials, less energy and less space to achieve what is necessary, and no more.



## 64 Small is beautiful

A larger floor area doesn't equate with better design quality.

Small-footprint rooms and buildings can be both economical in size, highly functional, delightful and generous in character.

Building only what's needed, and making it compact, also means a smaller environmental footprint, lower ongoing energy and maintenance bills and less cleaning – more time to enjoy the view.

This principle is relevant for all building typologies and contexts.

# Design for all



Provide for all  
ages, abilities  
and cultures.

Good design produces public value and amenity which should be accessible to everyone.

An inclusive and accessible city is a place where everyone, regardless of their economic means, gender, ethnicity, disability, age, sexual identity, migration status or religion, is enabled and empowered to fully participate in the social, economic, cultural and political opportunities that cities have to offer.

— United Cities and Local Government  
Congress Policy Papers, *Inclusive and accessible cities* (2019)

This means understanding the different barriers and impediments to access, creating user-led processes and identifying opportunities to improve the design of our built environment. Inclusive cities are not just accessible to everyone, they also express all our differences and celebrate our collective life in urban form.





## 67 Design for children

Make the public domain child and family friendly.

Children use the whole public domain, not just playgrounds. Consider the specific needs of children, such as how to support their activity, health, safety and independence.

Children need safe places to play and exercise with supervision. Consider their parents and carers too. Connected networks of accessible green spaces can encourage children and families to walk and cycle, while dedicated paths for active transport can protect children from traffic and pollution.

Places that work well for children and



## 68 Design for dignity

Every aspect of the built environment needs to be designed with ageing in mind.

Design for young and old. Older people need to flourish and be active and supported. Good design supports their independence as well as their connection to others and to the broader community. Different cultures and social backgrounds have different needs as they age. Allow for safe movement, comfort and ease of use, and for the full range of both mental and physical ability.

## 69 Design for the neighbourhood

Where there is an opportunity, contribute to the activity, amenity and liveability of the local neighbourhood.

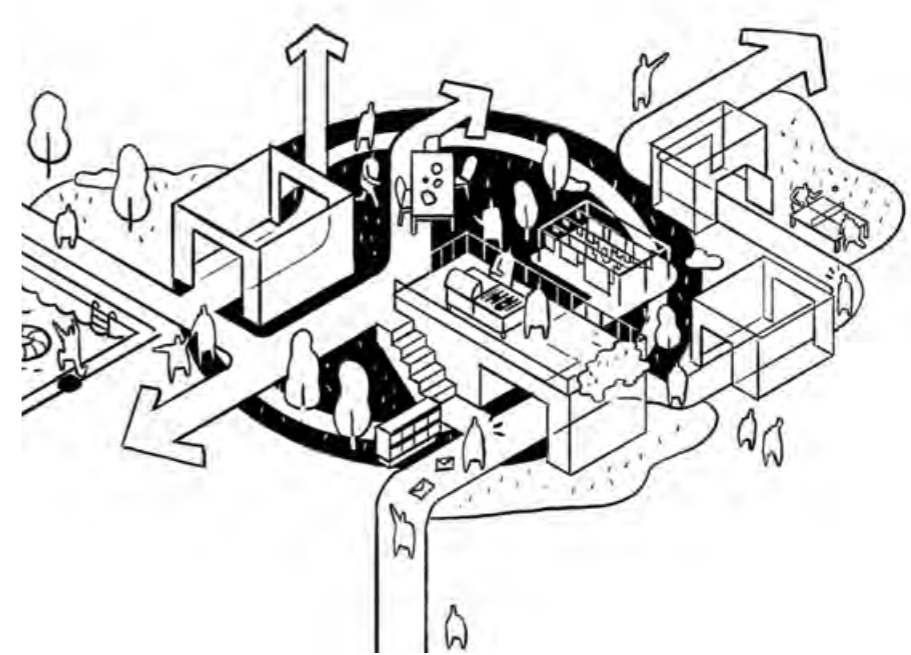
For example, your project might be able to provide public open space or an active transport route via through-site links or permeable edges. There might be an opportunity to offer ground-floor commercial spaces or shared facilities for hire. Talk to the community to understand local needs – good design can have a profound influence on people, cultivating a sense of generosity, friendliness and sociability.



## 70 House a community

Well-designed multi-residential buildings become communities.

Shared spaces and public/private interfaces in apartment developments can provide a sense of security, identity, personal connection and belonging for those who live there. Circulation spaces – entrances, lobbies, galleries and stairwells – are the social core. Are they open, well-lit with natural light and well-ventilated? Is there a place in the hallway to pause and have a chat? Residents' shared facilities are social spaces too. Mailrooms, shared laundries and outdoor drying areas need to be well located, functional and appealing.



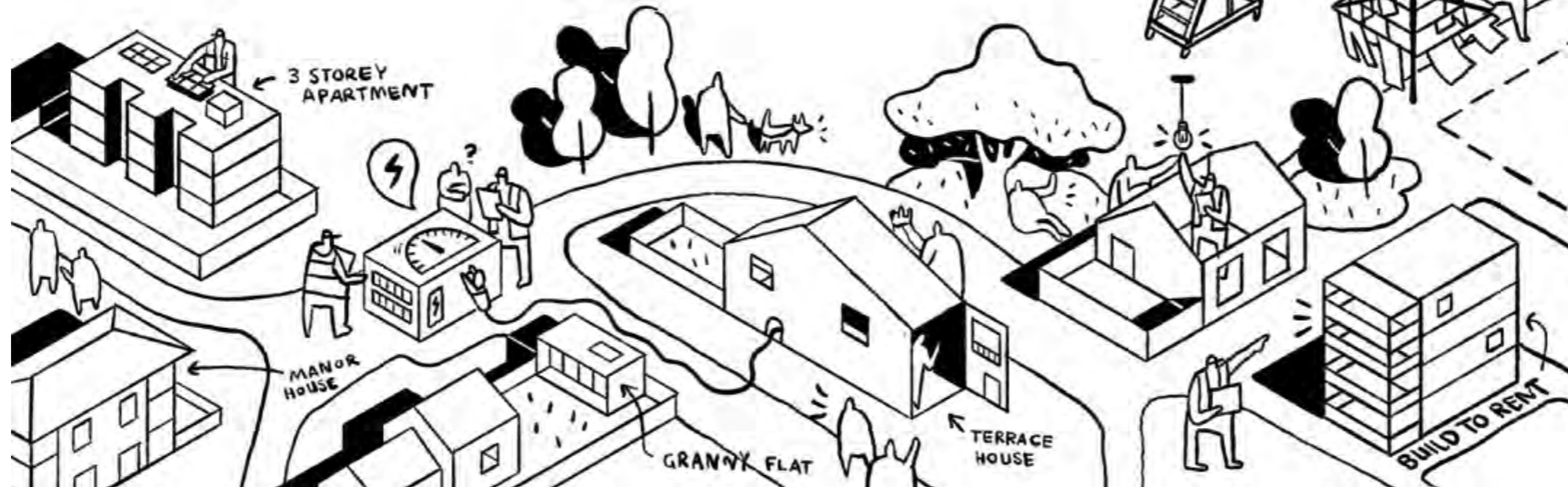


## 71 New modes, same principles

Successful housing always depends on making good places to live.

Emerging typologies offer variety and choices that have been missing from the housing mix. Exploring new possibilities and options is imperative, but the underlying design principles that will make new modes worthwhile, and viable, are well established.

Build-to-rent apartments, manor houses, co-housing and boarding houses, for example, offer new development opportunities – but there are no discounts on design quality! No matter the type of building, planning pathway or ownership, housing is a home for the people who will live there. It should be dignified, comfortable, delightful, affordable and sustainable.



## 72 Imagine living here

Consider who will live here — you are designing their home.

Your real clients are the end users: the people and families who will spend their lives in the housing you build. Construction quality is paramount if you are building something to last, like someone's home. And who's paying the bills? Think about options that will save on household energy use, such as thermally efficient glazing, good insulation, facade design that provides window shading, and access to a clothesline, not just a dryer.



## 73 Provide different types of housing

Housing has to work well for a variety of cultures and activities.

Multi-dwelling developments, precinct plans and new suburbs need to provide housing that will suit different types of families, cultures and ways of living. For example, a house or apartment might need to accommodate multiple families, multiple generations, live-in carers and boarders, people working or studying from home, and large and small gatherings of relatives and visitors. Housing types need to reflect the variety of cultures in our society.



## 74 Expand, adapt and contract

Well-designed housing can be adapted to suit its occupants.

Households have changing spatial needs. A home may need to accommodate a third generation or a carer, or make room for homework or music practice. Will there be a peak period when everyone's home? What happens when grown-up children leave? A third bedroom or part of a hallway might become a private sitting room, a home office, or a place for worship.

For guidance see [Apartment Design Guide](#) (DPE 2015).

## 75 Design for safety

Design streets, parks and other public spaces so they feel safe.

Feeling safe in public is important, especially for older people and women, and especially when we're on our own. Lighting and surveillance can help, but a more holistic approach considers from the outset how the siting, scale, outlook, facade design, access, street activity and adjoining spaces can make a place feel safe. Those who feel most vulnerable need to be safe and empowered, so include them in discussions about the design and management of their local public spaces.



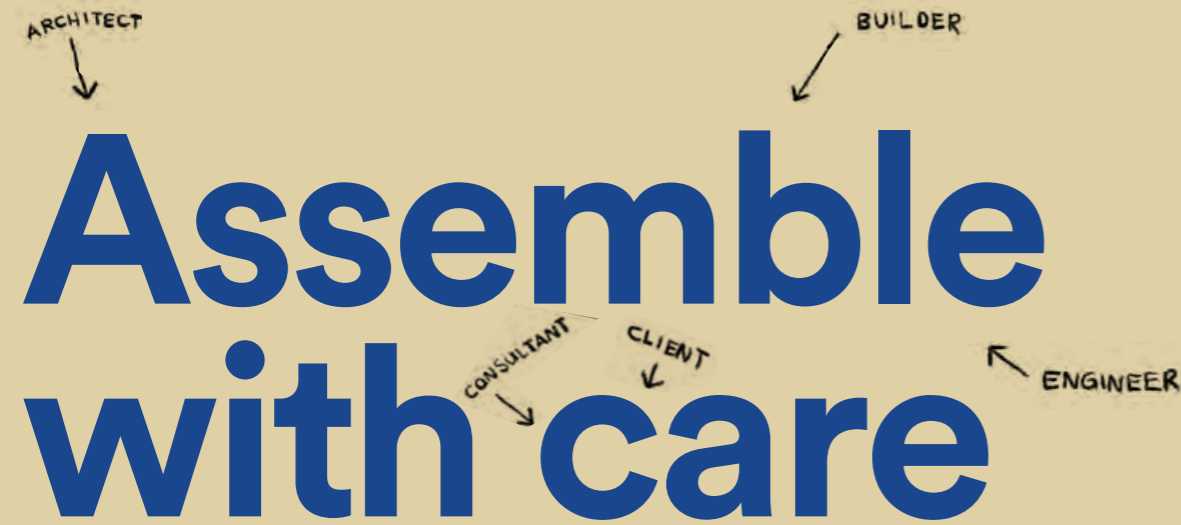
For guidance see [Great Public Spaces Guide](#) (DPIE 2021)

## 76 Make room for incidental interaction

Encourage interaction in public and communal spaces.

Well-designed facilities and public places combine space for access and movement with space for socialising or sitting and observing what's going on. Make allowance for individuals and small groups to sit or step to one side while still being part of an active public realm. A well-sited, comfortable park bench is a good example.

Interaction can also depend on a balance between communal space and private space. Foyers, shared seating areas and circulation spaces adjacent to private spaces, such as in an aged care facility, can encourage chance meetings and make places feel active, safe and inclusive.



# Assemble with care

Take great care  
with all decisions  
influencing  
design quality.

Buildings are loved and last a long time when they are useful and well made. The good design, construction and maintenance of a project is encoded in many national and state policies (such as the Design and Building Practitioners Regulation 2021), but a caring sensibility in the creation of our State's buildings, landscapes and places is needed to ensure good design outcomes and lasting public value.

The 2021 strata defects survey report found 39% of all residential apartment buildings built between 2014 and 2020 had serious defects in the common property.

— NSW Building Commissioner,  
*Research on serious building defects  
in NSW strata communities (2023)*

Construction quality is a pivotal issue for all building types at all scales. It relies on every decision, from project inception though all aspects of design and delivery and including ongoing maintenance.



## 77 Quality is everyone's responsibility

Quality starts at project inception, and relies on good governance to carry it through.

Design quality is about more than detailing and construction. It starts with the client putting in place the resources and processes that will support design quality throughout a project, from the business case and design brief onwards.

When quality is a core criterion, supported by strong governance and a culture of learning and collaboration, buildings will last well for the long term, work well for their users and owners, and perform better environmentally.



## 78 Good design paves the way for good management and maintenance

The ongoing operation of a project needs to be considered early and integrated into design.

Consider how the ownership and use of spaces and facilities will be allocated and managed for the full life of a project – who will be responsible for running and maintenance? Design of elements such as entrances, shared spaces, boundaries, equipment, services and utilities can all help to support a project's ongoing operations.

## 79 Make it fit for purpose

Good materials and detailing enable buildings to function beautifully and age gracefully.

Well-chosen building materials are robust and low maintenance, and may even improve with age. Surface qualities and finishes are critical – consider construction systems and materials that won't need cladding or refurbishment.

Factor in long-term wear and tear, particularly in high-traffic places like schools and hospitals, and avoid potential hazards like sharp edges and exposed corners.



See [Design Guide for Schools \(GANSW 2018\)](#) and [Design Guide for Health \(GANSW 2023\)](#).

## 80 Embrace value management

Value management can support design efficiency and quality.

Value management can support design quality by checking resources are being used in an efficient way, providing good value for clients and end users. This can help to make projects more environmentally responsible.

Ensure design integrity is retained throughout value management processes by making critical design elements integral to the project, so they can't be stripped out.



## 81 Don't be constrained

Don't let compliance dictate poor design outcomes.

If compliance is conflicting with good design decisions – for example poorly designed or located ramps or handrails, or 'dog-leg' corridors – persevere, test other options, and find a better alternative.

Even within a tight brief – such as a clinical services brief for a hospital – important aspects of design quality don't have to be overshadowed by detailed technical requirements. Entrances, street presence, public spaces, landscaping, indoor and outdoor wayfinding, circulation, natural light and ventilation all need to be designed with the end users' quality of experience in mind.



## 82 Don't fence me in

In some contexts, building to the edge of a site may be better than installing a fence.

A well-designed building is more active and engaging than a fence. School buildings are a prime example: a well-designed built edge can provide security for the inner core while adding activity, passive surveillance, and human scale to adjoining streets and public spaces. Design edges to contribute to the character and amenity of the surrounding neighbourhood.



## 83 Design for torrent and tempest

Anticipate extreme winds and intense, high-volume downpours.

Mitigate the impact of strong winds on buildings and landscapes through siting, structural resilience and articulation of form to protect user comfort and safety.

Use water-sensitive planning and design, and detail the drip points, eaves, overflows, parapets, balconies, awnings and outdoor surfaces so they carry water away from buildings. Ensure stormwater drainage, waterproofing and flashings are well detailed and properly installed.



## 84 Sound planning

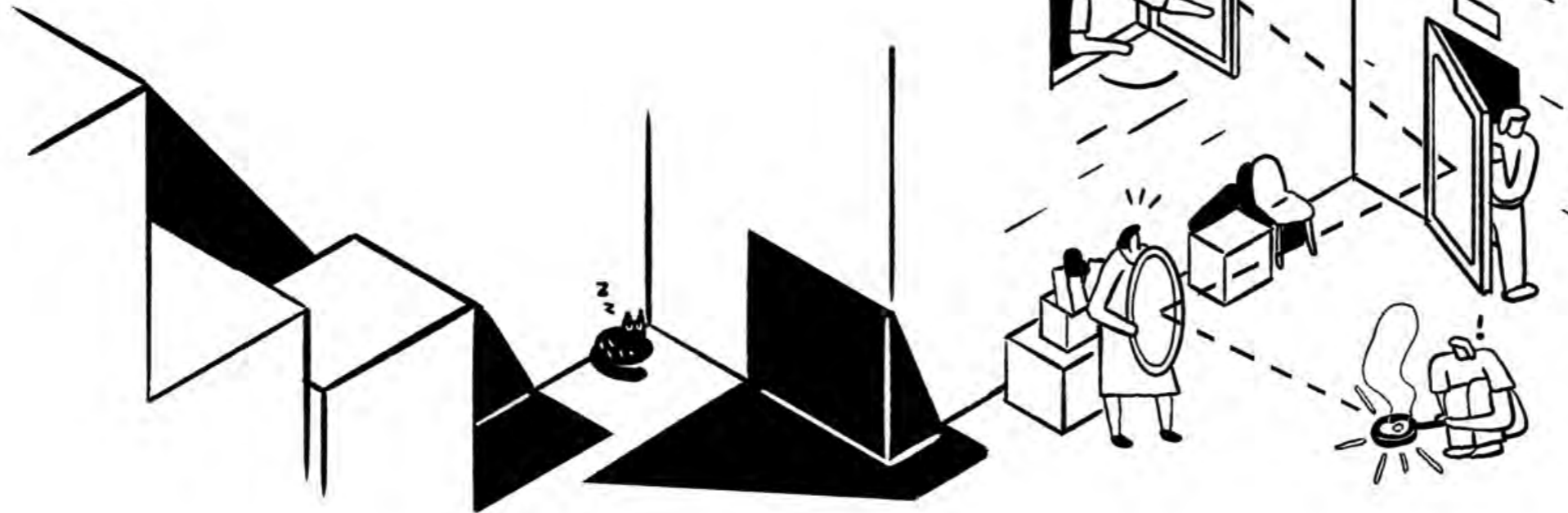
Minimise intrusive noise.

Research shows that intrusive noise affects human health; minimising unwanted noise from neighbouring activity or traffic is essential. Acoustic privacy is best handled as a site planning issue, where density, siting and layout are manipulated to minimise noise interactions between adjoining spaces and uses. Building materials can improve acoustic performance but layout and configuration have the greatest influence on where sound will travel.

## 85 Follow the cat

Amenity and comfort are vital for health and happiness.

Comfort and amenity are key design issues. For example, having access to winter sun indoors or in a sheltered outdoor spot can bring a sense of joy and wellbeing. Fresh air and ventilation are essential for health. Outlook supports wellbeing too – views of the sky and green spaces connect people with nature and the seasons. Overlooking street activity (without impinging on privacy) can create a sense of connection and community.



## 86 Don't over glaze

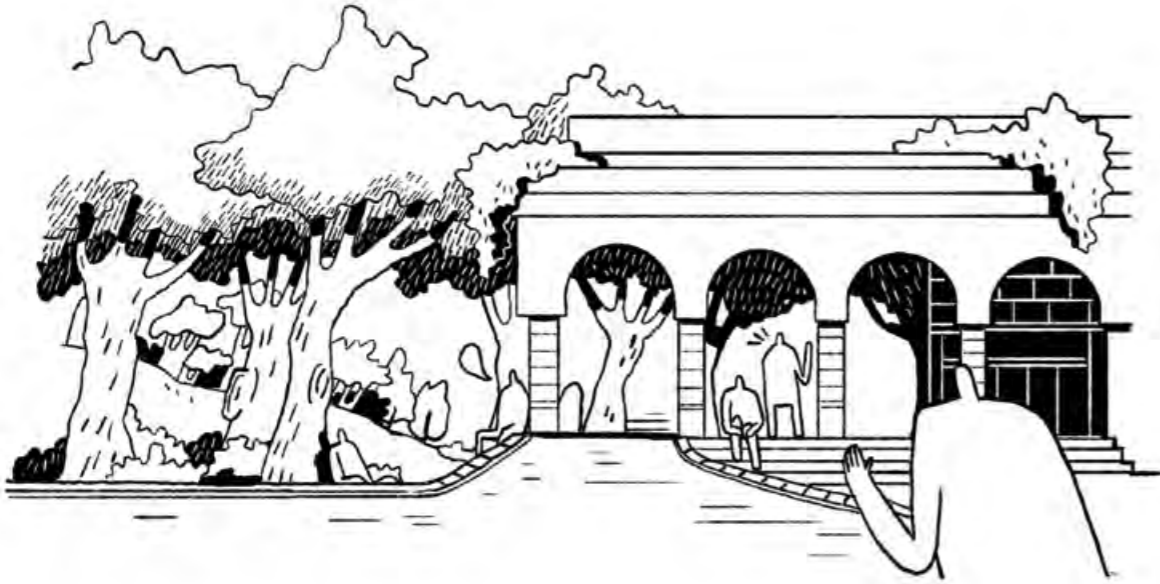
A facade wall of high-performance glazing may pass the construction code compliance test, but there are better options.

Facades designed to manipulate sunlight and shade, detailed in response to their context and orientation, are inherently more sustainable – and arguably better looking. Well-designed facades use architectural modelling, materials, colour, shadow and shading systems to add depth and character to a building, express its functions, and control privacy and overlooking. Different sides of a building may have facades with completely different scale, depth and appearance in response to sun angles, solar gain, prevailing winds, thermal gain or loss, streetscape, neighbouring activity and what's happening inside.

## 87 Make the front door obvious

Entrances need to be easy to find.

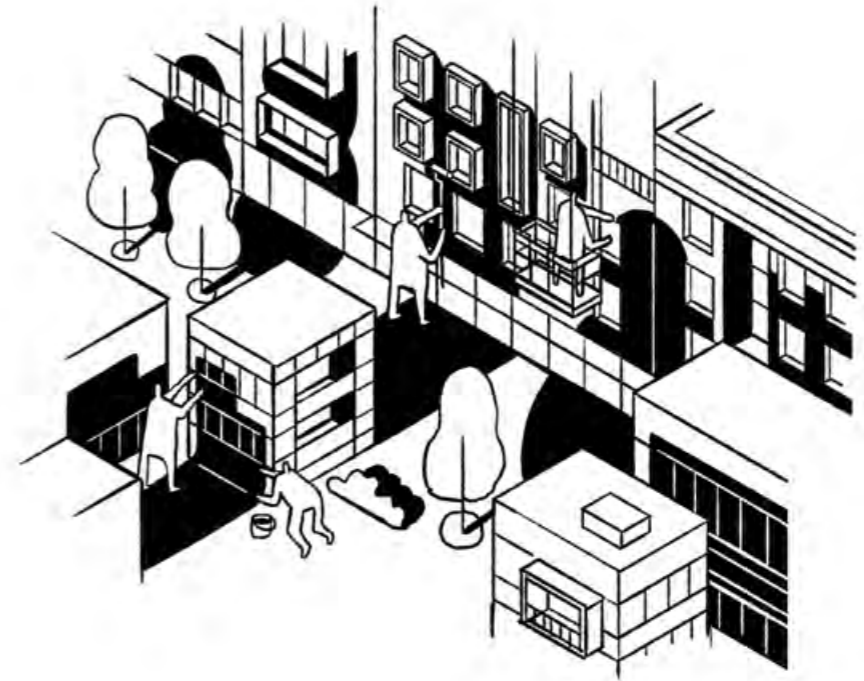
Whether it's a layering of light, clues in the landscape or a change in scale, buildings and spaces need clear and accessible main entrances that are welcoming and easy to navigate.



## 88 Use shadow as a design tool

Shadow is both functional and aesthetic.

Shadow expresses a building's form and materiality. Adding depth to a facade can control internal light and heat gain, manipulate weathering, and provide shelter. It also adds character, scale and rhythm to a streetscape.

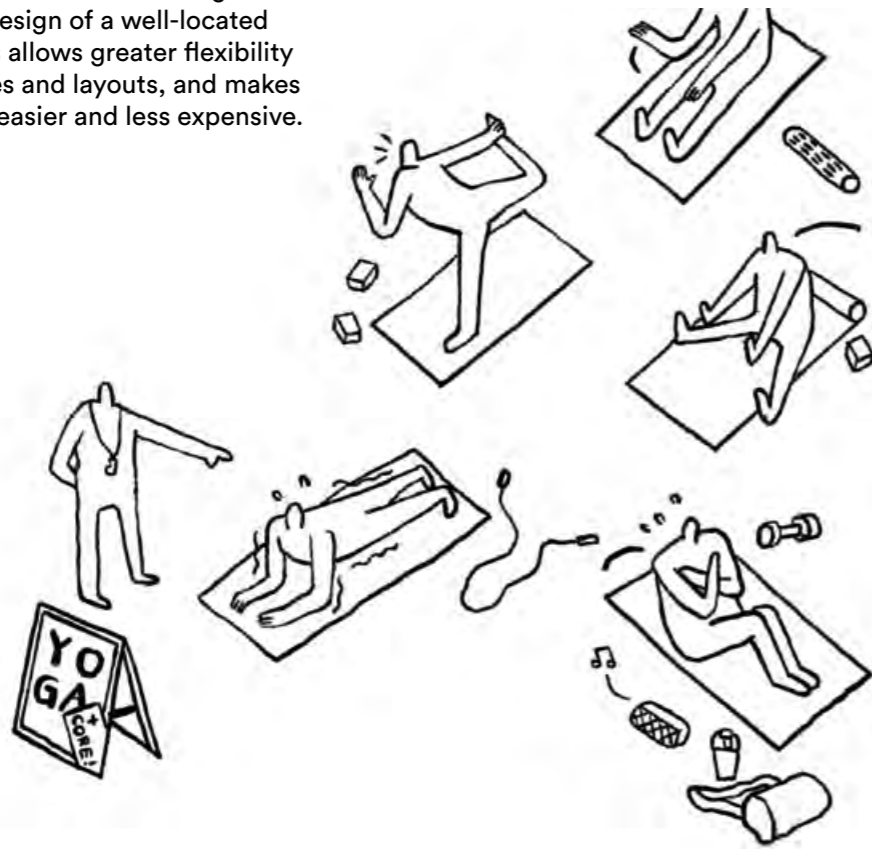




## 89 Build a strong core

Efficiently plan and locate the building core to facilitate future flexibility.

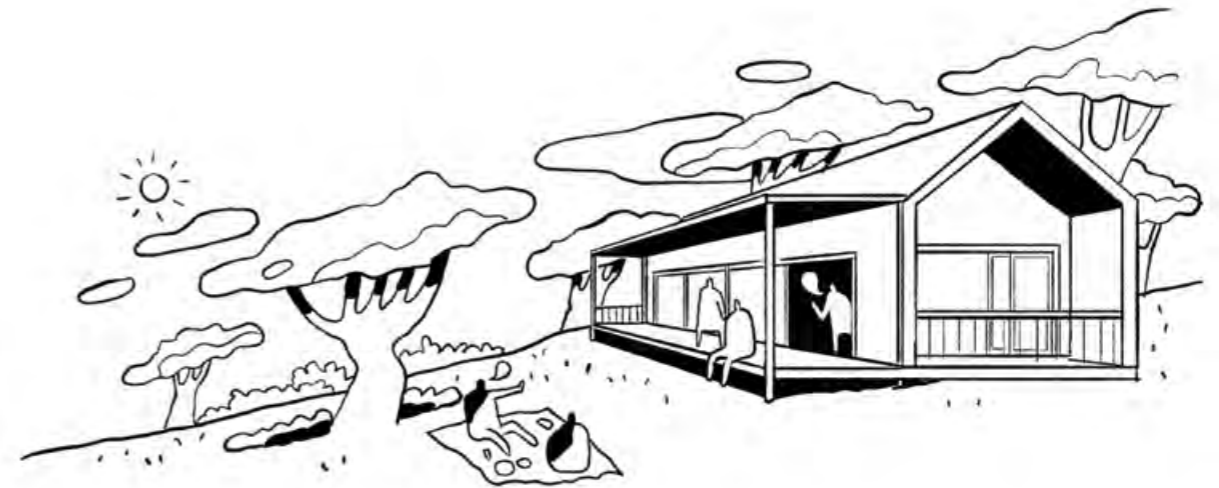
Integrate key circulation and building services into the design of a well-located building core. This allows greater flexibility for a variety of uses and layouts, and makes future adaptation easier and less expensive.



## 90 Integrate indoors and outdoors

Use visual and physical connections between indoor and outdoor spaces to enrich the quality, function and amenity of buildings and landscapes.

Indoor–outdoor connections provide opportunities for outlook, orientation and expansion. Outdoor spaces can add extra rooms, or contribute to functions like access and circulation, or transitioning between different activities and levels of privacy. Many types of interiors can benefit from a sense of connection with nature, taking advantage of daylight, breezes, sunlight, shade, planting and views.



# Design review is time well spent



Make good use  
of design review  
– it will add  
long-term value.

The great places we love in our cities don't happen by accident; they are designed. Since 2018 the NSW *Environmental Planning and Assessment Act 1979* has included good design as government policy. Design review helps improve design quality across a range of project types, protecting and promoting good public outcomes and good value.

Design review is a well-established way of improving the quality of design outcomes in the built environment.

— Design Council UK, *Design Review: Principles and practice* (2019)

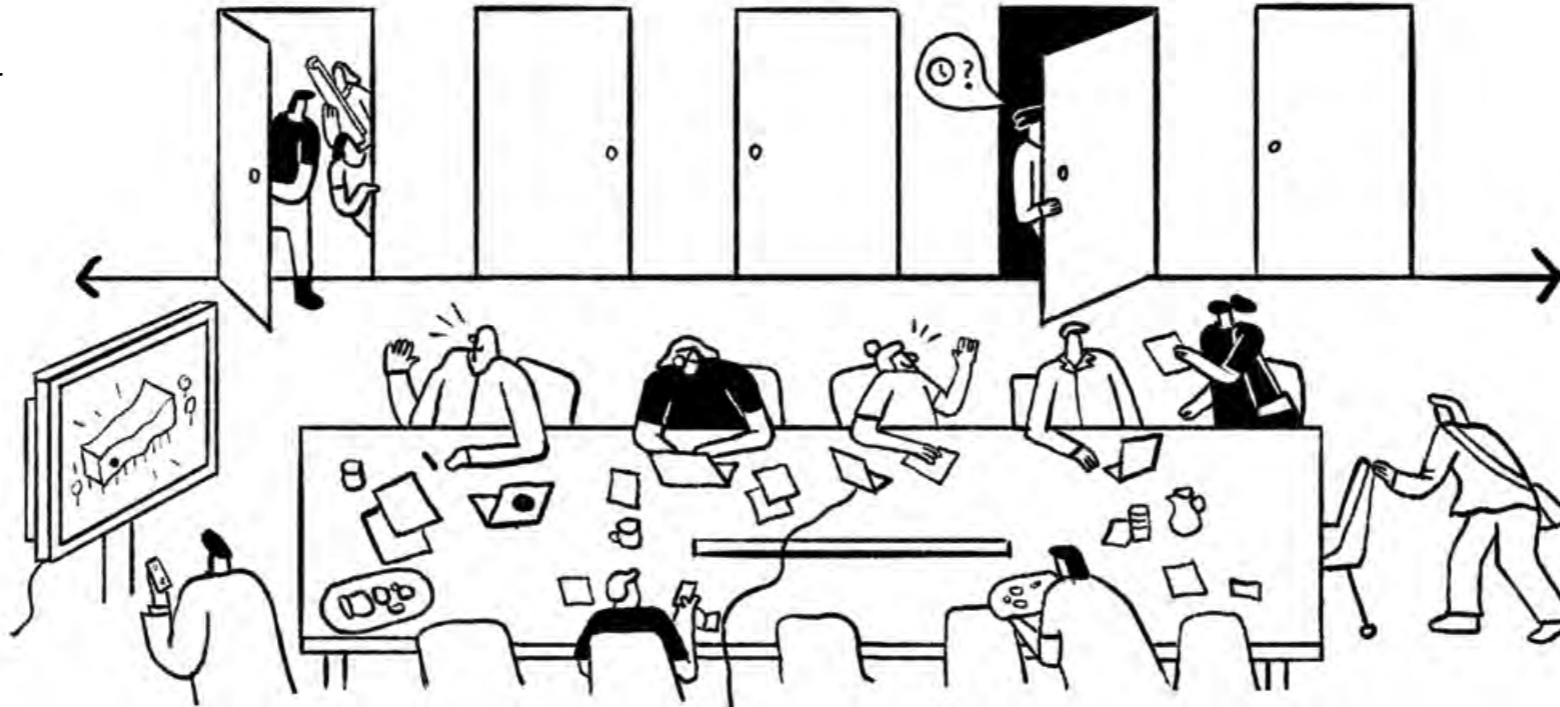
Design review is most effective when it is independent, early in the process, has well-timed subsequent sessions, looks at the design process and the outcomes, examines trade-offs and opportunities simultaneously, and is built around a collective desire to improve the design quality of the project.

## 91 Review early

Bring your project to the review panel early in the process.

Design review offers clients and project teams the greatest value in the early concept and schematic phases of a project, when ideas and new insights are most easily implemented for the least cost. Investing time in polished presentation drawings may not be necessary — rough sketches can be all that is required for a review session. Review might help you to challenge or better understand the scope of the brief, analyse the project context from different points of view, identify gaps or risks in your approach, or capitalise on opportunities.

Bring the project context to the review session too – drawings, models, images, maps, infographics – the review panel will want to understand how the context has informed your design decision-making.



## 92 (But review at any time)

A review session can be useful at all stages of your design process.

At later stages, design review can help you to incorporate feedback from stakeholders, respond to changes in the design brief, or resolve more-detailed design decisions such as materials selection.



## 93 Hit us with your problems

Review sessions are most constructive when you are looking for advice.

Think of design review sessions as a conversation among industry peers, where you are open about the challenges you are grappling with. The panel is here to help, and its input will be more useful if you are open to adopting others' perspectives and advice. Reviewers have a wealth of knowledge and experience to share. Think of them as an enthusiastic 'brains trust' with an encyclopedia of precedents.



## 94 Factor review into the design process time frame

Make sure your program includes enough time between review sessions to meaningfully consider the panel's advice.

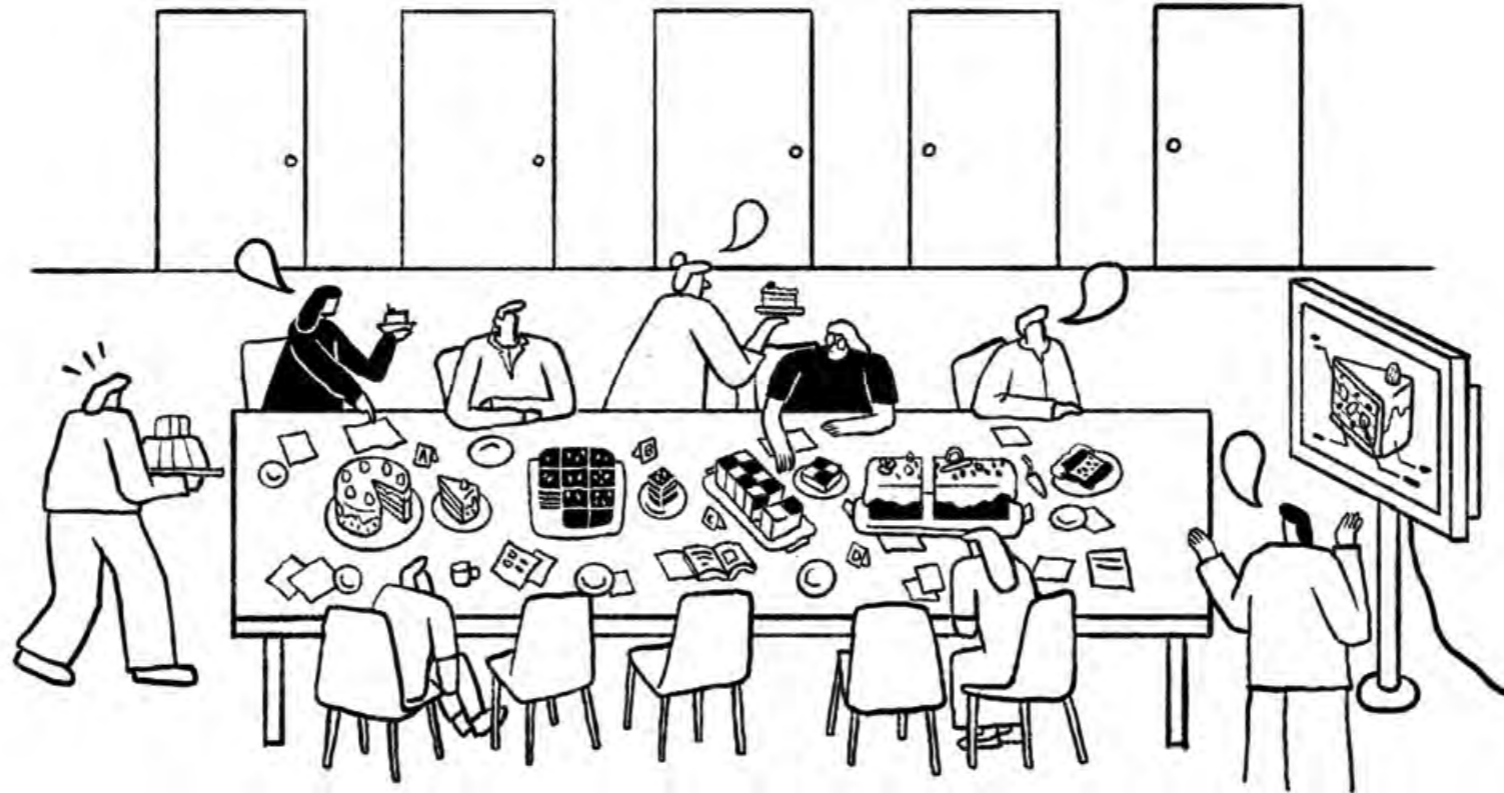
You will gain the most benefit for the least cost if your budget and schedule allow your project team, including technical consultants, the scope to incorporate changes after a review session.

## 95 Show us your sections

Think about master sections and not just master plans.

Cross-sections are critical to understanding a site, and should be a core tool for analysing and designing projects across all scales: subdivisions, urban infrastructure, buildings and landscapes.

Cross-sections illustrate the broader landscape context, from ridge lines and cliffs to valleys and waterways. Sections are vital for considering movement, access, drainage and ecosystem health, including deep soil networks, vegetation structure and mature trees.



## 96 Share your options!

Testing different options is a critical part of the design process.

One of the advantages of participating in design review at an early stage is being able to draw on the panels' expertise to investigate and evaluate various potential design options before you invest time on just one of them. This could bring a wealth of value to your project – it might open up new possibilities or change some assumptions about the context, the site, the brief or the end users.

## 97 Support the team

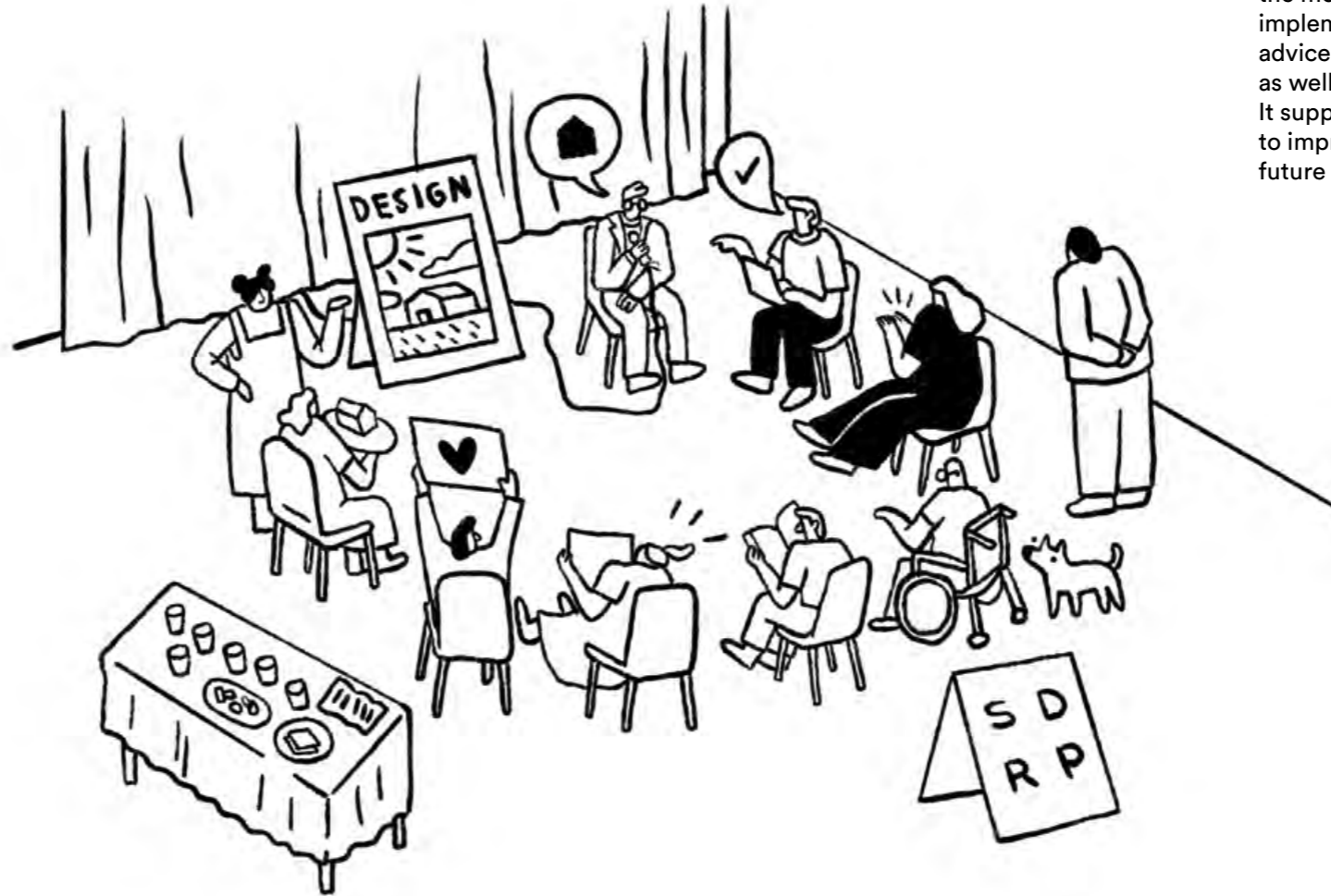
Good clients, project managers and design leaders encourage collaborative, multidisciplinary teamwork.

Project teams get the best results when different types of expertise and experience are respected and people from different disciplines work together collaboratively. Presenting at a design review session can be a good opportunity for junior team members to gain skills and experience.

## 98 Bring your champions

Good design gathers friends and supporters – bring them on the journey by inviting them to the review session.

It's useful to have the key decision-makers in the room (even if they're not presenting) to listen to the advice from the design review panel first-hand; this can help with making the most of the advice offered and with implementing changes. The review panel's advice is for clients, both public and private, as well as the designers and project team. It supports assessment and can also help to improve processes and parameters for future projects.



## 99 Hold on to your principles

Step back from the task at hand and revisit the design principles you established at the outset of the project.

Design principles are the core measure for testing your design ideas. Keep these principles in mind when you are making important choices and accommodating changes – while it's important to be nimble and open to new possibilities, you also need to revisit your core principles before you leap.



## 100 Seek improvement, not approval

Design review is not about approval – but by helping you to produce a better design, it can assist your passage through the approval process.

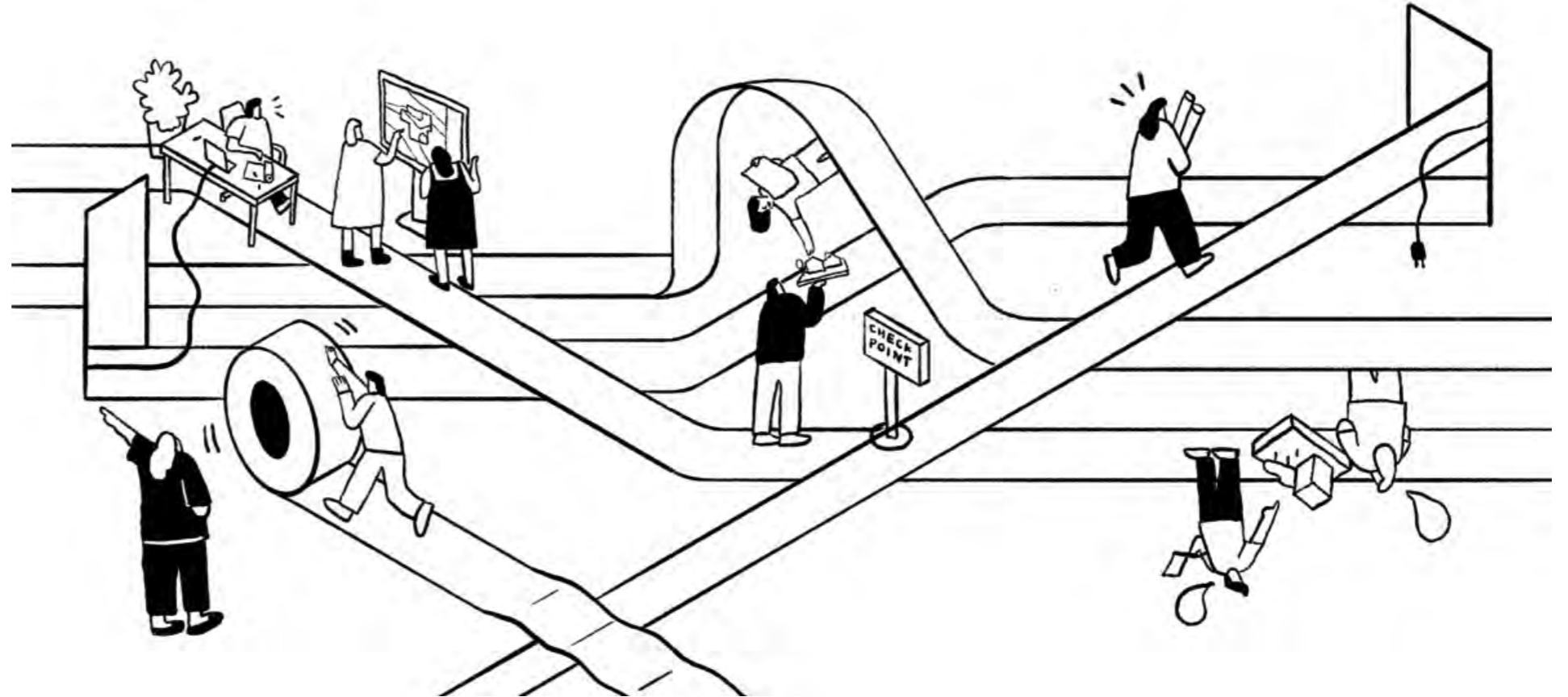
Design review is about collaborating to improve design quality. It's about honing good insights and good ideas, drawing from a pool of combined knowledge and experience, and making good decisions based on a sound, efficient and well-informed process.



# 101 Start again

It's never too late to go back to first principles.

This doesn't mean starting again from scratch. Revisiting first principles is a solid way to review and refine design concepts – with each iteration improving the end result.



# From the panel

Shift from business as usual, start caring for Country.

The precision of the making is what elevates this from a simple shed to a public building.

All buildings should make you smile when you look at them.

We need to get serious about tree canopy and deep soil.

The concept of integrating 'joy' into the design of schools is so important, they should be joyous places.

What happens when it is really rainy, really windy, and really hot?

Explore how the external forms can reflect the logic of the internal planning.

We are in a pivotal time in terms of sustainability and need to reduce our carbon footprint. We should aim to be regenerative, and if we can't do that, then we should at least be more sustainable and more local wherever we can.

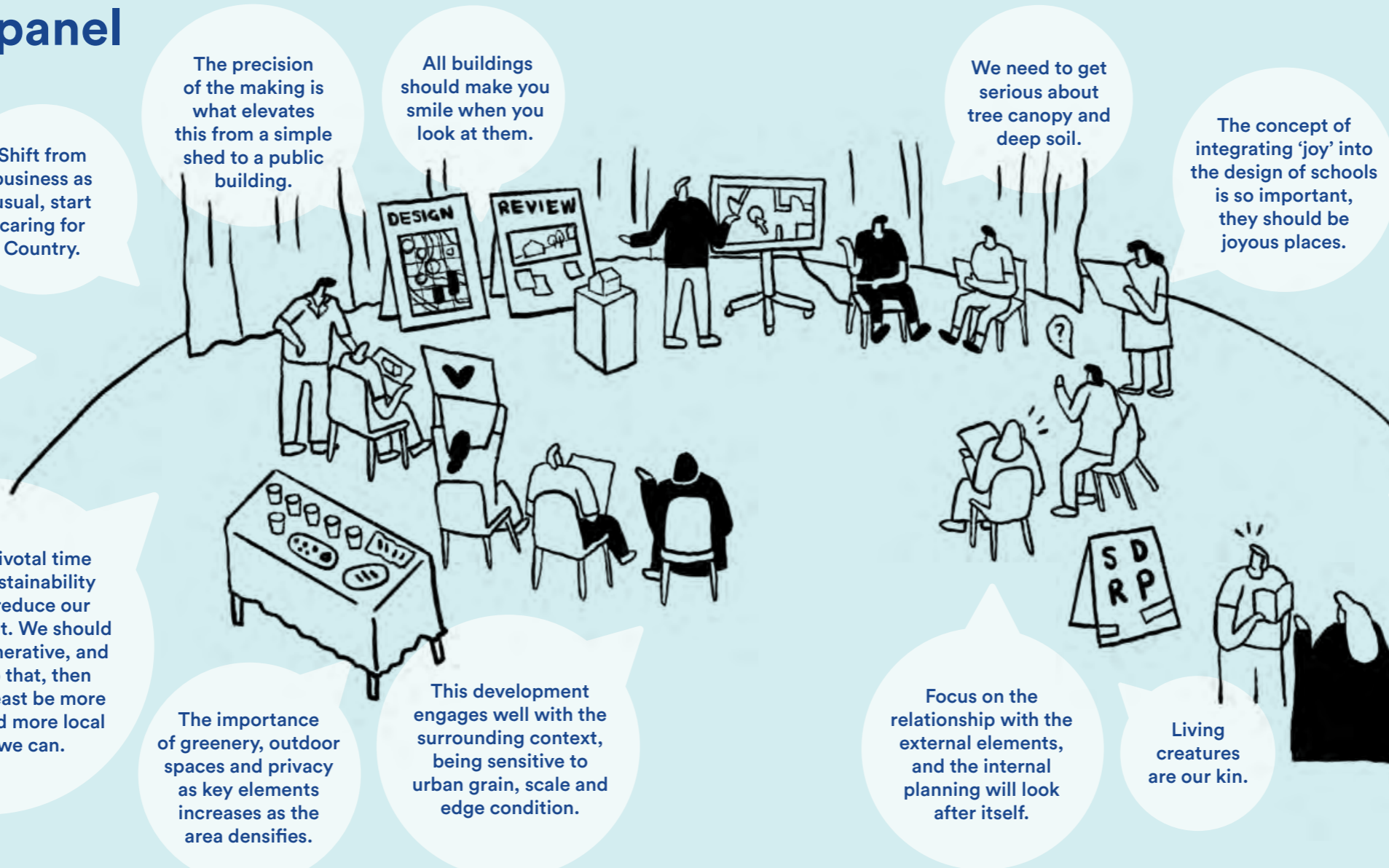
The importance of greenery, outdoor spaces and privacy as key elements increases as the area densifies.

This development engages well with the surrounding context, being sensitive to urban grain, scale and edge condition.

Focus on the relationship with the external elements, and the internal planning will look after itself.

Living creatures are our kin.

Modularity lends itself to functional and structural expression.



# Credits

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