



TOOWOOMBA REGION **FUTURES**

Toowoomba Region Urban Form Framework (TRUFF)

Why have we done the strategic project, and what did we want to achieve?

A recent review of the current planning scheme raised concerns about the quality of new residential development. In response, the TRUFF was established to define what is important for our local places and people including desired outcomes for future urban change. The TRUFF will guide future street design, building design, village centres, climate-responsive design and housing choice.

What are the key components?

The TRUFF includes:

- Urban form vision for regional towns and villages
- Local climate conditions
- Design of greenfield residential estates
- Housing choice

Who have we consulted with?

Broad community consultation took place in the first half of 2021. Residents were invited to participate through workshops and surveys.

What are the key findings we have learned?

- Town character - enhance what is unique about a place.
- Greenspace - improve shade, parks and natural areas.
- More public transport, especially for the youth and aged, and more connected pathways for walking and cycling.
- Sense of community - embrace and improve cultural diversity and places for community events.
- Housing choice - more variety to meet diverse needs.

Disclaimer



The following study has been prepared as part of the Toowoomba Region Futures program. It was endorsed by Toowoomba Regional Council at its Ordinary Council meeting on 19 April 2022 as information to aid decision-making. The content of this study does not reflect an adopted policy position of Council and Council's endorsement of it does not include adoption of any policy position, action or recommendation put forward by the study.

Toowoomba Region Urban Form Framework



Prepared for Toowoomba Regional Council

Acknowledgements

We Acknowledge the Traditional Custodians of the Toowoomba Region whose song lines traverse our lands and pay our respect to Elders past, present and emerging, for they hold the knowledge, rich traditions and bold ambitions of Australia's first peoples.

We also acknowledge the following stakeholders and consultants whose inputs and participation informed the draft Toowoomba Region Urban Form Framework.

- _ Strategic Planning and Economic Development Branch, Toowoomba Regional Council

Disclaimer

- _ While the information within this report has been verified to the best of our abilities, we cannot guarantee that there are no errors in the information that has been provided.

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The Toowoomba Region Urban Form Framework (TRUFF) is a wide-ranging urban design and planning guideline to define the future urban forms for the Toowoomba region.

TRUFF is not a comprehensive guide covering all land use and development matters, but the TRUFF guidelines do propose some big ideas to shape a positive future form of Toowoomba city and of the region's towns and townships.



Create a Garden city for all

Trees and gardens help give places character. Toowoomba's long-standing reputation and Garden City vision can be further advanced through better planned and executed greening new residential developments, in local centres, and in established suburbs.

Build better new neighbourhoods

New residential neighbourhoods should be designed to ensure amenities like parks, schools, local scale shops, community services and public transport are located close to where people live. The concept of a "20-minute neighbourhood" is introduced in TRUFF, where services are within about a 20 minute walk (return trip) of home.



More focused neighbourhood character

Creating local variation within Toowoomba's Neighbourhood Character Overlay Area will allow a more focused approach to development design and assessment. The creation of three sub-areas provides a more localised character description, will provide greater clarity about the aspects of the neighbourhood that contribute to its character, and that need to be considered the design of future developments.



Improve liveability of townships

A programme of "Place Plans" is recommended for regional towns and townships, to revitalise the main streets and town centres of many of Toowoomba Region's towns and townships (excluding Toowoomba City). The Place Plan concept recommends six urban design and placemaking strategies that can be commonly applied to improve township liveability and sustainability, and enhance established township character. New guidance on integrating new residential areas to townships is also proposed.



Be a good neighbour

A range of new design guidelines for buildings and landscapes will improve how buildings relate to the street and to neighbours. Facades and frontages that embrace the street, setbacks that allow for air and light, fences that allow for social interaction, gardens that reflect the garden city vision, and driveways and garages that don't dominate the street are all elements of being a "good neighbour" through contextual urban design.

The new Toowoomba house

Toowoomba and Queensland's built traditions and character, as well as the region's warm temperate climate, provides great opportunities to maximise the energy performance of residential developments and reduce the impacts of climate change. Locally-influenced and climate-responsive housing design will provide resilient, comfortable and efficient homes that also improve the health and wellbeing of residents. The "new" Toowoomba house designs will further add quality and character to the future streets and suburbs of Toowoomba.

Design greener and more inclusive streets

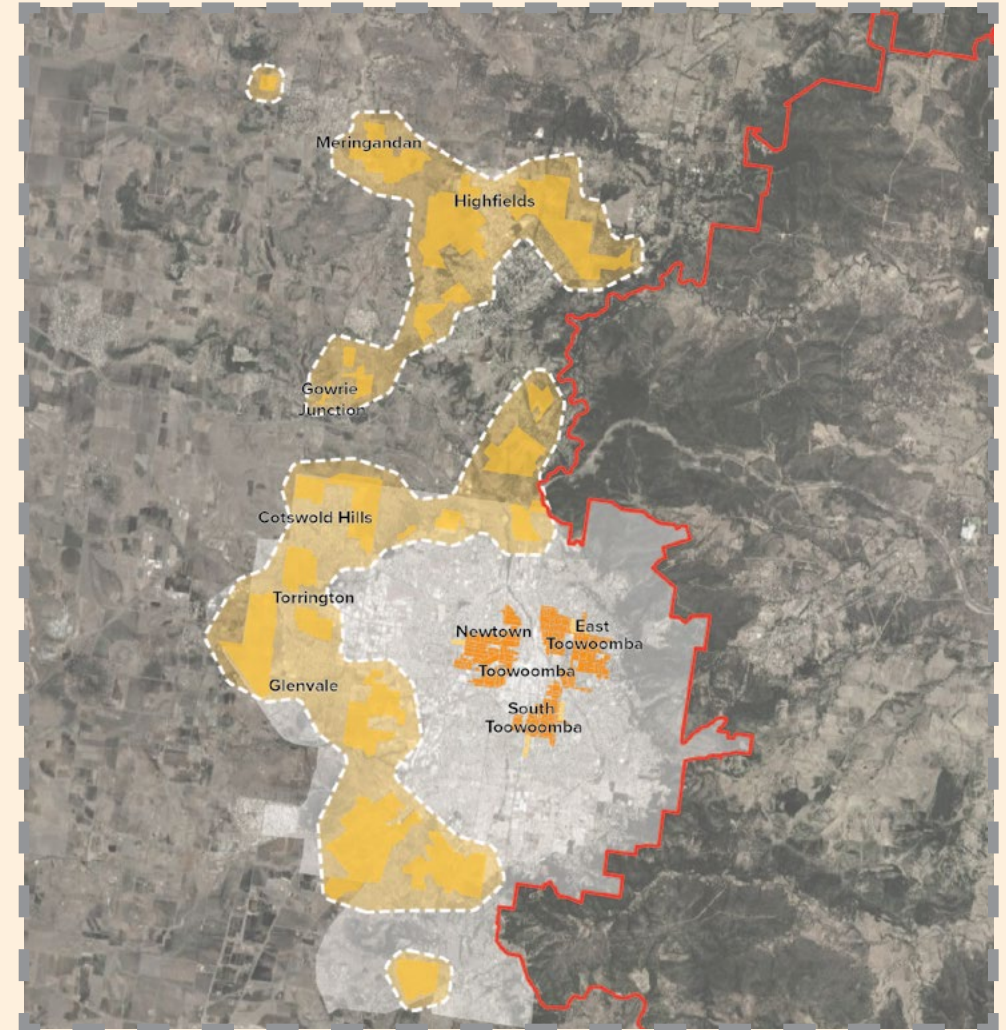
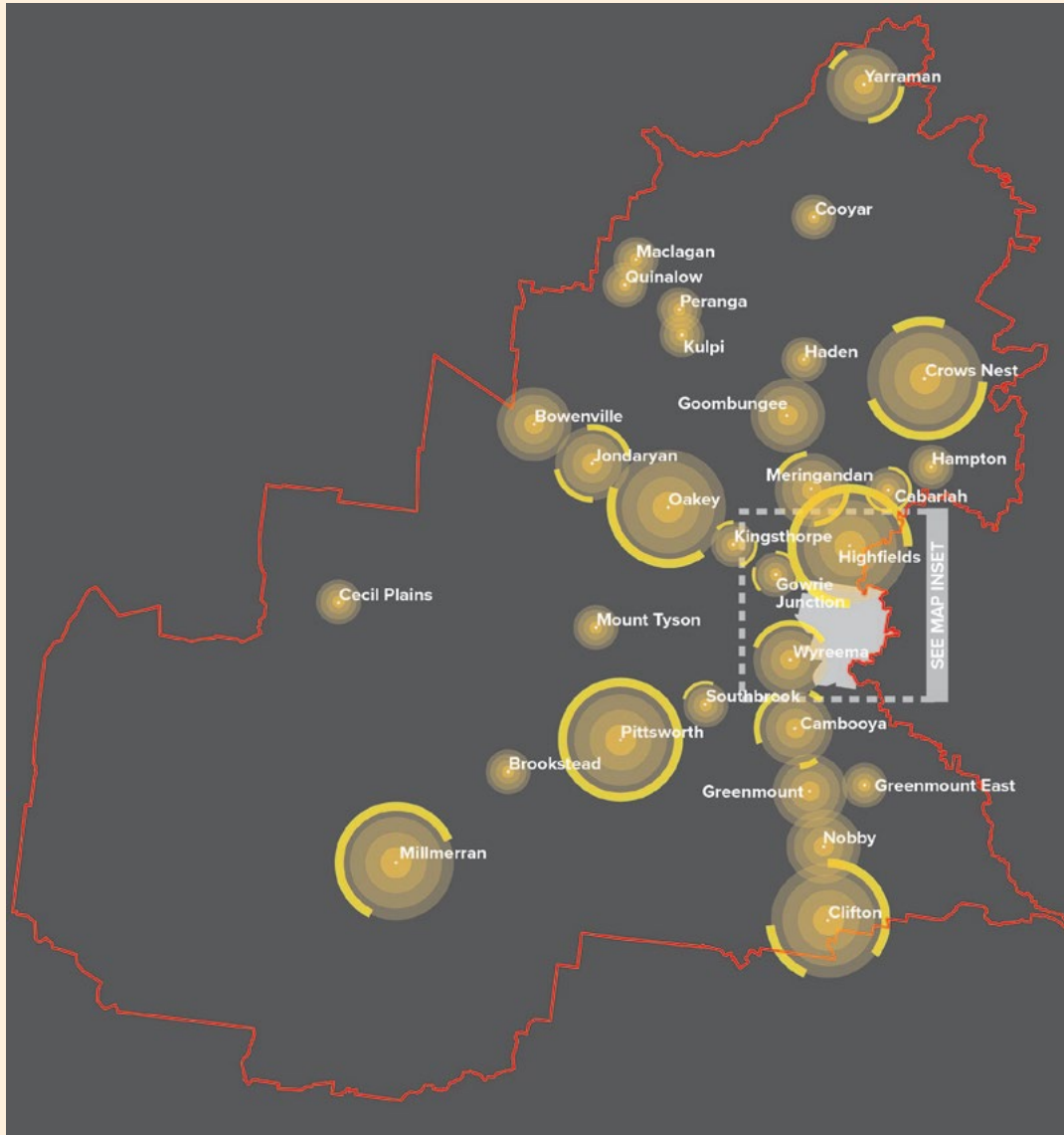
Streets are public spaces that are used by everyone almost every day. Streets are "places" as much as they are about the movement of vehicles and people. Future streets need to support a diverse range of activities important to enhancing the social fabric, health, wellbeing and placemaking of a city. They should cater to people of all ages, all levels of physical ability, and all modes of transport. Streets should be greener and cooler, and contribute to the established garden city vision.

Provide new housing choices

Increasing housing choices will ensure that new housing meets the true needs of our increasingly diverse community. This includes providing choices that are affordable, designed for all ages and abilities, and are adaptive and responsive to our changing climatic conditions and future lifestyles.

Spatial form

The Toowoomba Region Urban Form Framework can also be thought of spatially. The eight big ideas of the previous pages are focussed on different parts of the city and region, as shown on the spatial plan.



Towns and townships

TRUFF recommends “Place Plans” to improve and refresh the character-rich townships of the region, while also managing those towns with residential growth areas nominated (through existing zoning) on their fringe.

Toowoomba and surrounds

Three new neighbourhood character sub-areas are proposed at Toowoomba, to better focus local variation and the design of new development.

Toowoomba’s greenfield residential areas on the city’s edge are a major focus for TRUFF guidelines.

The Toowoomba Region Urban Form Framework is a wide-ranging project to define future urban forms for the Toowoomba region, and to address selected planning and design topics of concern.

Background

In 2020 Jensen PLUS was commissioned as part of a multi-disciplinary team led by Ethos Urban to prepare the Toowoomba Region Urban Form Framework (TRUFF), one of several planning studies to inform the region's future planning scheme.

TRUFF is concerned with defining and guiding the future urban form of the region's townships, suburbs and city, to help answer questions like: how will our future neighbourhoods, streets and local centres look and feel? How will our local places function sustainably, and how can they contribute to achieving Toowoomba's community vision?

Toowoomba Region Futures

Toowoomba Region Futures is a five-year Toowoomba Regional Council program to build a community vision for growth and development in our region for the next 30 years. It will help:

- _ define what land can be used for purposes such as housing, farming or industry
- _ control how land can be developed such as converting an office into a retail shop
- _ identify infrastructure like water, sewerage and transport networks needed to support existing and emerging communities
- _ protect our natural, rural and urban landscapes and areas of cultural significance.

Toowoomba Region Urban Form Framework (TRUFF) objectives

TRUFF is one study forming part of the Toowoomba Region Futures program. Other investigations (by others) address topics as diverse as urban growth planning, green infrastructure strategies, indigenous cultural heritage, and scenic amenity.

TRUFF is a relatively complex study in that it explores a number of planning policy and design questions, not all of which are directly related to each other, and not all of which are of interest to the same stakeholder groups.

Overall, the TRUFF is tasked with developing, a "clear urban form vision (framework)", with particular attention to be given to the desired future character of the region's towns and townships, as well as selected inner suburbs of Toowoomba.

Alongside this vision TRUFF is to provide guidance for approximately 10 discrete planning and urban design topics, namely:

- _ local centres
- _ reconfiguring a lot (including greenfield residential design)
- _ warm temperate climate design*
- _ building height and scale
- _ residential/industrial interfaces
- _ street design especially in greenfield residential communities
- _ medium density housing design
- _ retirement living
- _ acoustic attenuation
- _ Covid-19 urban form response.

(* also subject to a separate Warm Temperate Climate Design project)

Approach

The TRUFF project has been organised into six stages, two of which (Stages 2 and 4) include stakeholder and community engagement.

Stage 1 _ Project Initiation

Stage 2 _ Literature Review + Consultation

Stage 3 _ Analysis + Options Report

Stage 4 _ Draft Urban Form Framework

Stage 5 _ Final Urban Form Framework

Stage 6 _ Prepare for Publication.

Evidence base

Stages 2 and 3 focussed on developing an evidence base to support the options and recommendations included in the TRUFF.

Literature reviews included Toowoomba Regional Council's policies and strategies. Regional planning and State level planning policies were also examined.

A wide range of other projects, guidelines and case studies - relating to the diversity of policy topics of interest - were also identified and reviewed.

A "synoptic survey" of several developments and localities in Toowoomba (and later in selected towns and townships of the region) was also undertaken to inform the evidence base.

This substantial task is innovative in that it involved the collation of metrics from across the region to provide a representative evidence base for Toowoomba urban form policy development.

Two major parts of the synoptic survey involved the quantitative and qualitative analysis of several recently built greenfield



residential developments at Toowoomba and Highfield and the analysis of Toowoomba's Neighbourhood Character Overlay areas (mostly inner suburbs like East, North and South Toowoomba, and Newtown).

The synoptic survey is useful in that it provides a local case study resource to use for comparison purposes. This can be beneficial for local community and stakeholder conversations about design and policy changes. The synoptic survey method also incorporates a 'best-worst' approach whereby a number of unsuccessful examples are also analysed to help understand and document "what we don't want".

The methods and outcomes of the literature, case study and synoptic survey evidence base is fully described in Part B of the TRUFF.

Defining the focus of TRUFF

The scoping papers and planning scheme reviews that initiated Toowoomba Region Futures (including the TRUFF study) have helped define the scope for this project.

However an early observation from the team was that the breadth and range of policy topics and locations, (and the pre-existing work for many topics e.g. medium density housing) presents some risk that TRUFF investigations could duplicate or overlap with other studies, and that the complexity of issues may lessen the strength of policy outcomes.

An outcome of the Stage 2 context review (and stakeholder/community engagement undertaken) was to identify the most important topics, locations and designs that the TRUFF project could reasonably focus on and influence. Focus is desirable to get the most out of research and engagement resources,

to avoid confusion, and simply to progress planning for the most important issues to the community.

Amongst the varied elements to be included in the TRUFF project, four policy topics were identified as being the highest priority for TRUFF guidance:

- Urban form vision for towns and villages outside of Toowoomba City.
- Much greater emphasis on design of buildings, streets and neighbourhoods to be more resilient to changing climate.
- Housing, street and neighbourhood design guidelines for greenfield residential.
- Ageing in place.

As the TRUFF guideline has been further developed and shaped, these four elements have been refined into four high level outcomes or themes, which not only address the scope of the project, but provide a clear direction to readers as to the intended planning policy and design changes recommended by the TRUFF.

Structure

The TRUFF report is divided into two parts for ease of reference:

- TRUFF Part A (this document) - Guidelines (the guidelines and recommendations that are the outcome of the study)
- TRUFF Part B _ Evidence base (the literature and context analysis, synoptic survey, engagement outcomes, and supporting material to Part A).

TRUFF Part A - Guidelines is organised into four refined themes or "urban form outcomes" built upon the highest priority topics referenced earlier.

- 1. Strengthen local place character**
- 2. Build better neighbourhoods**
- 3. Being a good neighbour through contextual design**
- 4. New housing choices to support community needs.**

Beneath each of these high level themes, the urban form guidelines that make up the TRUFF recommendations are organised under the following topics:

- _ Enhancing Neighbourhood Character Overlay Areas
- _ Liveable Townships
- _ Achieve "20-minute neighbourhoods" (where local needs are within walking distance)
- _ Designing better local centres in the suburbs
- _ Residential/industrial interfaces
- _ Contribute to a positive, attractive streetscape
- _ A new housing standard for Toowoomba
- _ Green and active streets including in greenfield developments
- _ New housing choices including Ageing in Place.

In combination, the recommended urban form outcomes and guidelines satisfy the (diverse) project scope and also signal to stakeholders the key urban form and design improvements recommended to achieve the emerging community vision of the future planning scheme.



"Synoptic surveys" of established and greenfield areas of Toowoomba and Highfields were used to gather evidence about planning and urban design improvements to recommend in the TRUFF

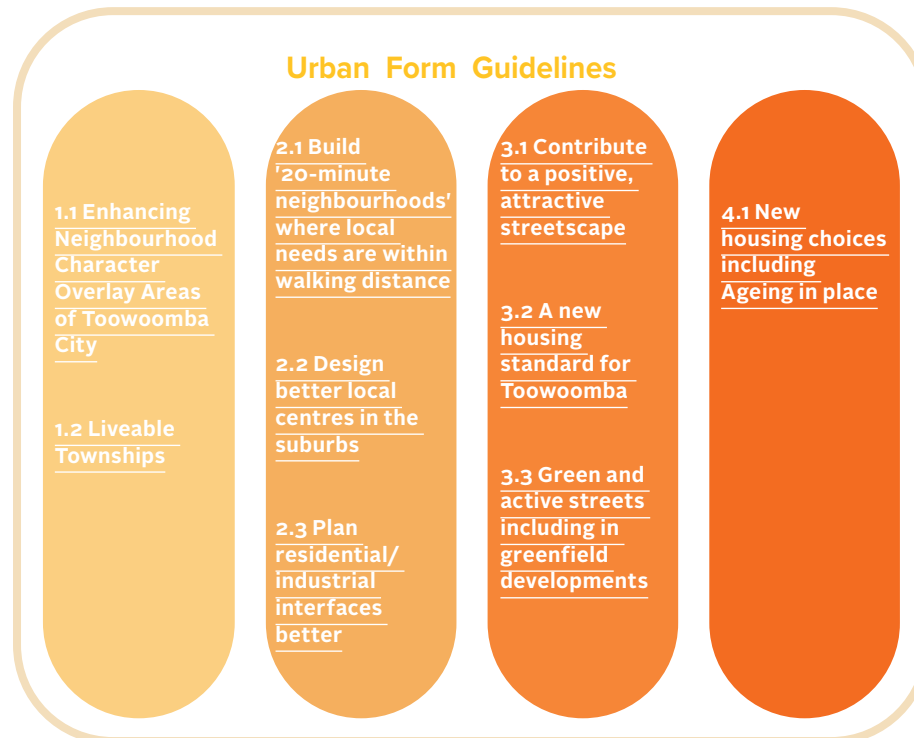
TRUFF structure
Four themes (Urban Form Outcomes) not only address the scope of the project, but provide clear direction to readers about the intended planning policy and design changes (Urban Form Guidelines recommended by the TRUFF).

Urban Form Outcomes (4)



Scale Town / district / township Neighbourhood / local Street + Lot / building Lot / building

Urban Form Guidelines



Notes on Urban Form Outcomes

- _ Four priority areas for policy development and guidance.
- _ Key messages for community and industry.
- _ Written as desired 'outcome' statements ("what we want to achieve").
- _ Responding to gaps in the existing planning scheme, identified issues and engagement feedback.
- _ Also related to desired planning scales, and other elements from the brief.

Notes on Urban Form Guidelines

- _ Detailed urban form guidelines.
- _ Focus is on "How to" achieve the outcomes sought through design and planning, not on "what" land uses are or "where" development should occur.

“How to” make the TRUFF have a positive influence on urban form

The different planning studies that form part of Toowoomba Regional Futures, as well as planning scheme development by Council staff, all have varied roles in the shaping of the new planning scheme. For example:

- _ **‘What’** future land uses are desired is described largely through the planning scheme zones.
- _ **‘Where’** development should occur in the future is also defined through zoning. (The growth plan and industrial land review and other planning studies may propose to change some zone locations.)
- _ **‘When’** development happens is generally not something the planning scheme can guarantee, although zoning and the Local Government Infrastructure Plan (LGIP) do consider sequencing of development and infrastructure at a high level.
- _ **The role of the TRUFF is more to influence and improve ‘how’ development occurs.** In other words, how can we shape the form and the design quality of development (largely in the locations and land uses determined by the zones and other studies) to help achieve the community vision.
- _ Some justification of the desired urban form (the **‘why’** question) can also be included as supporting evidence in the TRUFF.

Targeted guidance to address priority issues

As previously described, the TRUFF planning/design topics remain diverse and are not all related to each other. Some are relatively simple issues where others (e.g. greenfield residential design) are large and complex topics.

TRUFF is not intended as a comprehensive design guideline on one individual topic. Many other guidelines exist, often at the State or national level, to provide detailed advice on for example, street design, or water sensitive urban design. Rather, TRUFF is a set of proposals targeted to the policy gaps and urban design weaknesses identified on the ground, whether prior to or during the project.

The TRUFF recommendations and outcomes may also be relevant to several parts of the planning scheme, and include non-planning scheme actions. It is important to note that actual planning scheme amendments are to be written by others at a later stage.

The recommendations and guidelines are also of interest to different stakeholder groups. For example, greenfield residential developers may have a strong interest in parts of the TRUFF guidelines relating to new street design or housing quality, while residents of Toowoomba’s inner suburbs may be more interested in the guidance and recommendations on designing sensitive extensions or infill residential development in their neighbourhood.

A reference-style format for TRUFF has therefore been used in order to manage the large number of issues, for different topics, and different audiences.

Drafting principles

As noted earlier, guidelines are organised under four thematic Urban Form Outcomes, and further grouped under nine topics. Other drafting principles adopted are:

- _ guidelines are written succinctly for individual design elements
- _ each guideline is also a “recommendation” to Toowoomba Regional Council to consider when drafting the future planning scheme
- _ a consistent one or two-page format is used for each guideline (with additional space for illustrations e.g. photo precedents, or where we draw a diagram, sketch etc. to explain the guidance)
- _ each guideline provides an overview of the proposal, the existing planning scheme policy (if relevant), the guidance material, and the need (evidence for change), and references for where to find further information
- _ while most guidelines are a design element (e.g. a new residential street typology), some may be more general advice, or more spatially based recommendations. For example, the urban form for townships is proposed as a spatial vision/urban form framework for a select number of towns/townships or township centres that are expected to undergo change. In these examples the guidance is in the format of a plan and supporting principles and design objectives.

Who should read TRUFF?

- _ Different stakeholders will be interested in different elements of TRUFF.
- _ Councillors and council staff of several departments will be interested in the design and planning policy proposals relating to development, whether in greenfield or established areas.
- _ Developers will be interested in the guidance on neighbourhood, street, lot and building design in the greenfields, as well as some proposals for medium density-style development in parts of Toowoomba.
- _ Residents of Toowoomba City, and the region’s towns and townships may be interested in the urban form visions and development guidance that could be applied in their local area.
- _ Unless you are interested in holistic planning issues and advice, it may not be necessary to read TRUFF from cover to cover. **Use the detailed contents section to identify the issues and recommendations most relevant to you.**



1.

Strengthen local place character:

1.1 Enhancing Neighbourhood Character Overlay Areas

Overview

Neighbourhood character encompasses the visual aspects, physical features and feel distinctive to Toowoomba's older houses, streets and neighbourhoods or suburbs.

Although 'character' encompasses aspects of historic or heritage value, character places are distinct from heritage places. Heritage places have a high level of protection for specific values (aesthetic, historic, scientific, social or spiritual) unique to that individual place.

Existing policy in the planning scheme

The purpose of the current Neighbourhood Character Overlay Code is "to conserve and enhance buildings and streetscapes which contribute to the character of the local area and to ensure new development is sympathetic to the nature and character of those areas." It is supported by an appendix that identifies and lists individual character places.

Description of existing relevant policy Part 8.3.2, the Neighbourhood Character Overlay Code in the current scheme can be summarised under 4 headings; Building type and form, Building siting, Allotment frontage rhythm and Street elements. The definition of character is in a footnote and lists potential character elements such as house age & form through to street formation and pattern. The controls focus on built form / architectural features and siting (1 & 2) with less emphasis on streetscape elements (3 & 4).

Guidelines

Neighbourhood character encompasses both housing and setting. The traditional Queensland, a single detached wooden house with a distinctive form of construction and internal layout using timber and tin materials and featuring verandahs as an outdoor living space originated in the 1850s is found throughout our region, with local variations in detail.

Toowoomba's neighbourhood character is defined by its pre World War II era built environment consisting of low set detached housing, on timber stumps, attractive garden settings, grid pattern streets with grassed footpaths, mature street trees and bluestone kerbing. Locally distinctive architectural features dominate building design and include pitched corrugated iron roofing, verandahs, window hoods and gables decorated with locally available timber and pressed metal incorporating local and regional designs for verandah brackets, handrails, fretwork entry arches, gable infill, doors and windows and sub floor battens and tall, often polychrome, brick chimneys.

In contrast to protection of heritage places (below) which focus on specific building fabric (materials), character is considered more broadly within the context of the street or neighbourhood and aims to protect shared elements.

The broad definitions of character elements help to provide an overview of character but there are variations between houses, often related to the period of construction or architectural style, and in streets and neighbourhoods.

Street elements

- These tend to vary by location and there is a hierarchy ranging from wide streets lined with substantial trees, usually camphor laurels and often larger block sizes (e.g. Boulton Terrace, Margaret & Campbell Streets) to those with smaller allotments and houses and few street trees (e.g. Grenier, French and Burns Street).

Roof Form

- Variations include hipped/pyramid roofs, asymmetrical gable and hipped roofs, double and triple gabled inter-war bungalows. Pitch varies usually between 22.5 -30 degrees.
- Scale relates to floor plan layout, typically the width of cottages is equivalent of two rooms divided by a central hallway with verandahs to the front and sometimes one or more sides whereas larger houses may relate more to the scale of a larger block.
- **Building siting & allotment frontage rhythm and lot sizes vary, but may be consistent within individual streets or neighbourhoods.**
- Garden layouts and car accommodation.
- Despite the variation in the finer detail many of these streets are still identifiable as "Toowoomba" streets.

Character builds over time, reinforced through familiarity, as an expression of the unique values of a particular community, evolving as new places are constructed, early homes are altered and as trees and gardens become established.

Evidence

The recent fine grained analysis of Neighbourhood Character Overlay areas, was undertaken to assess the consistency of the areas against the desired character set out in the scheme. Street by street consistency scores were mapped, and results aggregated. Judged against current criteria not all streets within the overlay scored as highly in terms of consistency.

However, even with that inconsistency, community engagement has identified that character contributes to making Toowoomba a great place to live, hence identifying the elements that are desirable and making provision to protect them in the planning scheme is critical to its success. (See Part B).

Learn more about this topic

- The character of a specific place can be examined via a character assessment and/or a context analysis. This overcomes confusion with the variation in the specific elements that contribute to the unique character of individual streets and neighbourhoods. Refer to 1.1.2.
- The Burra Charter (Australia ICOMOS) is essential in understanding the concept of cultural or heritage significance. It underpins most heritage legislation in Australia.
- Guidelines to the Queensland Heritage Act 1992 and State Planning Policy area are available online to understand the difference in levels of protection between heritage and character places.

Elements of neighbourhood character, Toowoomba's early suburbs

Characteristic

- _ Detached housing
- _ Timber construction and cladding, low-set (<1.2m) on hardwood stumps with decorative timber battens
- _ Corrugated iron roofs with 22.5°-30° pitch to main roof with an overhang
- _ Front verandah with a corrugated iron roof separate to the main roof
- _ Timber doors and windows, proportionally taller in height than width
- _ Tall, often polychrome, brick chimneys
- _ Verandahs, window hoods and gables decorated with locally available timber and pressed metal
- _ Houses set back from the street
- _ Attractive gardens and low front fences of different designs
- _ Houses face the street
- _ Grid street pattern
- _ Consistent frontage widths within a street (although often different between streets)
- _ Pre World War 2 housing

Sometimes present or varies

- _ Hipped/pyramid roofs, asymmetrical gable and hipped roofs, double and triple gabled roofs
- _ Verandahs to sides
- _ Wide roof overhangs, usually bungalow style houses
- _ Occasional masonry; face brick or rendered wall finishes
- _ Garages at the rear
- _ Single lane driveways, often with tracks
- _ Consistent street pattern or rhythm of house lots with driveways on the same side of each lot
- _ Houses on some streets with smaller blocks are closer together and closer to the street
- _ Side gardens
- _ Wide streets
- _ Large street trees
- _ Bluestone kerbs
- _ Grassed verges

Compatible if sensitively designed

- _ Contemporary extensions to detached housing if located at the rear
- _ Extensions with built form to match with existing house, with sympathetic contemporary detailing where visible from the street
- _ Residential infill if located to the rear of a retained character dwelling (and ideally fronting a side street or a laneway)
- _ Two storey building elements where subservient to retained character dwelling
- _ Slab on ground houses with low ceiling heights if other elements are consistent with adjacent character dwellings
- _ Larger windows if formed by grouping smaller panes of glazing taller than they are wide
- _ Carports or garages at the side, preferably detached or distinct from the house

Not characteristic

- _ Two storey or other houses of large scale and different proportions than neighbouring houses viewed from the street
- _ Single and multi-storey flat buildings
- _ High-set houses with built extensions underneath
- _ Slab on ground houses with low ceiling heights
- _ Dwellings facing the side or a side driveway
- _ Carport and garages highly visible
- _ Double width driveways
- _ Setbacks to front and sides inconsistent with streetscape patterns and rhythms
- _ Flat roofs, no overhangs or façades with parapets concealing roof form behind
- _ No verandah, porch or other roofed entry / outdoor area facing the street
- _ Brick, masonry and contemporary materials and styles
- _ Large or wide horizontal doors & windows
- _ Tall front fences
- _ Lack of garden space at the front



Character can vary from street to street. This is a wide street with narrow grassed footpaths and no street trees. There is a high level of consistency in the houses' built form, size or scale, lot frontage and building setbacks



This street has a different overall feel with its established street trees and houses of varying styles and scales. The lot sizes vary on each side of the street. There are some post war houses but the overall character relates to the streetscape of houses built from 1860-1939



Individual houses provide clues as to the traditional built form and individual elements that contribute to character. This 1890s cottage features many typical early elements such as the pyramid shaped or hipped roof, an open front verandah as entry and a sheltered outdoor space, decorative timber detailing and well planted front garden

Overview

The most successful infill developments are those that are “good neighbours”, resting comfortably into the streetscape of an existing area, while expressing their own unique identity. Context analysis is a tool to methodically investigate, understand and communicate the key features and characteristics of the setting (context) and to develop an overview of opportunities that will influence the design.

Principles of good design include integration with the physical environment, such as topography, biodiversity, landscape and views and, in established areas, the heritage, culture and historical context of streets, buildings, and existing infrastructure, and can take into account social and economic activities and values. A context analysis will gather this information to provide a strong foundation for responsive design, for new buildings or substantial additions, that reflect the distinctive values and qualities of a place.

Existing Policy in the Planning Scheme

Currently there is guidance for Neighbourhood Character Assessments. It assumes a prior knowledge or understanding of the existing neighbourhood character. It would be more effective if combined with an analysis of the broader area and an explanation of the design response within this context.

Guidelines

Understanding character

- Character is the distinctive place features that collectively give places their unique identities, distinguishing one city, neighbourhood or street from another. Refer also to the description of “neighbourhood character” in 1.1.1.

Context analysis and character assessment

- Essentially gather data and examine common or shared traits that exist within a street or neighbourhood, taking into account relevant planning controls. Then use this data / analysis to formulate a design approach consistent with that specific character.

What to include

- Completed planning scheme assessment matrix; it provides a checklist of the typical character elements to include such as siting, setbacks, car access and parking, built form, bulk, scale, height, rooflines, eaves, footings, openings, materials and details, as well as guidance on desirable design outcomes in relation to the existing context.
- Additional visual data such as streetscape images and drawings, historic photos or drawings should be collated to build an understanding of the aesthetic and other character values of a place.

- Places also evoke emotions and feelings in the people who live, work or visit and this can be difficult to assess. However, in an area with, say, a “welcoming” feel, analysis of the built form might provide clues. For example low fences, large windows or verandahs facing the street, which encourage people to interact more closely with passers-by may evoke a sense of connection or welcome. In contrast frontages dominated by locked garages might evoke a different feel or character, expressing a desire for privacy and separation.
- These illustrations are included as examples of the types of information gathered and presented as part of context analyses.
- The design of the proposed infill should be presented so as to show how it has addressed the findings in the context analysis and character assessment. A streetscape view showing the houses on either side and potentially further, at the same scale is a simple tool. Include diagrams or explanations showing how the specific identified character elements have been incorporated.
- **The Queensland Government and organisations such as the Planning Institute of Australia have excellent resources explaining the principles of context analysis.**

Evidence

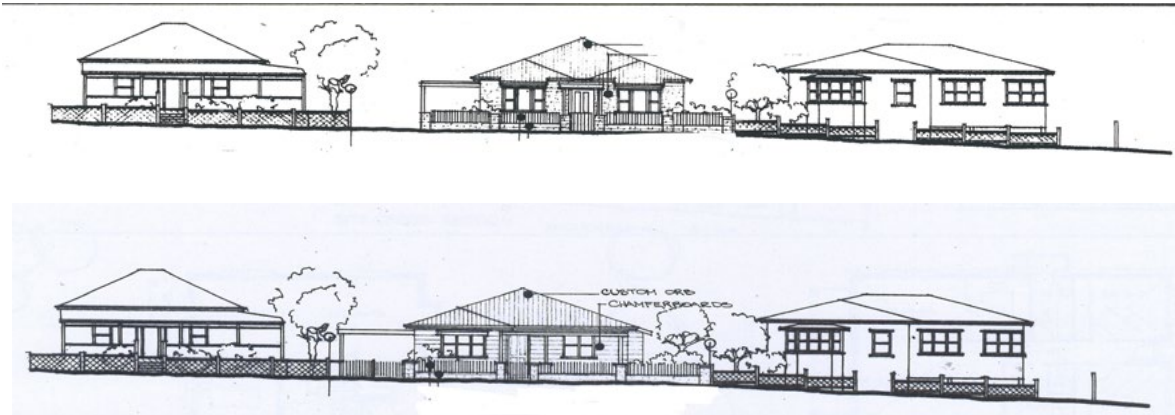
Memorable places, with their own identity, reflect the distinctive qualities of their physical setting, heritage and community values. Infill design that reflect this identity is likely to be attractive to new residents moving into those areas seeking that particular, unique sense of place. It can add value to a property where that character is desirable to new residents.

While connected by many shared features, the streets and neighbourhoods within Toowoomba and the regional townships can vary. Undertaking a context analysis encourages innovation in design responses as it ideally leads to outcomes unique to each place, taking into account elements such as the topography, street patterns, lots sizes, block layout, landscaping and typical house forms and styles.



Streetscape Views

Streetscape views showing existing adjacent houses with the proposed infill are a simple tool to review scale and built form of different design options, such as height and roof form.



Consistency and Rhythm

Some streets are relatively easily analysed such as this street in which all the houses are of the same style and construction period. Sympathetic infill would ideally incorporate gable roof forms with the same pitch, a lock or lot with the same street frontage width and similar front and side boundary setbacks.



Yellow ticks indicate individual character homes identified in the planning scheme

Aerial Imagery

Aerial images can be useful tools in analysing street patterns, lot sizes and even, as in this case identifying important houses to better understand the built form. The B&W image dating from 1946 is part of a series taken throughout Queensland and aids in understanding which are remaining early homes.

This infill house is located in a street with a variety of house types, allowing greater flexibility in the acceptable roof shape or form. Even though it differs from the adjacent pyramid roofed cottage, the scale, open verandah and window hoods ensure it is a good neighbour visually, in this context.



The existing character assessment has a number of sketches which provide guidelines for desired design outcomes relative to examples of typical existing character elements.

FORM

DIAGRAM EXIST	DIAGRAM NEW	DESCRIPTION	SCORE
		SIMILAR FORMS OR SHAPES, INCLUDING PROPORTIONS OF ROOF, VERANDAH & BUILDING.	3/3
		DOMINANT FORMS ARE SIMILAR TO STREET CHARACTER, DIFFERENT FORMS ARE SIMILAR SCALES OR NOT DOMINANT	2/3
		FORM OR SHAPE AND/OR PROPORTION ARE COMPLETELY DIFFERENT	0/3

Form = THE SHAPE OR OUTLINE OF SOMETHING

Streetscape Photomontage



Southern side streetscape photo montage



Northern side streetscape photo montage

- 1 10 Inter War Houses
Roof pitch: 22.5 degrees
Roof form: Gable
- 2 10 Victorian or Edwardian era house
Roof pitch: 25-30 degrees
Roof Form: Pyramid and Projecting Gables
- 3 2 War era houses
Roof pitch: 22.5 degrees
Roof Form: Multi-hipped
- 4 1 War era house (No. 75)
Roof pitch: 15 degrees
Roof Form: Simple hip form



Where greater variation in house style exists within a street a simple count / survey can be useful in capturing specific traits, such as roof pitch in this case, that can then be incorporated into a modern infill design. Similar statistics could examine other elements such as height, verandah form, or materials, for example.

1.1.3 Strengthen local place character with minor boundary changes to the Neighbourhood Character Overlay Area in Toowoomba

Overview

The Neighbourhood Character Overlay areas define where Toowoomba’s distinctive built character is found. They are valuable for their role in protecting buildings and features that contribute positively to the local character. Due to their importance, the Neighbourhood Character Areas should be strengthened including by making minor boundary adjustments to include additional streets that have strong character.

Existing policy in the planning scheme

- Guidance for development in Neighbourhood Character Overlay Areas can be found in Section 8.3.2 of the Toowoomba Regional Planning Scheme.
- Section 8.3.2.2 describes the purpose of the Neighbourhood Character Overlay Code as “to conserve and enhance buildings and streetscapes which contribute to the character of the local area and to ensure new development is sympathetic to the nature and character of those areas.”

Guidelines

Toowoomba

Strengthen the NCOA in Toowoomba through a minor expansion to the Neighbourhood Character Overlay Areas to include a small number of additional streets and localities identified as having merit for inclusion.

These additional areas incorporate properties on streets in five small clusters spread across four suburbs (refer to map on following page):

- Mount Lofty: Collins Street, Alford Street, Geoffrey Street, Lochel Street, Wonderley Street, Trevethan Street, Rhyde Street
- East Toowoomba: Aubigny Street
- South Toowoomba: Tolmie Street, Perth Street, Rivett Street, Seaton Street, Jennings Street, Haigh Street
- Newtown: Taylor Street, Charles Street, Holberton Street.

These streets are deemed to have merit for inclusion due to their retention of pre World War II dwellings, with built form consistent with the desired neighbourhood character defined in the Planning Scheme, at a consistency level similar to other areas covered by the Overlay.

Neighbourhood Character Place

The Planning Scheme also includes a list of approximately 2800 *Neighbourhood Character Places*, previously identified as meeting character qualities. Neighbourhood Character Places have additional development controls applied to them.

It is recommended to review the Neighbourhood Character Places, and remove any properties that no longer reflect the characteristics of the area (e.g. due to redevelopment that has previously occurred).

At the same time, some additional properties may be identified that could be added as Neighbourhood Character Places.

Use gateways / markers to better identify Neighbourhood Character Areas on the ground

Toowoomba’s Neighbourhood Character Overlay Area is an important “behind the scenes” planning tool which could be used to inform better “on the ground” awareness about character suburbs.

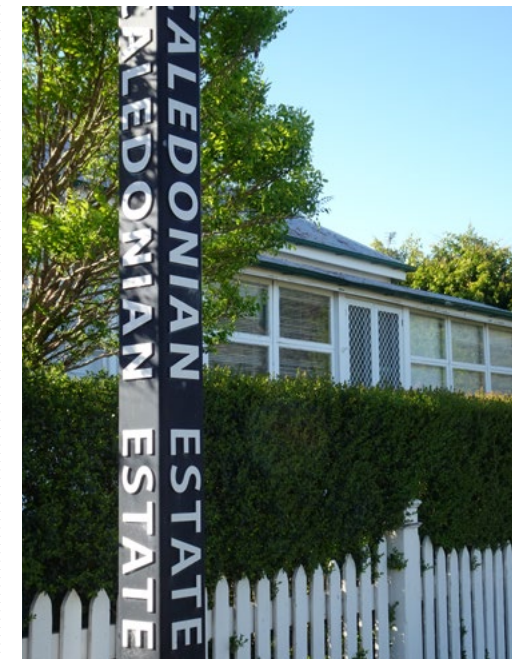
Council should expand the use of gateway markers, signs, branding, and interpretive signage at the boundaries to neighbourhood character areas, to celebrate and strengthen the community’s vision for these areas.

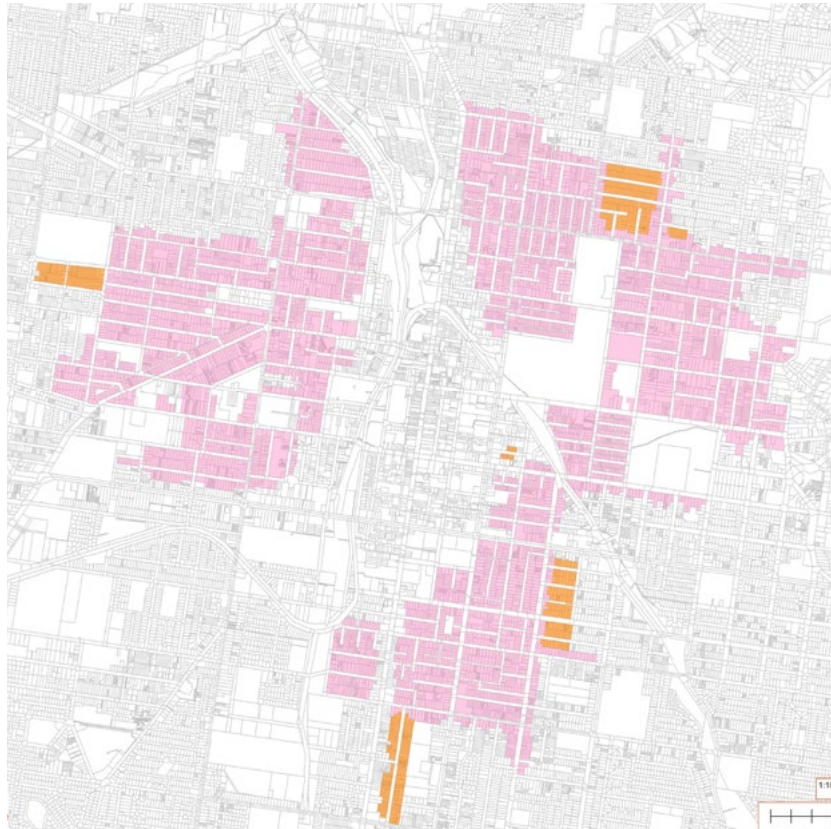
A comparable example is seen at the historic Mort Estate where timber posts are positioned at street corners of the estate to signify its boundaries. The Caledonian Estate also has markers and information.

A suite of public realm elements could further be developed over time to add to placemaking in these areas.

Evidence

After site surveys and analysis, a small number of potential gaps in the NCOA were identified. Analysis and comparison of 1940s aerial imagery was used to review these locations. These were then cross referenced using Google Street View as an initial consideration of whether neighbourhood character qualities are evident in the additional areas.





Neighbourhood Character Overlay Areas
Proposed additional areas shown in orange



Tolmie Street, South Toowoomba
Character homes on Tolmie Street not currently included in the Neighbourhood Character Area Overlay

Google Street View



Alford Street, Mount Lofty
Character homes on Alford Street not currently included in the Neighbourhood Character Area Overlay

Google Street View

1.1.4 Apply more local variation with three Neighbourhood Character Overlay “Sub-areas”

Overview

Typically Toowoomba’s character areas contain a mix of lot sizes and house styles, making it more difficult than, say, a street of terrace houses in Adelaide or Melbourne to define. However, there is somewhat of a hierarchy, which may be useful in defining the general character of a particular street or neighbourhood.

These sub-areas provide a simple framework for discussion about developing more targeted planning controls to provide greater clarity for owners planning work in a specific neighbourhood character area.

Description

In Toowoomba’s first heritage and character planning scheme controls (DCP) developed in the 1990s each specific street or area had its own statement of significance relating to its history, the aesthetic values embodied in the street layout, setting, the housing stock and occasionally social values.

These statements are useful tools in understanding the unique character of a street or area, but it is unrealistic to incorporate such extensive descriptions into a planning scheme and this section attempts to categorise each street into one of three broad categories. Specific controls could be developed for each of these sub-sets to allow greater flexibility across the different streets within the broader designated overlay areas.

These definitions are based on the assumption that the character of Toowoomba’s oldest streets and houses is of value or significance to the local community and hence should be retained.

Broadly the three areas have been categorised as:

1. **Established**
2. **Unified (or cohesive)**
3. **Traditional**



Each of these areas share the general character elements outlined previously in 1.1.1. The intent is to identify in each of these sub-areas those additional, different or more prevalent elements that could help distinguish them. This information can then be used to guide the development of more targeted or specific controls most relevant to protecting the specific character of the sub-area.

While these broad sub-areas would allow some customisation of the controls, it should not take the place of the requirement for individual context analysis and character assessment where major development, whether new infill housing or major additions are proposed (see 1.1.2).

It is important that any change in a neighbourhood character area, where it impacts on streetscape in particular, should be considered in relation to the immediately adjacent character houses. In the past, decisions have been based on the impacts of nearby or adjacent post 1950s buildings. However, these houses do not fall into the accepted Toowoomba historic character valued by the community and intended to be protected by the neighbourhood character controls.



So, while building adjacent to recent infill buildings might appear to provide greater flexibility, it is important to ensure new development is consistent with the identified early character. Otherwise there is a risk of gradual erosion of character as each new building, in relating to newer house styles and materials, moves further away from the original most highly valued building elements and desired character.

The unique traits of that street and the houses within it would still require some individual analysis when new development is proposed, particularly, for example, where it might be adjacent to a more recent building that would not be considered a typical character house in the area. (e.g. face brick 1970s two-storey house).

Community engagement has identified that character contributes to making Toowoomba a great place to live, hence identifying the elements that are desirable and making provision to protect them in the planning scheme is critical to its success. These sub-areas are intended to allow for the development of a higher level of customisation for neighbourhood character controls.



“Established” Neighbourhood Character Sub-area

Overview

These are the city’s earliest established streets, typified by the key tree-lined thoroughfares in Toowoomba’s earliest subdivision, the 1860’s Mort Estate (bounded by West, Russell, Bridge and Mort Street). It also includes Toowoomba’s main arrival streets such as Margaret, Herries, Hume and James and encompasses streets established early in the city’s history found in South Toowoomba, Middle Ridge, Newtown and East Toowoomba. The streets tend to be wide with bluestone kerbs and street trees are most commonly camphor laurels, often very large.



Description

The character of these areas arises from the well-established aesthetic, architectural, historic and social values that are important to past, present and even future generations of local residents.

The aesthetic value of the streetscapes arises from the highly attractive visual qualities created by the combination of pre-WW2 low-set houses, camphor laurel street trees and bluestone kerbs. The architectural value is embodied in the intact groups of houses that are visually linked by age, scale, materials, form and architectural style, generally domestic timber house styles from the late 19th and early 20th century. Views of the houses are framed and enhanced by the mature street trees and established gardens.

There can be a great variety of lot sizes and house styles in these areas as the larger lots, from the earliest land sales and subdivisions, have been gradually subdivided over time. New houses have then been built on the smaller lots at varying periods and in a range of styles.

A common trait of these areas is that they feature substantial early homes still set on larger lots with extensive gardens, often with remnants of their 19th century plantings. Many of these, such as Vacy Hall, Clifford House (Russell Street), Wyemba (Campbell Street), Cowden Knowles (Margaret Street) are listed



on the Queensland State Heritage Register. While this offers a higher level of heritage protection and control over development to the individual listed places and the adjacent properties, their contribution to the overall character should still be considered in the Neighbourhood Character controls.

This pattern of mixed development can present challenges in designing infill that retains the sense of grandeur of the original subdivisions and also takes into account the smaller infill that has developed over time.

In these areas a context analysis that examines the overall street, not only the immediately adjacent properties, and takes into account some of the historical values would be needed to ensure development does not detract from the most important elements in the street.

The overarching additional principles, above the broad character controls for form, scale, materials etc. guiding change in these areas would be based on firstly identifying the most architecturally, historically or socially significant places and ensuring they remain the dominant elements in the street. New buildings should be low key in their design so as not to compete or overshadow the early buildings and their settings. Removal of unsympathetic brick post 1960s buildings could be encouraged.



Planning scheme considerations

Character elements

- _ Larger early homes – often of heritage significance in themselves (Clifford House, Tawa, Harris House)
- _ Street patterns of early lots with smaller re-subdivision of the land into smaller lots
- _ Street trees

Detracting elements

- _ Post 1950s face brick houses and apartment buildings

- _ Lack of gardens and established trees

Potential controls specific to these sub-areas

- _ Retain historic street patterns
- _ Higher level or protection for frontages of early homes of highest significance
- _ Retain street trees – influences, for example protection of trees during construction, driveway crossings, block layout
- _ Protection of setting of individual houses within the streetscape. For example, infill may need to be set further back to retain views of early homes or retain a larger garden facing the street
- _ Context analysis to be whole street

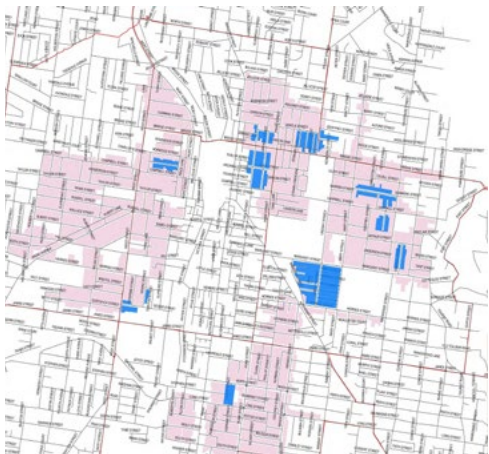


“Unified” Neighbourhood Character Sub-area

Overview

These sub-areas are characterised by an unusually high level of visual uniformity, which can vary from street to street. For example Louisa, Hamwood, Goggs and Grenier Street are included for the consistency of the style and era of construction of the houses. The setbacks, frontages etc. tend to also be similar creating a clear visual pattern or rhythm within the streetscape.

Other areas such as Pitt and Burns Street have a distinct streetscape pattern formed partly by the lot sizes and the rear laneways, with no car access to the main streets.



Description

The character of these streets has aesthetic value for a unique cohesive visual quality. Generally they contain exceptionally large & intact groups of houses which are good representative examples of a particular style of building that predominates in Toowoomba's older housing stock. This housing stock is generally representative of local timber house styles of the 1890-1940 period.

Louisa Street with its predominance of inter-war timber houses that are unified by their consistent age, form, materials and architectural style is a good example.

This uniformity is often also expressed in consistent street frontage widths and overall lot sizes, as well as the front and side boundary setbacks, enhancing the visual appeal of the street.

The cohesion of the housing in these streets is often in their overall form, scale and siting. Examples pictured include streets with groups of pyramid roofed workers cottages or the Queensland Bungalow style homes built 1920s-40s with multiple gables facing the street.

The individual houses may have superficial change, such as enclosed front verandahs or aluminium windows instead of timber.



However, the overall original appearance of the building is still clearly legible with readily reversible change.

This uniformity is not always driven by the house style but in some areas, such as the Caledonian estate precinct (bounded by Herries, Kitchener, Margaret & Mary Street) is created by the pattern of subdivision. In this estate it is the lot sizes and rear laneways, with no car access at the front that create a cohesive visual streetscape and uniformity of character. Though the style of the houses might vary the width of the lots and their street frontages link the houses in terms of their facade proportions and scale.

Different controls in these areas would be based on firstly understanding the uniform element of the particular street and ensuring infill or change retains and respects that unique elements. For example if it is the width of the building and its placement on the lot, then any new building would be based on the same dimensions. If it is a particular built form or roof shape, then that would be a critical design element for any new development.

Usually it will be a combination of these factors. A context analysis in these areas would focus on the whole street, including streetscape patterns and individual houses.



Planning scheme considerations

Typical key character elements (may vary)

- _ Specific unifying element
- _ Cohesive housing styles/materials/form etc.
- _ Consistent street frontages or block size and position of houses within lots
- _ Rear laneway access, no car access to street

Detracting elements

These are usually elements that are different to the specific elements that are uniform or consistent in the street such as house style or lot size, frontage or setbacks

- _ Post 1950s face brick houses and apartment buildings

Potential controls specific to these sub-areas

High level of protection for the elements that contribute to uniformity. This should include;

- _ House façade design (form, materials etc)
- _ Setbacks; front and side, garden setting
- _ Pattern of driveway / car access
- _ Heights, which could, for example, be floor or gutter levels relative to adjacent houses
- _ Roof form, pitch, materials



“Traditional” Neighbourhood Character Sub-area

Overview

This is a broad category that could be considered more suburban in character than some of the established inner city areas. It differs from the “Established” sub-area in that street trees are smaller or more recent, kerbing usually concrete, block sizes are generally more consistent. Compared to the unified sub-area, the house styles can vary more broadly from late 19th century, through to recognised pre WW2 housing types.

They tend to be located off, or adjacent to, the earlier established streets, often developed as small housing estates such as the Lilley Estate.



Description

The overall aesthetic value of the housing stock is based on the intermittently placed attractive individual houses and small groups of visually unified pre-WW2 houses.

The unity in the housing stock is generally created by an overall consistency of scale, siting and gardens setting, rather than specific house style. The cohesion in character of the housing stock in these areas is driven by their shared timber and tin materials and timber stumps usually low-set (up to 1m) from the ground level, rather than specific shared design traits.

Similar to the established streets there are often groups of buildings that are visually linked by age, scale, materials, form and architectural style. In this situation the character assessment matrix and a site specific context analysis are valuable tools in assessing impacts of the impact of any development as it will identify important groupings that should be retained and respected.

Other shared traits that tend to follow in these areas are similar setbacks, garden sizes, low open fences or hedges and open front verandahs.

These areas tend to have a higher proportion of 1940s or 1950s immediate post war homes,



sometimes with brick walls and tiled roofs, than the other sub areas. Though these houses can blend well into the streets, often due to their proportions and established gardens settings, and their retention should be encouraged, these tend to be an anomaly in terms of the character and should not be used as a guide to appropriate infill in these areas. Design of new work needs to be based on the early character that the overlays are intended to preserve, which is generally timber and tin housing.

The unique traits of that street and the houses within it would still require some individual analysis when new development is proposed, particularly, for example, where it might be adjacent to a more recent building that would not be considered a typical character house in the area. (eg face brick 1970's 2 storey house)



Planning scheme considerations

Key character elements

- _ Consistent house size and scale – typical suburban homes of similar size to one another
- _ Often consistent streetscape patterns of subdivision, including lot size, car access, placement of house on the block
- _ Garden setting is important to the house
- _ Consistent frontages/façades

Detracting elements

- _ Post WW2 face brick houses and apartment buildings
- _ Places with no garden

Potential controls specific to these sub-areas

- _ Groupings of similar houses protected
- _ Maintaining timber frontage of the house
- _ Traditional roof form, stepped façade with open verandah / porch
- _ Height critical, based on stumps and gutters
- _ Garage in rear half of wall line of house, preferably to the rear, single width track driveways
- _ Low fences that do not obstruct setting or streetscape



Combined
Neighbourhood
Character Sub-
area



Established
Neighbourhood
Character Sub-
area



Unified
Neighbourhood
Character Sub-
area



Traditional
Neighbourhood
Character Sub-
area



1.1.5 Five Design Principles for development in Neighbourhood Character Overlay Areas

Overview

The five design principles set out in the following section seek to enhance the Toowoomba Region's unique character as well as ensure best practice design that contributes positively to the character and sustainability of the region. This includes ensuring buildings respond positively to their context, engage with and activate the street, make a good neighbour, design reflects warm temperate climate living, and meet the needs of current and future generations.

Existing policy in the planning scheme

Despite the intent of the Neighbourhood Character Overlay Code, it is observed that further compromise of neighbourhood character through loss of street trees, inappropriate new developments, extensions and modifications to existing dwellings may cause an undesirable loss or dilution of character values. The current planning scheme requires stronger guidance in identifying key character values that are the most critical to enhance and protect.

Guidelines

As the region grows and adapts to meet changing social, environmental, and housing needs, we need to balance these new requirements with respect for the characteristics of housing and streetscapes in Neighbourhood Character Overlay areas. These design principles apply to new dwelling houses, infill multiple dwelling developments and extensions and alternations to existing dwellings.

The five principles are structured in order of scale from macro context and neighbourhood consideration, down to the micro scale of building elements and occupants' needs. The five principles are:

1. Respond to context
2. Engage with the street
3. Be a good neighbour
4. Celebrate warm temperate climate living
5. Build for the future

Each design principle is supported with a series of sub elements that provide guidance on potential ways to deliver desired outcomes.



1. Respond to context

- Good design responds and contributes to its context. Context is the key natural and built features of an area, as well as its social, economic and environmental conditions. Understanding all these aspects at varying scales and their relationships will enable informed decisions to be made that will positively shape the future of the development and its area of influence. Retention of existing buildings is a key component of a successful response to context in character areas.
- Refer to the description in 1.1.2 'Context Analysis & Character Assessment for Infill Development' for guidance on methodical investigation method to identify opportunities and constraints that may influence or relate to a development.
- *Neighbourhood Context*
A site's suburban context can be considered its walkable catchment, which is anywhere within a 20 minute neighbourhood. This is typically represented by an 800m walking radius. An analysis of the suburban context should consider the area's history,



topography, hydrology, landscape, public open spaces, views & vistas, schools & shops, landmarks, and transport network. As well as the existing attributes of the neighbourhood, the future planning character of the Planning Scheme also needs to be considered. Responding to context involves identifying the desirable elements of an area's existing or future character. Well-designed buildings respond to and enhance the qualities and identity of the area.

– Street Context

A typical street in the Neighbourhood Character Overlay Areas is often characterised by various degrees of pre World War II era built environment. This consists of low set detached housing on timber stumps, attractive garden settings, grid pattern streets, grassed footpaths, mature street trees and bluestone kerbing. New developments and housing alterations should respond to the existing street context and integrate neighbourhood qualities that positively contribute to the street.



Guidelines cont.

– Site Context

Each site is unique and development should be designed in response to the features of the site. When determining the building siting, consideration should be given to retention of existing building fabric, significant vegetation, best orientation, warm temperate climate design, access to services, relationship to adjoining neighbours to suitably address overshadowing and privacy impacts. New developments should enhance the street and neighbourhood character.

2. Engage with the Street

– The street is the threshold and public space of the broader neighbourhood. It is a key piece of infrastructure and public realm that can create a sense of activity and community identity. Buildings should engage with the street in a way that enhances positive attributes such as existing landscape, lifestyle and activity, while minimising potential negative impacts such as car accommodation and lack of surveillance. By considering the following guidelines, new developments can positively contribute to the local character of the street.

– Street Activation

Take opportunities to enhance the streetscape through contributing to unique character values of the neighbourhood. These include consistent front boundary setbacks, front verandahs, low fencing and generous front gardens to present a welcoming appearance to the street. Streets can also be activated through occupant use and verandahs adjoining street edges, allowing occupants to engage with the street life, and provide passive surveillance.

– Fencing

Fencing is necessary to provide security, privacy between lots and to define private space. To ensure that houses frame the street and emphasise street width and rhythm, fences in front of the building line should not dominate the streetscape. They should be no more than 1.2m high and of a permeable construction type (such as a timber picket fence with 40% openings) that maintain visual connectivity to the street. Fencing can be accompanied by landscaping such as hedges and front gardens to help soften their appearance.

– Street Grain and Scale

The grain and scale of existing low-set single storey buildings within a garden setting should be strengthened by referencing datums, setbacks and massing in keeping with the rhythm of the street. The best Toowoomba streets are known for their high quality landscaping. Improving the landscaping of the existing streets positively contributes to the character of the area. Mature trees and areas for deep planting along the street frontage should be retained where possible as tall trees soften and modulate the built form.

– Legible Building Entry

The entry to each home and businesses should be easy to identify and visible from the street. Clearly defined and separate access for both pedestrians and vehicles will ensure safety within the site. The location of the entry should be clearly legible and highlighted through the architectural expression offering climatic relief from rain or sun, while leading users from the street to front doorstep.

– Car Accommodation

Design garages and carports should be subservient to the main dwelling so that views to and from the house are not obstructed. The garage should be set back from the main building line and does not disproportionately dominate the facade of the building. Single or tandem parking arrangements on narrower lots may be appropriate.

– Utilities Done Well

The utilities areas including bin stores should be carefully considered in the design process so they don't negatively impact the streetscape. Bin storage should be integrated within the building or adequately screened if visible from the street and be located to prevent odours impacting residents or passers by. Ensure that adequate space can be provided without negatively impacting on the street frontage and design of the building.



Guidelines

3. Be a good neighbour

- *Share access to daylight.*
Consider siting of new buildings and extensions so that neighbouring properties also have access to daylight.
- *Create privacy for you and your neighbour.*
When positioning windows, doors and outdoor spaces, consider ways to ensure privacy between neighbouring properties. Employ adjustable or fixed screening as well as offset windows to avoid alignment with nearby neighbouring windows. Window coverings and landscaping can provide added privacy.
- *Balance built form and landscape.*
Leaving space to play, relax and retreat outdoors is important. The location and size of outdoor spaces may also create breathing space between neighbouring properties. Maintaining wider side setbacks of 2m and above where possible to maintain allotment frontage rhythm.



4. Celebrate Warm Temperate Climate Living

- The Toowoomba Region offers a unique lifestyle that is focused on the connection to nature and landscape. Building design should reflect and embrace these ideals to ensure warm temperate climate living is experienced to the fullest extent and is also sustainable.
- *Maximise solar gains from north facing openings.* Design consideration should be given to allowing passive solar gains from north facing openings, appropriate setback to other buildings to prevent overshadowing, increased facade area for solar infiltration, thermal insulation and sealing of the building envelope. Protect buildings and outdoor open spaces from prevailing winter winds through vegetation and built form. Employ passive heating and cooling design features (eg. Stack ventilation) and consider opportunities to achieve good cross ventilation for cooling.
- Refer to 'Warm Temperate Climate Study and Design Guidelines' for further guidance and technical information relating best practice architectural responses for Toowoomba Region.



5. Build for the future

- Ensure a building's life span reaches its fullest potential. Design buildings to be adaptable, consume less energy, produce less waste and manage water responsibly. Buildings should be designed to ensure they have a long lifespan, so that their embodied energy is spread over a greater period. We don't know what the long-term demands will be for buildings in the future. Allow flexibility in the design to adapt to changing needs. For example, the reliance on car parking might diminish or the need for home offices might increase post COVID pandemic.
- *Minimize Urban Heat Island Effect.*
Establish the requirement for a minimum of 15-25% of lot area to be allocated to green space. Retain existing mature trees and important vegetation. Ensure at least one tree is planted per new dwelling for infill development and minimise the extent of impervious surfaces (eg driveways) to contribute towards a more sustainable and liveable neighbourhood.
- *Create Adaptable Spaces*
Design homes to support modification and adaptation in response to changing needs, including ageing in place.
- *Enhance Accessibility*
Design for users with varied levels of mobility and adopt Universal Design principles and Liveable Housing Australia's Liveable Housing Design Guidelines. <https://liveablehousingaustralia.org.au>

Evidence

- An outcome of the synoptic survey identified the need to establish design outcomes and principles for better infill developments that positively contribute to the character of Neighbourhood Character Overlay Areas. The five design principles outlined in this guide were developed through feedback from the stakeholder workshops and studies by others including the Warm Temperate Climate Study and Design Guidelines.
- These design principles will be further tested and applied in the infill housing typology studies in the next section.



Stronger planning / building controls for development in Neighbourhood Character Overlay areas

Overview

Buildings and streetscapes that contribute to the character of the local area are identified under the Neighbourhood Character Overlay and protected and enhanced in accordance with the Neighbourhood Character Overlay Code.

The Neighbourhood Character Overlay Code guides desired local neighbourhood character outcomes for new development and the protection of existing development. Guideline 1.1.1 provides further information on defining neighbourhood character.

The Neighbourhood Character Overlay Code needs to be strengthened to provide strong guidance for development in Neighbourhood Character Overlay Areas. Without effective and defensible policy, desired development outcomes are unclear.

Existing policy in the planning scheme

The Neighbourhood Character Overlay applies to the suburbs close to the Toowoomba city centre (see map in guideline 1.1.3).

The Neighbourhood Character Overlay increases the level of assessment for certain Building Works involving additions, extensions, demolition and/or removal, and Material Change of Use for Dwelling House, Dual Occupancy, Multiple Dwellings and Reconfiguring a Lot (lots under 450m² or hatchet lots).

Appendix 2 of the PSP No. 1 – Development Application Requirements provides guidance for undertaking Neighbourhood Character Assessments required under the Neighbourhood Character Overlay Code.

Protection and enhancement of neighbourhood character should be assessed differently to development on or adjoining heritage places. The Heritage Overlay Code is focused on heritage places, whereas neighbourhood character is focused on the building and streetscape that contributes to the character of the local area.

Guidelines

Strategic Framework

The Strategic Framework needs to be clearer on what elements of character are important. For example, built form being single storey low-set ‘timber and tin’ houses (see Guideline 1.1.1 for more examples of neighbourhood character).

Currently, the Strategic Framework identifies that Toowoomba City and the region’s rural townships have a strong sense of identity through their individual local character. Specific outcomes and elements identify new development needs to be compatible with character values of the streetscape and locality.

Character values are identified generally. Without specifying what values are important in character areas, it is unclear as to what is important in protecting or promoting in developments.

Being specific in the Strategic Framework will create a clear line of sight between all parts of the planning scheme and expectations of development in the neighbourhood character areas.

Neighbourhood Character Overlay Code

Assessment benchmarks

Many assessment benchmarks in Table 8.3.2:2 of the Code have no nominated Acceptable Outcome. Instead, the Performance Outcomes refer to Appendix 2 of PSP No. 1 or diagrams in Schedule A for details.

To create certainty on specific development requirements (i.e. bulk and scale, height,

setbacks), Acceptable Outcomes should be drafted in quantifiable terms. For example, “the setback does not exceed 20 percent of both neighbouring character dwellings”.

Each Performance Outcome should be a separate criterion with a quantified Acceptable Outcome to encourage consistent outcomes.

Diagrams and figures

The diagrams and figures in Schedule A provide useful guidance on how development can uphold elements of the Code. In many instances, however, the format and quality of the images are difficult to understand. Council should look at developing clearer images and layout to represent this information.

Other considerations

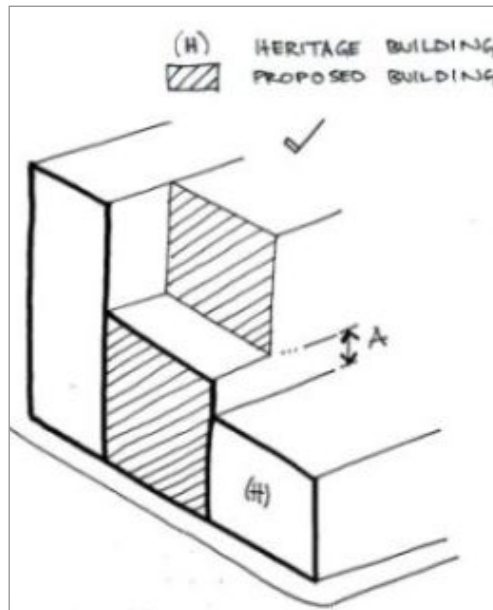
To create even more effective and defensible outcomes, Council could consider the following:

- Better defining character in the Strategic Framework and Neighbourhood Character Overlay Code. See Guideline 1.1.1 for details.
- Undertake context analysis to encourage innovation in design responses unique to the local character (see Guideline 1.1.2).
- When accompanied by a clearer and higher standard of design outcomes articulated in the relevant Code(s), and with other processes (e.g. design review) in place, consider reducing the level of assessment for some aspects of development, such as Dual Occupancies and Multiple Dwellings to support greater housing variety and choice close to the city centre.

- Introducing assessment benchmarks in the Neighbourhood Character Overlay Code for specific demolition/removal works and new works (i.e. re-positioning or raising a structure, removal, extensions or alterations).
- Incorporating environmentally sustainable design performance guidelines for new buildings.
- Introducing specific assessment benchmarks for certain elements (e.g. fences, façade alterations, landscaping).
- Incorporate assessment benchmarks that prioritises protection of streetscape amenity (e.g. Performance Outcome is "Development for a car parking structure or associated vehicle movement area does not dominate the appearance or landscape setting of the house when viewed from the street." The associated Acceptable Outcome is "Development involving a driveway or parking area uses a minimum of 50% permeable surfaces, such as sleepers, pavers and gravel interspersed with soft landscaping and does not use large expanses of bitumen and concrete.")
- We understand there isn't a common awareness of PSP No. 1 Appendix 2. It is recommended that Council create a greater awareness of the requirements for Neighbourhood Character Assessments through platforms, such as pre-lodgement services.
- Council should enforce the requirement for development applications in Neighbourhood Character Overlay Areas to be supported by Neighbourhood Character Assessments. This will ensure all projects are subject to the same overarching design principles. See Guideline 1.1.2 for details.

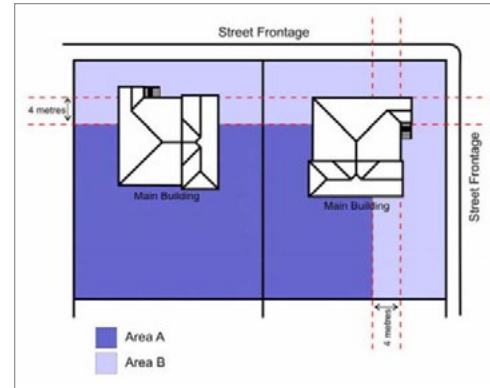
Evidence

Consultation with Council and the community has identified that stronger planning / building controls relating to development additions, extensions and removal is required. Council have confirmed that supporting PSP's providing guidance on neighbourhood character assessment is not commonly used by applicants. Strengthening the provisions of the Neighbourhood Character Overlay Code will provide stronger guidance to protect these areas in the region.



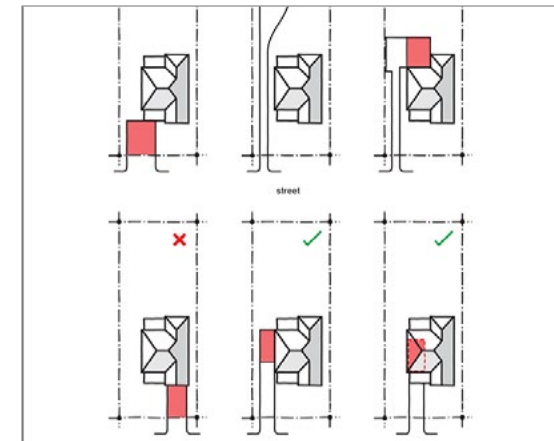
Example

Figure illustrating new building upper level setback requirements. Dimension A is within 20% of the adjacent heritage building height. Use of a keys and legend is helpful for interpretation. Source: Townsville City Council, Figure SC6.3.4.8 in Cultural Heritage Planning Scheme Policy, Townsville City Plan 2014



Example

Figure illustrating setback of garages and carports from front boundary to ensure they do not dominate the house when viewed from the street. Use of different colours is helpful for interpretation. Source: Cairns Regional Council, Figure 8.2.12.3.a in Neighbourhood Character Overlay Code, CairnsPlan 2016



Example

Figure illustrating setback of garages and carports from the front boundary to ensure they do not dominate the house when viewed from the street. Use of different colours is helpful for interpretation. Source: Brisbane City Council, Figure h in Traditional Building Character (Design) Overlay Code, Brisbane City Plan 2014

Example

Figure illustrating how a lack of traditional elements, detailing and materials can lead to an inappropriate flat façade to the street. Use of ticks and crosses is helpful for interpretation. Source: Brisbane City Council, Figure d in Traditional Building Character (Design) Overlay Code, Brisbane City Plan 2014



1.1.7 Greener gardens in the Neighbourhood Character Overlay Areas (NCOA)

Overview

Green gardens are a defining feature of the streetscape and local character of Toowoomba's character areas. Enhanced greening is desired to reinforce the sense of place, enhance visual amenity, as well as improve environmental comfort and biodiversity in these areas. Greener gardens and the protection of existing trees should be promoted in new development and for existing properties.

Existing policy in the planning scheme

The Landscaping Code promotes "high amenity and comfortable places" in new development, but specific garden and soft landscape criteria could be better developed.

Aside from the planning scheme, Council provides residents (via rates notice vouchers) two free plants each year and encourages garden planting. A grants programme for community groups also supports shade tree planting on properties.

Council also has a guide for footpath garden requirements however the management of private gardens is not easily controlled unless part of a development application (e.g. for a new house or houses).

Guidelines

Retention of mature trees and important vegetation

- Retain mature trees and important vegetation and integrate them into development designs. Offsets for new tree planting requirements should be made if trees are retained in developments.
- It is recommended that Council consider mapping mature trees on private property in the NCOA, and requiring further assessment if removal is proposed as part of a development.
- Investigate a Local Law for the protection of large and important trees.
- Important existing trees and stands of large trees on private property can be protected with a Planning Scheme overlay or policy to regulate tree removal, pruning and to protect root zones. State Heritage protection can also be applied.
- Other Councils in SEQ (for example Logan) apply height, circumference and species criteria to determine whether a tree is desirable to retain due to its maturity, biodiversity, landscape and character contribution.

New site landscaping and greening in new development

- When undertaking development in the NCOA (e.g. a new dwelling, extension, or multiple dwellings), preserve and enhance urban tree canopy and urban greening through retention of existing mature trees where practical, as well as the planting of new trees and landscaping.
- 15-25% of site areas should be preserved for soft landscaping, with a minimum dimension of 700mm for all garden beds.

This should enable a stronger emphasis on space for front and rear gardens in new development in the NCOA.

- At least 30% of land between the primary street boundary and the main building line (the front yard) should be used for soft landscaping. Development to provide a minimum 4m x 4m 'deep soil' tree space.
- Developments minimise the number of driveways to provide more space for private and street trees.
- Front gardens should include at least one medium (6-12m height and 4-8m canopy) or large-sized tree (12m height and >8m canopy) of an appropriate and contextually-relevant species. (Council's street tree species list 2019 includes guidance on appropriate garden trees, with reference to the biodiversity, shade and positioning criteria for difference species).
- A landscape plan showing appropriate plantings should be part of the assessment.

Incentivising greener gardens

- Native species are promoted in garden landscaping and footpath gardens.
- To encourage and promote the benefits of greener gardens, expanding Council's existing incentive schemes for community members to upgrade their private gardens, front and back, with the goal that important existing vegetation (such as important individual trees or stands of larger trees), appropriate trees and plants will be planted and maintained in the future.
- Footpath gardens could be further encouraged with a voluntary scheme where Council prepares verges with new topsoil for planting for, say, 100 locations per year, with residents committing to plant and maintain a new footpath garden.

Evidence

Feedback from stakeholders identified that areas where trees and gardens are established have a more positive relationship with the street, contribute strongly to local character and visual appearance, provide shade and heat mitigation, and support stormwater infiltration.

In addition, stakeholders suggest that mature trees and highly valued vegetation in the NCOA require more robust protection.

Other planning schemes in Queensland and interstate offer several policy examples for encouraging greener gardens in development.

Learn more about this topic

- [Toowoomba Green Infrastructure Strategy](#)
- [Toowoomba Regional Urban Form Framework Scoping Study](#)
- [QDesign 2018](#)
- <https://www.tr.qld.gov.au/environment-water-waste/trees-plants-wildlife/trees/13480-free-plant-voucher>
- <https://www.tr.qld.gov.au/about-council/council-governance/plans-strategy-reports/various-documents/8830-street-tree-master-plan>
- [Brisbane City Council Verge Garden Guidelines](#)

Greener gardens

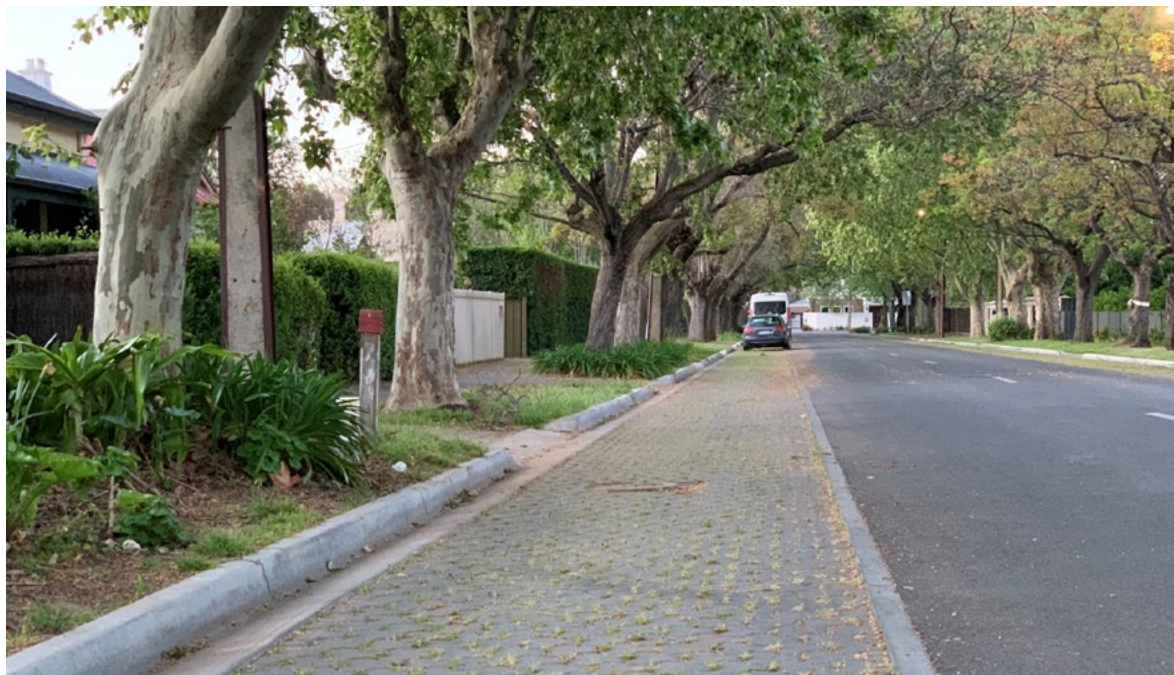
Toowoomba's street and suburbs are characterised by green gardens creating a pleasant streetscape interface from landscaping in front gardens

Photo: Jensen PLUS

**Greener streets**

Classic Toowoomba street feature very large Camphor Laurel trees. No other street vegetation is present in this example, with lower planting found in front gardens and hedging

Photo: Jensen PLUS

**Tree-sensitive****design**

This street is also lined with mature street trees. The outside road (parking) space has been resurfaced with permeable paving, allowing stormwater to infiltrate into the ground and support tree health

Photo: Jensen PLUS

1.1.8 Strengthening Street Tree Guidelines in Neighbourhood Character Overlay Areas (NCOA)

Overview

The protection and management of street trees will enable the character areas of Toowoomba to remain distinctively green for future generations through the retention and expansion of the urban forest.

Existing policy in the planning scheme

Local Law 1 protects Council tree assets. Council can also address street tree protection if it's associated with a development application. In other cases, tree and vegetation protection is controlled by the Department of Natural Resources and Mines and / or the Department of Environmental Heritage Protection. Some plant species may also be protected by the Nature Conservation Act 1992.

The Toowoomba Street Tree Master Plan addresses the recommended management and approach for existing and new council trees. The Street and Park Tree Policy and the Toowoomba Region Street Masterplan guide the management of the tree population.

A Driveway crossover policy exists which controls the distance crossovers are from trees.

Guidelines

Development near mature street trees

- Tree Protection Zones (for example, the canopy line) for street trees should be established and enforced. This could include in the assessment of new development on properties adjacent to street trees and which affect the canopy line.

Plant more trees

- Action the recommendations of the Street and Park Tree Policy and Street Tree Masterplan.
- Street trees play an important role in achieving urban canopy targets. Council's Street and Park Tree Policy can accommodate canopy targets into its forward planning.
- Future measures should be directed to both managing and maintaining existing trees, and expanding and establishing new trees.

Street tree choice

- Enhance the concept of Iconic Avenues by establishing Future Iconic Avenues.
- Street tree species in individual streets should reflect a size and species which is most suitable for its context. This may mean choosing a tree species which maintain an existing avenue effect of the same species or matching a height and canopy spread of trees that exist in the street.
- Establish the future Green Character of the area by planting street trees which respond well to the local conditions, locality and are resilient to a changing climate.

- Street tree choice is informed by the width of the street with a goal of achieving canopy cover and establishing a streetscape character.
- Utilities and services are integrated into streets in a way that considers and protects the health and structural integrity of vegetation, particularly established trees and important remnant vegetation.

Street tree management

- Enhance the priority given to street tree retention and increase the monetary value assigned to trees at the request for removal.
- Street tree choice is informed by a succession and new-planting strategy, and an assessment of how the new trees will enhance and contribute to the character of the area.
- This strategy will focus on two key sections: "Manage and maintain existing trees" and "Expand and establish new trees".
- Use permeable paving, tree cells and tree inlets and other water sensitive urban design (WSUD) techniques in NCOA development, and in street upgrades, to support tree health as well as to manage stormwater flows and quality.
- Australian Standards for tree protection should be applied to the management of street trees and when proposed development is occurring in proximity of an existing street tree. This will help to ensure the future health and structure of the tree is managed.

Evidence

Feedback from stakeholders is that street trees and highly valued and require more robust protection.

Learn more about this topic

- [Toowoomba City Centre Master Plan](#)
- [Toowoomba Green Infrastructure Strategy](#)
- [Toowoomba Regional Urban Form Framework Scoping Study](#)
- [QDesign 2018](#)

1.1.9 New Infill Dwelling Typologies for character areas

Overview

The following infill dwelling typologies are introduced to guide new housing choices in the well-located inner areas of Toowoomba, but which complement and strengthen the character of these highly valued suburbs.

The typologies cover different development scenarios for both single and double allotments. Smaller dwellings, secondary dwellings and co-housing typologies will be tested to explore their validity as alternative models to provide housing diversity and better scaled infill development models for Neighbourhood Character Overlay Areas.

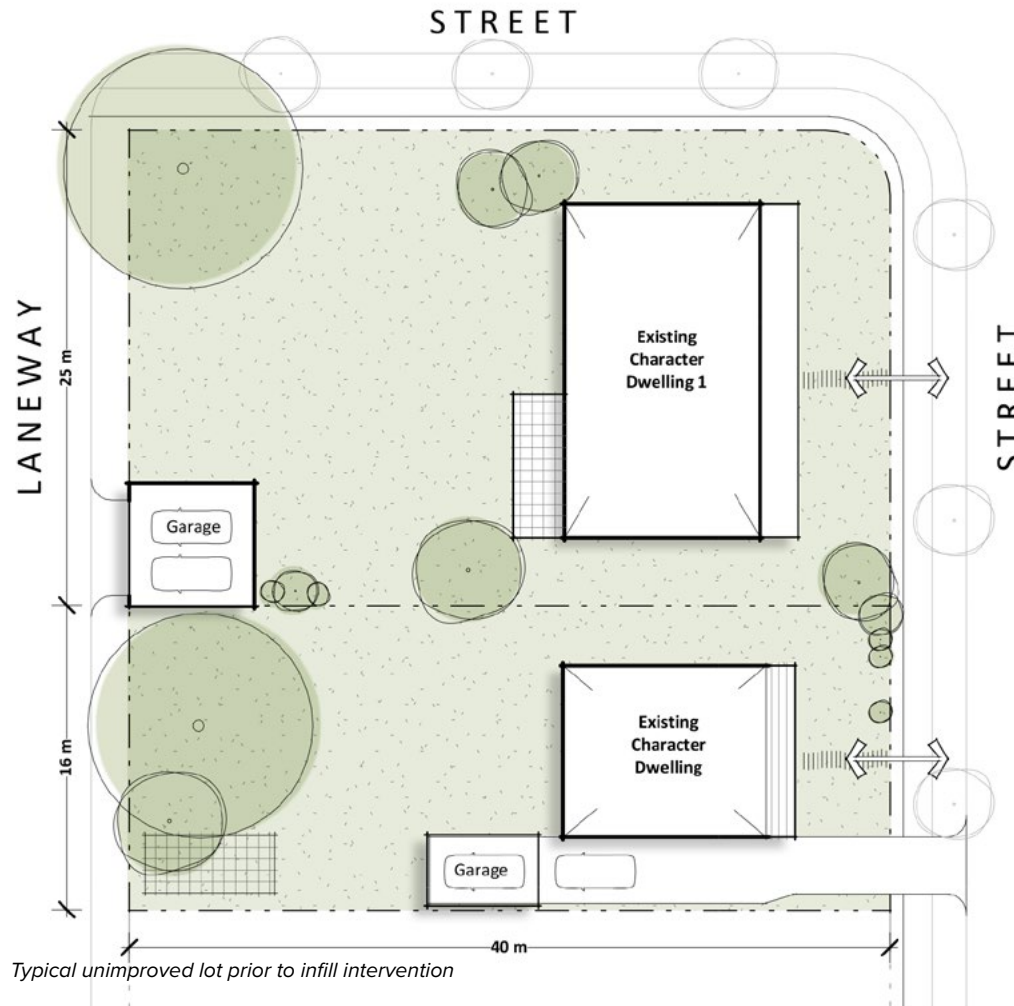
Typically, lots with rear laneways and/or corner frontages offer more opportunities for infill development. The Infill dwelling typologies tested are;

1. Rear Laneway Small Lot
2. Rear Laneway Corner Block
3. Rear Laneway Multiple Dwelling
4. Corner Block Multiple Dwelling
5. Middle Block Multiple Dwelling
6. Corner Block Co-Housing
7. Additions and Alterations to Character Dwelling
8. Multiple Dwelling on Large Block

Notes:

A. Fire services: Fire hydrants are required within 40m of any given property. All subdivisions and infill developments must consider the locations of existing hydrants and their capacity to serve the new properties.

B. Access to existing services: Access to existing services including sewer and stormwater require consideration for infill developments. Narrower lot widths may require services to be located in a road reserve as opposed to rear of property in order to allow ongoing access.



Typical unimproved lot prior to infill intervention



Exemplar lot with rear lane frontage
7 Stirling Street, East Toowoomba

Evidence

The current TRC guidelines for Medium Density Infill Development in Neighbourhood Character Areas outlined five scenarios for infill development.

The synoptic survey and stakeholder workshops identified a number of common issues with these development types when executed poorly:

- _ cars dominate street frontage
- _ high percent of impervious area after building footprint, driveway and car accommodation are accounted
- _ when minimum setback to side and rear boundaries are adopted, there is lack of opportunity for deep planting and landscape within the site
- _ scale transition from 1 storey to 2 storey elements not sympathetic to existing context
- _ limitations where street frontages are narrow and battle axe lots are developed.

The infill housing typologies studied in this guide were identified as gaps to the existing Medium Density Infill Development guideline.

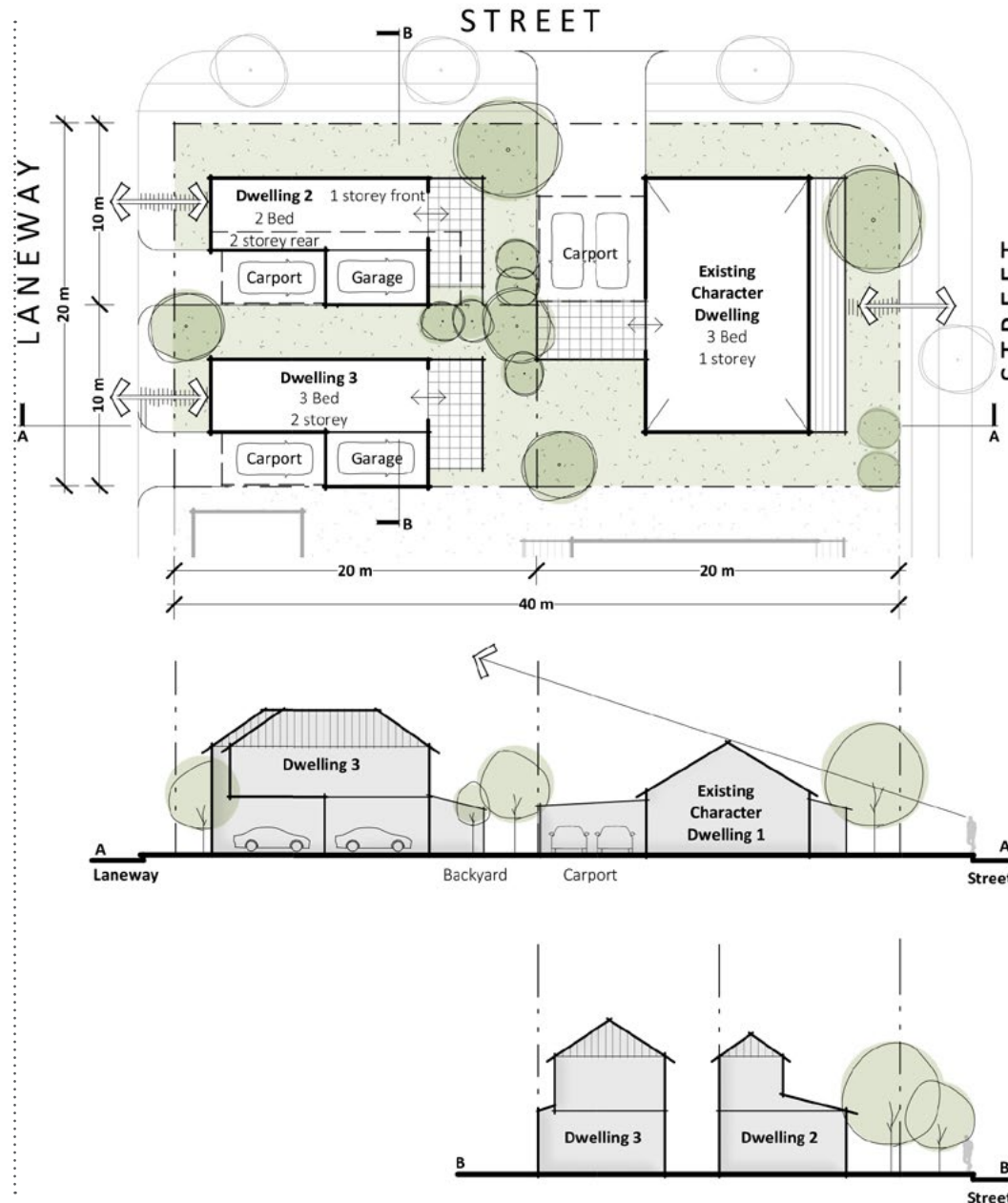
Through findings from the synoptic survey and stakeholder co-design workshops, optimising corner lots and rear laneway arrangements where there is more street frontage opportunities was highlighted as a particular opportunity to be tested, due to the potential to minimise streetscape impacts on the primary residential street.

1.1.9 Infill Dwelling Typology 1: Rear Laneway Small Lot

Description

In response to growing requirements for sensitive infill in Neighbourhood Character Overlay areas this **rear laneway small lot typology** achieves the following key advantages.

- Increases density near amenities and existing infrastructure and promotes walkable neighbourhood principles.
- Corner lots provide more street frontage to provide individual address to each dwelling.
- Retains and protects character dwellings and rhythm of the primary street frontage.
- Greater diversity of dwellings creates flexibility of living arrangements for a changing demographic by introducing small lot development under 350m².
- Prioritises optimal orientation with consideration to building context and warm temperate climate design principles.
- Allows appropriate transition of built form from 1 storey character dwelling to 2 storey new dwelling to the rear of the site.



Guidelines

1. Respond To Context

- New dwelling or extension should be sympathetic to the original house. Maintain features and forms of the existing house when viewed from the street. The additions should not dominate the site and visibility from the street should be minimised.
- Retain character dwellings along primary street frontages. New dwellings should respect height, form and materials of nearby character dwellings. Buildings should also be mindful of the context of their new frontages i.e. the existing character of a laneway.
- Identify opportunities for a minimum of 1 large tree per dwelling to create passive cooling, shading and privacy.
- Retain significant existing vegetation for shade and protection.

2. Engage With The Street

- Car accommodation should not dominate or detract from the original house. Locate carports off secondary streets.
- Create off street parking, secondary entrances and increased streetscape frontage.

3. Be a Good Neighbour

- Allow narrow lots (10m width or less) to have 0m setback of up to 9m in length for carport, garages and secondary uses. This will enable wider functional green space with northern orientation on narrow blocks and create better connectivity between living spaces and the street.

4. Celebrate Warm Temperate Climate Living

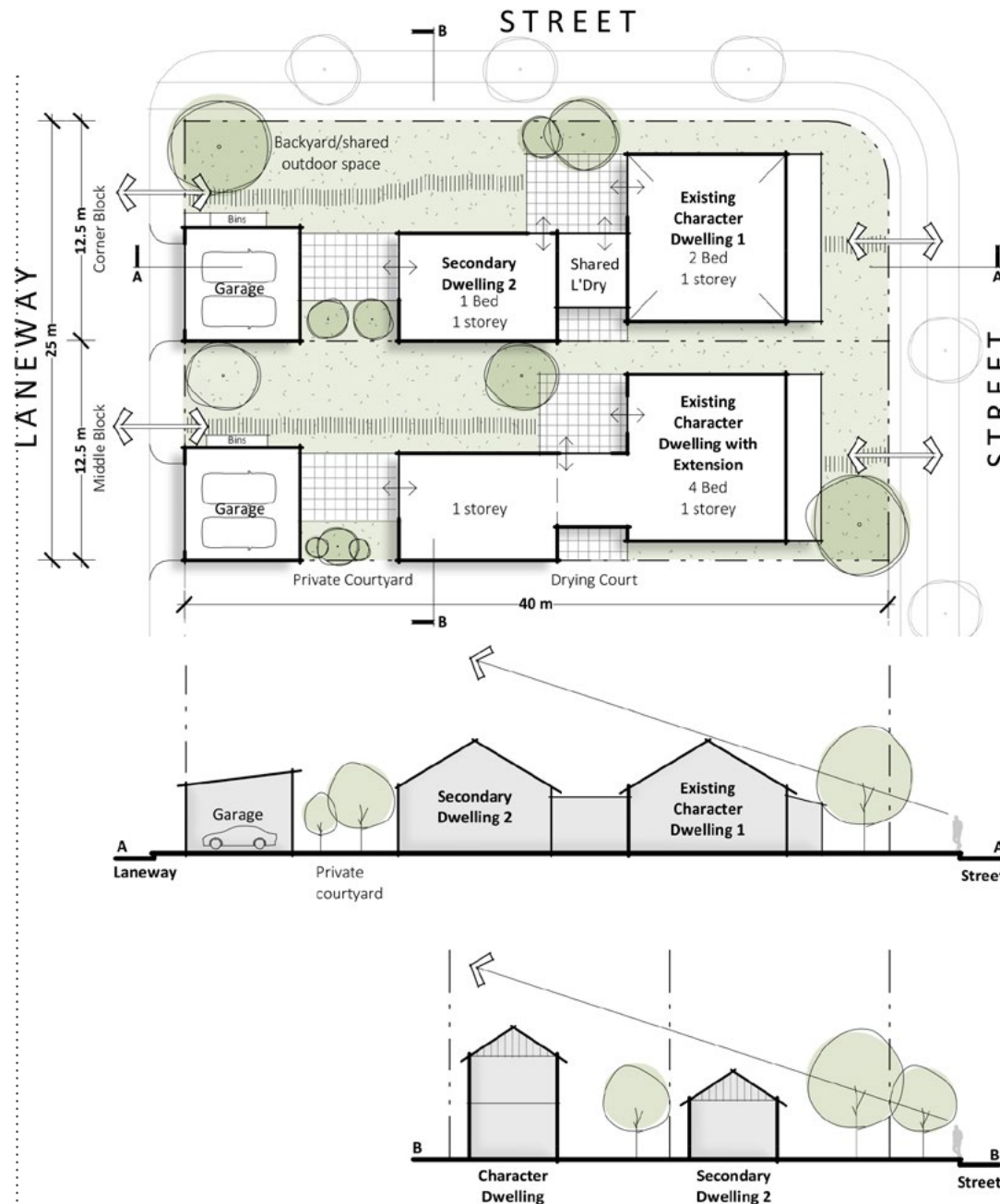
- Orientate functional outdoor open spaces and living spaces to the north or north-east to maximise solar access.

1.1.9 Infill Dwelling Typology 2: Rear Laneway Corner Block

Description

In response to growing requirements for sensitive infill in Neighbourhood Character Overlay areas this **rear laneway corner block typology** achieves the following key advantages.

- Increases density near amenities and existing infrastructure and promotes walkable neighbourhood principles.
- Retains and protects character dwellings and rhythm of the primary street frontage.
- Allows the opportunity for extensions to the existing character dwelling to function as a 'secondary' dwelling. This creates flexibility in living arrangements for a changing demographic, including home businesses and work from home arrangements.
- Secondary dwelling creates rental options to support affordability.
- Prioritises optimal orientation with consideration to building context and warm temperate climate design principles.
- Creates an opportunity to better engage with the street by accommodating cars in the laneway and presenting functional green space to the street.



Guidelines

1. Respond To Context

- New dwelling or extension should be sympathetic to the original house. Maintain features and forms of the existing house when viewed from the street. The additions should not dominate the site and visibility from the street should be minimised.
- Identify opportunities for a minimum of 1 large tree per dwelling to create passive cooling, shading and privacy.
- Retain significant existing vegetation for shade and protection.

2. Engage With The Street

- Reduce the amount cars that are visible from the primary street.
- Create off street parking, secondary entrances and increased streetscape frontage.

3. Be a Good Neighbour

- Allow narrow lots (10m width or less) to have 0m setback of up to 9m in length for carport, garages and secondary uses. This will enable wider functional green space with northern orientation on narrow blocks and create better connectivity between living spaces and the street.

4. Celebrate Warm Temperate Climate Living

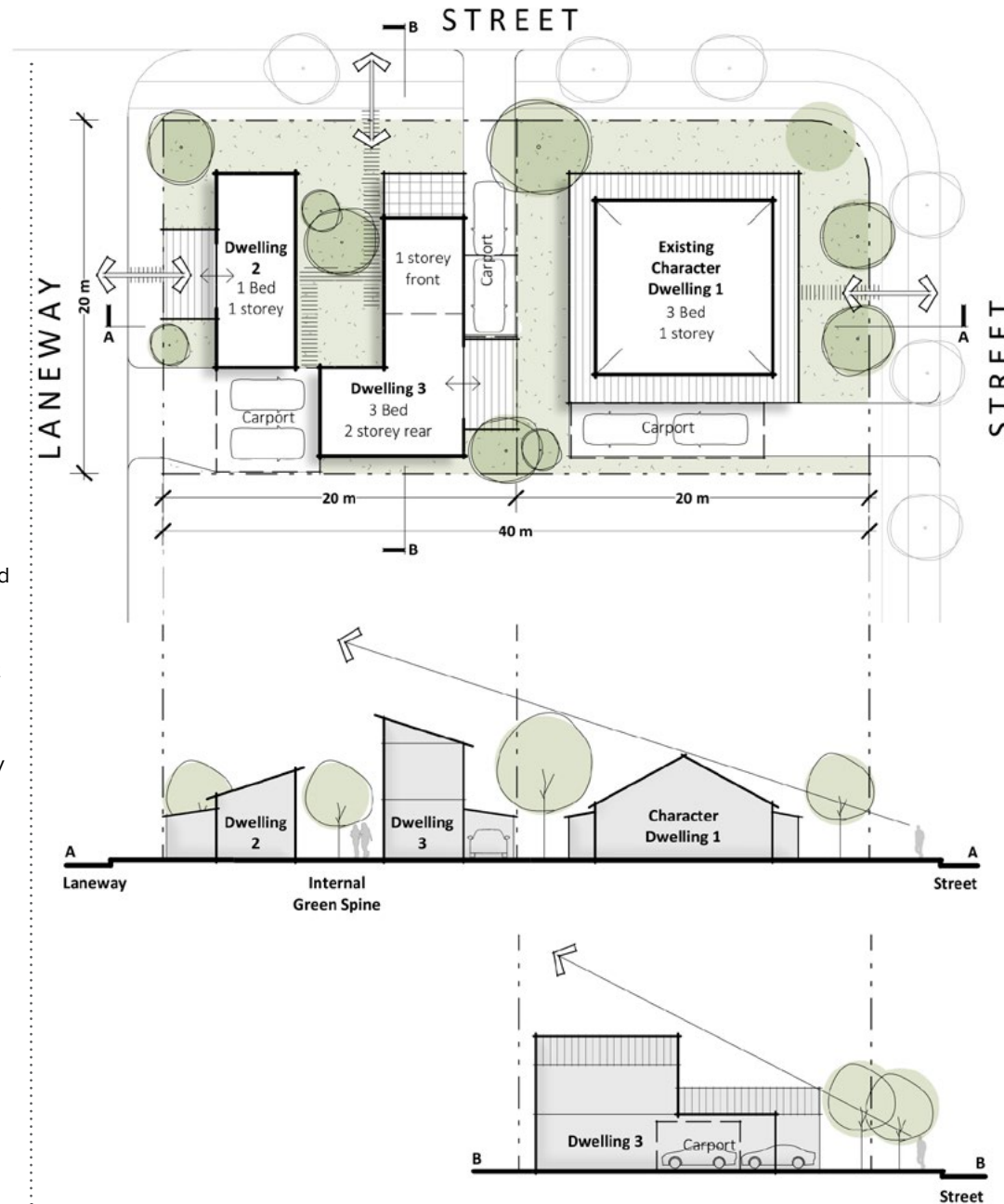
- Create communal spaces and shared facilities, promoting smaller floor plans and increased interaction between dwellings
- Orientate functional outdoor open spaces and living spaces to the north or north-east to maximise solar access.

1.1.9 Infill Dwelling Typology 3: Rear Laneway Multiple Dwelling

Description

In response to growing requirements for sensitive infill in Neighbourhood Character Overlay areas this **rear laneway multiple dwelling typology** achieves the following key advantages:

- Increases density near amenities and existing infrastructure and promotes walkable neighbourhood principles.
- Corner lots provide more street frontage to provide individual address to each dwelling.
- Retains and protects character dwellings and rhythm of the primary street frontage.
- Greater diversity of dwellings by creating 1 x 1 bed and 1 x 2 bed units arranged around a courtyard setting to the rear of site.
- Courtyard arrangement prioritises optimal solar orientation and creates a social heart and address for the residence.
- Allows appropriate transition of built form from 1 storey character dwelling to 2 storey new dwelling to the rear of site.



Guidelines

1. Respond To Context

- Identify opportunities for a minimum of 1 large tree per dwelling to create passive cooling, shading and privacy.
- Retain significant existing vegetation for shade and protection.

2. Engage With The Street

- Create off street parking, secondary entrances and increased streetscape frontage for additional new dwellings.
- Garage, carport, utilities and driveways should be spaced across all frontages in the least prominent locations to allow for landscaping and habitable living spaces to engage with the street.

3. Be a Good Neighbour

- Allow for small lot dwellings to have 0m setback of up to 9m in length for carport, garages and secondary uses. This will enable wider functional green space with northern orientation on the opposite boundary and create better connectivity between living spaces and the street.

4. Celebrate Warm Temperate Climate Living

- Orientate functional outdoor open spaces and living spaces to the north or north-east to maximise solar access.
- Encourage courtyard arrangements for new multiple dwellings to maximise solar heat gain in winter and increased surface area for cross ventilation in summer.

1.1.9 Infill Dwelling Typology 3: Rear Laneway - Exemplars

Verandahs and living areas activate building edge and engage with the street.

*Urbane Build -
Campbell Street*



Character dwelling retained with sensitive additions. Carport does not dominate or detract.

*Clayton Jesse
Construction*



Small lot infill duplex with dual street frontage. Roof form and building articulation responding to context.

7 Kirk Street,
East Toowoomba

Architect: Unknown

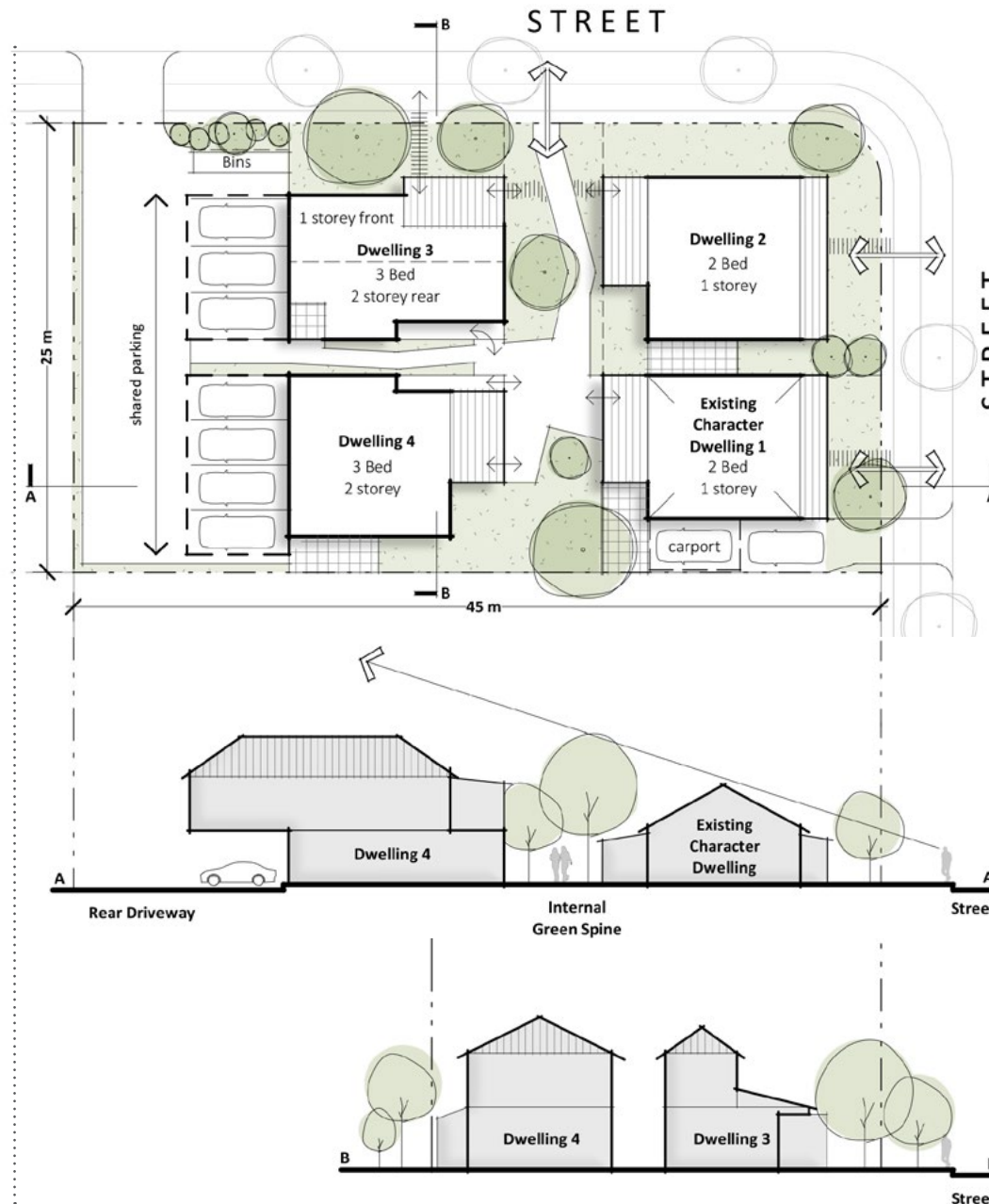
Photo: Unknown

1.1.9 Infill Dwelling Typology 4: Corner Block Multiple Dwelling

Description

In response to growing requirements for sensitive infill in Neighbourhood Character Overlay areas this **corner block multiple dwelling typology** achieves the following key advantages:

- Larger lot size provides an opportunity to increase density near amenities and existing infrastructure and promotes walkable neighbourhood principles.
- Retains and protects character dwellings and rhythm of the primary street frontage.
- Greater diversity of dwellings by creating 4 x 2 bed units arranged around a courtyard setting.
- Maximises green area ratio and minimises impervious surfaces.
- Location of parking and vehicle access is considered to reduce the impact on building design. Accommodation of cars away from the street unlocks space for community co-living and courtyards.
- Allows appropriate transition of built form from 1 storey character dwelling to 2 storey new dwelling to the rear of site, away from the main street.



Guidelines

1. Respond To Context

- Identify opportunities for a minimum of 1 large tree per dwelling to create passive cooling, shading and privacy.
- Retain significant existing vegetation for shade and protection.
- Retain character dwellings on primary street frontages. New dwellings should respect height, form and materials of nearby character dwellings.

2. Engage With The Street

- Off street parking through communal rear driveway. Individual parking spaces moved to rear of site and amalgamated.

3. Be a Good Neighbour

- Promote wider side boundary setback of 2m or more to ensure adequate access to daylight and better privacy to adjoining neighbour.

4. Celebrate Warm Temperate Climate Living

- Create a central green spine to offer a sense of community. Dwelling entrances and shared open spaces should face towards heart of the site. Utilities and bins should not to dominate the street frontage.
- Encourage courtyard arrangements for new multiple dwellings to maximise solar heat gain in winter and increased surface area for cross ventilation in summer.
- Encourage location of driveways and built forms to create barriers to the southwest in order to protect from prevailing winds.

5. Build For The Future

- Create a diversity of dwellings to accommodate changing demographics.

Orientation and living spaces that facilitate community and passive design

*Architect: Refresh**

Photo: Artist Impression



Multiple dwellings on one site

Architect: Lighthouse

Photo: Ben Wrigley



Multiple dwellings with active frontage and side laneway

Nick Ruhle Homes

1.1.9 Infill Dwelling Typology 5: Middle Block Multiple Dwelling

Description

In response to growing requirements for sensitive infill in Neighbourhood Character Overlay areas this **middle block multiple dwelling typology** achieves the following key advantages:

- Larger lot size provides an opportunity to increase density near amenities and existing infrastructure and promotes walkable neighbourhood principles.
- 4 x 3 bed units in a linear arrangement, scaled to represent the footprint of 2 standard detached dwellings.
- Building bulk and scale respects existing rhythm of adjoining character dwellings.
- Maximises solar access and privacy to adjoining neighbours.
- Maximises green plot ratio and minimises impervious surface of driveway.
- Dual duplex arrangement and narrow scale allows appropriate transition of built form to adjoining neighbours.



Guidelines

1. Respond To Context

- Identify opportunities for a minimum of 1 large tree per dwelling to create passive cooling, shading and privacy.
- Retain significant existing vegetation for shade and protection.

2. Engage With The Street

- Garage, carport, utilities and driveways should be spaced across all frontages in the least prominent locations to allow for landscaping and habitable living spaces to engage with the street.
- Provide 2 car accommodation in the form of an enclosed single car garage and separate carport to create flexibility in usage and to soften the appearance of the southern elevation.
- Create an alternative front entrance along a green spine separate from the driveway for foot traffic and visitors.

3. Be a Good Neighbour

- Promote wider side boundary setback of 2m or more to ensure adequate access to daylight and better privacy to adjoining neighbours.

4. Celebrate Warm Temperate Climate Living

- Orientate functional outdoor open spaces and living spaces to north or north-east to maximise solar access.

5. Build For The Future

- Reduce amount or impervious surface of driveway.

1.1.9 Infill Dwelling Typology 6: Corner Block Co-Housing

Description

In response to growing requirements for sensitive infill in Neighbourhood Character Overlay areas this **corner block Co-Housing typology** achieves the following key advantages.

- Increases density near amenities and existing infrastructure and promotes walkable neighbourhood principles.
- Retains and protects character dwellings and rhythm of the primary street frontage.
- Greater diversity of dwellings by creating 2 additional small dwellings arranged around a courtyard setting.
- Smaller 1 and 2 bedroom dwellings options to support affordability.
- Maximises green plot ratio and minimises impervious surfaces.
- Co-Housing model of community focused living adapted to single allotment to support collaborative infill housing.



Guidelines

1. Respond To Context

- Identify opportunities for a minimum of 1 large tree per dwelling to create passive cooling, shading and privacy.
- Retain significant existing vegetation for shade and protection.

2. Engage With The Street

- Utilities and bins should not be directly visible from the street.
- Car accommodation should not dominate or detract from the original house. Locate carports off secondary streets.
- Carports should be sufficiently set back from the street boundary to allow a second car to be parked in the driveway.

3. Be a Good Neighbour

- Allow for small lot dwellings to have 0m setback of up to 9m in length for carport, garages and secondary uses. This will enable wider functional green space with northern orientation on the opposite boundary and create better connectivity between living spaces and the street.
- Promote wider side boundary setback of 2m or more in other instances to ensure adequate access to daylight and better privacy to adjoining neighbours.

4. Celebrate Warm Temperate Climate Living

- Orientate functional outdoor open spaces and living spaces to north or north-east to maximise solar access.
- Create communal spaces and shared facilities, promoting smaller floor plans and increased interaction between dwellings.

Each smaller scale dwellings contributing to unique character values of the neighbourhood such as front verandahs, low fencing and presenting a welcoming appearance to the street.

Architect:
Unknown

Photo:
11 Gowrie Street
Unknown



Verandahs and living areas activate building edge and engage with the street.

Architect: John Ellway

Photo: Toby Scott



Smaller secondary dwelling providing additional amenities and flexible living options for home business, working from home, and rental accommodation.

Architect: Scott Petherick

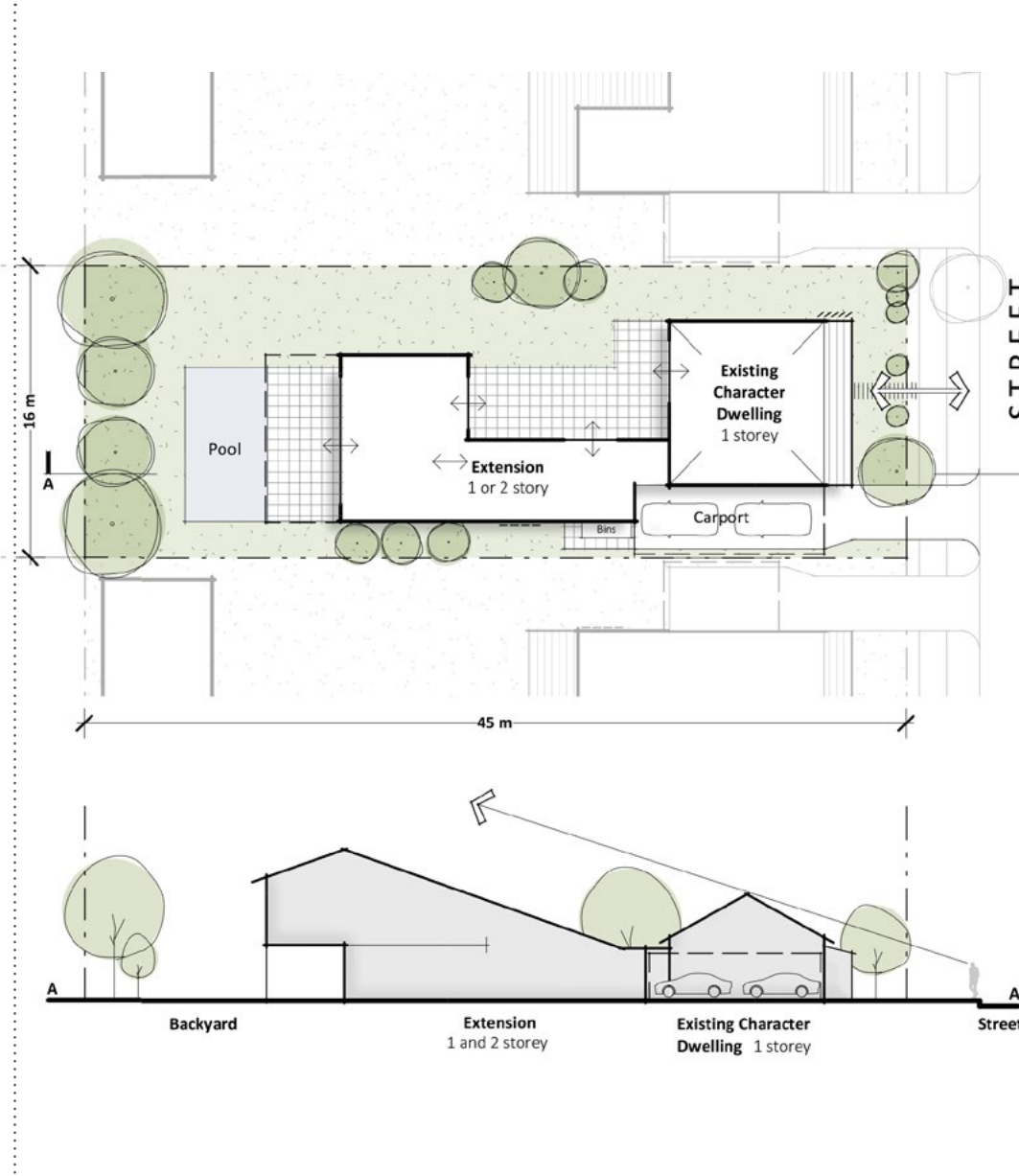
Photo: Christopher Frederick Jones

1.1.9 Infill Dwelling Typology 7: Additions and Alterations to Character Dwelling

Description

The following design strategies illustrate how **additions and alterations to character dwellings** can be sympathetically altered or extended to meet current needs and lifestyle demands, while positively contributing to neighbourhood character.

- Retains and protects character dwellings and rhythm of the primary street frontage.
- The traditional form and details of existing character dwellings is highlighted and celebrated with extensions subservient to the main dwelling.
- Prioritises optimal orientation with consideration to building context and warm temperate climate design principles.
- Maximises green plot ratio and minimises impervious surfaces.
- Allows the opportunity for extensions to the existing character dwelling to function as a ‘secondary’ dwelling. This creates flexibility in living arrangements for a changing demographic, including home businesses and work from home arrangements.



Guidelines

1. Respond To Context

- New dwelling or extension should be sympathetic to the original house. Maintain features and forms of the existing house when viewed from the street. The additions should not dominate the site and visibility from the street should be minimised. Incorporate a transition zone between new and old.

2. Engage With The Street

- Integrate existing front garden and retain existing significant vegetation. Alternatively identify opportunities for minimum 1 large tree on site.
- Present a welcoming appearance to the street with low fencing, verandahs and gardens.
- Car accommodation should not dominate or detract from the original house. Locate to the side of the house or existing driveway. Set car accommodation back from main building line.

3. Be a Good Neighbour

- Promote wider side boundary setback of 2m or more in other instances to ensure adequate access to daylight and better privacy to adjoining neighbour.
- Provide screening elements or offset windows to create privacy to neighbours.

4. Celebrate Warm Temperate Climate Living

- Orientate functional outdoor open spaces and living spaces to north or north-east to maximise solar access.
- Encourage courtyard arrangements to maximise solar heat gain in winter and cross ventilation in summer.

Privacy: Screening elements and offset windows

Architect: Vokes and Peters

Photo: Christopher Frederick Jones



Accommodate the car: Do not dominate or detract from the house.

15 Warren St, East Toowoomba

Builder: Valdah Projects

Photo: Webster Cavanagh Pty Ltd

Frontage: Low permeable fence, retention of character dwelling, planting and trees.

Architect: Vokes and Peters

Photo: Christopher Frederick Jones



1.1.9 Infill Dwelling Typology 7: Additions to Character House - Exemplars

Orientation:
Primary living spaces located toward favourable views and sun.

Architect: John Ellway

Photo: Toby Scott



Green space: Open up living spaces to greenery. Balance the built form and open space.

15 Warren St, East Toowoomba

Builder: Valdah Projects

Photo: Webster Cavanagh Pty Ltd



Alterations and Additions: Sympathetic to existing house and streetscape.

Architect: Arcke

Description

- _ It is envisaged that in the coming years, land values in certain parts of Toowoomba may make 3 storey multiple dwellings more viable and common. In these cases, it may be feasible to locate car accommodation in a small basement or semi-basement. This arrangement has benefits in allowing more of the site to be allocated to deep planting and green space.
- _ Three or more multiple dwellings on a lot or consolidated parcel
- _ 3 storey buildings address the higher order streets
- _ Increased density of 3 storey scale where supported by proximity to amenities and public transportation within walking distance.
- _ May include a mixture of single, two and three storey buildings.
- _ Presence of significant street trees of 2-3 storey scale to help mask the scale of 3 storey building.

Guidelines

Building Siting

- _ Retain significant landscape on site and integrate into site planning
- _ Existing character places where reasonably intact should be retained and integrated into development where possible
- _ Car to be located in a basement / semi basement and not visible from the street. Underground parking frees up more open space and landscaping on ground level

Built Form

- _ Building transitions from 1 to 2 and 3 storey built form should be progressive and be carefully considered;
- _ Buildings of 3 storey scale should be surrounded by 2 storey-built form;
- _ Increase setback to 10m above 7.5m building height / 2 storeys along street frontage to reduce visual bulk of 3rd storey element along street frontage;
- _ Min 6m rear boundary setback to building face to allow sufficient separation for adjoining neighbour to maintain adequate privacy, allow landscaping and minimise over shadowing.

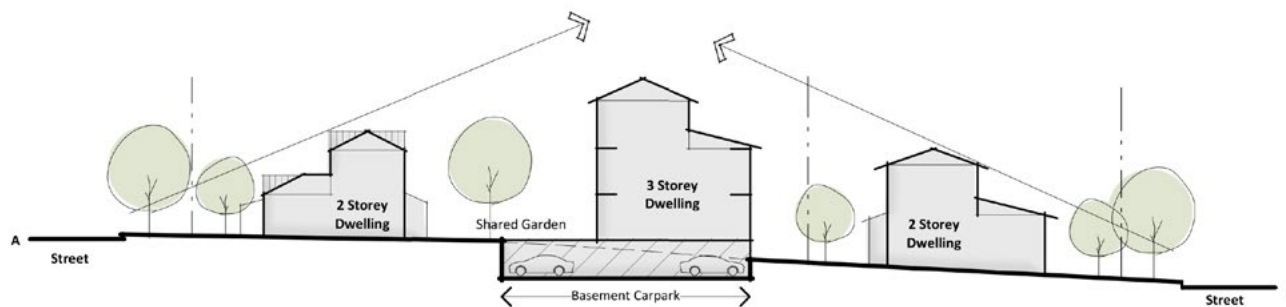
Building Elements

- _ Pitched, gable and hip roofs should be the dominant roof expression taking reference from character places in the region;
- _ Vertical rhythm of facades should be broken with balconies and deep recesses to create articulation;
- _ Long horizontal expressions, flat roofs, shallow pitch skillion roofs and verandahs recessed into the façade are not encouraged.

Streetscape

- _ Ground level units should have individual entries and courtyards accessed from the street, providing activation and casual surveillance;
- _ Provide low permeable fencing to front gardens;
- _ Car accommodation and driveway should not dominate the streetscape.

1.1.9 Infill Dwelling Typology 8: Multiple dwellings



1.1.10 Subdivision guidelines for existing residential lots in the Neighbourhood Character Area Overlay

Overview

The subdivision of existing dwelling sites can be done in a way which results in high quality housing outcomes and which preserve the positive streetscape character.

Respectful subdivision of residential sites can occur on many sites regardless of whether they are vacant or have an existing house.

Existing policy in the planning scheme

Subdivision in the NCOA should be consistent with the local context.

The Development Codes and Small Lot Housing Design Code are tasked with providing dwelling diversity. Developments should promote a high quality dwelling and allotment design and facilitate the orderly, neighbourly, integrated and timely development of those lots through a Plan of Development.

Guidelines

Small lot subdivisions for vacant land

- Small lot subdivisions for vacant land may only be appropriate in specific localities where there is an established context for smaller lots.
- Dwelling sites created in neighbourhood character overlay areas should be designed to accommodate dwellings which fit in with the character of the area. Land divisions should be applied for at the same time as the dwelling in these cases in order to 'link' the outcomes to one another.
- Building envelope plans should be provided with Material Change of Use applications to confirm a development's ability to comply with the desirable urban form outcomes.
- Narrow allotments could accommodate well-designed semi-detached/duplex dwellings which have key features (building proportions, side setbacks and materials etc) that are complementary to the character of the street. See Diagram 1.

Small lot subdivisions for developed land

- Sites which have existing narrow allotments should be developed with dwelling designs which complement the desired character of the area. This could include a duplex style building which has two attached dwellings but is designed and sited with the same proportions of a single character / traditional dwelling so it remains consistent in the streetscape.
- In some cases, older houses sit on "double block" sites, where two or more narrower allotments already exist and do not need to be subdivided. The guidance here can also apply to these situations.
- Sites with existing character dwellings should be divided in a way which maintains the character of the area. Retaining the existing character dwelling is considered the best method to achieve this. See Diagram 2.
- Creating a new dwelling lot behind an existing dwelling, where both dwellings can be serviced by the one driveway (such as a battle-axe development) retains the pattern and spacing of the development in the street.
- Where a site has a rear access lane, the division of the existing site of the backyard can accommodate a new dwelling fronting onto the lane. See Diagram 3.
- The subdivision patterns discussed in this section should also be read in conjunction with the Infill Dwelling Typologies proposed in 1.1.9.

Evidence

Some subdivision in the Neighbourhood Character Overlay Areas has resulted in allotments which are not consistent with the pattern of development of the locality. It was observed that this site division slowly undermined the quality and consistency of the streets in the Neighbourhood Character Area, especially when it also involves the demolition of dwellings which contribute to the character of the street.

1.1.10 Subdivision guidelines for existing lots

Diagram 1 (vacant land)

Semi-detached or duplex housing can be one solution as they can be designed with the same proportions as one dwelling. With a good architectural approach to the scale and facade, this is one way to complement the form and spacings of the existing character dwellings.

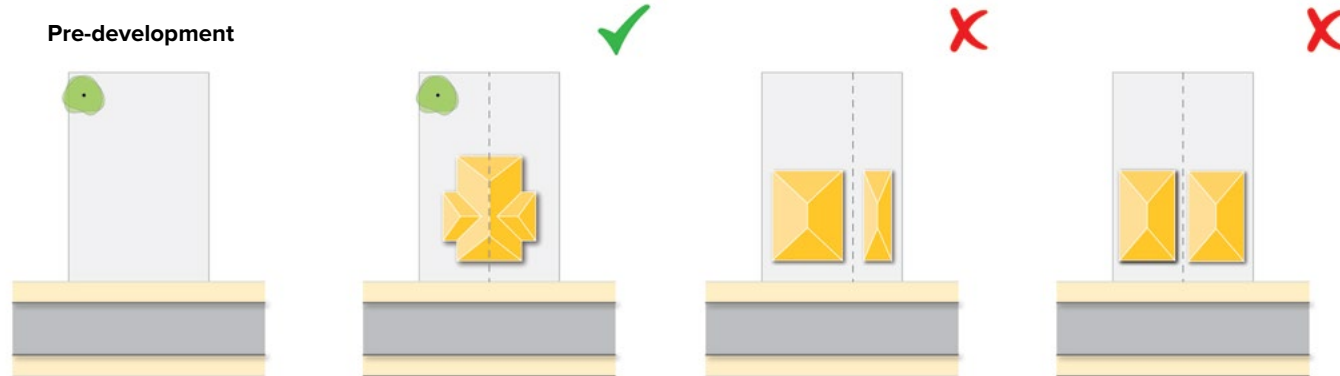


Diagram 2 (land with house)

Diagram 2 (land with house)

Land division and the retention of existing dwellings is possible and helps to maintain streetscape pattern and existing landscaping / trees.

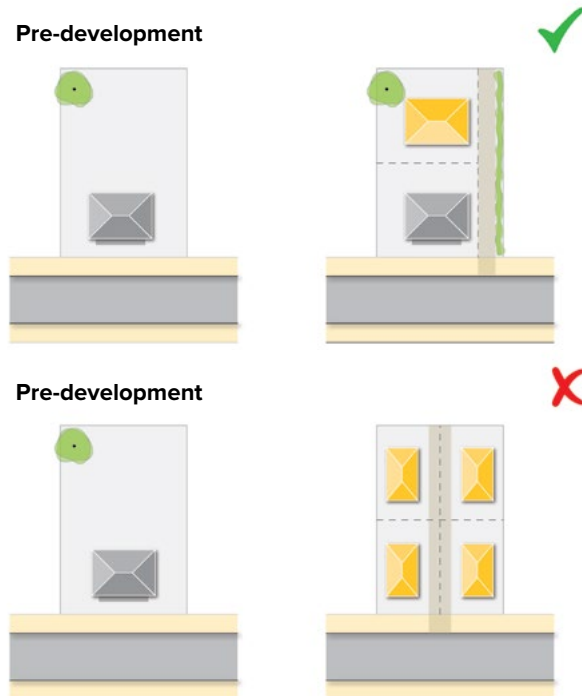
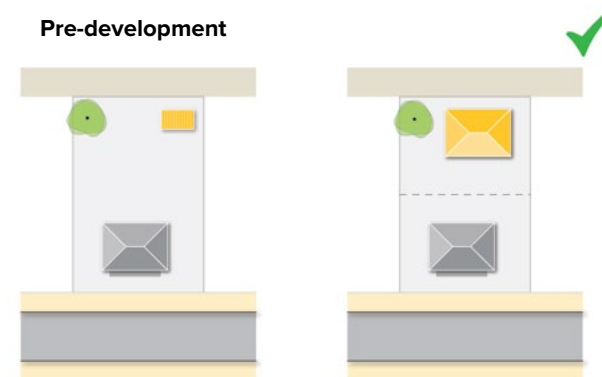


Diagram 3 (rear lane or secondary street)

Diagram 3 (rear lane or secondary street)

Sites with rear lanes can be divided to create a new lot facing onto the lane.





1.

Strengthen local place character:

1.2 Liveable Townships

Overview

A programme of “Place Plans” is recommended for regional townships. Place Plans focus on the central areas of towns and townships (excluding Toowoomba City). The concept proposes six urban design and placemaking strategies that can be commonly applied to improve township liveability and sustainability, and enhance established township character.

Existing policy in the planning scheme

This recommendation is not a planning scheme policy proposal, although individual township strategies can also be informed by the strategic framework for the Toowoomba Region.

Guidelines

Six strategies for the improvement of town and township “hearts”

Place Plans are proposed to focus on six elements that have been identified through township analysis and through best practice research to address common urban design issues. The six strategies are:

1. **Enhanced Township Gateways**
2. **Wayfinding and Interpretive Signage and Public Art**
3. **Streetscape refresh**
4. **Walkability to the heart of townships**
5. **Open space and environmental opportunities**
6. **Building facade upgrades**

The proposed approach to these six elements are further described on the following pages.

Application

Toowoomba Region’s towns and townships are numerous and diverse. Of the approximately 30 townships and regional service centres of interest to the TRUFF study, about half were analysed in detail to inform these recommendations.

With reference to the six improvement strategies, the emphasis for improvement opportunities will vary from place to place. Some townships may not require any change for one or more of the six. However our analysis suggests that in most cases some opportunity exists for all six themes.

Programme of Place Plans

Place Plans should be developed for individual townships as part of a programme where say three to five place plans are funded and commenced each year, for a defined period (up to four years initially, with a review at the end of the selected period).

The implementation of each Place Plan (or at least of short term projects identified in the plans) is an essential outcome. It might be expected that the research, engagement, approval and implementation of each township Place Plan might occur over a two to three year period.

Prioritisation of Place Plans is something that requires further consideration, perhaps including the following criteria:

- _ mix of small and larger townships each year
- _ geographical spread of Place Plans each year
- _ start with active communities who may self-nominate for the programme.

Community directions

Place Plans for the region’s towns and townships should be strongly informed by local community groups and individuals, many of which already exist and are strongly connected within communities. A common engagement approach for the programme should be developed.

Evidence

Urban design analysis of the central areas of regional towns and townships, undertaken for the TRUFF project, highlights common urban design issues that can be used as a basis for integrated township improvement strategies.

Common urban design issues are:

- _ Township arrival points (gateways) often basic (but with consistent, standardised signage).
- _ Little wayfinding signage and markers, or interpretive signs or artworks telling the history and stories of the township.
- _ Basic streetscape and landscape standards in most township centres. Wide street reserves are common but with limited street trees and plantings. Often there are few places to meet, sit, or play within the central areas, although parks are sometimes nearby.
- _ Footpaths and direct street crossings not always present especially in smaller townships. Some townships are spread out with community facilities (e.g. general store, local park or showgrounds, community hall) located hundreds of metres apart.
- _ Underused rail reserves in the heart of many townships. It is unclear whether some rail systems (e.g. South Western System, Wyreema to Millmerran) are still in use or will be in the future, and also whether some sections will be bypassed and made redundant by Inland Rail?
- _ Traditional commercial buildings, shopfronts and awnings in average or poor condition, with inconsistent and often unattractive colours, signage and unsympathetic architectural treatments.

Illustrated urban design analysis of towns and townships is included in Part B.

Guidelines (cont.)

1. Enhanced Township Gateways

Recommended design approach to strengthen township gateways along major entry roads include:

- _ strengthened avenue tree planting (evident in some townships already)
- _ landscaped threshold treatments on both sides of road
- _ wayfinding markers
- _ potential for public art (e.g. sculpture) at some major entries to hint at the stories and culture of the place.

It is noted that newly developed township name signs have been installed at entries to towns and townships. These signs are clear and consistent information signs and are complimentary to the more developed gateway treatments recommended here.

Gateway treatments and markers should be contemporary in approach while referencing the regional and local character of the place, through materials, forms, colours, graphics and soft landscaping.

Traditional town entry treatments such as “entry walls” or replica rural fences are not preferred.

Some highway-located townships have coloured threshold treatments on road. While designed for road safety as much as information, these speed-awareness thresholds can also contribute to clear arrival experiences in townships. Such gateways might be supplemented with additional landscape and wayfinding elements once the “road threshold” has been passed.

2. Wayfinding and Interpretive Signage and Public Art

On the approach to, and within township centres, implement wayfinding signage and markers to help with finding destinations and attractions more easily.

As well as helping visitors access and understand townships, wayfinding signage and markers are a good way of applying cohesive and fresh design elements to the public realm, with relatively low infrastructure requirements and costs.

Apply a scaled approach to wayfinding signs, markers and interpretive information, with a focus on pedestrian-scale wayfinding in central areas of townships.

Wayfinding and interpretive information can be combined onto common signs for greater impact, and to avoid clutter on footpaths and public spaces.

Locally relevant public art and sculpture should also be developed to enliven township centres, and with strong community input.

Many examples of successful public art installations and programmes can be found already in the region’s towns and townships.

Public art projects can also help share stories about the people and history and culture of each place.

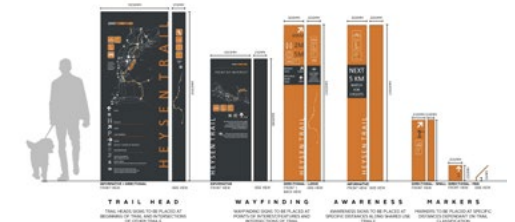


Enhanced gateway to townships

Recent avenue planting of large trees at gateway to Pittsworth (top)

Contemporary township signage but with rustic materials (middle, image Exhibition Studios)

Highway-threshold treatment the first part of an arrival experience at Hampton (bottom)



Wayfinding

Wayfinding, interpretive and artistic signage should be applied at different scales, and in combined signs

3. Streetscape refresh

Many smaller and larger townships would benefit from the amenity and sustainability gains from a streetscape refresh to key streets and spaces at the heart of townships.

- Streetscape upgrades should be scaled appropriately to the size and activity levels of the town.
- A targeted, rather than comprehensive, approach to streetscape upgrades offers more cost effective project opportunities.
- For example one or more new (or refreshed) public realm nodes with seating and garden bed plantings could be built near the most active shops, cafés and community attractions.
- Other typical streetscape improvements might include major street tree planting, aiming for large scale canopy trees to provide deep shade.
- Select appropriate species for climate (including deciduous options for winter sunlight) and water-wise conditions. Non-irrigated landscapes are likely in most townships. Establishment irrigation should be used for the first year or two to help tree establishment.
- Additional street lighting and feature lighting may be considered in some townships.
- Footpath upgrades, improved street crossing including landscaped protubrences at corners and mid-block to make it easier to walk in centres, and improve access for all abilities and ages.
- Major street redesigns (where roads, parking, medians and drainage are redesigned) are unlikely to be warranted in most cases, especially where the main street remains an important through road.



Walkable town centre

Quality footpaths, legible and safe crossings, shade structures and feature elements all contribute to making an attractive walkable town centre

Photo: charleswenthworth.com

Street tree canopy

A green canopy makes a good main street environment into a great one, and compliments historic buildings and styles well. Additional planting in garden beds or in structures or parklets like shown here add richness to the streetscape.

Photo: Jensen PLUS

Shared street designs

Kerbless street designs create flexible spaces that can support outdoor dining, events and business use. They help slow speeds and make interesting street environments for people to enjoy.

Photo: Jensen PLUS

Liveable Townships

Toowoomba Region Urban Form Framework

- However opportunities may exist for more intimate ‘shared street’ designs in some townships. Township shared streets (where level road and walking spaces blend together) are ideal for local events as well as comfortable day-to-day people spaces.

Consider a “trees for townships programme” where one new street tree is planted for each resident of a township. Starting at the township centre, street tree planting can also be extended into residential streets as well.

4. Walkability to the heart of townships

- Extend footpaths and trails from township centres to connect to new and established residential areas, to enable and encourage walking and healthy lifestyles.
- Continue improving footpaths and street crossings (making crossings direct and short) within township centres.
- Use footpath build-outs (protubrences, landscaped where possible to make crossings shorter), and controlled crossings such as zebra/wombat crossings in important pedestrian areas.
- Ensure community destinations within township centres are connected by quality footpaths as a priority (e.g. Kingsthorpe’s new supermarket is a short distance from the established shops and park, but no footpath exists to link the two ends of the street).

5. Open space and environmental opportunities

Continue the successful programme of township park upgrades, many of which are important spaces at the heart of the region's townships.

- There may be strategic opportunities to plan and develop new public open spaces in the many rail reserves that exist in the centre of townships including Clifton, Cambooya, Wyreema, Pittworth, Southbrook and many others. Opportunities are of course dependent on future rail requirements, noting that some branch lines are currently unused, and Inland Rail is changing strategic rail requirements for the region (albeit with a different rail function and rail gauge).
- Opportunities may include additional public open space and recreation space, as well as paths and trails connecting within township centres and to nearby residential streets and areas.
- Environmental infrastructure such as new biodiversity plantings (potentially small micro-forests, as well as environmentally-designed drainage areas) are also land use opportunities for these reserves (or part of).
- Community infrastructure including spaces and buildings may also be located in these reserves.

Another strategic opportunity is to plan and develop new “rail trails” between townships along future disused rail lines, for community recreation and regional tourism purposes.

Many successful rail trail examples can be referenced, with different walking and/or cycling segments and opportunities.

- For example the nearby Brisbane Valley Rail

Trail is a more rugged cycling adventure, but one which is bringing investment and activation to small towns along its path.

- In South Australia the well-established Riesling Trail of the Clare Valley is used by all abilities for walking, running and cycling. It has a major role in local tourism. A popular visitor experience is to cycle between the many cellar doors along the trail (hence the name), with numerous businesses relying on this trade for food and beverage sales, and for visitor accommodation.

6. Building facade upgrades

Case studies demonstrate that the form and appearance of township streetscapes can be significantly improved and refreshed through façade upgrade projects. Benefits including community pride and wellbeing, attraction to tourists and visitors, and (not insignificantly) reduced safety risks caused by neglected and potentially unsound façades and awnings.

- Improve the appearance, local character values, community pride and attraction to visitors by guiding and investing in the upgrade of commercial building façades in township centres.
- Identify and guide appropriate façade improvements, styles, materials, colours, as well as appropriate signage designs and sizes.
- Design themes and palettes to be influenced by the historic building styles and desired character of the townships.
- Identify feature lighting opportunities for key buildings and locations.
- Pro-actively implement and co-fund (with building owners) the upgrade of façades awnings and signage in townships, focussing on key character buildings and groups of buildings like shopfronts.



Bringing character streets to life

Over time traditional shopfronts and commercial buildings can decay physically, also reducing their contribution to local character. Relatively simple, coordinated improvements to shopfronts, awnings, signage and sometimes lighting (for feature buildings) can transform the appearance of township streetscapes.

Photo: Wakefield Regional Council

1.2.2 Strengthen planning controls to better integrate new residential areas into Townships

Overview

Changes to planning criteria for zones typically accommodating new residential areas at townships is proposed to encourage new neighbourhoods, streets and housing designs that are more in keeping with township character, and more integrated into established township areas.

Existing policy in the planning scheme

The Township Zone typically applies to smaller towns and townships including new residential areas. (Some smaller townships also utilise the Rural Residential Zone.) In the larger regional service centres of Highfields, Crows Nest, Millmerran, Oakey and Pittsworth, residential land is often in the Regional Residential Precinct of the Low-Medium Density Residential (LMR) Zone.

The Township Zone advocates for a range of residential dwelling types at densities lower than urban settlements, and that “protects and enhances the unique local or historic character of a town”. However few specific planning or design criteria are identified to achieve this purpose, and details such as site cover, height, setbacks and siting requirements are similar to suburban minimums.

The RaL Code similarly allows for allotments of 500-800m² in the Township Zone (where sewer is available), and is therefore similar to the suburban zones. Allotment sizes for the Residential Precinct of the Low-Medium Density Residential Zone are also similar (or smaller).

Guidelines

Amend the Township Zone Code and the Low-Medium Density Residential Zone Code (Regional Residential Precinct) to have more emphasis on neighbourhood, street and building form.

Changes and strengthening of planning controls to new residential areas at towns and townships is proposed.

The changes have the aim of improving design quality with special consideration to the context and character of the smaller towns and townships in which they exist.

Improvements are recommended in seven areas:

- 1. Larger residential lots for a more spacious township character**
- 2. Greener residential streets and public open spaces**
- 3. Residential estates to address all streets**
- 4. Grid street networks with views**
- 5. Township not suburban residential street designs**
- 6. Paths connect new residential areas to the heart of townships**
- 7. Structure plans for township growth areas**

The proposed approach to these seven elements are further described on the following pages.

Evidence

Urban design analysis of new residential areas at several towns and townships was undertaken, with attention paid to the character of new housing areas and their integration (or otherwise) into the established township.

Common observations and issues identified are:

- In some townships, major new residential developments are evident, often in the form of a standard suburban subdivision pattern of ~800-1000m² lots, laid out on modified grids or sometimes cul-de-sac street patterns.
- New housing is typically detached dwellings, single storey with double-garages. The form and style is similar to new suburban housing found at Toowoomba City and in other parts of Queensland and Australia. While some contemporary Queensland-style homes and materials are evident, most housing has few obvious design references to the region or climate in which it sits.
- Basic suburban street designs are used, with few street trees, wide suburban roadways, kerb and channel designs, and few front fences to define the front gardens of properties. These designs have little relationship to established township street character, which is often of narrow or wide roadways with no kerb, albeit with inconsistent street tree plantings. Front fences are common.
- Lack of trees (retained or new) and vegetation in new residential areas, in residential allotments and in the public realm, resulting in a sparse, exposed climate and character.

- Public open space (and sometimes drainage reserves) of basic design and landscape character, with limited tree planting or biodiversity plantings.
- Back fences of residential estates exposed to public streets including important arrival and major township roads. Poor presentation and surveillance of the public realm.
- Disconnection between new residential areas and central township facilities, with irregular bike/footpaths, often of low or inconsistent width and standard.
- Township and Residential zoned land for future development was identified at some townships. Any additional future zoning proposals are unknown.
- Attractive views and outlooks to rural hinterland from properties and from streets are also common.

Illustrated urban design analysis of towns and townships is included in Part B.

Regional Landscape and Urban Character Study (2021)

This planning study also highlighted that township residential is often:

- of mixed housing character
- showing signs of disrepair
- new housing of “ubiquitous” character that could be anywhere
- of variable landscape and garden extent and quality
- of contemporary peri-urban character with indistinct façades
- does not have a strong township character.

Guidelines (cont.)

1. Larger residential lots for a more spacious township character

- Larger lot sizes are recommended in the Township Zone of 1000-1500m² (for where sewer is available to achieve a more spacious township character, as well as the opportunity for on-site tree retention, landscaping and greening over time. This is especially the case in new residential estates.
- Additional dwelling diversity and sizes may still be encouraged in established areas and close to the centre of towns and townships, or where established township subdivision patterns demonstrate smaller lot sizes.
- Increase front and side setbacks in the Township Zone to contribute to a more spacious residential and streetscape character.

2. Greener residential streets and public open spaces

- In new residential estates, require increased greening (tree and shrub planting) of new public open spaces and drainage areas including linear spaces. Use water-wise species, and include biodiversity plantings as well as lawn. Greener open spaces are increasingly important for shade and cooling in a

warming climate, as well as for biodiversity, recreation, lifestyle and for supporting resident wellbeing and mental health.

- Greatly increase street tree planting with water-wise species. Town water supplies may not be available in all cases. Use establishment irrigation from water trucks to enhance planting quality and survival rates.
- Encourage retention of existing trees in subdivision and site designs, and especially in linear open spaces (e.g. along creek and drainage lines).
- Encourage greener gardens in new residential developments in townships.
- Undertake additional street tree planting and succession planting in existing residential areas of townships, potentially as part of “trees for townships programme” where say one new street tree is planted for each resident of a township.

3. Residential estates to address all streets

- New housing and housing estates should front and face all streets including existing township roads. Back fences exposed to streets and roads to be avoided wherever possible due to amenity, security/ surveillance, appearance and land economics and sustainability (reduced requirements for new road construction)

reasons.

- Solutions to front onto streets and roads where traffic volume or amenity are seen as constraints include: set back housing from the road, using service roads for property access if required. Landscaped buffers between the road and service road can screen housing and improve amenity and appearance.
- Or, position large lots on these frontages, with on-site turnaround space, rear lane or side street access, or shared driveways etc. to manage traffic conflicts (by reducing the number and controlling the location of driveways and therefore conflict points).
- Where rear fences are unavoidable, include substantial landscape buffers of shrubs and trees to screen and green these highly visible edges.

4. Grid street networks with views

- In new residential developments, plan for gridded street networks with streets aligning to views of surrounding rural areas, to maintain connection to the rural setting and character.
- Neighbourhood designs should employ more gridded designs including direct street connections with older township areas. Shared path links between new and older areas should also be prioritised,

including the use of undeveloped or unused road or rail reserves.

- Minimise cul-de-sacs which restrict connectivity long term and often restrict local views to rural hinterland.
- Strengthen environmental outcomes of new residential areas, by rehabilitating creeks and drainage lines, and including biodiversity areas as valuable green infrastructure.
- Street grid dimensions and orientation can take cues from and reflect the older part of townships, to further enhance design integration.

5. Township, not suburban, residential street designs

- Especially in smaller townships (e.g. in the Township Zone or Rural Residential Zone), utilise simpler street designs rather than suburban street designs. Streets may potentially have grassed swales rather than continuous kerb and channel.
- Street trees and footpaths should be added to provide for walkability, greening and shade, in wider verges than may be typical in the city.
- Encourage front fences for new residential properties by referencing in the Codes.



Guidelines (cont.)

- Ensure new residential developments are accompanied by new footpaths, shared paths or trails to township hearts, to encourage walking and healthy lifestyles (include in the LGIP where appropriate).
- Paths can be located in streets, public open space reserves, or potentially in underused rail or road reserves. “Missing links” requiring connections across other properties should be planned for even if the implementation of a path connection is not immediately practical.
- Avoid rezoning land for future residential development that is not able to be practically linked to township centres by paths.



7. Structure plans for township growth areas

- Council to undertake structure planning for undeveloped township residential land, to ensure that new areas are well planned, and well integrated by streets and paths to township centres, public open space, and community infrastructure such as schools.
- Avoid zoning and developing rural residential and township residential on exposed hilltops, isolated sites, areas of high scenic value, and farmland that has a high value either agriculturally or to the setting and character of the township.



1.2.3 Protection and enhancement of character buildings in townships

Overview

A new overlay to protect character buildings in townships is not proposed, but additional planning and design criteria could be added to the Township Zone Code and other codes to encourage the protection and enhancement of character buildings (residential and commercial) in towns and townships.

Existing policy in the planning scheme

Neighbourhood Character Overlays do not apply in any towns or townships outside of Toowoomba City.

Demolition or Removal of buildings is restricted for properties identified as Neighbourhood Character Places in PSP7. No properties outside of Toowoomba City are identified in this schedule of the planning scheme.

Guidelines

Character overlay not recommended for townships

Because of the inconsistent and dispersed pattern of character housing in most townships, and the variable quality and condition of many buildings, it would be difficult to justify the application of a Neighbourhood Character Overlay or similar over large areas of townships.

As such an overlay would only have an effect when development occurs, and development or redevelopment of housing in established areas of many townships is not rapid, it is unclear the extent of benefit this change would have. There is also the question of whether the planning requirements of an overlay would create an unreasonable cost burden on development.

Potential to add higher quality examples of township character buildings to Neighbourhood Character Places PSP

It is beyond the scope of this study to analyse all township residential properties for their characteristics.

However if selected properties or groups of properties are identified as demonstrating township character, and their retention is desired in the long term, then it may be possible to include these properties in the Neighbourhood Character Places PSP (or another similar schedule). This would have the effect of applying demolition controls to the properties, and require planning assessment of any proposed demolition or removal of buildings.

Strengthen design criteria in the Township Zone Code

Another opportunity to protect and maintain character buildings in townships (of both residential and commercial nature) would be to add design criteria to the relevant zone codes.

For example a performance outcome similar to that found in the Neighbourhood Character Overlay Code could be added:

PO6 The form, scale and design of the development are consistent with, and sympathetic to the local streetscape and character of the surrounding area, having regard to:

- (a) bulk and scale;*
- (b) height;*
- (c) setbacks, siting and landscaping;*
- (d) horizontal and vertical articulation;*
- (e) roof lines;*
- (f) building openings;*
- (g) orientation;*
- (h) materials and architectural detailing;*
- (i) eaves and awnings; and*
- (j) access and on-site parking.*

A revised character assessment requirement during development assessment, similar to that proposed in the Neighbourhood Character Overlay areas, could also be required.

Evidence

Urban design analysis of regional towns and townships, undertaken for the TRUFF project, suggests that “character housing” (typically pre-war Queenslander-style buildings of various styles) is inconsistently found and inconsistently distributed around townships.

Many buildings have been and continue to be removed or demolished over time.

It is also observed that older character homes are often in relatively poor condition, and may be of low economic value. They do however provide affordable accommodation for the communities in which they are located.





2.

Build better neighbourhoods:

2.1 Achieve '20-minute neighbourhoods' (where local needs are within walking distance)

Overview

A “20-minute neighbourhood” allows residents to walk more in their neighbourhoods and to access more of their daily needs within a close-by local area. This means that neighbourhood designs allow for things like parks, schools, local-scale shops and community services, and public transport, to be located within about a 20 minute walk (return trip) from home. This allows people to access a variety of services and places in a small area, offering more convenient choices to people and saving them time in their day. This also improves an areas “walkability”.

Existing policy in the planning scheme

Despite prioritising sustainable transport networks, local connectivity and convenient and accessible community services, the Low Density Residential and Emerging Communities Zones, and the Reconfiguring a Lot Code, do not provide strong guidance on neighbourhood design.

Guidelines

Neighbourhood focal points

- Neighbourhoods should incorporate a central focal point or hub (e.g. a local park, shop, bus stop, feature building or housing, viewpoint) to help define the place.
- The scale of activity at a neighbourhood focal point will vary according to context - from a mixed-use main street in busier places, to a small park or simply a bus stop in less populated neighbourhoods.
- Neighbourhood focal points should be located on the local connector (collector) street network to enable good access and visibility.
- Non-residential buildings are often clustered at the centre of the neighbourhood and are designed to be identifiable and assist wayfinding.

Neighbourhood scale

- The size and shape of neighbourhoods varies according to context, but must be scaled for walking. A new neighbourhood sized with a radius of 400-800m from the centre to their edge, allows residents living at the neighbourhood edge to walk to the central node within 5-10 minutes. This may be reduced in hilly areas where walking is slower.
- Residential dwelling density of 15-25 dwellings per hectare in greenfield developments is necessary to support the viability of local services and of public and active transport, and to ensure the efficient use of land.

- An increased proportion of attached housing (including duplexes, terrace and row houses) is required to achieve this density.

Street grid layout

- A grid street layout is favoured to maximise accessibility and travel choices. Street grids should be modified to provide high degree of local connectivity and legibility, while discouraging non-local traffic and providing safe intersections.
- Housing faces all streets including higher-order streets, using rear laneways, side streets and shared driveways to manage access onto busier streets.
- While most local streets in a grid are connected, some cul-de-sacs are acceptable (e.g. in steep terrain and for diversity in the neighbourhood).
- Streets should be oriented where possible to enable individual allotments/buildings to benefit from solar gain, enable short and longer vistas along streets and minimise the need for cut and fill (such as by orienting perpendicular to the slope).
- Local streets should be designed as such for lower speeds and pedestrian comforts.

Evidence

Six recent greenfield residential developments around Toowoomba and Highfields were studied in detail as part of the TRUFF synoptic survey. The team collected data including about the walkability of the developments, their strengths and weaknesses. This data has informed the recommendation for providing neighbourhoods which are more walkable.

Literature and case study investigations identified a supportive policy intent for walkable neighbourhoods, but that the relevant design principles have not been well incorporated into many of the developments analysed.

Learn more about this topic

The Toowoomba Region Urban Design Initiative: Next generation neighbourhoods

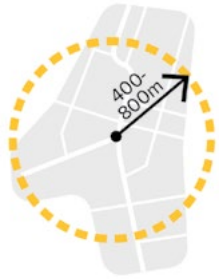
[The West Toowoomba Land Use Investigations: Next generation suburban neighbourhoods](#)

Model Code for Neighbourhood Design 2020

Healthy Places, Healthy People materials

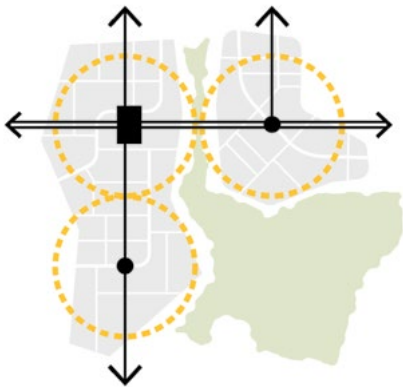
[Walking in Queensland Report \(2019\)](#)

[Victorian State Government '20-Minute Neighbourhoods Melbourne Plan 2017'](#)



Neighbourhood scale

Neighbourhoods are scaled for walking, being sized with a radius of 400-800m from their centre to their edge



Neighbourhoods, suburbs and towns

Three or more neighbourhoods may be sufficient to support a larger mixed-use town centre

Guidelines (cont.)

Street block length

- Suburban residential blocks are ideally 100-180m long, and do not exceed 200m in length without providing a connecting street.
- Long neighbourhood blocks (>150m) are made more walkable by integrating rear laneways or connecting paths mid-block.

Public open space

- A network of public open spaces add to the lifestyle, health, biodiversity, character and diversity of landscape experience in residential neighbourhoods. Local open space also provides an essential response to events like the COVID-19 pandemic.
- Local parks, linear parks, and smaller parks can be designed into neighbourhoods to provide walkable access to public open space with 400-800m of all dwellings.
- Public open space is integrated into neighbourhood network design.
- Significant trees and vegetation should be retained in public open space or streetscapes, and can sometimes form a neighbourhood focal point.

Neighbourhoods, suburbs and towns

- A neighbourhood of 400m radius could accommodate 750-1250 dwellings or more, providing a substantial population to support local services.
- Many greenfield developments are smaller than this, while others are ideally sized for a well-designed neighbourhood.

- In larger growth areas, structure planning should group neighbourhoods together to form sustainable urban extensions.
- The population of three or more neighbourhood populations may be sufficient to support a mixed-use centre where larger parks, schools and shopping centres are located.
- Connecting (collector) streets should be located through the centre of neighbourhoods to maximise access and connections within urban areas, including visibility of non-residential land uses to the “movement economy”. Spaced at say 800m distance (for a 400m radius neighbourhood) the objective is to distribute local traffic across several residential connector streets, and therefore reduce the need for busy, expensive and low amenity sub-arterial roads.
- Land intensive uses such as larger public open space and conservation areas, or larger schools (which are only actively used for part of the day and year) should be designed at the edge and between neighbourhoods to avoid separating housing areas from neighbourhood and town centres.



Features of a 20-Minute Neighbourhood

Source: Plan Melbourne 2017 - 2050



Next Generation Suburban Neighbourhood

Concept for 400m radius neighbourhood showing central hub with local park, diverse housing choices, and modified street grid

Source: West Toowoomba Land Use Investigations (2016)

2.1.1 20-Minute Neighbourhood Design (cont)

Places for people

A local park makes an excellence focal point or “hub” at the heart of a new residential neighbourhood

Photo: Jensen PLUS



Local neighbourhood conveniences

People should be able to access daily needs in walking distance from their homes. Many smaller townships and older neighbourhoods retain this quality

Photo of cafe, Goom-bungee: Jensen PLUS



Town centre

The population of three or more neighbourhood populations may be sufficient to support a mixed-use centre where larger parks, schools and shopping centres are located.

Photo: Jensen PLUS

Overview

Increased housing choices are desired in greenfield developments to ensure that new housing meets the true needs of the community. This includes providing choices that are affordable, that are designed for all ages and all abilities, and that are more sustainable to climatic conditions and to future lifestyles.

Existing policy in the planning scheme

Despite recommending housing choice and a range of dwelling densities in some zones, the Planning Scheme has not ensured that diverse housing choices to meet community needs are regularly achieved in residential developments.

Relevant to greenfield residential, the Reconfiguring a Lot recommends minimum dwelling yields of 15 dwellings per hectare, and the Low Density Residential Zone suggests that allotments of more than 500 sqm. These criteria do not allow for a full range of contemporary housing options.

Guidelines

Housing diversity principles

- Include a mix of allotment sizes in all developments, to address diverse household needs and support a diverse community.
- Include in all developments a proportion of smaller allotments and housing (e.g. terrace, cottage and compact allotments), to cater for smaller household sizes and to provide more affordable housing options.
- A benchmark of around 15% of housing in an affordable price range has been used effectively in other jurisdictions to encourage a more diverse and affordable housing mix.
- Disperse housing types throughout developments. While small clusters of similar houses often works well in a streetscape, and this helps with development efficiency, avoid large groupings of identical dwellings (e.g. a street of duplexes).
- Dwelling diversity should also include a diversity of lifestyle options relating to outdoor living spaces, from small courtyards to larger backyards. This will help provide choice and cater to community needs, and also allow for greening and biodiversity space in all neighbourhoods.

Neighbourhood housing typologies

Recommended housing types to consider in new greenfield developments that are appropriate to the Toowoomba context might include:

- **Traditional detached homes** on 600-800m² allotments, allowing space for gardens and larger homes at one or two storeys.
- **Courtyard, villa and cottage** homes on narrower allotments of 10-15m frontages, with lower maintenance outdoor spaces.
- **Duplex/semi-detached** houses, a simple form of density that is already common in Toowoomba and provides an affordable living option.
- **Terrace/row houses** on freehold allotments, with narrow frontages of 5-8m or less, usually two storeys and often supported by a rear lane for driveway and garage access. Townhouses on a community title scheme accessed by a common driveway is a similar form of dwelling.
- **Compact homes** on very small allotments of 80-150m² are becoming more common including in greenfield, master planned communities. Often the building form is two or three storey and attached to neighbouring dwellings, although single storey compact homes can also be found. Together with terrace homes, this form of development often provides an affordable and entry level price in new developments.
- **Live-work buildings, shop-top housing, and low-rise apartment** buildings can also form a part of the housing mix in greenfield developments.

Evidence

85% of the housing stock in Toowoomba are detached dwellings and there is little provision for smaller homes or higher densities. This means smaller households and younger and older members of the community have fewer housing options. This observation was reinforced in the feedback from stakeholders that new housing in Toowoomba is lacking in diversity and therefore not meeting community needs.

The Toowoomba Regional Housing Strategy also guides the provision of aged care and retirement accommodation and the concept of ageing in place, as well as areas which should provide greater medium and higher density development for smaller dwelling options. It identifies that the demand for social and affordable housing is not currently being met in Toowoomba.

Learn more about this topic

[Toowoomba Regional Housing Strategy](#)

[West Toowoomba Land Use Investigations: Next generation suburban neighbourhoods](#)

[QDesign 2018](#) recommends delivering diverse development forms and density to respond to diverse needs of society.

2.1.2 Neighbourhood Housing Choices (cont)

New choices

Compact homes on smaller allotments an important role in how well a neighbourhood meets community needs

Middle photo: Degenhart-SHEDD, others Jensen PLUS



Traditional

Smaller and larger sized homes (including some two-storey dwellings, especially where overlooking street corners and public open spaces) using contemporary Toowoomba House Design principles, enable a range of homes to fit into their contextual setting.

Photos: Jensen PLUS

Attached

Terrace homes (left) with narrow frontages present well to the street if supported by rear access.

Small walk-up apartment buildings (middle) are relatively affordable to construct, with larger apartment projects suited to town centre and urban renewal areas.

Left photo Metricon others Jensen PLUS



2.1.3 Modest mix of uses in neighbourhoods

Overview

Locally-focussed non-residential land uses are encouraged in new (and existing) residential areas to support the “20-minute neighbourhood” concept where residents can access more of their daily needs within their local area.

Existing policy in the planning scheme

Despite recommending a mix of land uses in some zones, the Planning Scheme (including some local plans) does not have all the assessment guidance needed to influence developments to encourage successful mixed-use in neighbourhoods.

Guidelines

Land uses

- Non-residential land uses which are low-impact (for example, create low levels of noise, traffic, odours etc) are appropriate if they are complementary to their residential setting and are supportive to the surrounding community.
- Non-residential uses should be provided in new neighbourhoods at key locations of community significance which are within walking distance of public focal points or public transport nodes.
- Non-residential land uses are to serve the needs of the local neighbourhood and be of a local scale and modest-intensity.
- Complementary land use types include those which provide local convenience to the locality and may include retail, office, consulting rooms, recreational, community meeting spaces or services, and institutional uses at local scales.
- Other land uses supporting the 20-Minute neighbourhood concept of walkable places and local scale might include cafés, shops, restaurants, child care, school, medical consulting rooms (for GPs and dentists etc), local businesses (including hairdressers, real estate agencies, bakeries), recreation places and takeaway food and drinks.

Urban form supporting local

- ‘Local scale’ means predominantly smaller commercial tenancies in order to support a ‘human scale’ and ‘fine-grain’ urban form rather than the “big box” buildings which often rely on large car parks. (These types of commercial uses expect people to travel

for their product/service anyway, indicating a less locally-focussed land use and scale.)

- A modest mix of uses can be achieved through “horizontal” mix, where each use is located at ground level in adjoining premises or buildings. A neighbourhood or local centre is a good example of this, as is a corner takeaway or cafe.
- A modest mix of uses can also be achieved through vertical mix (a mixed-use building of two or more levels, which has lower level non-residential uses and residential accommodation on upper floors.
- Shop-top housing (which could also accommodate AirBnB style visitor accommodations) should overlook the primary street address, with an access provided for the dwelling independent of the ground floor tenancy.
- Mixed use buildings should conform with building height and scale designed in the area, noting that a larger and taller building at the centre of a neighbourhood is often a desirable focal point and should be supported by the planning scheme.
- In established areas, modest building heights of two to four levels also supported by the mature trees common in city areas.
- Potential conflict between uses in a building should be avoided through acoustic treatments at construction stage and by avoiding mixing uses that may be incompatible.

Evidence

Of the new greenfield residential developments surveyed, all consisted of exclusively residential land uses, relying on residents leaving the area for almost all community, recreational, day-to-day or employment activity (probably by car). Housing diversity was low, local centres and shops were not integrated into developments nor mixed-use in nature to provide for alternative housing choice.

Learn more about this topic

The West Toowoomba Land Use Investigations: Next generation suburban neighbourhoods

Model Code for Neighbourhood Design 2020

Healthy Places, Healthy People materials

Vertical mixed use

111 Campbell Street, East Toowoomba is a good demonstration of mixing retail and office uses in one building, and is an accomplished architectural design. The location on the edge of the city centre and residential areas offers many advantages, and the tall trees and sloping street support a taller built form than nearby single storey buildings

Photo: Jensen PLUS



Barber, Newtown

Personal services businesses can be widely distributed through suburban areas and new neighbourhood designs should also provide visible locations on connector streets to support small businesses like this

Photo: Jensen PLUS

Cafe/bakery

Small-scale retail and meeting places like this should be enabled in new greenfield developments as well

Photo: Jensen PLUS



2.1.4 Updated Planning Scheme Policy for Master Planning for 20-minute neighbourhoods

Overview

To provide clear, stronger guidance to applicants on best-practice master planning can be achieved, it is recommended that PSP No. 4 be updated to include the desired neighbourhood planning and design outcomes of the future planning scheme.

Existing policy in the planning scheme

Currently, the planning scheme includes a Planning Scheme Policy which provides guidance on how to prepare a Master Plan, being PSP No. 4 Master Planning.

The planning scheme requires greenfield and infill development in the Emerging Community Zone, Low Density Residential zone and Low-Medium Density Residential Zone to occur only after detailed land use master planning in accordance with PSP No. 4.

The existing PSP No. 4 is high-level and lists elements that should be included in a Master Plan. The PSP does not identify how these elements are to be addressed and to what standard. This leads to deficiencies in master planning and infrastructure delivery.

Guidelines

A PSP plays the following role in a planning scheme:

- provides information the Council may request for a development application
- states a standard for specific assessment benchmarks
- provides guidance on how compliance with the assessment benchmarks can be demonstrated.

To provide clear, stronger guidance to applicants on best-practice master planning can be achieved, it is recommended that PSP No. 4 be updated to consider the following:

Ensure a clear line of sight between assessment benchmarks and the PSP

The connection between PSP No.4 and the assessment benchmarks needs to be strengthened. Council could consider updating the PSP with a table that identifies links to the planning scheme, including:

- Codes which refer to the PSP;
- Assessment benchmarks that refer to the PSP; and
- Standards in the PSP that the assessment benchmarks in the codes relate to.

Content

Ensure the PSP identifies that the following matters must be addressed when preparing a Master Plan:

- Net developable area, and viable dwelling density and diversity.
- Details of proposed staging of development.
- Zoning recommendations to be applied upon completion of development.
- Allocation of land uses ensuring they are safe, accessible and well connected.
- Creation of a safe and comfortable public realm with a high amenity.
- Response to environmental values and constraints.

- Proposed landform variation (e.g. earthworks design).
- A code outlining relevant siting and design standards that deal with the respective built form types with specific mention made where there is a variation to the planning scheme.

Identify clearer standards for development

Currently, PSP No. 4 only identifies steps in preparing a master plan and is not clear on how master planning standards can be achieved. This leaves room for flexibility in interpretation.

- For example, stating, “identifies broad land use types and development density” does not specify the scale and form of density that Council desires.

To achieve the desired 20-minute neighbourhoods, specific standards need to be listed, for example, “neighbourhood blocks do not exceed 400m in length without providing a cross-block path, lane or road.”

Use diagrams where possible to demonstrate requirements

Figures illustrating examples of Structure Plan requirements can be helpful to communicate key elements (e.g. movement corridors, open space locations, street tree arrangements). See example diagram.

Community consultation

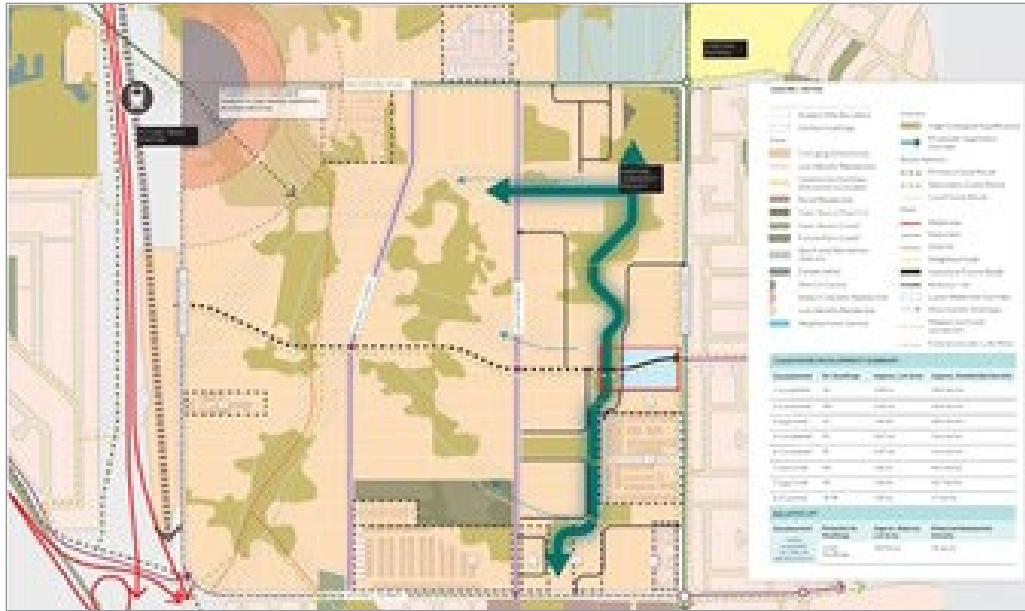
Best practice master planning requires a level of consultation similar to an impact assessable development application. For complex, large-scale developments, additional community consultation may be required to ensure key challenges and benefits are understood by the public. By identifying this as a requirement in the PSP, Council can require this via an Information Request.

Evidence

Consultation with Council has identified that an updated Master Planning PSP is required to provide greater guidance to applicants. This is supported by the findings of the Stage 2 Context Paper which identifies that best practice residential development in other Local Government Areas draw on guidance from a strong and clear Master Planning PSP in the relevant local planning scheme.

Urban Design Review can also assist in ensuring compliance with the Master Plan PSP is supported and high quality urban design outcomes are achieved.

Updated Planning Scheme Policy for Master Planning for 20-minute neighbourhoods



Example

Master Plan for a centre development in an Emerging Community Zone in Ellen Grove, Brisbane



Example

Master Plan for greenfield residential development (The Avenues) in Highfields, Toowoomba

2.1.5 Using Design Review for residential and mixed use developments

Overview

Urban Design Review (UDR) involves a panel of experts providing independent advice to Council and applicants about high-quality urban design, best practice place-making, land use and infrastructure planning, and promotion of economically and socially sustainable places.

UDR is a key tool that can be adopted by Council to ensure greenfield residential developments uphold best-practice design elements.

Existing policy in the planning scheme

UDR is not currently used in development assessment under the planning scheme.

Guidelines

UDR is also a tool that can be used to ensure infill developments in established centres and residential areas are well designed and functional. UDR can be an important addition to Council's formal development application assessment and is intended to enhance the region's capabilities in achieving architectural and urban design excellence.

UDR may be implemented in the following ways:

- Council can establish an independent panel of experts to undertake UDR of nominated development types, from pre-lodgement to approval and compliance.

- If establishing a UDR panel, Council could consider extending the operation of the Railway Parklands Priority Development Area Expert Advisory Panel. Alternatively, Council could use the Queensland Urban Design and Places Panel for advice.
 - Council can identify development of a certain threshold that requires UDR, this could be based on criteria, such as staging, density or area. For example, applications for Reconfiguring a Lot and Material Change of Use for over 100 residential dwellings in the Emerging Community could be required to go through Council's UDR process.
 - Council could enhance its optional pre-lodgement service that supports the development industry through a collaborative design process. Council may request an additional fee for this service which offers a fast-tracked assessment process by front-loading issues. This could be a similar process to Brisbane City Council's DesignSMART that reinforces the principles of the New World City Design Guide: Buildings that Breathe.
 - Support the State Government's urban design trigger process. Significant projects are referred to the State Assessment and Referral Agency for urban design advice from the Office of the Queensland Government Architect. For example, development for a Multiple Dwelling with a Gross Floor Area of more than 25,000m², not associated with a Preliminary Approval.
 - Ensuring UDR upholds the outcomes of the TRUFF and other relevant documents, such as QDesign.
 - An UDR process will need to consider Council's internal timeframes. The recommendation of an additional pre-lodgement service that offers a collaborative design process for applicants can be associated with a fee (compared to Council's free pre-lodgement service) which will assist Council in managing additional resourcing and administrative demands. UDR is considered appropriate for medium to large scale development applications where external consultants can review and provide advice to support Council in the assessment of applications that may be more time exhaustive.
 - A scaled-back design review approach, where advice is provided by Council urban design staff and/or contractors is also a practical option. The benefits of independent advice should not be overlooked when collaborating with applicants and with internal referral processes.
- For centre developments, it would be most effective for Council to identify the types and size of development that would require UDR. This could be based on set criteria (i.e. a shop over 1,000m² or a retail space or a multiple dwelling proposing over 10 units; OR a value of the project as the threshold trigger for UDR).

Evidence

Consultation with Council has identified that UDR could be a process that is explored to uphold high quality urban design outcomes in greenfield residential developments. This is supported by the findings of the Stage 2 Context Paper which identifies that best practice residential development in the region and in other Local Government Area uses a UDR process to uphold high quality urban design outcomes.

In discussion with Council during Stage 2, it was confirmed that the current pre-lodgement service was not always effective in providing applicants with early design guidance, or with achieving better designed developments. Introducing UDR from pre-lodgement through to compliance stages may be a suitable avenue for Council to provide further support for developers to achieve design excellence.



Example

QDesign, Principles for Good Urban Design in Queensland (Queensland Government, Office of the Queensland Government Architect, 2018)



Example

New World City Design Guide: Buildings that Breathe (Brisbane City Council, 2016)

2.1.6 Applying Crime Prevention Through Neighbourhood Design

Overview

Crime Prevention through Neighbourhood Design (CPTND) is a crime prevention strategy that focuses on planning and designing the built environment and public spaces to enhance safety and security.

This guideline is intended to assist Council in identifying where CPTND processes and principles can be strengthened to create safer neighbourhoods.

Guidelines

The benefits of applying CPTND principles in design are:

- Reduced opportunities for crime against persons or property;
- Improved community perceptions about safety; and
- Enhanced liveability of neighbourhood areas.

Currently, Council provides limited guidance on how to efficiently and effectively apply and assess CPTND principles. To overcome this, Council should consider the following matters:

- Introduce additional assessment benchmarks for CPTND into development codes in the planning scheme, such as the Community and Recreation Uses Code, Markets Code, Medium Density Residential Code and Small Lot Housing Design Code. This will ensure consistency with the Strategic Framework which includes strategic outcomes to ensure neighbourhoods are safe and secure.
- Introduce a Planning Scheme Policy (PSP) to provide guidance on satisfying assessment benchmarks for implementing CPTND.
- See examples of potential CPTND guidance material that could be included in the PSP.
- Use pre-lodgement services to identify CPTND requirements for developments early in the design and planning process.
- Compile a CPTND checklist to assist

- applicants and Council ensure CPTND is incorporated within the design of planning proposals. The completion of this checklist could be a mandatory lodgement requirement for certain types of development (e.g. assessable Multiple Dwellings, Shopping Centres, Education Facilities).
- Use Urban Design Review to ensure best practice CPTND principles are being upheld in proposed development (See Guidelines 2.1.6 and 2.2.4 for details).

Evidence

Consultation with Council through the co-design workshops has identified that CPTND principles needs to be considered to build better neighbourhoods. Strengthening provisions in the planning scheme and improving Council's internal processes to uphold CPTND principles will lead to safer neighbourhoods.

Learn more about this topic

Queensland Government's [Crime Prevention through Environmental Design Guidelines for Queensland, 2007](#).

[The International Crime Prevention Through Environmental Design Association website](#).

Example [CPTED checklist](#) by the City of Armadale.

Example: Good Practice

Good practice of CPTND being incorporated into a neighbourhood character residential area. The buildings are orientated to the street and have low front fencing.

Source: Toowoomba Regional Council medium density infill in neighbourhood character areas

**Example: Bad Practice**

Bad practice of CPTND being incorporated into a neighbourhood area. Avoid where possible buildings that run perpendicular to the street, blank walls facing the street and high non-visually permeable fencing limiting casual surveillance opportunities.

Source: Toowoomba Regional Council medium density infill in neighbourhood character areas

2.1.7 Neighbourhood design to reduce acoustic and amenity impacts from major roads

Overview

Holistic neighbourhood planning based on site investigations and analysis can deliver a residential environment where exposure to noise and adverse amenity impacts can be mitigated without automatic reliance on acoustic barriers.

Road corridors have an important function in the movement of people and goods and efficient access to services. Road traffic is a significant source of noise and vibration that can have an adverse affect on liveability. Proximity to busy roads also exposes communities to potentially poorer air quality. The level of impact increases with greater traffic volumes and higher freight levels.

The most relevant scheme policies

The Environmental Standards Code in Part 9 of the Planning Scheme contains policies seeking new development housing noise sensitive land uses adjacent arterial roads or Transport Noise Corridors be constructed to protect acoustic amenity.

Guidelines

Neighbourhood planning

- Neighbourhood planning should adopt mitigation strategies to reduce or manage sound levels to achieve acceptable health and well-being outcomes.
- Mitigation measures at the neighbourhood planning stage include subdivision layout, physical separation, building setbacks and building orientation (from noise source).
- A noise assessment can identify and measure road noise, background noise levels and options for noise mitigation.

Non-sensitive land uses

- Locate non-sensitive land uses such as commercial development adjacent roads to act as a noise barrier and increase physical separation to noise sensitive uses. Other built form such as garaging can also establish a noise barrier.

Physical separation

- Position local roads and/or public open space and reserves/corridors (including shared use paths or cycle lanes) between a noise source and noise sensitive uses (i.e. to increase physical separation).
- Ensure any unbuilt space is designed to maximise passive surveillance, has a useable size and function, has adequate lighting and landscaping and connects to the existing or future movement network.
- Physical separation through siting of local or service roads/public open space can allow noise sensitive uses to face a road noise source at a manageable distance for internal noise mitigation to be effective.

Dwelling and allotment layout and design

- Orientate allotments to enable dwelling design and siting to further reduce noise impacts.

- Within dwellings, position noise sensitive rooms (such as living rooms and bedrooms) further away from the noise source.
- Where possible, locate children's playspace, private or communal open space further away from a noise source (noting solar access needs). Buildings can be used as a noise shield.
- Use building design elements such as extended facade elements and enclosed balconies to shield ground and upper floors from noise and avoid building design solutions that reflect noise within a dwelling or adjacent dwelling.

Earth mounds

- Use changes in natural ground or modified topography (landscaped earth mounds) to assist in shielding noise sensitive uses. Bio-barriers are another modified form of landscaped noise protection.

Acoustic barriers

- Barriers are not generally preferred and should only be constructed adjacent roads where there is very limited ability to master plan for noise reduction and mitigation measures are not able to appropriately reduce noise levels.
- Where required, barriers should be designed and placed to achieve safety, access, landscaping and good urban design outcomes. Design should consider local context and incorporate colour, texture, art, landscaping, lighting and visually interesting forms to improve their appearance. See Section 2.3 Acoustic Fence Design for additional guidance.

Evidence

The Queensland Environmental Protection (Noise) Policy 2019 identifies that the qualities of the acoustic environment are important to human health and wellbeing for activities such as sleep, studying, recreation, talking and relaxing.

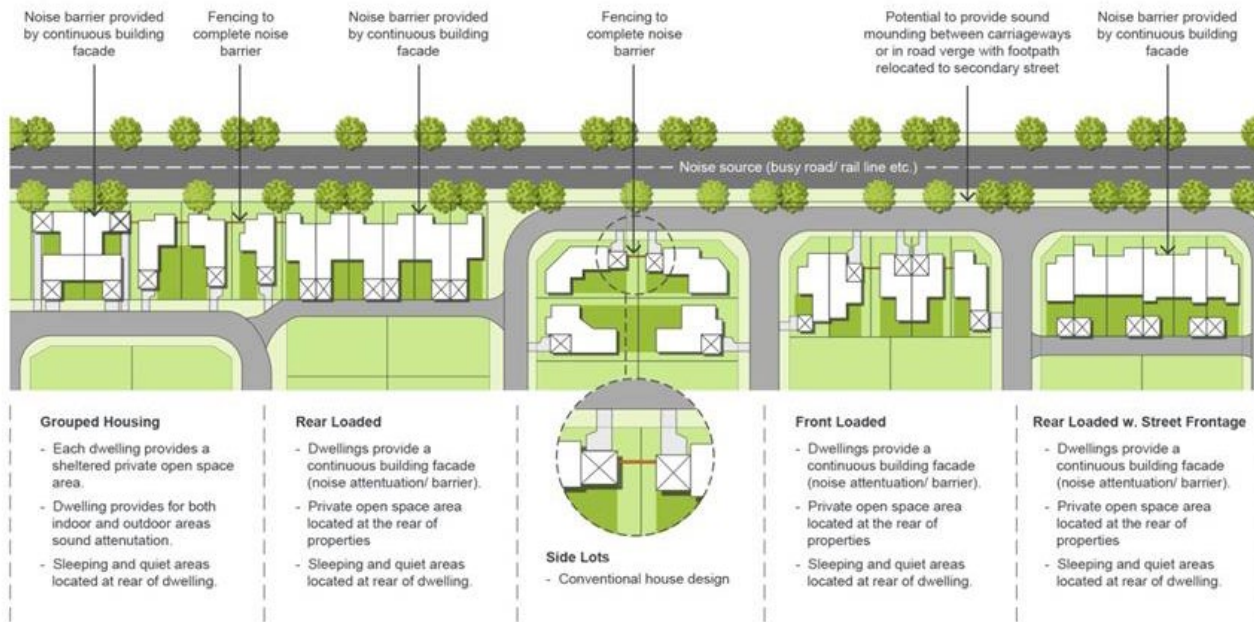
Acceptable health and wellbeing is achieved where acoustic levels (LAeq,adj,1hr) do not exceed):

- Indoors - daytime 35dB(A) and evening 30 dB(A)
- Outdoors - daytime and evening - 50 dB(A).

Observations of subdivisions in Toowoomba identified a lack of site contextual response to noise protection and a reliance on acoustic barriers. Analysis of these acoustic barriers showed most were unsympathetic to their context, creating aesthetic and accessibility issues. See TRUFF Part B for example discussion.

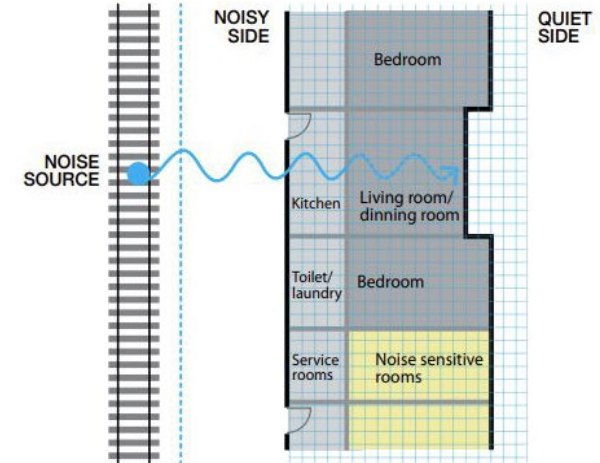
Physical separation
Mitigation measures
for neighbourhood
planning

Source: Camden
Council NSW



Quiet House Design

Examples of quiet house design in the WA Road and Rail Noise Guidelines 2019
Source: Western Australian Planning Commission



Acoustic barrier, Ramat Hasharon, Israel

Clear paneling used as a transparent noise-reducing solution, while still allowing for passive surveillance of the street. Landscaping and tree planting softens visual impact.
Source: PALGLAS



2.1.8 Character statements for greenfield development

Overview

New greenfield developments should adhere to a set of overall characteristics for greenfield development which respond to Toowoomba Region's unique context and warm temperate climate.

Ensure greenfield developments provide a form of development that reflects valued features of neighbourhood character in Toowoomba's early suburbs

Greenfield development should connect efficiently with existing road networks and provide logical connections to existing services, amenities and open space.

It is acknowledged that council do not have significant authority to enforce some of the outcomes noted in this section. However, changes to the planning scheme, incentives and development scale housing guidelines and covenants may go some way towards addressing the issues raised.



Contributor to urban heat island, lack of landscape
(source: Arkhefield)

Issues and Threats

The following undesirable characteristics are typical of greenfield development proliferating in the region:

1. Ubiquitous character that could be anywhere in Queensland;
2. Use of dark coloured wall and roofing materials which defines a different aesthetic which is more urban and also contributes to urban heat island effect;
3. Lack of opportunities for social interaction and sense of community where building frontages do not engage with the street;
4. Streetscapes dominated by car parking, garages and wide carriageways;
5. Lack of landscape in streetscapes and within individual lots;
6. Two storey suburban type dwellings where not sympathetic to adjoining single storey dwellings.
7. Greenfield developments that turn their backs to existing neighbourhoods and streets with high solid fencing.



Dark materials and roof
(source: Arkhefield)

Evidence

An outcome of the synoptic survey identified the need to establish better design guidance for greenfield developments which contribute to a greener and more liveable Toowoomba. Many greenfield developments have been poorly conceived with a lack of consideration for green canopy cover, walkability and connection to existing fabric.

It is also observed that many of the project homes delivered did not contribute to a sense of place or contribute to an active streetscape. Buildings were not sited to optimise solar orientation and warm temperate client design principles.

There is also a growing trend where the exterior materials of homes tend to be of dark colours, which contributes to a heat island effect.



Two storey dwelling has zero setback to adjoining single storey dwelling and is not sympathetic in scale
(source: Arkhefield)



Ubiquitous Character
(source: Arkhefield)



Streetscape dominated by cars
(source: Arkhefield)



Non-permeable front fence
(source: Arkhefield)

Preferred Character

The preferred character statement for greenfield developments is summarised under the same 4 headings of the existing policy Part 8.3.2 Neighbourhood Character Overlay Code encompassing both housing and setting for consistency

Building Type and Form: A mix of single and two storey detached dwellings

- If a two storey dwelling is proposed, the upper level should have a smaller footprint than the ground level.
- Taller built forms should be complemented with significant landscape to soften the building scale.
- Pitched roofs should be a minimum of 25 degrees. Multi gabled, hipped and pyramid roof forms are preferred over shallow pitch skillion roofs or flat roofs. This guidance is provided to ensure new roof forms have some harmony with the existing neighbourhoods of the region.
- Building elements such as porches and verandas, generous eaves, sunhoods, screens and deep window recesses contribute to a responsive warm temperate climate design language and enhance the building façades and streetscape.
- Expressive building elements should be incorporated on street frontages and street corners.
- Employ two or more distinctly different but complementary wall materials and colours for front façades to create contrast and variety.
- Colours and materials should compliment the visual landscape of the region and use generally lighter tones. Light external colours on façades allow the building to reflect more heat and keep the interior cooler. Dark and vibrant colours may be used as features, but not as the dominant façade colour. Discourage the use of dark coloured wall and roofing materials.
- Allow sufficient front setbacks for landscaping and deep planting to enhance the streetscape.
- Refer to Section 3.2.1 The New Contemporary Toowoomba house for further guidance on the design of new dwellings.



Low permeable fence, frontage that engages with the street (source: Realestate.com.au)



Colours and materials compliment visual landscape (source: The Avenues: Highfields)



Appropriate setback between single storey and two storey dwellings to provide better daylight access, improves privacy and allows zone for landscape. (source: Arkhefield)



Dwellings have a consistent setback within development (source: Arkhefield)



Facade articulation and roof forms contributes to active streetscape (source: Gordon Bourke Construction)



Generous verandahs and porches (source: Clayton Jesse Construction)

2.1.9 Water Sensitive Urban Design (WSUD) at neighbourhood Scale

Overview

By incorporating more Water Sensitive Urban Design (WSUD) treatments into neighbourhood design, street design and lot and building design, stormwater flows can be managed and attractive and healthy neighbourhood environments can be achieved.

Existing policy in the planning scheme

The Reconfiguring A Lot, and Landscape Codes, include planning policies supportive of WSUD neighbourhood responses, but additional emphasis and examples of design solutions could strengthen this area of policy.

The Queensland Development Code (QDC) 4.2 regulates the provision of rainwater tanks on new dwellings and other classes of buildings. Council requires rainwater tanks and water saving devices on new residential and commercial buildings.

Council does not currently have policy on the integration of WSUD into neighbourhoods, street or open spaces.

Guidelines

Reduce impervious areas in developments, streets and public spaces

- Current policy in the Low Density Residential Zone is that no more than 60% of a site area consists of impervious areas.
- Encourage even lower impervious areas of 50% or less in new development, to further increase stormwater infiltration into the ground.
- Car parking areas should use permeable surfaces and paving where possible, and provide a minimum of 15% of the car park area for landscaping to manage run off and allow environmental infiltration.

- Street environment should also target <60% impervious surfaces supporting street greening as well as reducing stormwater flows.

- Streetscape enhancements incorporate rain gardens and landscaping to reduce impervious surface coverage in the road reserve.

- Where appropriate, narrow road widths are favoured to include more area for landscaping and rain gardens. See 3.3 for recommended greener local street design typologies.

Neighbourhood design

- Residential street blocks are broken up by pedestrian walkways which are well-landscaped and act as sites for water infiltration.
- The orientation of street blocks in regards to the slope of land is designed to facilitate rain water management and allow water runoff from individual allotments to be directed into shared WSUD management points.

- Landscaped reserves are regularly located throughout the neighbourhood to act as passive sites for rainwater infiltration.
- As part of a diverse dwelling mix, neighbourhoods are designed to include allotments which provide sufficient space for on-site landscaping and impervious surfaces.
- Plan for a mixture of “end of pipe” neighbourhood-scale treatments (e.g. larger bio-retention basins) and “near source” treatments (like rain gardens in residential streets) to balance water quality, amenity and costs (capital and maintenance).
- Near source treatments should maximise beneficial outcomes i.e. rainwater tanks are plumbed to houses to reduce mains water consumption, or rain gardens to include deep plantings to increase tree canopy cover.

WSUD elements

- Use best practice WSUD/drainage design such as bio-swales, bio-basins and wetlands where appropriate which also enable biodiversity, drainage and open space.
- Demonstrate quality WSUD treatments at the master plan stage.
- Incorporate natural features such as creeks and drains to create multi-function open space and WSUD networks.

Evidence

Diverse WSUD techniques were not observed in the TRUFF survey of six recent greenfield residential developments around Toowoomba and Highfields.

Learn more about this topic

[Green Infrastructure Strategy](#)

Queensland Development Code MP4.2 Rainwater Tanks and Other Supplementary Water Supply Systems

tr.qld.gov.au/environment-water-waste/water-supply-dams/water-restrictions-conservation/13320-rainwater-tanks



WSUD

Larger end-of-pipe systems like wetlands (top) and local systems like street-based rain gardens can both be used to enhance neighbourhood design, amenity and environment.

Photos: Jensen PLUS

Overview

Effective urban design strategies at the residential subdivision design stage are important to achieve efficient, sustainable and practical layouts. These design tips can apply to large and small projects, and many are also relevant to non-residential land development.

Existing policy in the planning scheme

Despite prioritising sustainable transport networks, local connectivity and convenient and accessible community services, the Low Density Residential and Emerging Communities Zones, and the Reconfiguring a Lot Code, do not provide strong guidance on neighbourhood design.

Guidelines

Allotment shape and size

- _ Design street blocks and residential allotments to a regular, rectangular shape with consistent frontages and depths wherever possible. This maximises the number of housing designs that can be accommodated on new allotments.
- _ Typical frontages for detached dwellings include 10m, 12.5m, 15m and 18-20m. Typical allotments depths include 30-32m, and 24-25m options.
- _ Smaller allotments are becoming more common, and frontages for attached or terrace allotments are often found at 5.5-6m, 4.8m and even as narrow as 3.7m.
- _ Allow extra width in corner lots for secondary street setbacks. Corner lots are flexible to multiple housing types including small multi-unit developments.
- _ Sometimes irregular or “triangle” parcels are suitable to incorporate into a public open space system, or a widened road reserve for additional greening in the streetscape.

Streetscape rhythm

- _ Cluster allotments/dwellings in small groups of three or five to create attractive streetscape rhythm. For example, three “cottage” dwellings in a row provides a rhythmic street appeal.
- _ Clustering dwellings opposite open space or on higher order streets also helps create an attractive presentation to the public realm.
- _ Also ensure allotment diversity in every

street, to help provide housing choices and to appeal to different market segments during project marketing.

- _ Locate no more than seven or eight narrow frontage (10m or less) allotments in a row.

Subdivision layout

- _ A modified grid layout of street should be used to provide good connectivity, while minimising 4-way intersections, which are more difficult to manage for traffic.
- _ Rationalise the number of rear boundary points by matching allotment widths “back to back”, or by using dimensions that add up to a common width (e.g. 2 x 15m lots neighbouring 3 x 10m lots). This helps with the alignment of underground services at the rear, as well as fencing, and helps reduce set-out errors on-site.
- _ Widen road reserves locally to protect large trees and important stands of vegetation. This can create an attractive feature of the development.
- _ Align new roads (and road reserves) to views and local destinations. A larger allotment at the terminus of a new street can create an attractive local vista.
- _ Align allotments within 15 degrees of north-south or east-west where slope and other constraints allow. For narrower allotments with a south-facing rear, a longer depth can help provide greater access to winter sunlight.
- _ Topography and access to prevailing breezes has a big influence on subdivision. Align streets and blocks to take advantage of conditions.

Evidence

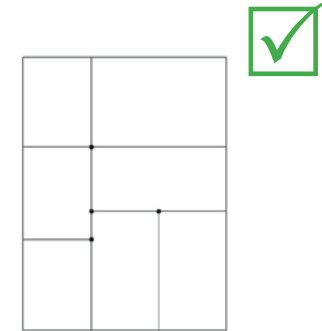
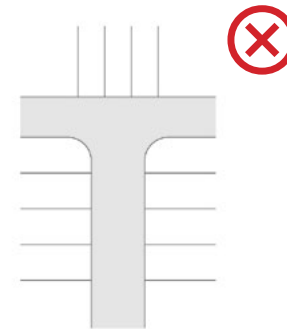
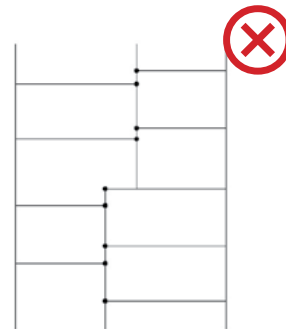
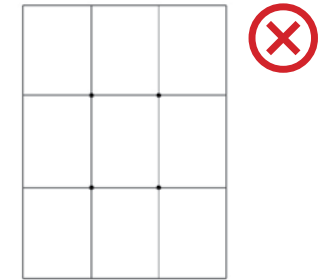
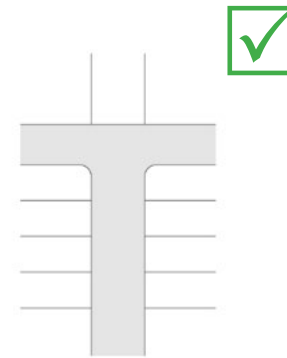
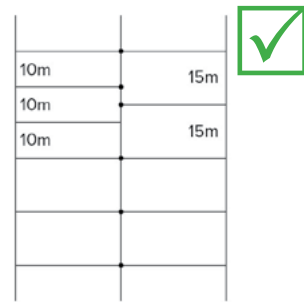
It was evident in the six greenfield developments which were surveyed that the design of the subdivision was key to establishing a well-functioning neighbourhood which supports a walkable, 20-Minute neighbourhood, from the beginning.

Learn more about this topic

- _ For road reserve widths and street design recommendations, see Section 3.3
- _ *Designing for small lots (EDQ Practice note 7, March 2014)*
- _ *Residential 30, Economic Development Queensland, 2015*
- _ *Next Generation Planning handbook, Council of Mayors SEQ, 2011*
- _ *Neighbourhood planning and design, PDA guideline no. 05, 2015*

Guidelines cont.

- _ Locate new streets on ridges or in gullies, and perpendicular to slope, to minimise cut and fill, and fit with the natural landform.
- _ Design to have slope across allotments with zero boundary lines on the low side.
- _ There is a direct relationship between allotment/dwelling density, and the amount of road reserve required to access allotments. This can vary from <25% in traditional, low density greenfield suburbs of all detached housing, to 40% or more in denser developments which often have row/terrace homes with rear lanes for driveway access. Test the road % often during the design process.
- _ Use rear lanes to provide on-site parking access while preserving an attractive streetscape with no driveways. This strategy is useful for fronting housing onto busier (Neighbourhood Connector) streets where frequent driveways are undesirable for road safety.



Boundary alignment

Rationalise the number of rear boundary points by matching allotment widths “back to back”

Street view

A larger allotment at the terminus of a new street can create an attractive local vista, and minimise driveways at intersections

Modified street grid

Connected and legible and adaptable, but without large numbers of 4-way intersections

Overview

Similar to master planning by developers, structure plans can be prepared by Council to manage change and accommodate growth in areas, such as town centres, urban growth areas, urban infill and renewal areas, and undeveloped residential zoned areas.

Structure planning is an effective planning tool that Council should continue to use to guide growth and change, and future development and investment.

Existing policy in the planning scheme

Council-led structure planning at Highfields, Meringandan and Meringandan West, and Central Highfields has been integrated into the Local Plans section and codes of the Planning Scheme.

Structure planning projects that are underway or completed by Council include the Highfields, Meringandan and Meringandan West Local Plan area, Central Highfields Structure Plan, and West Toowoomba Local Plan.

Guidelines

Structure Plans often outline the preferred development outcomes, such as land use mix, height, density, built form, open space, transport networks and infrastructure.

Structure planning can help local government to:

- Develop a strategic vision for an area to provide greater certainty to the local community and investors about its expectations for the future form of development.
- Define future land uses, access and connectivity location of local centres and public open space.
- Coordinate new and improved infrastructure.
- Guide development to create liveable communities.
- Protect local valuable features and enhance the character of the area.
- Facilitate economic development.
- Address locally specific issues and opportunities that influence the future of the area.
- Make best use of council resources and focus council investment to best serve the community.

Council-led structure planning can involve the following steps:

1. Regular monitoring of population and economic growth, environmental, social and planning matters to determine when and where local plans and land uses investigations may be needed.
2. Prepare project plans and complete background reviews prior to commencing the structure planning process.

3. Complete a site analysis and identify opportunities and constraints.
4. Undertake community and stakeholder engagement to identify values, opportunities and concerns associated with planning for future growth and development in the area and identify strategic directions.
5. Develop a draft structure plan. This could include multiple structure plan options that the community can provide feedback on.
6. Undertake community and stakeholder engagement to provide the opportunity to review and give feedback on the draft plan.
7. Finalise the structure plan.

The outcomes of structure planning can inform amendments to the planning scheme. These amendments may be in the form of a local plan or result in changes to the zone, precincts or overlays affecting the structure plan area.

Whether integrated into the planning scheme or not, Structure Plans can also inform Council infrastructure planning including open space, roads and utilities, and sometimes land acquisition.

Successful Structure Plans also influence the designs of landowners/developers, and of future developers who may not be stakeholders at the time the Structure Plan is prepared.

When to undertake a structure plan?

To progress structure planning for the region, Council should:

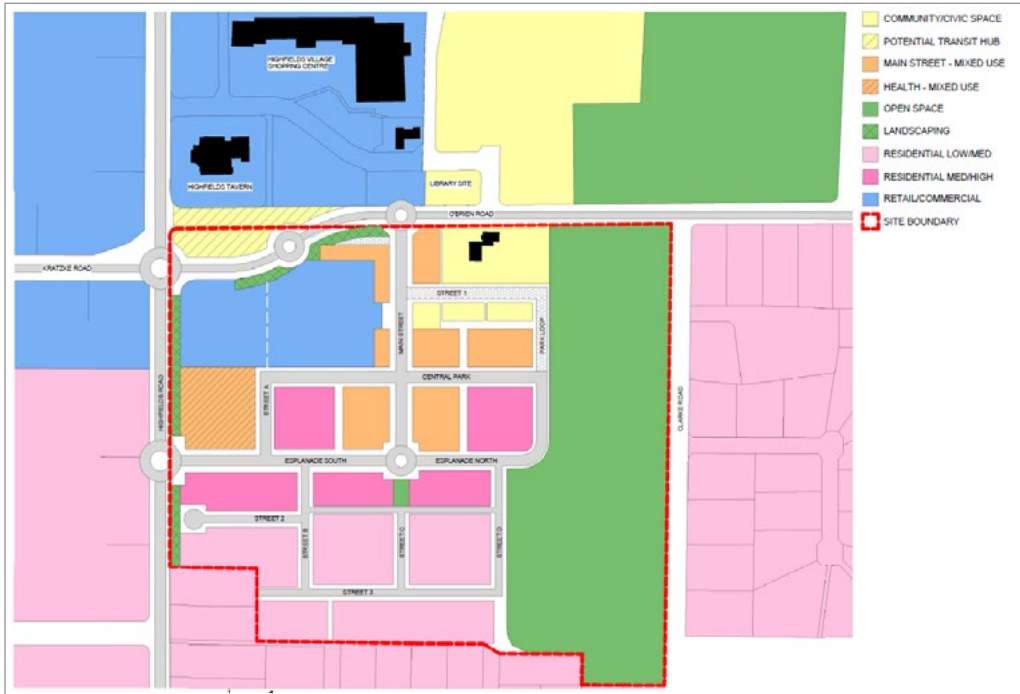
- Continue the *Imagine tomorrow* series of local planning investigations for all growth areas, similarly to the West Toowoomba and Drayton land use investigations.

- Council should investigate structure planning for other key areas of change and development, including new town centres and local centres, undeveloped emerging community zoned areas, and other future growth areas.
- For land with multiple ownerships, a council-led structure plan can help ensure coordinated development.
- Carry out structure planning using a collaborative design process with the development industry, similarly to the West Toowoomba Local Plan.
- Appropriately adopt the outcomes of structure planning as amendments (e.g. zoning changes, and code amendments to integrate key planning and design criteria) to the planning scheme to ensure the plans take effect.

Evidence

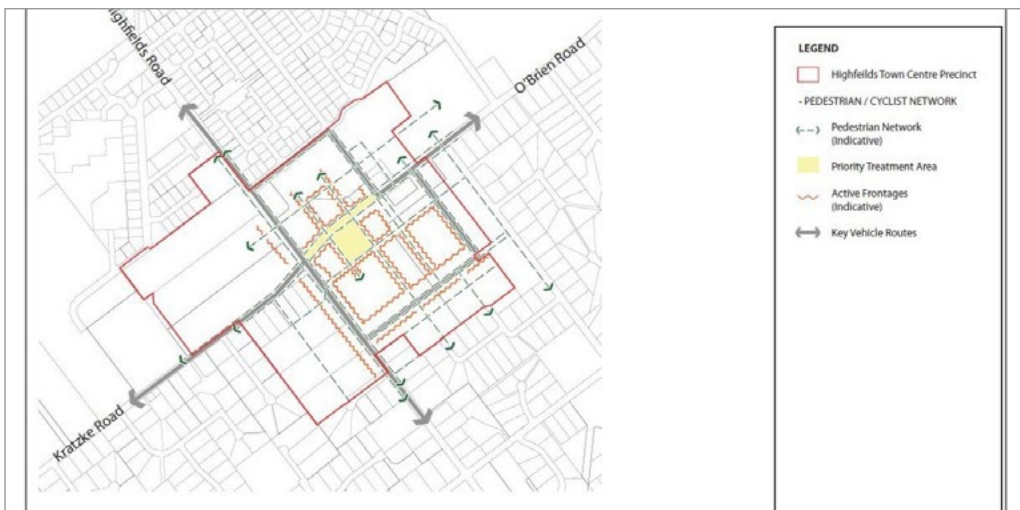
Consultation with Council through the co-design workshops has identified that Council should continue to lead structure planning for key areas of change and growth, including town centres, and urban renewal and future growth areas. This is considered to result in improved design outcomes and better infrastructure coordination and delivery.

2.1.11 Council-led Structure Planning



Example

Central Highfields
Structure Plan (top)
and integration into
the planning scheme
(bottom)



Example

West Toowoomba
Land Use Investigation
concept by council
for new town centre
(top) and developer
application reflecting
key principles of the
structure plan

2.1.12 Stronger planning controls for building better greenfield neighbourhoods

Overview

Building better neighbourhoods relies on clear and strong planning controls for key elements in the planning scheme to create greater certainty on important development outcomes.

Guidelines

The guideline identifies good drafting principles to apply when developing planning scheme provisions for specific focus areas.

These principles ensure the planning scheme:

1. Can respond to changing circumstances over time and embrace innovation and opportunity.
2. Enables development proposals to be made and considered on their merits – assessed against their ability to deliver on and enhance the outcomes intended for the area.
3. While still being clear and objective, providing certainty for the community and industry about intended outcomes and what complies and what does not.

Strengthening controls in greenfield developments

The TRUFF research has identified that planning controls may need to be strengthened for several design criteria including:

- retaining existing trees and vegetation
- retaining and adapting character dwellings
- retaining wall design
- outdoor living areas
- housing diversity
- the integration of planning and operational works approvals.

Scheme drafting principles

When developing stronger planning controls on the above topics, the following planning scheme drafting principles should be considered:

- Provide certainty where it will assist efficiency or where outcomes are non-negotiable.
- Be fair and practical about how policy “hits the ground” and avoid undue rigidity.
- Regulate only what needs to be regulated to meet community expectations.
- Ensure outcomes expected of development are clear and expressed as objectively as possible, using illustrations or diagrams where applicable.
- Ensure internal consistency and line of sight (all the parts working together).

Evidence

Consultation with Council through the co-design workshops has identified specific design elements that need to be improved in greenfield residential developments. Specific issues were identified, such as housing diversity, retaining walls and outdoor living areas.

2.1.13 Implementing the principles of the Green Infrastructure Strategy in new developments

Overview

The **Green Infrastructure Strategy (GIS)** provides vision, supporting objectives and actions to drive best practice planning, delivery and management of the region's green assets.

The four key objectives of the GIS are:

- Enrich natural systems.
- Protect and enhance local identity and character.
- Support healthy communities.
- Increase collaboration and co-design.

Council will be approaching green infrastructure planning and delivery through the four focus areas for change:

1. Policy and delivery tools – to set direction and drive decisions.
2. Demonstration projects – to trial new ideas in different locations and build confidence.
3. Advocacy and education – to show leadership, raise awareness and empower others.
4. Skills and knowledge – to build further capability in delivery of green infrastructure.

The **Green Infrastructure Strategy Planning Scheme Integration (GRISPI)** project aims to develop policy, plans and standards within the planning framework to enable consistent and high-quality delivery of green infrastructure. This aligns with focus area 1 of the Green IS.

The outcomes of the GRISPI will be integrated into the planning scheme in the form of a planning scheme policy, code or overlay to ensure new development incorporates principles outlined in the GIS.

The outcomes of the TRUFF needs to align with the GRISPI and ensure new development incorporate the principles of the GIS.

Guidelines

To ensure the outcomes of the GRISPI are recognised and new development incorporates the intended outcomes of the GIS, the following matters should be considered:

- Encourage the protection and retention of street trees in existing and new neighbourhoods.
- Ensure development siting and design is responsive to the mapped outcomes that will be provided as part of the GRISPI.
- Master planned communities and centres have a climate sensitive and sustainable design (see Guideline 2.2.3 for details).
- Identification and protection of 'urban forest networks' that serve biodiversity functions and reduce heat island effects (see Guideline 3.1.10).
- Focusing development within existing developed areas to minimise encroachment on natural ecosystems.
- Water Sensitive Urban Design is used to integrate landscaping and water treatment and retention to reduce stormwater runoff and pollution (see Guideline 2.2.3 for details).

Evidence

Feedback from key stakeholders has identified that the objectives of the GIS needs to be incorporated into the TRUFF.

Further engagement has identified that the GRISPI team has progressed a planning framework for the delivery of the GIS. This guideline is to ensure that the outcomes of the GRISPI project align with the TRUFF.



TOOWOOMBA GREEN.IS



2.

Build better neighbourhoods:

**2.2 Designing better local
centres in the suburbs**

2.2.1 Council-led town centre master planning

Overview

A council-led town centre master plan can provide long term guidance for the future growth and development of centres.

A council-led centre master plan includes analysis, recommendations, and proposals for land use, development and movement within an activity centre.

Council has previously undertaken master planning in key town centres and needs to continue to take the lead in the planning of other centres experiencing growth and change.

Guidelines

Similar to Structure Planning for growth areas (see 2.1.1), undertaking detailed forward planning for new and existing centres can help local government to:

- Promote best practice in placemaking and development.
- Align with the community's vision and values.
- Guide growth and development to create liveable communities.
- Protect local valuable features and enhance the character of the area.

Successful examples by Council

Good examples of Council-led centre master plan projects are the Central Highfields Master Plan (town centre expansion) and Westbrook Town Centre Master Plan (for a future town centre as part of the West Toowoomba growth area).

These plans outline how land will be used, the form development will take and how people will move. These proposals are aligned with the purpose of the centre based on their hierarchy.



Example

Westbrook Town Centre Master Plan

Elements to include in centres master planning

- Undertake a feasibility study. This includes analysis of population, economic growth, and environmental and social factors. Land use investigations and acquisition opportunities by council may be identified. Complete background reviews and site analysis prior to commencing the council-led master planning process.
- Undertake community and stakeholder engagement to identify values, principles and objectives that the master plan aims to achieve.
- Develop a draft master plan. This includes generating options to consult with community and stakeholders. The master plan should demonstrate how the site analysis, community values, principles and objectives are reflected in the plans.
- Develop an Urban Design Framework within the master plan to establish guidelines articulating the desired built form outcomes.
- Prepare a staging, implementation and delivery framework.
- Undertake community and stakeholder engagement to provide the opportunity to review and give feedback on the draft master plan.



Evidence

Consultation with Council through the co-design workshops has identified that Council should continue to lead master planning for centres to promote and guide growth. This is considered to align with community vision and values.

Learn more about this topic:

- [West Toowoomba Land Use Investigation Report](#)
- [Central Highfields Master Plan](#)

Example

Central Highfields Draft Final Master Plan

2.2.2 Temperate climate centre design

Overview

Toowoomba has a warm temperate climate with warm summers, cool winters with rainfall peaking in the summer. The climate has been described as the ‘Goldilocks’ of the Eastern Downs region with temperatures not too hot and not too cold. This provides a number of passive design opportunities for town centres and supports active and sustainable forms of travel.

Climate change in the Toowoomba region is projected to increase temperatures and the number and frequency of hot days, reduce annual rainfall while increasing rainfall intensity and associated flood risks and result in harsher fire weather.

Because in town centres the buildings and infrastructure are often in place for many decades, the design of town centres must respond and adapt to changing climate. People-centric and comfortable town centres and spaces will need to be delivered that provide respite for extreme temperatures, support mental health and wellbeing and support all members of the community in accessing community services.

Guidelines

Green Infrastructure

- Town centres are located adjacent and integrated with Green Corridors and Green Spaces to maximise connections to nature and provide areas of respite.
- Developments target a 25-35% tree canopy coverage for mature trees and vegetation, subject to localised analysis and targets.

Comfortable town centres

- Public spaces and outdoor areas are not overshadowed by large buildings to the north to allow direct sun light and provide more comfortable outdoor areas in winter.
- Town centre main streets incorporate continuous shade for shop fronts and buildings to provide shade and protection from the elements.
- Blue infrastructure is provided including water bodies and water features to provide a cooler environment.
- Extreme heat refuges are provided in key locations, to support vulnerable community members. This could include providing community access to shopping centres, libraries and other air conditioned buildings

Resilient town centres

- Passive design is integrated with lots and community facilities orientated to the north to maximise solar gains in winter.
- Water Sensitive Urban Design (WSUD) is used to integrate landscaping and water treatment and retention to reduce stormwater runoff and pollution. Includes bioretention, swales, tree pits, swales and green roofs.
- Existing vegetation such as large trees are incorporated and retained in new developments to provide and maintain

shade and reduce urban heat island effect.

- Vegetation is selected to withstand the projected climate impacts, in particular increased temperatures, increased hot days and prolonged dry periods.
- Irrigated turf is targeted in high use community areas with non-irrigated, drought resistant landscaping and planting considered in low use areas and on street verges.

Sustainable transport

- Narrower streets with speeds limited to 30-40km/h are integrated into town centres, supporting pedestrian friendly streets. Refer Speed Limit Trials.
- Main centre street interfaces are pedestrian centric with car parks located away from main entrances.
- Continuous pedestrian pathways are maintained on both sides of the street to connect residents and the community to town centres and facilities.
- Cycling lanes are provided with buffer zones (e.g. vegetation) in high traffic areas to protect cyclists and increase vegetation.
- Public transport is integrated into town centres and adjacent community services to provide ease of access for the community.

Materials

- Lighter coloured roofs and landscaping materials are used for publicly accessible facilities, public spaces and outdoor areas, and even roads, cognisant of glare and reflectivity.
- Parks and playgrounds are not located with roads on all sides unless dedicated pedestrian crossings and slow speed zones are integrated.

Evidence

Climate change impacts are already impacting conditions in the Toowoomba region with higher temperatures increasing urban heat island effect in higher density areas, drought reducing water security and increasing water consumption associated with irrigated public spaces and turf, and prolonged hot days impacting utility network stability.



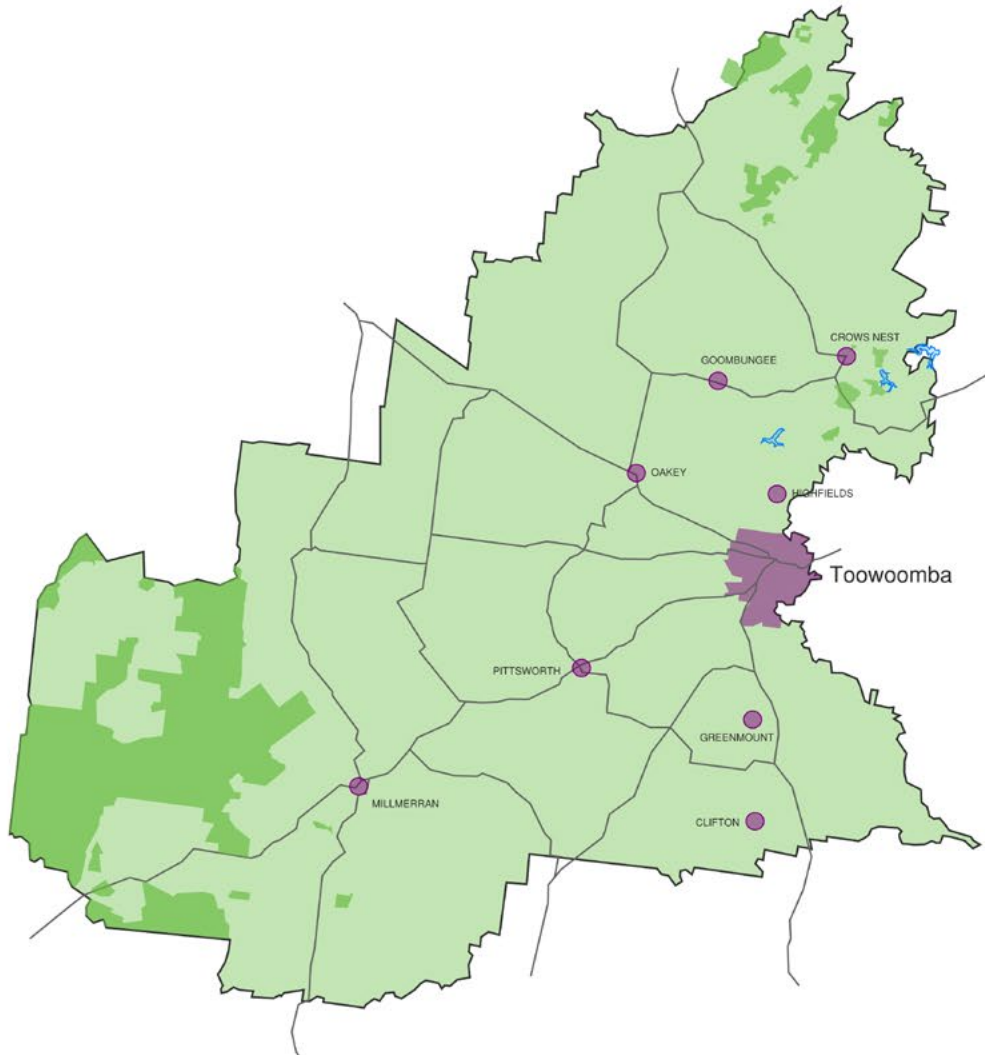
Cooler streets

Well landscaped bikeway (top) Photo: City of Adelaide
The Cool Road Adelaide trial in 2019-20 showed up to 8C daytime heat reduction and 4.2C at night (Photo: Dept of Environment and Water)

2.2.2 Temperate climate centre design

Climate change impacts

The following outlines the key climate change impacts that the urban form and infrastructure will need to adapt to both now and in the future. These impacts should be incorporated into all new housing developments with both built environment and operational responses integrated.



Increased and more frequent hot days resulting in:

- _Impacts on community health and wellbeing
- _Increased risk of utility outages



Increased temperatures resulting in:

- _Increased urban heat island effect
- _Increased energy use for cooling
- _Increased demand for areas of respite (indoor/outdoor)



Increased rainfall intensity resulting in:

- _Increased waterway flooding and erosion
- _Increased peak stormwater management requirements



Reduced annual rainfall resulting in:

- _Longer periods of low rainfall and drought
- _Increased water consumption for irrigation (agricultural and parks/reserves)



Harsher fire weather resulting in:

- _Increased bushfire frequency and intensity
- _Earlier bushfire season start and preparation
- _Smoke inundation and poor air quality

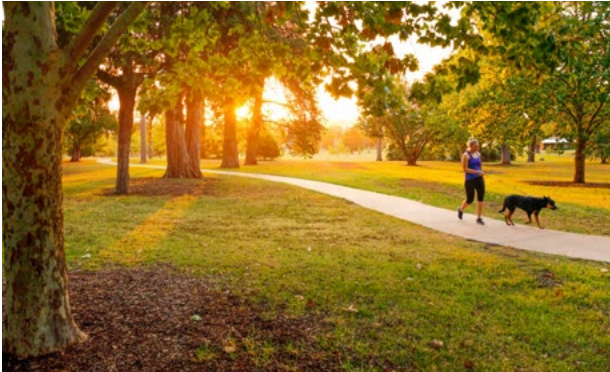
2.2.2 Temperate climate centre design

Town centre designs

The following provides a summary of town centre design guidelines to maximise passive design opportunities and increase climate change resilience.

Green Connectors / nature paths

New developments and town centres integrate with Green Connectors and interconnect with nearby Green Spaces.
Green Infrastructure Strategy



Green Infrastructure and pedestrian centric interface





Town / local centres interface with the street with pedestrian centric designs and car parks and located at the rear of local centres. Green infrastructure is integrated into landscaping, outdoor areas and roofs.



Green spaces / quality outdoor areas

Climate resilient and high quality outdoor spaces are provided within 20min walking close vicinity to housing developments.
Clewley Creek Park



-  Green Connector Integration
-  High quality outdoor space
-  Town/local centre
-  Waterway



Green spaces / areas for respite

High quality, drought resistant landscaping and fixed/ natural shading is centred around pockets of parks and reserves to provide areas of respite.
Lightsview, Adelaide



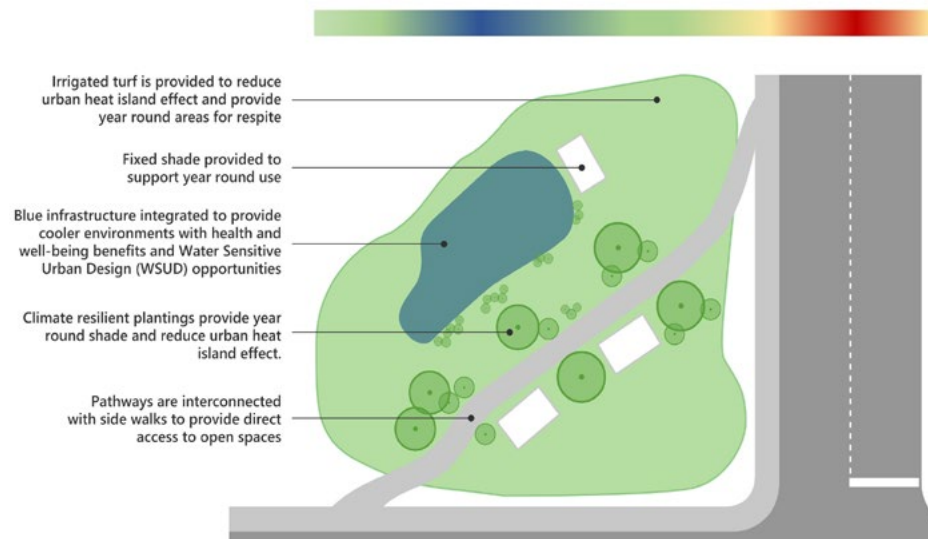
2.2.2 Temperate climate centre design

Cooler town centres

The following demonstrates the benefit of increasing green and blue infrastructure in town centres, while also providing opportunities for safer streets, areas of respite from increasing temperatures and how higher quality outdoor areas can provide flexible areas in a post pandemic world.

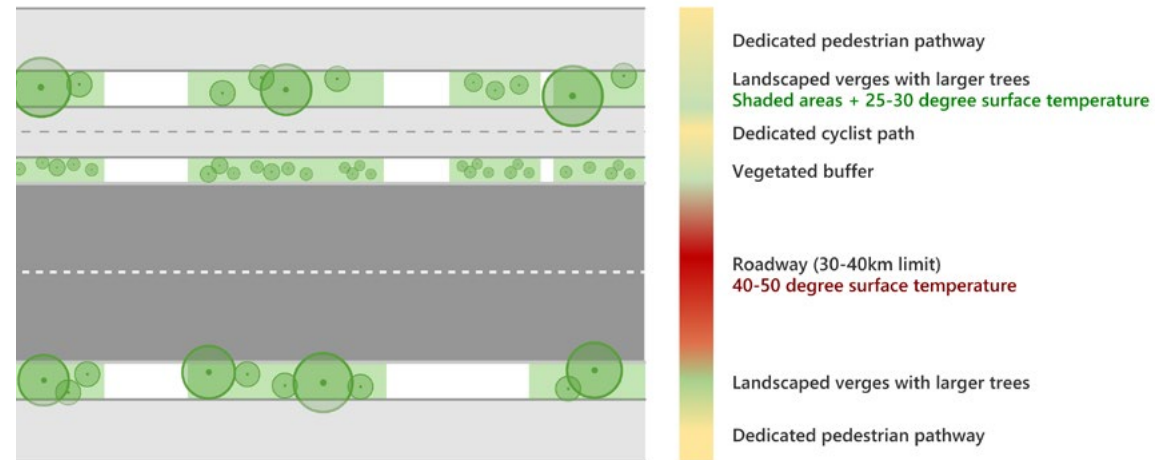
Town centre - cooler outdoor areas

Outdoor areas and public spaces are designed to provide comfortable, climate resilient spaces, with a focus on smaller, higher quality spaces instead of large open turfed areas. In addition, distributed covered areas can provide more flexibility in a post pandemic world.



Town centre - cooler streets

Streets in town centres are designed for active and sustainable transport, with vegetation integrated to provide cooler, safer and more resilient streets.



2.2.3 Contemporary local centre designs

Overview

Local centres including supermarket-based centres should be designed to act as local hubs that enrich their immediate surroundings by prioritising human-scaled architecture and urban design. Centres should be responsive and well designed to suit the scale and character of the local area, be positioned to be accessible to surrounding neighbourhoods, and cater to all modes of access including active travel and vehicles.

Existing policy in the planning scheme

6.3.3 Centre Design Code and 6.3.4 Local Centre Zone Code in the Planning Scheme contain guidance for local centres. The guidance focuses on acceptable land uses, and while it addresses amenity, context and access these are only high level and can be strengthened.

Guidelines

Better local centre design can be achieved by focussing on five design principles.

1. Accessible

- Local centres should integrate with surrounding open spaces and street networks.
- Pedestrian and cyclist access from surrounding streets to centre entrances should be clear and direct.
- Where pedestrian paths have to traverse large areas of car parking, trees and landscaping should be used to reinforce access and provide shade.
- Bike parking should be clustered and located in close proximity to main entrances, in highly visible and well-trafficked areas.
- For larger scale centres, public transport interchanges should be integrated into the centre design to improve access options. For smaller scale centres, public transport stops should be located nearby to improve access options.
- Car parking that segregates the shopping centre from its surrounding area should be minimised. Ideally car parking should be located behind, to the side or underneath shops to avoid large areas of open parking.

2. Street-based designs not car park based designs

- Centres should reinforce the pedestrian experience along street edges and help create a pleasant environment and experience for pedestrians by positioning buildings along street frontages.
- Include variations in materiality and form, shade (and wet weather protection), landscaping and permeability.

- There should be an emphasis on shops fronting onto streets to create a strong street presence.

3. Mixed use

- Beyond retail. There is opportunity for the focus of local centres to shift from primarily retail and commercial, to more community minded facilities including libraries, sport and recreation.

4. Green

- Landscaping should be incorporated at all interfaces with neighbouring areas.
- Landscaping should be used in large areas of hard surface such as car parks to minimise the urban heat island affect, and incorporate both low level planting and large trees to create a canopy.
- Due to their size and form, all future supermarkets and centres should incorporate both rain water and solar capture.
- Permeable surfaces should be used in car parks and internal roads, while rain gardens and stormwater harvesting should be used to aid with landscaping and tree irrigation.

5. Strong address

- The bulk and scale of centres should suit their local context.
- Long building edges should be softened with variations in materiality, scale and permeability.
- Blank walls should be minimised. Otherwise, they should include changes in materiality, texture, incorporate public art to add visual interest, or incorporate green infrastructure like vertical gardens and green walls.

Evidence

Analysis of existing local centres (e.g. at Glenvale, and Highfields Plaza) show a tendency towards car-centric development layouts, with poor interfaces to surrounding streets and open spaces. Bulk, scale and form are often poorly considered and large areas are devoted to car parking. This results in an less attractive urban form, with large expanses of hard surface, minimal greenery and shading.

A review of relevant literature and precedents, shows that if centres are well designed, they can act as the hub of their local communities.

Learn more about this topic

Toowoomba Regional Urban Form Framework Scoping Study (2019)

[Toowoomba City Centre Public Realm Design Guidelines \(2013\)](#)

[Centre and Neighbourhood Hub Design, Morten Bay Regional Council \(2019\)](#)



Street interfacing supermarket design

This new supermarket on a busy arterial road is built close to the street and has a strong presence. Articulation, variations in materiality and form, permeability and greening help to create an attractive street interface, in keeping with local built character (i.e. bricks).
Photo: Jensen PLUS



Strong address

Articulated building entrance with strong and defined pedestrian access, activated shopfronts and the inclusion of cycle racks and seating.
Photo: Peter Bennetts



The new local shop

Petrol stations are increasingly functioning as local shops and cafes. Contemporary designs like this 2021 example are more sophisticated and can be compatible with the surrounding area if councils insist on a better design.
Photo: Jensen PLUS



Welcoming street interface at scale

Articulation, variations in materiality and form, permeability and greening help to create a welcoming albeit super-scaled street interface to Toowoomba's Grand Central shopping centre.
Photo: Christopher Frederick Jones



Beyond retail

The inclusion of more communal aspects in neighbourhood centres can improve outcomes for the community
Image: Frasers Property



Strong street presence

Car parking located underneath this otherwise modest supermarket at an existing town centre helps maintain a strong street presence especially to the corner.

2.2.4 Car parking design standards for local centres

Overview

Car parks in local centres are typically open areas designed for the short to long term storage of cars for the duration of a visitor, customer or workers' time in a centre. Car park design has traditionally been simple with a focus on vehicle access, manoeuvring and maximising availability of spaces.

Large, barren and/or dominant car parking areas can adversely affect a streetscape, amenity, local micro-climate conditions and create areas for anti-social behaviour.

Updating design guidance in the Planning Scheme to achieve more connected, greener and climate responsive local centre car parking that is not visually intrusive or does not dominate a streetscape is the desired outcome.

Existing policy in the planning scheme

The Centres Activities Code in Part 9 of the Planning Scheme provides guidance for the assessment of business activities within and outside of designated centres. Performance Outcome 16 contains qualitative guidance for siting, amenity impacts, access and landscaping for car parking areas.

Guidelines

Siting and design

- Maximise active frontage by providing car parking areas at the rear of a site or behind the main building line.
- Where car parking is unavoidable in front of buildings then arrange the car park area to ensure visual connection to a street, direct pedestrian access and limit the rows of car parking.
- Avoid semi-basement or undercroft car parking directly facing a street.
- Limit the width of crossovers and locate access points to avoid unnecessary vehicle movement into local streets.
- Design parking areas to be adaptive for alternative uses such as markets during low demand periods.

Pedestrian movement

- Ensure car parking layout has a legible, direct, well lit and accessible pedestrian connection to the centre development.
- Demarcate safe routes for pedestrians in car parking areas, using dedicated pedestrian paths, tactile or colour distinctions.

Landscaping

- Incorporate a minimum rate of tree planting within parking areas to provide shade, reduce solar heat absorption and reflection.
- Incorporate a minimum rate of landscaped area. This should be at least 10% with minimum dimension of 1.5 metres for soft landscaping and tree planting.

Electric charging

- Make provision for integrated electric

charging points including electrical conduits and supply capacity for planned and future EV charging stations.

- Consider powerpoint provisions in adjacent end of trip facilities for libraries, services centres and undercover bicycle parking to facilitate charging e-bikes.

Cycle parking

- Provide prominent, safe and secure cycle parking to encourage non-car based travel.
- Provide long stay storage options for workers' use.

Stormwater

- Integrate Water Sensitive Urban Design techniques in the design and layout of car parking areas.
- Permeable paving, filtration/infiltration devices, landscape practices such as rain gardens and buffer strips can make significant difference to stormwater runoff levels and water quality.

Shading

- Use shade structures/sails or other built form to provide shade within car park areas. This may include over parked vehicles but should also include cycle parking areas and pedestrian paths/entries.

Implementation

- Update the Centres Activities Code in Part 9 to incorporate better design, environmental performance and quantitative standards.
- Commence a project with landowner(s) to retrofit an improved car parking layout and design to an existing centre and monitor outcomes.

Evidence

Most local centres predominantly consist of open car park areas that disconnect active uses from the street. Many car parks are located to the front of a centre making pedestrian access less convenient and resulting in a poor street interface and lack of active engagement with the public realm.

Coles Shopping Centre Glenvale

Car park to the front of the development with poor connection to the street



Overview

High quality and well-located landscaping and trees can help local centres feel welcoming, improve the streetscape amenity and result in local centres which are attractive and shady where people feel comfortable to spend time, meet and relax.

Trees and gardens help give places character. Toowoomba's Garden City vision can be achieved through better planned and executed greening in local centre developments.

Existing policy in the planning scheme

6.3.3 Centre Design Code and 6.3.4 Local Centre Zone Code in the Planning Scheme contain guidance for local centres. The guidance focuses on acceptable land uses, and while it addresses amenity, the policy is high level and can be strengthened to include greening and landscaping.

Guidelines

Retain mature trees and important vegetation

- Retain mature trees and important vegetation and integrate them into development designs.
- Mature trees and important vegetation can be incorporated and supported into local centre developments in the following ways:
 - landmark features at entryways
 - road reserves
 - small parks with places for seating and relaxation
 - to provide shade to streets and buildings or car parks
 - to frame paths and streets
 - to be the feature of viewsapes at the end of paths and streets
 - using permeable paving of parts of streets, car parking spaces and paths
 - through the considerate location of retaining walls.

Greening in local centre developments

- Landscaping should be used in large areas of hard surface such as car parks, to minimise the heat island effect.
- Street trees are incorporated into local centre design where new roads are planned.
- Local centre developments include high quality road verge plantings.
- Street tree improvements are provided to existing roads including connector roads leading into the new local centre
- Landscaping and trees are incorporated into local centre designs in locations where people are encouraged to congregate, meet and spend time.
- Landscaping and trees are incorporated

into the design of car parking areas to the measure of 1 tree for every 6 spaces.

- Focus tree plantings in areas where the tree canopy cover needs enhancing in line with Council's canopy cover targets.
- Deep root zones of at least 4m x 4m are used for trees which are to be surrounded by hard surfaces.
- Passive irrigation of trees can be provided through tree wells, rain gardens and permeable paving.
- Street trees are ideally sited in a vegetated verge area, rather than surrounded by hard surfaces.
- **Streetscape greening**
Medium to large trees are incorporated into street planting designs at all interfaces with neighbouring areas.
- Garden beds with a minimum of 700mm are used in verges and other key locations where people and places will benefit from greening (such as in car parks, adjacent cafes and roads, between driveways or in places with substantial hard surfaces).
- Water Sensitive Urban Design treatments are used to manage water via infiltration and benefit nearby vegetation. Rain gardens can be successfully integrated into streetscape designs.
- Internal roads, paths, plazas are well landscaped with trees, shrubs and ground covers.
- Green walls can be a feature for public spaces.
- Climbing plants can be incorporated into plazas using arbours and pergolas.

Evidence

High percentages of impervious surfaces were observed in existing local centres. These centres also had few trees and, as usually large complexes with few internal public roads, opportunities for street trees were limited. This results in a gap in the tree canopy in these areas and makes the centre and its surrounding areas, susceptible to the heat island effect and the impacts of climate change and impacts on the area's amenity.

Learn more about this topic

Toowoomba Regional Urban Form Framework Scoping Study (2019)

Toowoomba City Centre Public Realm Design Guidelines (2013)

Centre and Neighbourhood Hub Design, Morten Bay Regional Council (2019)

2.2.5 Greening local centre development

Contribute to a positive, attractive streetscape
Toowoomba Region Urban Form Framework

Mature street trees

Street trees in Toowoomba city provide shade and visual amenity. When paired with quality landscaping, the streetscape becomes more of a place for people.

Photo: Jensen PLUS



Small parks

Areas of public space can accommodate smaller park spaces for extra greening and areas for relaxation

Photo: Jensen PLUS



Landscaping

Landscaped spaces within mixed use development provide character and comfort and attract people to spend time.

Photo: Jensen PLUS

Overview

Local centres need to offer access choice to all users, irrespective of their physical ability, age or mode choice. Network master planning should put to the forefront efficient connectivity and accessibility for pedestrians and cyclists, and convenient access of public transport to achieve an urban structure that supports healthy and liveable communities.

Existing policy in the planning scheme

Schedule 6 of the Planning Scheme outlines the engineering standards for development within Toowoomba. This schedule provides detailed technical requirements for road and street design, street lighting, drainage and construction needs. There is network planning outcomes listed in Section 9.4.6.2 (Transport, Access and Parking Code) and Schedule 6 SC6.4 No.4 Master Planning. There is an opportunity for greater priority on achieving good local connectivity and network priorities.

Guidelines

Urban structure

- Network master planning should achieve safe and legible access for all mode types to local activity centre(s) with a priority focus on encouraging active and public transport.
- Network design and public transport route planning should provide direct linkages and good access to local activity centre(s). Efficiency of routes is important to help make public transport a viable alternative to car travel.
- Local activity centres should be integrated with surrounding neighbourhoods maximising opportunity for active transport as a viable alternative to car travel.
- Address existing constraints (such as topography or truncated access) and avoid creating new barriers to community connectedness and network permeability.
- Consider mixed use and higher density developments around local centres to maximise local population within a walkable catchment.
- Ensure appropriate speed environment with targeted traffic speeds of 30-40 km/h to ensure safety of vulnerable road users in local centres.
- Design streets with medians and provide pedestrian refuges to create informal crossing opportunities.

Public transport

- Where located on a public transport route, ensure bus stops are well designed and located in accessible, visible and safe places and physically integrated with a local activity centre.

- Provide wayfinding signage making it obvious where direct links are between public transport stops and key local destinations.

Pedestrian access

- Provide a movement network that prioritises safe and direct walking access to local activity centres from surrounding streets.
- Require and encourage active frontages along walking routes, preventing blank building façades or advertising obscuring shop windows.
- Introduce traffic calming and safe crossing measures to reduce motor vehicle speeds. Provide formal and accessible crossing opportunities on key pedestrian desire lines.
- Provide for safe crossing and egress points into a local activity centre that is connected to clear priority pedestrian paths within a centre or car parking area.

Cycling

- Create safe and direct cycle routes with safe facilities to local activity centres with convenient road crossings for cyclists of all abilities. Ensure that cycling facilities are continuous through intersection.
- Provide wayfinding to local destinations and nearby cycling routes.
- Provide secure cycling parking and end of trip facilities at local activity centres.

Evidence

A review of centres within Toowoomba identified examples of poor local connectivity, lack of street activation, reliance on car based access and missed opportunities to create cohesion among land uses. Many instances of the following issues were observed:

- Local centres presented car parking lots to the streets rather than active frontages.
- No clarity around pedestrian and cycling connections and lack of safe crossing points. No direct pedestrian connections to nearby land uses, creating long and convoluted routes between destinations.
- Poor integration between large shops and small main street local businesses, therefore not offering one cohesive centre, but rather separate shopping experiences, encouraging customer access by car (instead of encouraging walking experiences within one cohesive centre).

Glenvale Centre

Poor integration between land uses and lack of direct pedestrian and cycling connectivities.
Image source: Intermethod





2.

Build better neighbourhoods:

**2.3 Industrial / residential
interfaces**

2.3.1 Separating and Transitioning Between Industrial and Residential Land Uses

Overview

Transition areas between land uses are important for protecting and enhancing the amenity and functionality of existing and future land uses. A well-considered transition area between land uses can help avoid potential conflicts between different types of land uses.

Existing policy in the planning scheme

The Development Codes in the Planning Scheme identify that there is potential for conflict between land uses. The Development Codes seek to guide development to ensure adverse impacts on surrounding areas are managed.

Guidelines

Identify potentially conflicting uses

- Incorporate stronger master planning requirements to address the management of developments. Master planning allows potentially conflicting existing land uses (or zones) to be separated. An example of this are residential land uses in proximity of industrial land uses.
- Design of proposed development should respond to impacting factors by providing physical separation, acoustic and visual buffers, zones of land use transition, high quality design, or a combination of these.

Physical separation

- Providing physical separation reduces potential conflict. The more intense a land use, the wider the distance of separation should be. Separation distances should be sufficient to address noise and odours and visual impacts.
- Areas of separation should include mature trees and high quality landscaping and could include linear paths, stormwater drainage and biodiversity areas to improve the visual amenity. Existing natural features could also be incorporated into buffers.
- Roads could also provide physical separation but should be paired with appropriate visual and acoustic buffers and high quality road reserve design.
- When separated by a road, residential allotments should still address the road, and be provided with greater front setbacks, bigger allotments (to reduce the number of sites impacted) and could be provided with a service road with integrated visual/acoustic landscaping and mounds.

- If an interface is an adjoining boundary, the interface should be provided with a well-designed acoustic fence, increased setbacks to all buildings and vegetated buffers within the industrial site as per Diagram 1. This land should be managed by the land owner.

Acoustic and visual buffers

- Acoustic and visual buffers would ideally be paired with physical separation.
- Examples of preferred acoustic and visual treatments include medium to tall trees with dense canopies, high quality landscaping paired with acoustic mounds and well-designed acoustic walls.

Potential appropriate transition land uses

- Depending on the intensity of the conflict between land uses, transition areas could incorporate appropriate land uses on the land to act as buffers in their own right. Examples of appropriate transition land uses include retail or offices, community centres, child care centres, car parks, educational establishments, recreation areas. Car parking should be provided to the side and rear.

High quality design

- Non-residential land uses/zones are designed to incorporate high quality building and urban design to manage interface impacts.
- Residential dwellings/allotments adjacent transition areas are supplied with architectural treatments to mitigate against impacts of nearby non-residential land uses/zones such as double-glazed windows, orientation and trees.

Evidence

Conflicts between land uses were observed at the edges of some areas within Toowoomba and where residential developments are encroaching on established industrial areas.

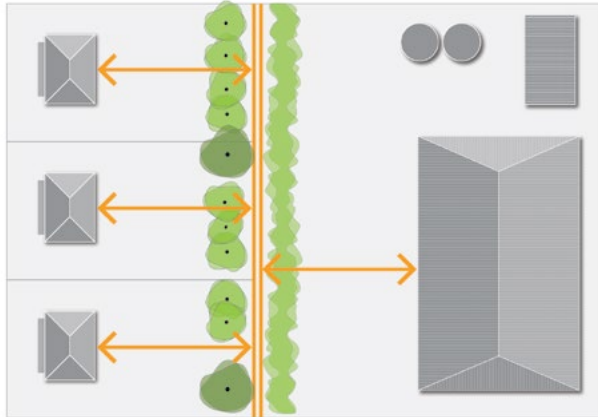
It was identified that there is little clarity on how transition zones are best applied. The result of this can often be overbearing acoustic walls, reduced amenity outcomes and even ongoing conflict and complaint between land uses. These scenarios can be avoided through considered planning.

Learn more about this topic

- *Next Generation Planning handbook, Council of Mayors SEQ, 2011*

Diagram 1

A rear boundary interface between residential dwellings and a large industrial / commercial premises is provided with an acoustic wall, wide setbacks to separate buildings and a substantial vegetated buffer to reduce potential impacts.



Drainage and linear path

A drainage line which is well vegetated can be an effective use of transition space while also incorporating the natural topographical features of the area.

Photo: Jensen PLUS



High quality design and appropriate land uses

Well-designed buildings can be used as transitions between low and high- impact land uses. With good design, appropriate land uses can be effective in reducing interface conflicts between land uses.

Photo: Jensen PLUS

Overview

Transitioning in scale can help to reduce the visual bulk of buildings as well as reducing overlooking and overshadowing impacts on neighbouring properties.

The taller a building is, the greater its setbacks should be from neighbouring properties and open space (especially when sited north of other land). This helps the building fit into its surroundings and reduces its dominance in the streetscape.

Existing policy in the planning scheme

The Development Codes and Use Codes recommend the scale of buildings to be compatible with the desired outcomes for the specific zone in which the development occurs. The Use Codes also require that buildings are of appropriate scale, in terms of their bulk and height, relative to the scale of the street and surrounding area.

Guidelines

Transitioning building heights

- Across a neighbourhood, taller buildings should be designed so they do not interface directly with low-scale buildings.
- Designing buildings to transition between height limits provides visual benefits as well as offering separation and protection for low-scale buildings which would be over-dominated by a tall adjoining/adjacent building. See Diagram 1.

Manage visual and amenity impacts

- Buildings which are adjacent residential areas and public open spaces are designed to reduce visual impacts by designing the building to avoid unnecessary bulk and mass.
- Using building setbacks increases separation from the property boundaries and helps to reduce impacts on neighbours.
- As buildings increase in height, so too should their setbacks from boundaries.

Building envelope design

- A building envelope can be a useful tool to guide developments to be considerate of the local context and neighbouring properties.

Master planning

- Incorporate stronger master planning requirements to address the management of developments adjacent different uses or land use zones and to establish pre-determined building envelopes for key areas.
- Master planning allows taller-scaled building areas to be co-located and/or separated away from low-scale buildings. It also allows development land between the two development styles to be managed and planned for to accommodate a transitioning of building heights.

Evidence

The interface between different land uses and buildings of different heights can impact on the character and liveability of the area. This was observed in some locations throughout Toowoomba where tall buildings awkwardly interfaced with single storey buildings.

Learn more about this topic

– *Next Generation Planning handbook, Council of Mayors SEQ, 2011*

– *Neighbourhood planning and design, PDA guideline no. 05, 2015*



Diagram 1

A transition in building scale and separation offers lower scaled buildings respite from the potential impacts of taller buildings.

Overview

The Toowoomba Regional Planning Scheme currently contains assessment benchmarks that aim to manage adverse impacts between industrial and residential land uses.

The existing policy needs to be strengthened to provide certainty for the community and industry about intended outcomes and what complies and what does not.

Guidelines

Policy regulating lighting, noise, odour and amenity impacts at industrial / residential interfaces is contained in the following codes:

- Industry zone codes.
- Natural Resources Overlay Code.
- Extractive Industry Code.
- Industry Uses Code.
- Rural Uses Code.
- Environmental Standards Code.

The planning policy is sufficient to comply with the requirements of the State Planning Policy however, more prescriptive assessment benchmarks are required to overcome poor outcomes resulting in amenity impacts.

Recommended policy improvements include the following:

- In many circumstances, existing assessment benchmarks generally require compliance with the Environmental Protection (Air) Policy 2008 ('EPP'). Council should only reference the EPP when the standards are suitable but where more specific outcomes are required, these should be clearly identified in the assessment benchmarks. Council should consider key elements that they want to regulate and make the intended outcomes clear (e.g. specific requirements where development is within 100m and 250m of a sensitive zone, specific criteria for emissions).

- Provide clearer separation distance requirements. Currently, the planning scheme identifies general separation distances based on uses or activities. It is recommended that more specific separation distances be established based on the intensity of the use (i.e. a piggery with 1,000 or less pigs has a separation distance 1,000m). A reduced separation distance could be offered if the activity has a reduced intensity.
- Council's assessing officers should ensure that all development applications that do not comply with the relevant assessment benchmarks provide an Air Quality Impact Assessment and / or Acoustic Impact Assessment to demonstrate how the performance outcome will be achieved. Council should include an assessment benchmark in the Environmental Standards Code that requires a Noise Impact Assessment to be prepared to demonstrate compliance if the acceptable outcomes cannot be achieved. Currently, the preparation of this technical report is only required under the Reconfiguring a Lot Code which does not capture development for a material change of use.

Evidence

Feedback from key stakeholders identified that there needs to be clearer assessment benchmarks in the planning scheme to uphold better amenity and interface between residential and industrial land uses.

See background research for more details on how the Toowoomba Region Planning Scheme compares to other Council's planning schemes in relation to requirements for residential / industrial interfaces.



Rural land in Toowoomba, Source: Domain, 2021

Industrial land on the edge of Toowoomba City (Source: Queensland Country Life, 2021)

2.3.4 Acoustic fence design and alternatives options

Overview

Acoustic fences are one of the most common methods used to reduce noise impacts between residential areas and noise producing land uses such as industrial areas and highways. Increasingly acoustic fences are also appearing within towns along major roads, often next to footpaths and publicly accessible areas. When overused or poorly designed, this can result in an unattractive interface, with poor crime prevention (overlooking) outcomes, and higher maintenance burdens.

Existing policy in the planning scheme

The Centre Activities Code, Medium Density Residential Code and Environmental Standards Code include triggers for “acoustic screen fences” and the inclusion of “minimum vegetation buffers”, while the Landscaping Code addresses design outcomes, however more guidance and emphasis needs to be placed on these.

Guidelines

Acoustic fences as a last resort

- The necessity for acoustic barriers should be reduced through thoughtful and considered land use and master planning.
- Residential development should generally front onto all streets and roads, avoiding unsightly rear fencing being exposed to public areas. Where traffic volumes or noise has the potential to create impacts, manage this through one or more of the following techniques:
 - locate larger, wider allotments on the road frontage, reducing the number of dwellings potentially impacted.
 - set back dwellings either within the allotment, or through a wider road reserve, possibly including a service road.
 - incorporate landscaped buffers within the road reserve setback, which could incorporate mounding (an effective acoustic attenuation). Landscaped buffers might further achieve integration of natural sounds (like running water, birdlife), and also increase biodiversity outcomes and visual screening.
 - building acoustic treatments such as double glazing.
- Noise walls do not generally adhere to CPTED (crime prevention through environment design) principles. Attempting to address CPTED in the earlier master planning stages of development, could help to justify alternative design outcomes to noise barriers.

Better designed and landscape acoustic fences

- Where acoustic fences are unavoidable, a wide variety of fencing designs, materials, colours and forms can be employed to create more interesting and visually appealing and welcoming fence designs.
- For more generic interfaces (e.g. to residential estates), strong landscaping treatments incorporating tree planting as well as shrub planting, should be prioritised.
- Planning scheme policy should be updated to ensure that acoustic fences employ variation in at least three of the following design techniques: texture, scale and alignment of panels, inclusion of deeper steps or nooks (articulation), transparency / permeability (such as perspex windows), inclusion of landscaping / greening, artistic treatments.

Acoustic fences as a public art canvas

- Acoustic walls provide opportunity for art and murals, with existing examples of this treatment around Toowoomba.
- Local history and culture could be a feature of this approach, including encouraging local indigenous stories / artists and representation of country.
- Public art treatments could be adopted for both new and retrofitting existing acoustic barriers.

Evidence

Examples of acoustic fences adjacent to public roads and footpaths were analysed in Toowoomba. Refer Part B.

Learn more about this topic

TRUFF Draft ESD Context Analysis, D Squared (Jan 2021)

[Transport for NSW Noise wall design guideline \(2008\)](#)



Landscaped fence at Gowrie Junction Road

This recently built fence is of basic timber construction, but with a painted finish and substantial native landscaping to soften the interface. Tree planting could be further added to shade the footpath and green the public realm.

Photo: Jensen PLUS