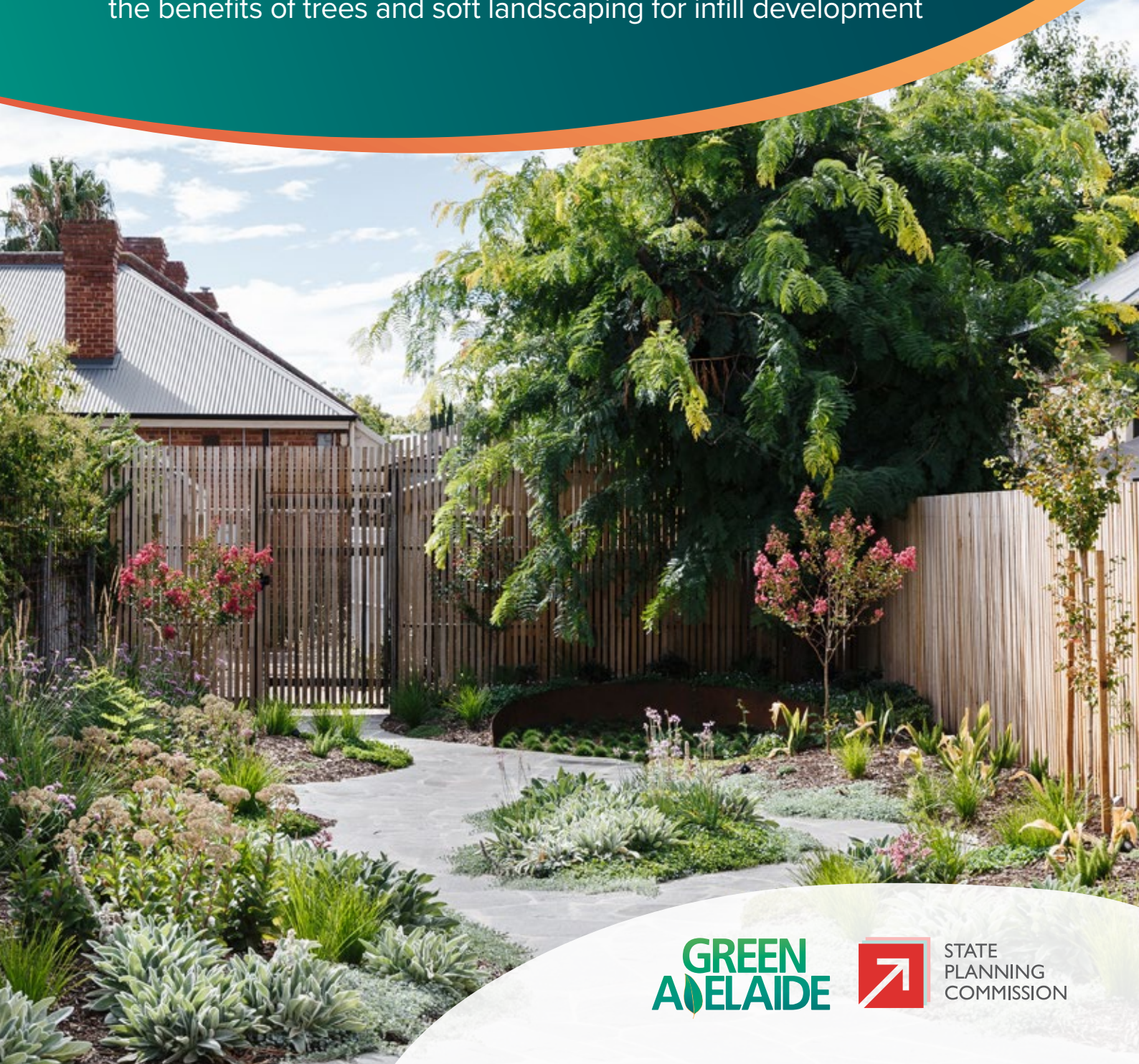# Adelaide Garden Guide for New Homes
Summary

How to implement the Planning and Design Code to maximise the benefits of trees and soft landscaping for infill development

GREEN ADELAIDE

STATE PLANNING COMMISSION

Trees and soft landscaping have the power to enhance our homes and lifestyles while combating local and global challenges.

Our gardens can make a difference.

What is the challenge?

Residential infill development is a significant provider of new housing in Greater Adelaide, with about 2,500 extra dwellings[1] being created each year. This type of housing helps to create walkable neighbourhoods, protect valuable farming and environmental land, and meet consumer demand for living close to jobs, shops, and services.

However, there is evidence that infill housing has contributed to a significant reduction in tree canopy and green cover in many neighbourhoods. This is because this type of development involves subdividing one larger block in an existing suburb into two or more smaller blocks. This generally increases site coverage and driveway crossovers and reduces space for gardens and tree planting.

Loss of tree canopy and urban green cover reduces habitat for native fauna and creates urban heat islands. An increase in roofs and other hard surfaces also puts neighbourhoods at greater risk of flooding as rain and stormwater are less easily absorbed. This in turn decreases the soil moisture recharge, reducing water for trees and shrubs at a time when, with rising temperatures, they need the moisture even more.

This is why the Government of South Australia has set a target to **increase urban green cover by 20% across metropolitan Adelaide by 2045[2]**.

This target recognises the many benefits of green cover to urban cooling, the local character, biodiversity and liveability of our suburbs, and our physical and mental health.

By 2050 the number of days per year above 35°C is projected to increase by more than 40%[3].

How does the Planning and Design Code help?

To assist in achieving the urban green cover target, the Planning and Design Code includes policies to encourage the retention of existing trees and outlines the minimum tree planting and soft landscaping requirements in most residential developments.
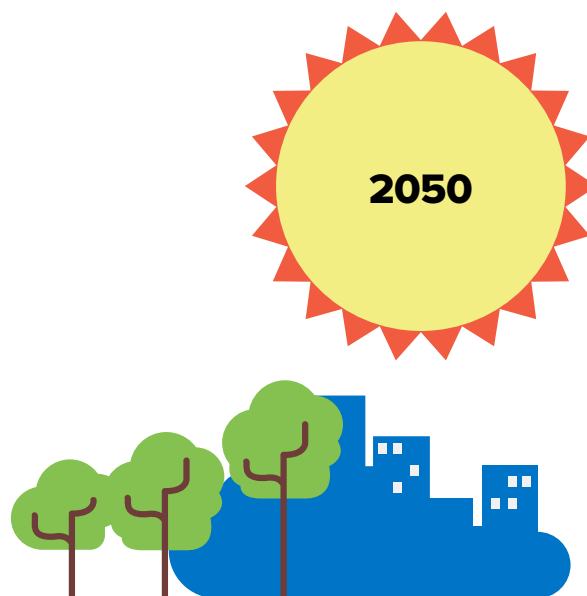
These requirements apply to individuals who are rebuilding their home or subdividing their land for more housing, through to developers of multi-storey apartments.

How to use this guide – and why

This Summary Guide is a snapshot of the full Adelaide Garden Guide for New Homes. The guide aims to support developers, applicants, planning professionals and new homeowners to achieve better greening outcomes at the different planning and design stages.

It has been developed to help you adopt the tree planting and soft landscaping policies within the Planning and Design Code.

For more in-depth information, read the full guide.

Despite our hot, dry climate, we can mitigate the urban heat island effect by growing our urban tree canopy and retaining water in urban landscapes.

How trees and gardens can benefit you, your property and the environment

Reduced air pollution

More carbon dioxide stored

More oxygen produced

Increased biodiversity

Cleaner stormwater

Increased water filtration

Flood prevention

Lower energy costs

Increased property value

Enhanced kerb appeal

Improved privacy

Neighbourhood character

More community connection

Cooler houses, streets and private outdoor spaces

Better thermal comfort

Retaining and planting trees and soft landscaping can provide financial savings and gains.

A number of studies have revealed significant boosts to house value in leafy neighbourhoods.

A Brisbane-based study revealed a 5% increase in the median house price in streets with 50% canopy cover[4].

Perth-based research showed that a broad-leaved tree in front of a home can add more than $23,000[5].

Financial benefits can also be seen through the reduction of energy costs. Shading from trees can greatly improve the thermal comfort of our homes. It helps reduce energy used and greenhouse gases produced by air conditioning on hot days[6]. Shading the western facade of a dwelling with trees can also drop total energy costs between 5% and 10%[7].

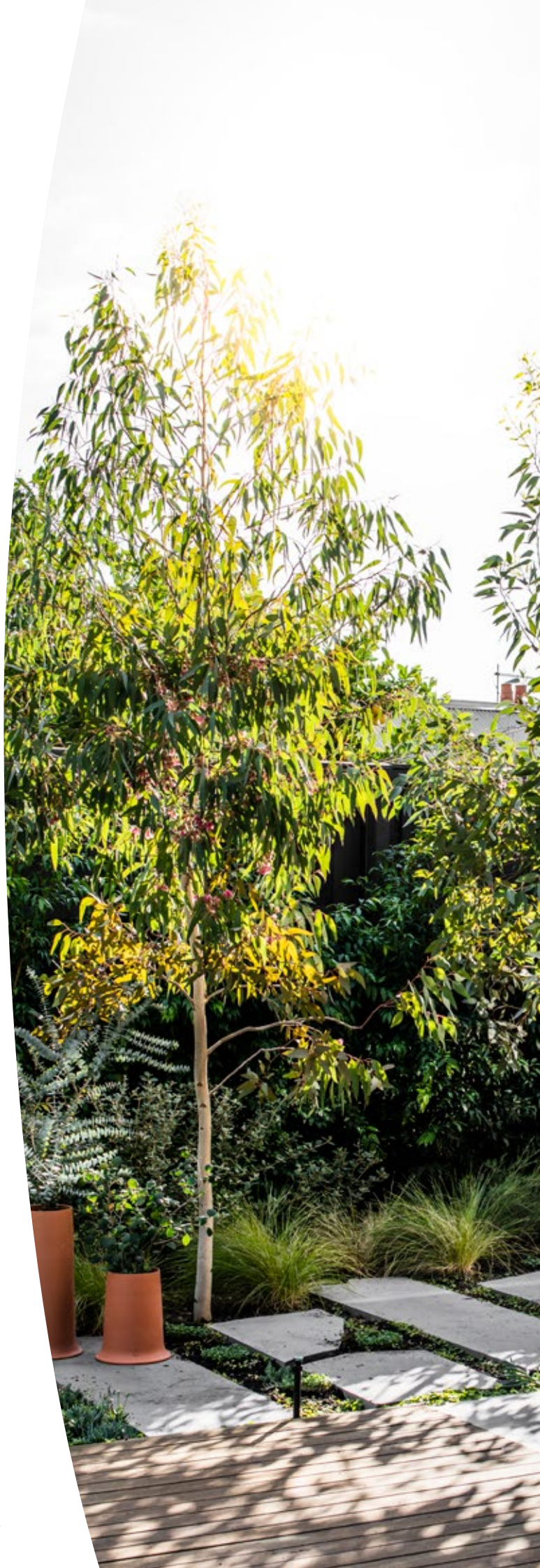## Trees and soft landscaping can improve our health and wellbeing.

Residents of tree-lined neighbourhoods feel healthier and have fewer cardio-metabolic conditions[8]. Trees can also support physiological health through providing sensory relief and generating a sense of calm.

People who live in neighbourhoods with a tree canopy coverage of 30% or more have been shown to experience a third less stress[4].

Retaining and planting trees and soft landscaping can improve the liveability of our homes and neighbourhoods.

Trees not only provide shade through shielding and absorbing light, they also actively cool the air through evapotranspiration.

A study based in Adelaide's western suburbs has shown that trees and soft landscaping in gardens can have significant cooling benefits and reduce surface temperature in the garden by 5 to 6 degrees[6].

For references, please see the full Adelaide Garden Guide for Infill Homes.

How to use the guide

From planning through to maintenance, there are some key points to consider when deciding what and where to plant in your garden. Read the steps below to find out what to take into account, and where to find further detail in the full Adelaide Garden Guide for New Homes.

1. Plan

Start planning your garden while you plan your house to maximise the short-term and long- term benefits.

Key considerations:

- Site orientation
- Retention of mature trees
- Placement of new trees
- Adequate soil provision
- Soft landscaping

Check the full guide for:

- A planning stage checklist
- 3D visualisations of how to achieve greening success
- Case studies of common infill housing types including how to meet the minimum Planning and Design Code tree planting and soft landscaping policies, plus how to achieve even better outcomes

2. Design

Carefully consider the home's context and occupants' lifestyle to maximise liveability, aesthetic and wellbeing benefits of the garden.

Key considerations:

- Indoor/outdoor relationship
- Maximising shade and cooling
- Appearance and 'kerb appeal'
- Biodiversity

Check the full guide for:

- A design checklist
- Lists of popular small, medium and large trees
- 8 different character garden designs and corresponding examples

3. Plant

Prepare for, construct and plant your garden to create the conditions for long-term health.

Key considerations:

- Soil preparation
- Irrigation
- Plant selection
- Optimal planting

Check the full guide for:

- A planting checklist

4. Maintain

Care for your trees and plants to maintain the garden's health and enjoy the many benefits.

Key considerations:

- Watering
- Pruning
- Weeding
- Mulching

Check the full guide for:

- A maintenance checklist

Development approval stages

When going through the development approval process for your house you will need to:

- identify trees to retain, where possible, and prepare a landscape plan (planning consent)
- check soil type (building consent)

For more information please visit PlanSA.

Every house is different

We recognise that every house and every applicant's needs are different and may have different preferences for landscaping styles. This guide is flexible enough to help different housing types to meet the minimum requirements in the Code. It also outlines considerations that will help you make your development more environmentally responsive to our changing climate.

The Planning and Design Code policies
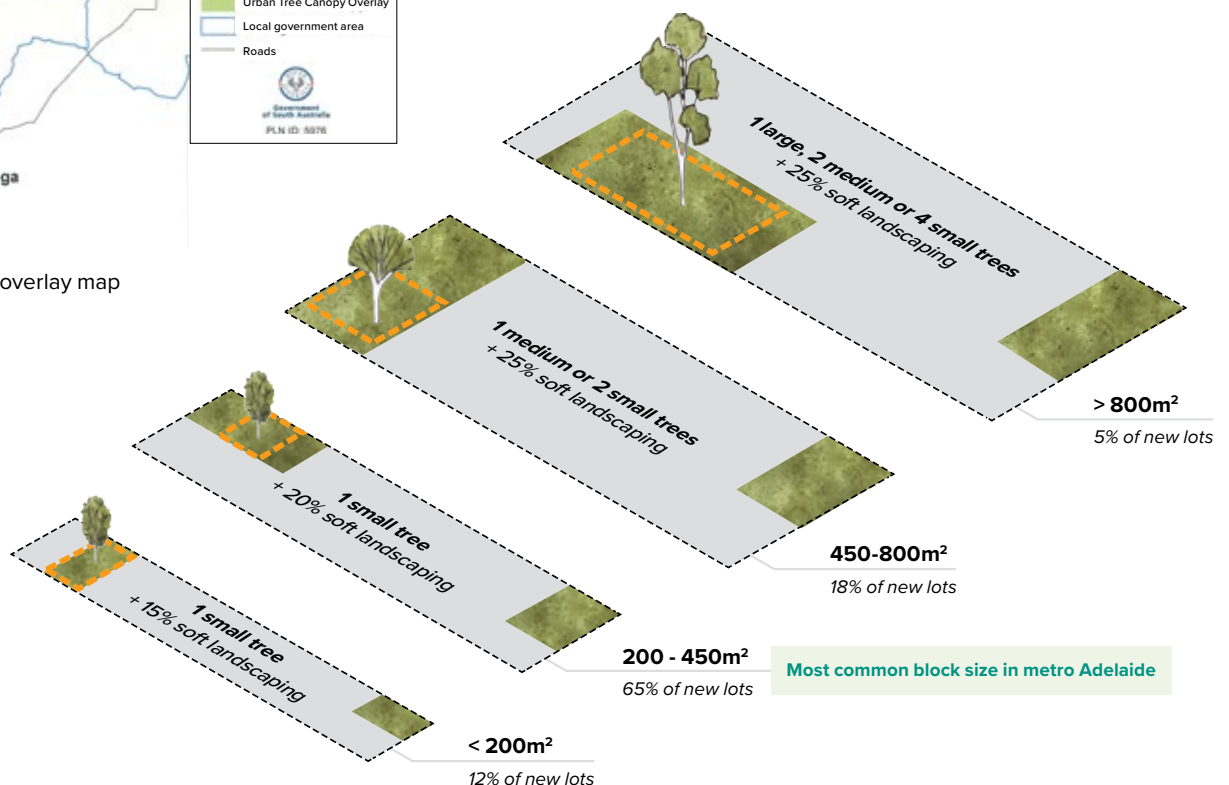

Urban tree canopy overlay map

The Code policies for tree planting and soft landscaping seek to alleviate the issue of a declining canopy by encouraging residential development which retains existing trees (where practical) and requires the planting of new trees and landscaping.

These policies are located throughout the Code, such as the General Development Policies and Urban Tree Canopy Overlay. The overlay applies to several residential zones (see adjacent map) across metropolitan Adelaide.

The key features of these policies are:

- One small, medium or large tree (per dwelling) depending on the allotment size

- Minimum soft landscaping of 10-25% over the whole site.

- Option for payment into an offset fund, where tree planting is not feasible on-site.

Further information about these policies refer to the full guideline or visit PlanSA.

1 large, 2 medium or 4 small trees + 25% soft landscaping

> 800m²
5% of new lots

1 medium or 2 small trees + 25% soft landscaping

450-800m²
18% of new lots

1 small tree + 20% soft landscaping

200 - 450m²
65% of new lots

Most common block size in metro Adelaide

1 small tree + 15% soft landscaping

< 200m²
12% of new lots

Common housing types

Refer to the full guide for case studies showing how the meet the minimum tree planting and soft landscaping requirements for the different common housing types in metropolitan Adelaide.

Row dwelling

Also known as terrace housing, 3 or more houses joined together

Detached dwelling

Also known as a freestanding house or standalone dwelling, not joined to any other house

Group dwelling

Also known as units, are a group of 2 or more detached houses that share a common driveway

Semi-detached dwelling

Also known as a townhouse or courtyard home, joined to 1 other house by a common wall

Residential flat building

Also known as apartments, it is a single building which includes 2 or more houses

Top 10 considerations for trees and greening

1. **Access the right advice at the right time when planning and designing your garden**

   Why? Seeking help from professionals such as your local council, garden designer, landscape architect or builder can help you make the best choices and achieve the best garden outcomes.

   How? Refer to the Plan, Design, Plant and Maintain checklists of the full guide for links to helpful resources.

2. **Retain existing trees and vegetation (where possible)**

   Why? Retaining a mature tree can help shade your home, increase kerb appeal and save money in growing a new garden.

   How? Refer to 18, 30 and page 31 of the Plan section of the full guide.

3. **Consider the orientation of your home and location of your garden spaces and trees to provide the greatest benefits**

   Why? Optimising solar access and shade can greatly improve the energy efficiency of your home

   How? Refer to the Plan and Design sections of the full guide for some handy tips.

4. **Understand the growing conditions for your plants such as soil type and exposure to sun and wind.**
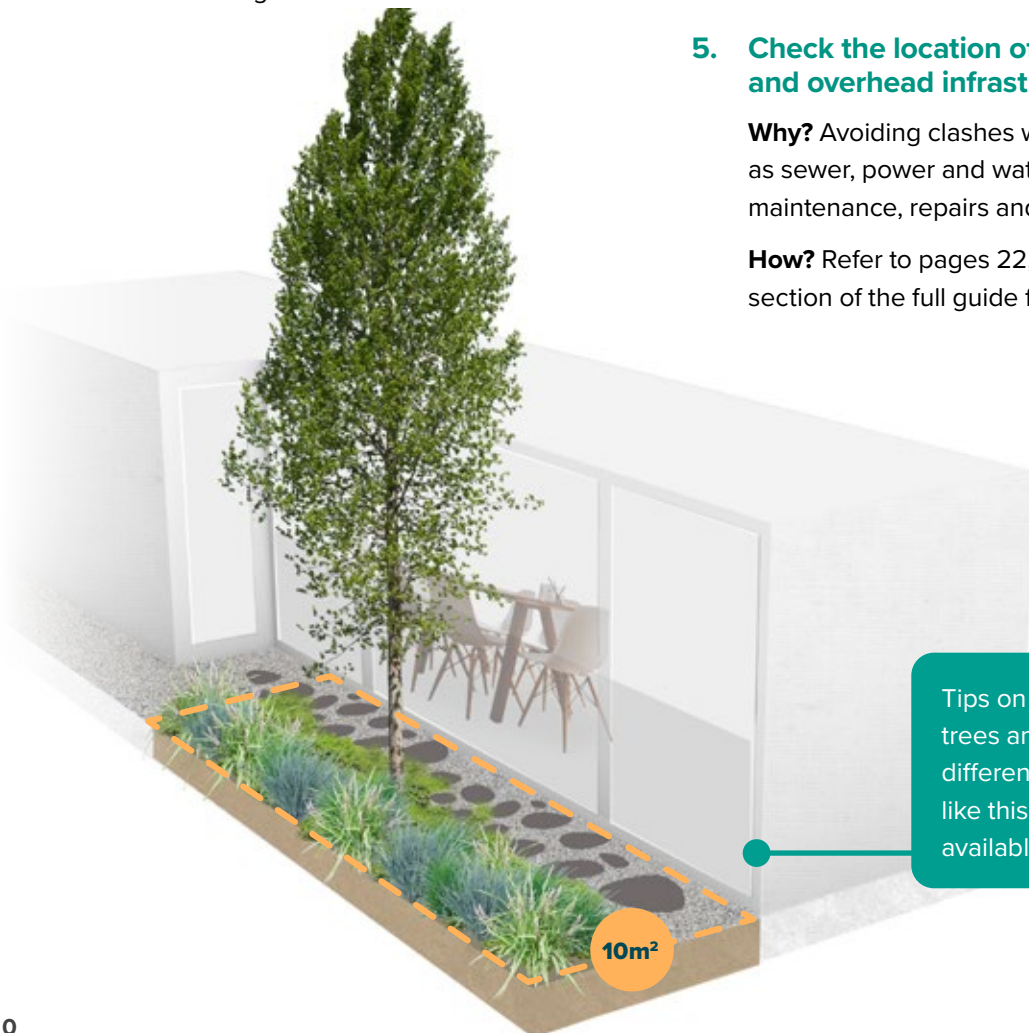
   Why? Placing the right plant species in the right location and soil plays a big role in the long-term success of a garden.

   How? Refer to the Plan and Design sections of the full guide for some handy tips.

5. **Check the location of underground and overhead infrastructure**

   Why? Avoiding clashes with services such as sewer, power and water will reduce costly maintenance, repairs and safety risks.

   How? Refer to pages 22, 28 and 29 of the Plan section of the full guide for further information.

Tips on how to incorporate trees and other vegetation in different parts of your garden, like this side setback are available in the **Plan section**.

10m²

6. Ensure there is sufficient room for trees to develop and grow

Why? Allowing space for trunks, roots and branches to grow will ensure your trees and plants can mature and avoid damage to neighbouring properties, walls and fences.

How? Refer to pages 22, 28 and 29 of the Plan section of the full guide for further information.

7. Design your garden to suit your lifestyle

Why? Choosing the right trees and plants to suit your lifestyle and garden space will help you achieve the best outcomes.

How? For eight different garden character designs to be inspired by refer to the Design section of the full guide.

8. Consider the watering requirements of your garden

Why? Installing irrigation systems will help with the ongoing health of your garden.

How? Refer to the Plan, Design and Plant sections of the full guide for some handy tips.

9. Prepare your garden area prior to planting

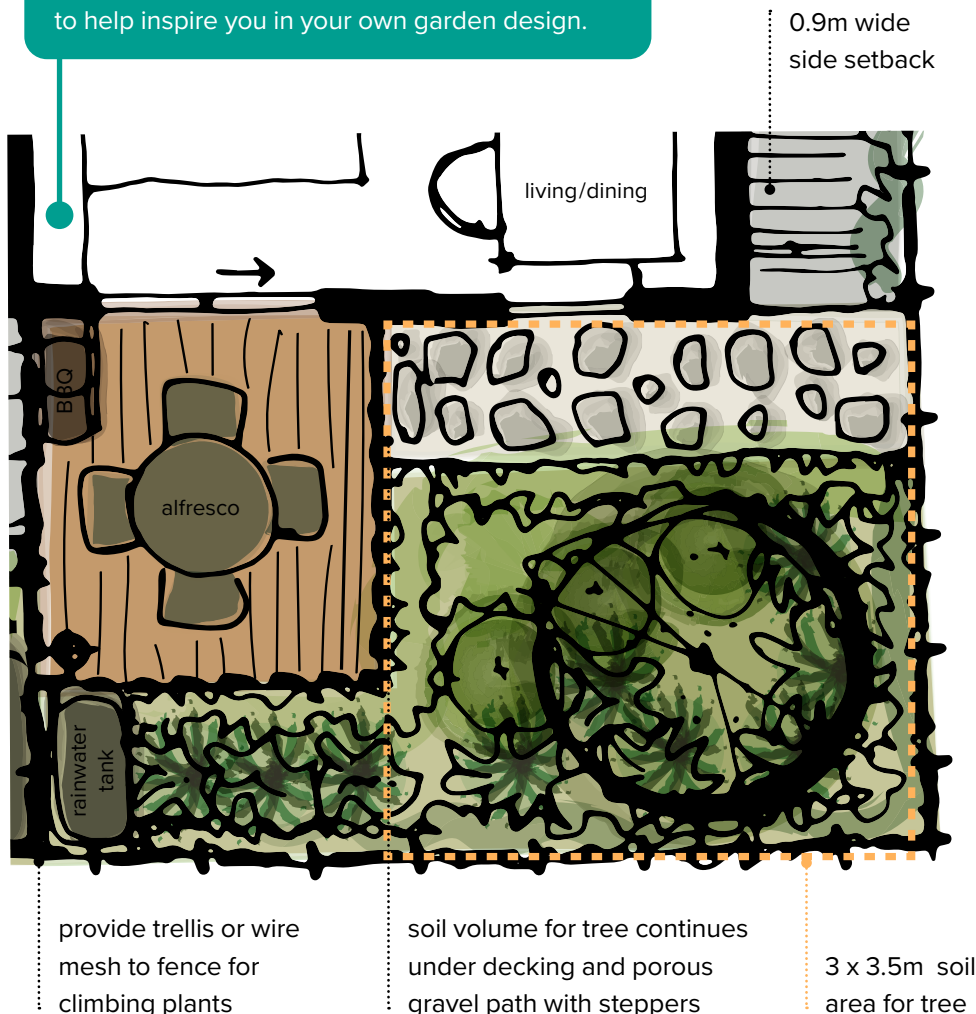**Why?** Buying healthy plants and preparing your soil will help your garden to establish successfully.

How? For more tips please refer to the Plant section of the of the full guide.

10. Maintain your garden regularly

Why? Caring for your trees and plants will ensure a healthy garden so you can enjoy the many benefits.

How? For tips on how to care for your garden refer to the Maintain section of the full guide.

Ideas for different garden characters and lists of popular trees are available in the **Design section** to help inspire you in your own garden design.

0.9m wide side setback

living/dining

BBQ

alfresco

rainwater tank

The garden character design examples in the **Design section** include:

- Native Formal
- Entertainer
- Shade
- Coastal
- Native Cottage
- Habitat
- Edible
- Mediterranean

provide trellis or wire mesh to fence for climbing plants

soil volume for tree continues under decking and porous gravel path with steppers

3 x 3.5m soil area for tree

For further information:

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Green Adelaide was established by the South Australian Government to help create a cooler, greener, wilder and climate resilient city.

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