

GIBBONS PLACE

44-78 ROSEHILL ST

PLANNING PROPOSAL - LANDSCAPE REPORT

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ISSUE A

Prepared for:

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NSW 2016

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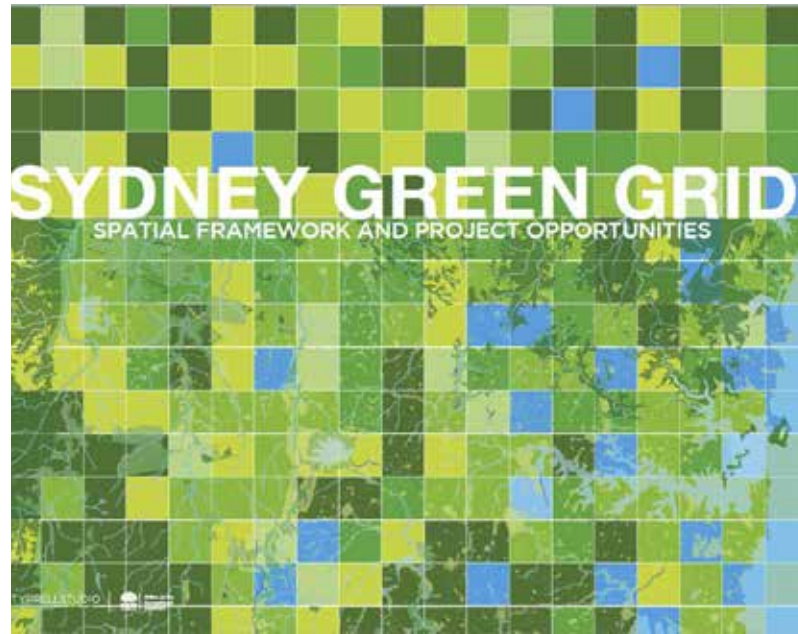
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RELEVANT PUBLIC DOMAIN & LANDSCAPE STRATEGIC PLANNING FRAMEWORK

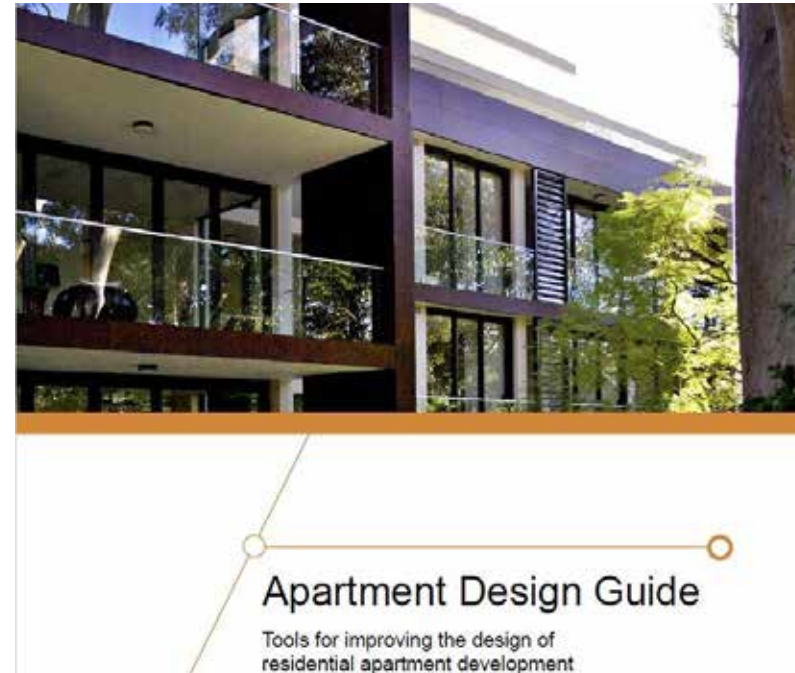
STATE GOVERNMENT

SYDNEY GREEN GRID 2017 (GANSW)



- + Gibbons Place is located within a key urban renewal corridor of Sydney. – P115
- + “With significant transformations underway [in the Redfern-Waterloo area] opportunity to provide additional high quality open space as well as a connected network to support future growth” – P116.
- + A series of key strategic opportunities have been identified and include: “Continue laneway revitalisation within the CBD... to activate under-utilised public spaces.” – P121

APARTMENT DESIGN GUIDE 2015 (DPE NSW)



- + Principle 5 - Good landscape design enhances the development's environmental performance by... solar access, micro-climate, tree canopy, habitat values, and preserving green networks. Good landscape design optimises usability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity, provides for practical establishment and long term management. – P13
- + Minimum soil volume standards are outlined in the document for Planting on Structures. – P116

GREENER PLACES (GANSW)

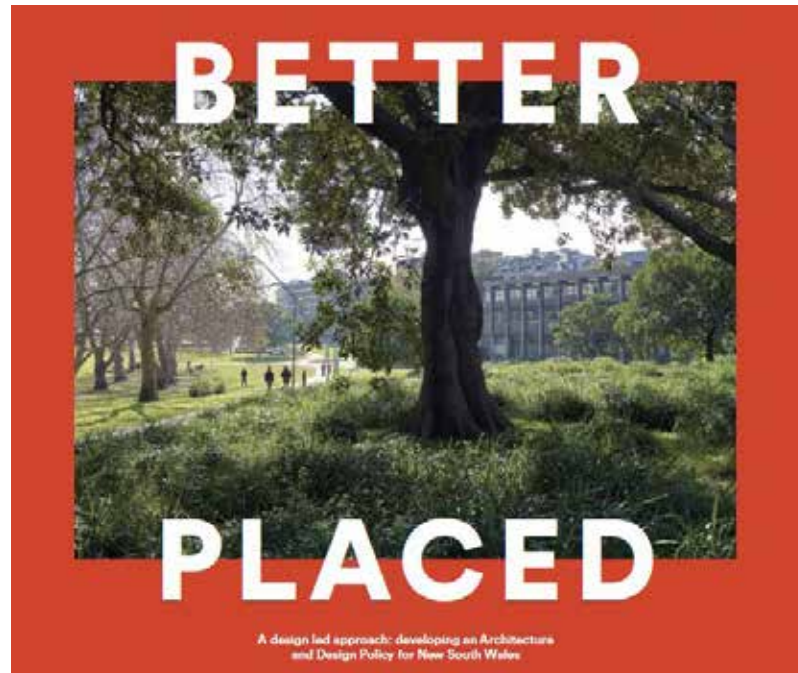


- + Integration: Greener Places considers Green Infrastructure as being integrated with other urban infrastructure such as built form, transport infrastructure and water management systems to create high quality urban environments. – P32
- + Connectivity: Greener Places promotes the creation of a network of high quality open spaces that connect with town centres, public transport hubs, rivers, creek and employment and residential areas – creating a network of open space. The network includes physical and functional connections that benefit people and wildlife. – P34
- + Multifunctionality: Multifunctional green spaces should be high quality and high performing, producing ecological, social, environmental and economic benefits. Multifunctionality represents the ability of Green Infrastructure to deliver multiple ecosystem, environmental and other services simultaneously. –P36

RELEVANT PUBLIC DOMAIN & LANDSCAPE STRATEGIC PLANNING FRAMEWORK

STATE GOVERNMENT

BETTER PLACED (GANSW)



- + Principle 3. Equitable, inclusive and diverse
By creating accessible, inclusive and welcoming environments, the design of the built environment can contribute to addressing economic and social inequity. Incorporating diverse uses, housing types and economic opportunities will support engaging places and resilient communities. - P23
- + Principle 4. Enjoyable, safe and comfortable
The built environment must be designed for people to enjoy using and inhabiting. The many aspects that affect the vibrancy, character and 'feel' of a place must be addressed to support good places for people. - P23
- + Emerging directions for streets and public space:

Street as place - The streetscape is increasingly seen as a potential useable public space for social interaction, meeting, events, children's play and exercise. - P79

Public space on private land - Major developments and urban renewal initiatives are increasingly responsible for creating public spaces on private land, including laneways, courtyards and streetscapes. - P80

5 MILLION TREES - 5MT (NSW GOVERNMENT)



"The NSW government has committed to combating Sydney's heat island effect by planting 5 million trees over the next 12 years, in a bid to offset the cracking pace of development.

NSW Premier Gladys Berejiklian said the government would spend \$38.7 million over the next four years on its "Five Million Trees" initiative, as part of its plan to boost Sydney's existing tree canopy from 16 per cent to 40 per cent by 2030."

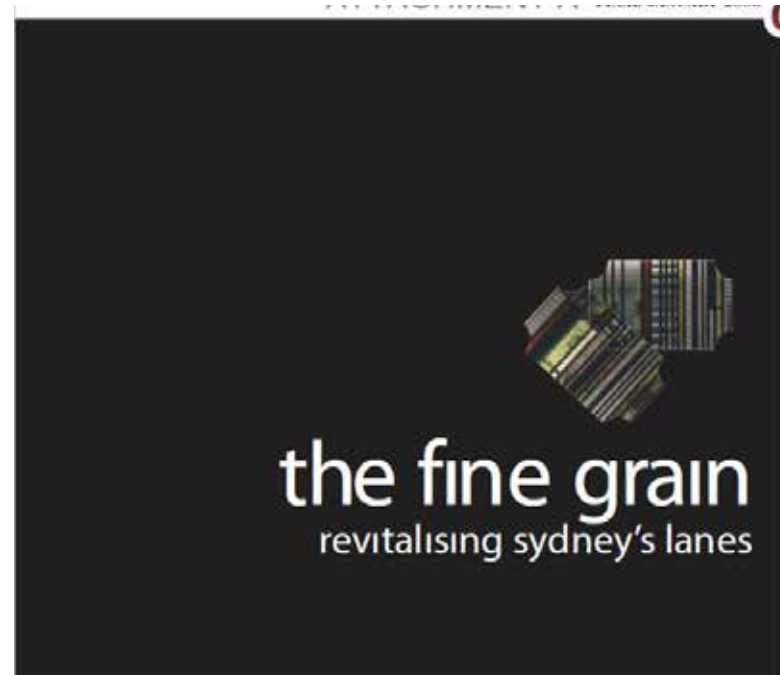
- Sydney Morning Herald 11th April 2018

<http://www.planning.nsw.gov.au/Policy-and-Legislation/Open-space-and-parklands/5-million-trees>

RELEVANT PUBLIC DOMAIN & LANDSCAPE STRATEGIC PLANNING FRAMEWORK

LOCAL GOVERNMENT

THE FINE GRAIN – REVITALISING SYDNEY’S LANES 2008 (COS)



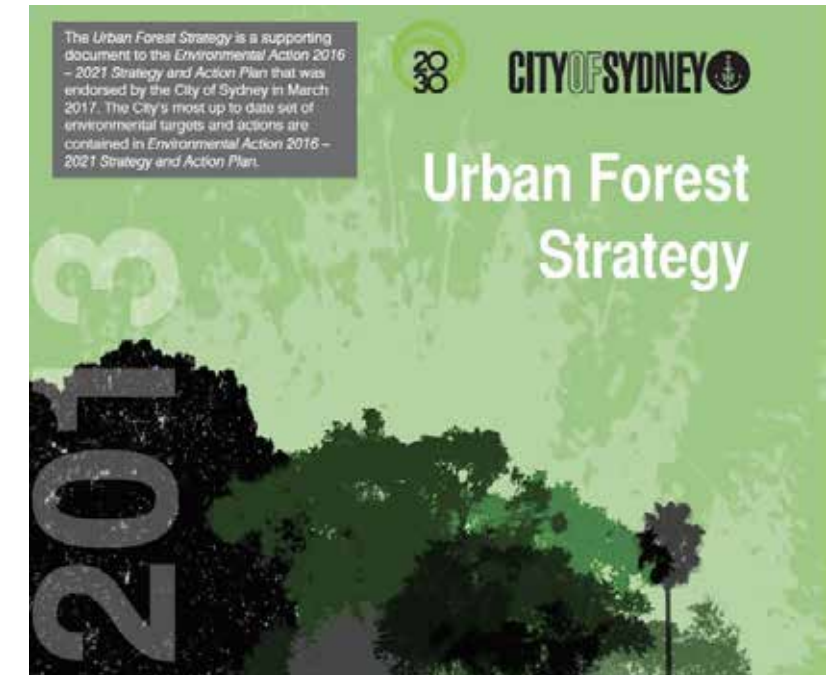
- + “The majority of Sydney’s lanes continue to effectively perform the role they were built for. That is, the delivery of goods and the removal of refuse. These uses however do not create vibrancy and interest that the City of Sydney is seeking. Active and interesting lanes require other uses to locate there, such as small shops, bars, cafés and art galleries. These uses generally locate in city lanes for the simple reason that these spaces off major thoroughfares is inexpensive. Over time many of the small retail spaces in lanes in Sydney have been removed as blocks have been consolidated to build large office buildings. This report suggests ways to re-establish the supply of small retail spaces, particularly at street level.” – P3
- + Objective 2: Increase the supply of small scale spaces on streets and lanes. – P4

STREET TREE MASTERPLAN 2011 (COS)



- + Street Trees to the Rosehill St frontage are nominated as Tristaniopsis laurina (Water Gum) in the Street Tree masterplan (existing street trees are in accordance with this)

URBAN FOREST STRATEGY 2013 (COS)



- + To protect and maintain any existing urban forest - The City will prioritise the maintenance and protection of existing trees in order to maximise the benefits already received from this asset. (P 2-1)
- + Increase Canopy cover - The City will increase the canopy cover from 15.5% to 23.25% by 2030, and then to 27.13% by 2050, through targeted programs for trees located in streets, parks and private property. (P 2-1)
- + Improve urban forest diversity - The City will improve the age spread of our street and park trees. We will also increase species diversity, while ensuring the population does not comprise of more than 40% for any one family, 30% for any one genus and 10% for any particular species.

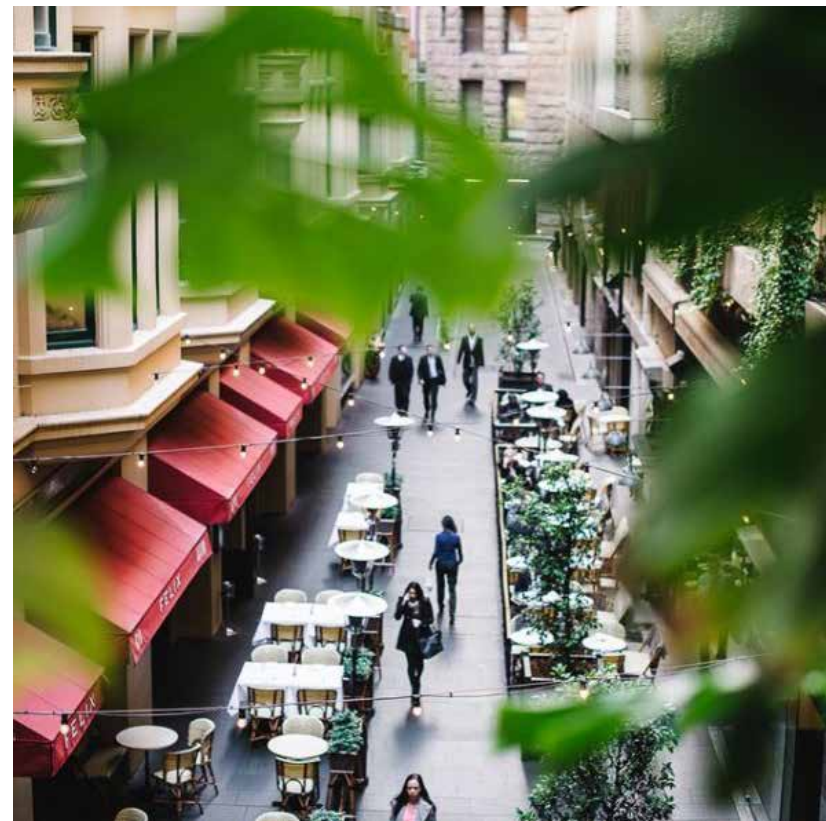
PUBLIC DOMAIN / LANDSCAPE CONTEXT

LANEWAYS

The City of Sydney is fast becoming recognised for its network of quality laneways. Some of its most iconic laneways include Ash St, Sydney and Kensington St, Chippendale. Both exemplify the importance of quality materials and ongoing commitment to public art and programming of space. At 7 and 8 metres wide respectively, and flanked by tall buildings these two laneways are spatially comparable to a widened Cornwallis Lane and illustrate its potential.



Ash St, Sydney



Kensington St, Chippendale

PUBLIC DOMAIN / LANDSCAPE CONTEXT

LANEWAY GREENING

Greening of the public domain is considered key to creating a comfortable, inviting, and high amenity urban place. A range of techniques can combine to maximise the actual and perceived sense of green.

Some noteworthy 'green' lanes in Sydney include Palings Lane in the Sydney CBD, Park Lane in Chippendale, and McElhone Place, a residential laneway in Surry Hills. These three places approach laneway greening in very different ways. Palings Lane is a very narrow laneway only 2m wide, and achieves a strong landscape presence by cascading plants from the building balconies overhead. Park Lane has oversized tree pits and raised planters along the verge with lush broad-leaf understorey planting. McElhone Place, is a narrow residential laneway that achieves its greenery via extensive potted plants.



Park Lane, Chippendale



Palings Lane, Sydney CBD



McElhone Place, Surry Hills

PUBLIC DOMAIN / LANDSCAPE CONTEXT

OPEN SPACE

The eastern outlook to Gibbons St Reserve affords the site a pleasant green buffer to the busy Gibbons St roadway. Daniel Dawson Reserve immediately across the road is a local park with open lawn and playground facilities, and the 4.8 hectare Redfern Park is a short 10min walk to the east. To the west, development of Australian Technology Park will see the creation of a number of quality new open spaces in close proximity to the site, including 'Innovation Plaza' and 'Vice Chancellor's Oval'.



Innovation Plaza

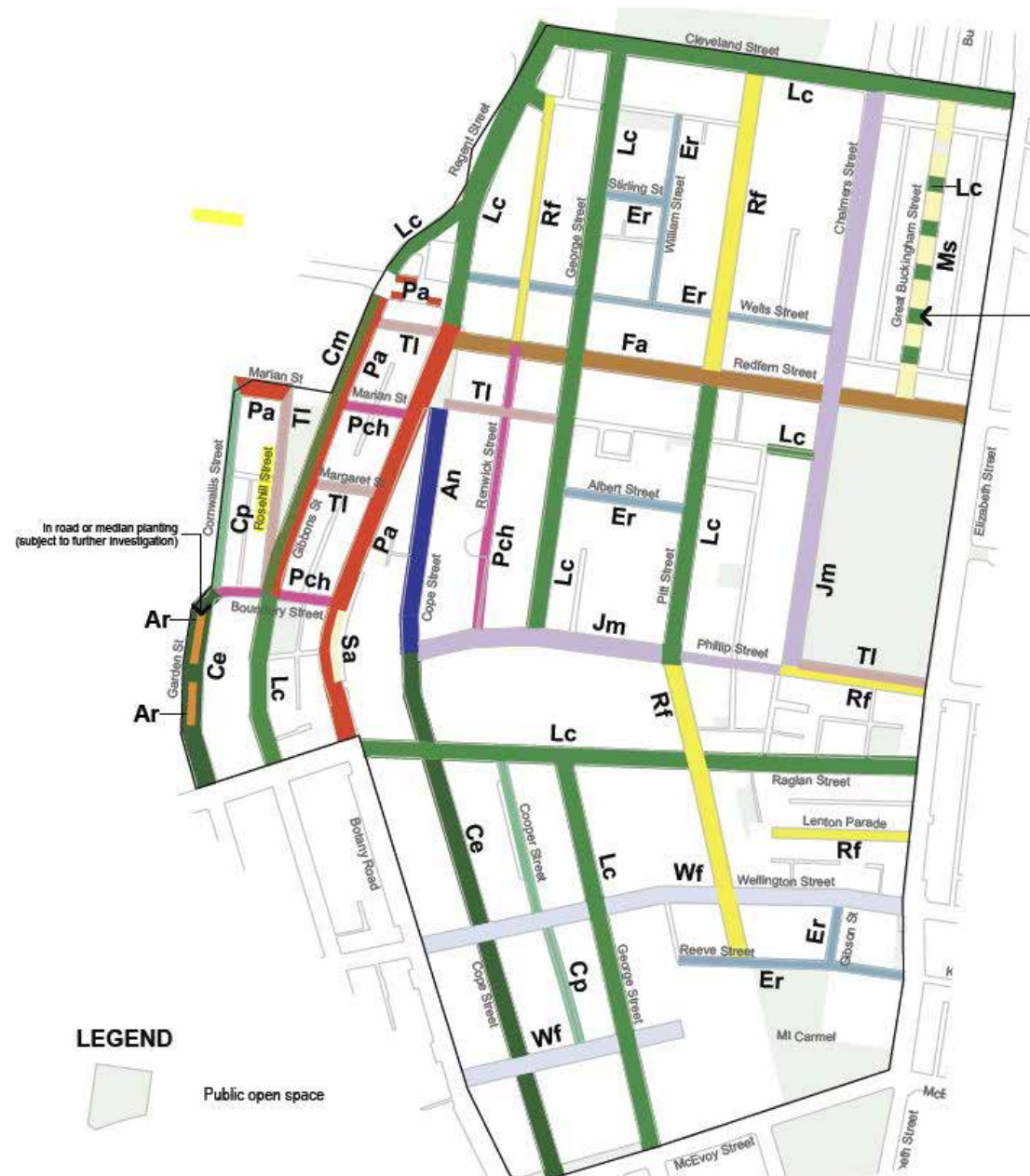


Redfern Park














Vice Chancellor's Oval

PUBLIC DOMAIN / LANDSCAPE CONTEXT
STREET TREES



CoS Street Tree masterplan 2014

Evergreen			
Ar	 <i>Agathis robusta</i> (Queensland Kauri)	Tl	 <i>Tristaniopsis laurina</i> (Water Gum)
Cs	 <i>Corymbia eximia</i> (Yellow Bloodwood)	Wf	 <i>Waterhousea floribunda</i> "Green Avenue" (Weeping Lilly Pilly)
Cm	 <i>Corymbia maculata</i> (Spotted Gum)		
Cp	 <i>Cupaniopsis anacardioides</i> (Tuckeroo)	Deciduous	
Er	 <i>Elaeocarpus reticulatus</i> (Blue Berry Ash)	An	 <i>Acer negundo</i> (Box Elder)
Fa	 <i>Flindersia australis</i> (Crows Ash)	Jm	 <i>Jacaranda mimosifolia</i> (Jacaranda)
		Pch	 <i>Pistacia chinensis</i> (Chinese Pistachio)

The design intent is to retain and protect the existing *Tristaniopsis laurina* (Water Gum) planted along the Rosehill St frontage. Reduction of driveway crossings to the Rosehill St frontage would create an opportunity for more continuous street tree canopy, spaced at 7 to 10 metre intervals in accordance with CoS street tree masterplan.



Street View - Existing *Tristanopsis laurina*



Street View - Existing *Tristaniopsis laurina*

PUBLIC DOMAIN / LANDSCAPE CONTEXT

FACADE / ROOFTOP GREENING

A number of recent projects in the Sydney CBD have set a new benchmark for greening of high rise buildings. Some noteworthy examples are One Central Park, Broadway, and the soon to be completed DUO on Broadway.

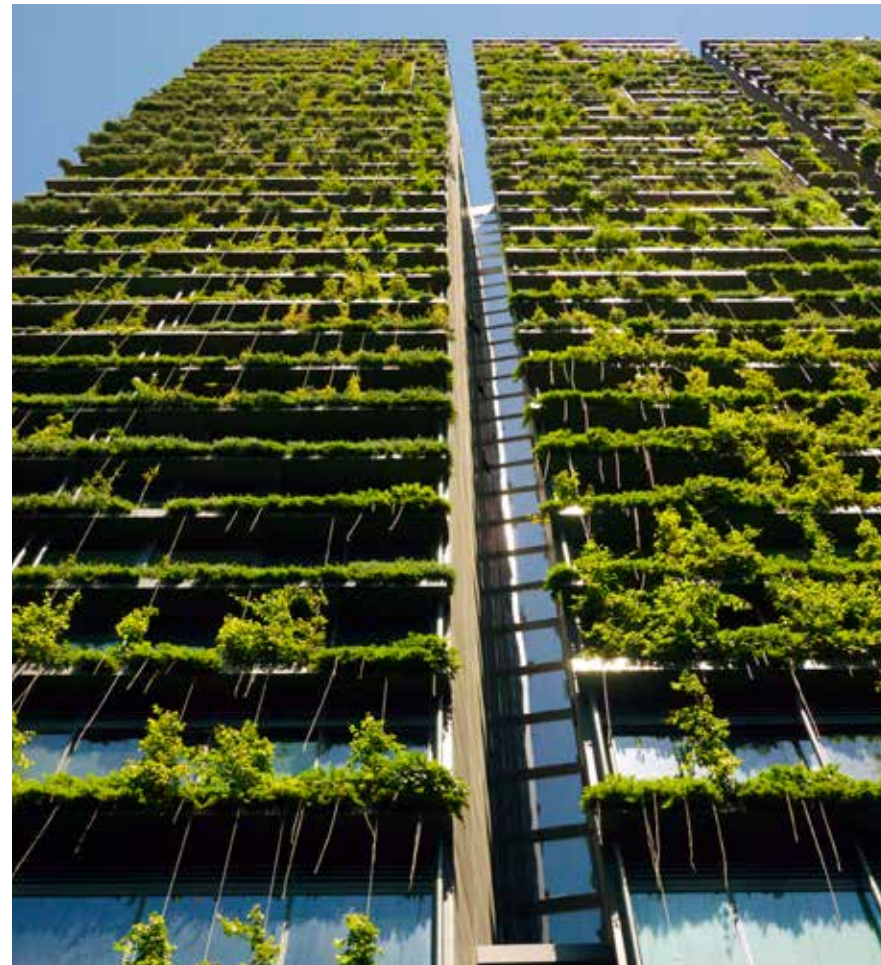
Internationally, projects such as Bosco Verticale (Vertical Forest) in Italy exemplify the extent to which achieving vertical forest landscapes is possible on high rise buildings.

The success of these projects is dependent on carefully considered soil volumes, soil type, species selection, irrigation, and maintenance regimes.

A detailed understanding of the light levels and wind conditions for each location of planting provides the appropriate landscape design response.



Bosco Verticale - Milan, Italy



One Central Park - Chippendale



The Green atrium of Duo on Broadway - Soon to be completed

The objective of this project is to create a vibrant new laneway destination for Sydney, complemented by residential apartments above that enjoy a strong connection with nature by way of large balcony planters and rooftop terraces. Highly articulated façades deliver a dynamic visual outcome, whilst providing the setting for a diverse range of micro-landscapes.

The increased width of Cornwallis Ln creates a laneway width comparable to some of the most successful active laneways in Sydney. This proposal converts an under-utilised city laneway to a new urban destination. The adjacency of this site to the Australian Technology Park and Waterloo Estate redevelopment areas supports the vision for increased activation.

In the new laneway, generously proportioned planters will be used to provide trees and understory vegetation, flush with the ground where deep soil is available, and in raised planters on structure (in accordance with ADG minimum soil depth / volume requirements). This permanent green infrastructure will be further supplemented with planter pots, which will also contribute to the fine grain and human scale of the space. This conversion of the existing asphalt laneway to a green streetscape will make an important contribution to the NSW government objectives of boosting tree canopy cover and creating greener, more sustainable places.

The proposed mid-block urban plaza to connect Cornwallis Ln and Rosehill St will improve the presence of Cornwallis Ln, and establishes the opportunity for a new east-west connection to ATP between Cornwallis Lane and Cornwallis St in the future.

Extensive landscaping to terraces and rooftops of the development will also contribute to the urban tree canopy, providing positive outcomes for micro-climate, biodiversity, and habitat, whilst optimising opportunities for social interaction between residents. The landscape will be designed with the end-user in mind, ensuring a balance of planting and open views, practical establishment and long term management strategies.



Cornwallis Lane



Multi-level greening to the building terraces

The species selection for this project will align with the CoS Urban Forest Strategy, adhering to the guidelines of having no more than 40% of one plant family, 30% of any one genus, and 10% of any species. A diverse mix of drought tolerant species will ensure long-term resilience, minimise ongoing energy inputs for maintenance, and have positive outcomes for biodiversity.



Il Bosco Verticale di Milano



One Central Park - Chippendale



One Central Park - Chippendale



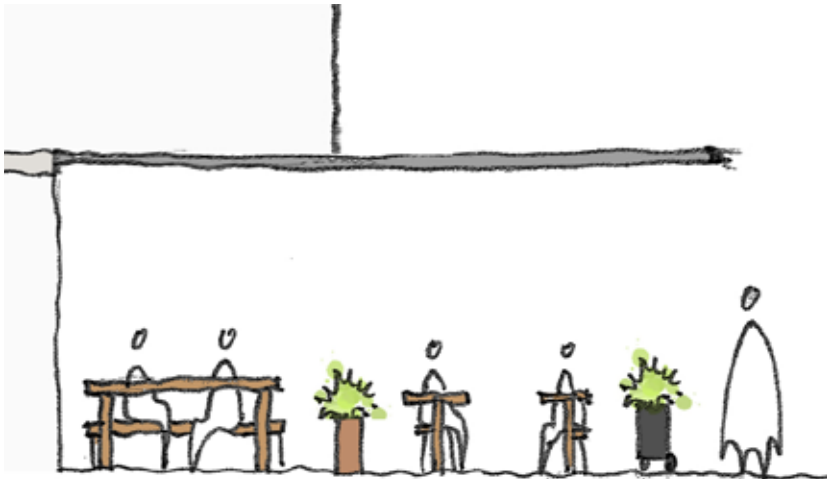
CONCEPT PLAN 1:500@A3

DESCRIPTION

The public domain landscaping will create a lush, green, welcoming laneway destination. Deep soil will be utilised wherever possible for tree planting, and this will be supplemented with raised planters and pot planters where appropriate to maximise greening and achieve diversity in the street experience. All planting in the public domain will apply best practice CPTED principles, ensuring adequate crown lifting and low understorey planting (max. 1m) to retain sight lines.

INDICATIVE PLANT PALETTE

Botanical Name	Common Name
Tree	
<i>Flindersia bennettiana</i>	Bennet's Ash
<i>Waterhousia floribunda</i>	Weeping Lilly Pilly
<i>Tristaniopsis laurina</i>	Water Gum
Understorey	
<i>Arthropodium cirratum</i>	NZ Rock Lily
<i>Aspidistra elatior 'variegata'</i>	Cast Iron Plant
<i>Asplenium nidus</i>	Bird's-nest Fern
<i>Blechnum 'Silver Lady'</i>	Silver Lady Fern
<i>Clivia miniata</i>	Kaffir Lily
<i>Alcantarea imperialis 'Rubra'</i>	King Bromeliad
<i>Philodendron 'Rojo Congo'</i>	Rojo Congo Philodendron
<i>Philodendron 'Xanadu'</i>	Xanadu
<i>Philodendron 'Imperial Green'</i>	Imperial Green



Typical section of north-facing activated street frontage



Arthropodium cirratum



Aspidistra elatior 'variegata'



Asplenium nidus



Blechnum 'Silver Lady'



Clivia miniata



Alcantarea imperialis 'Rubra'



Philodendron 'Rojo Congo'



Philodendron 'Xanadu'



Philodendron 'Imperial Green'



Flindersia bennettiana

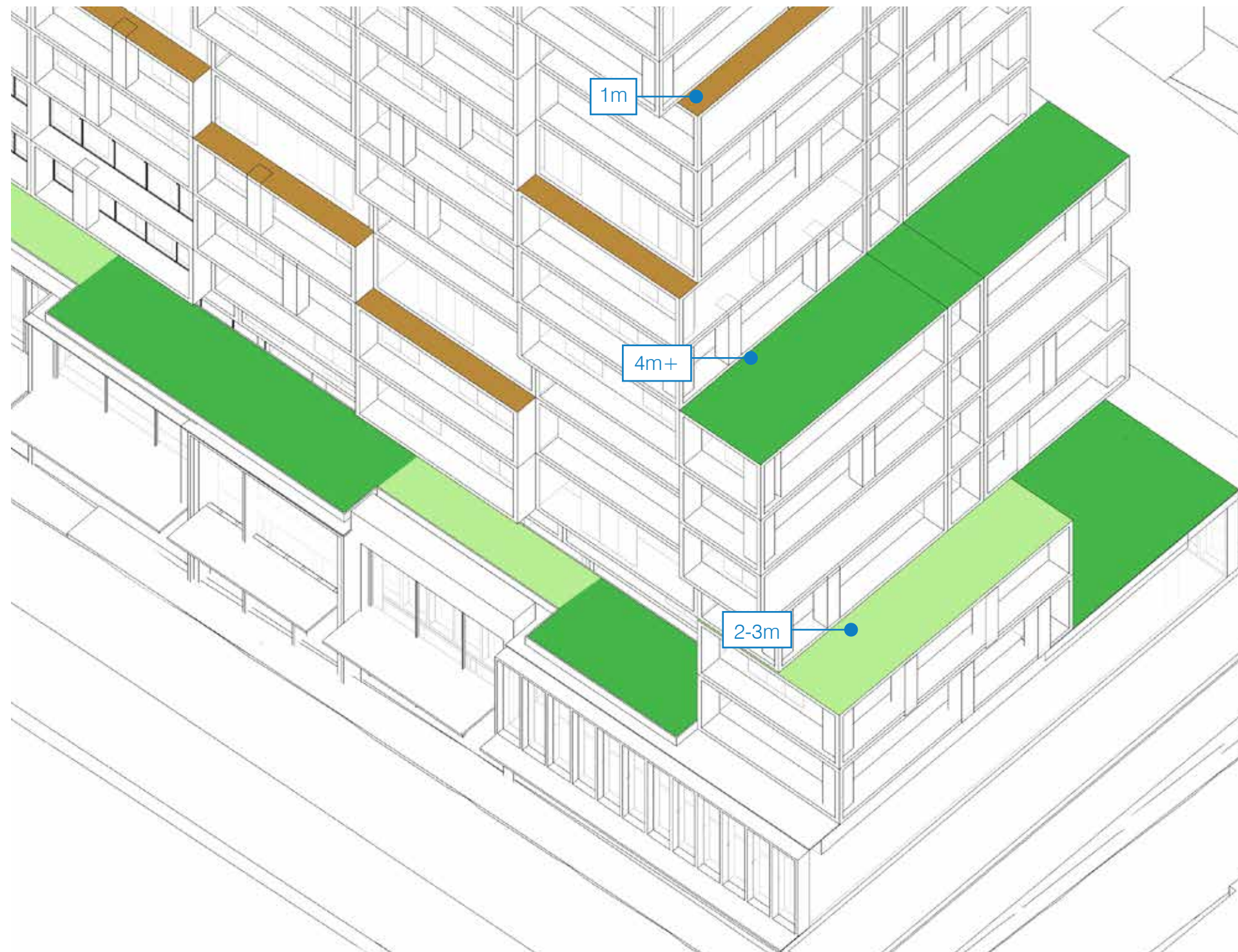


Waterhousia floribunda



Tristaniopsis laurina

FACADE PLANTER TYPES



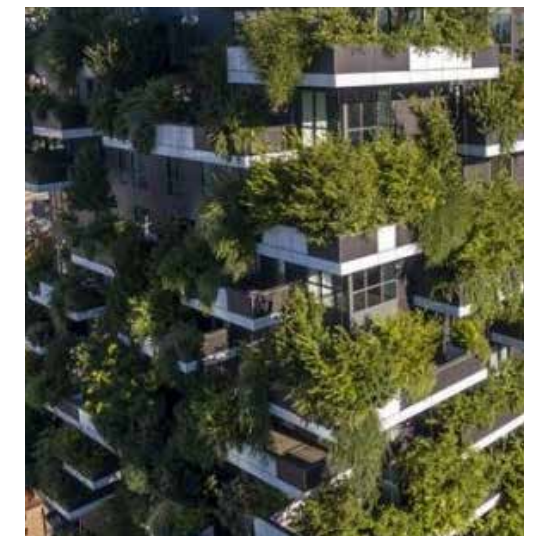
There are three different plant box structures on the facades as shown in the 3D image below:

- 1m width modules
- 2-3m width modules
- 4m+ width modules

The following pages elaborate on the detail of each facade planter type.



1m width modules

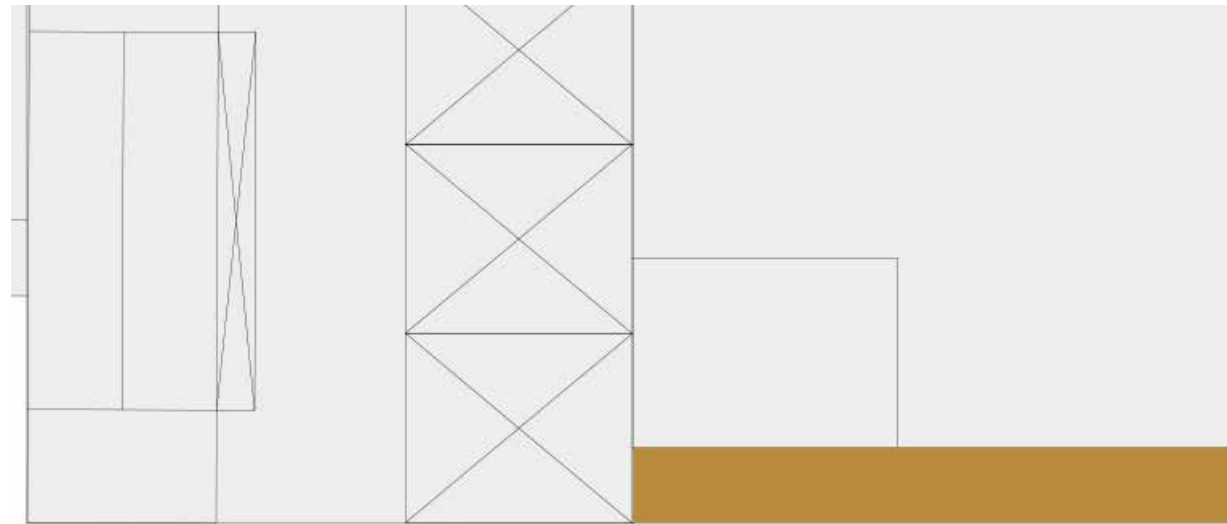


2m width modules



4m+ width modules

FACADE PLANTER - 1M WIDTH MODULE



7TH FLOOR PLAN 1:100@A3

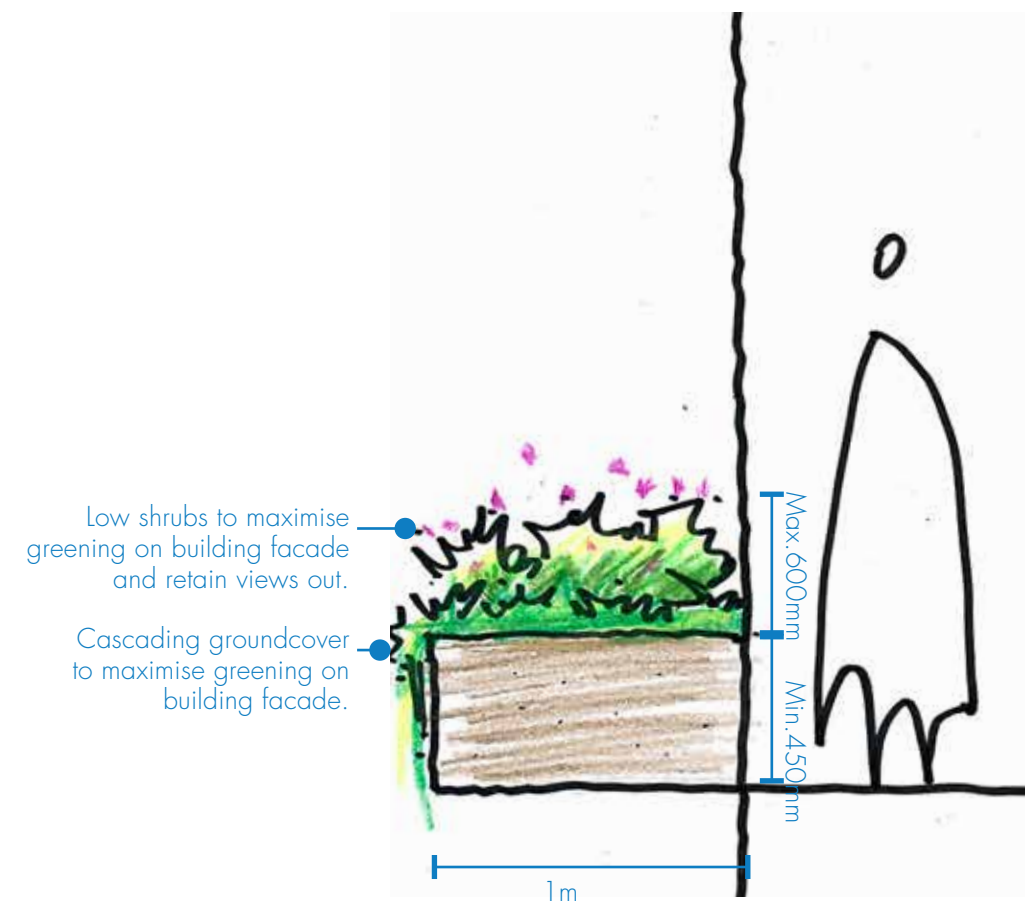


1m WIDTH MODULE

DESCRIPTION

1m width Module (450mm soil depth)

Accommodates a diverse mix of hardy small shrubs and cascading groundcovers that maximise the visual greening effect with limited soil depth and volume.



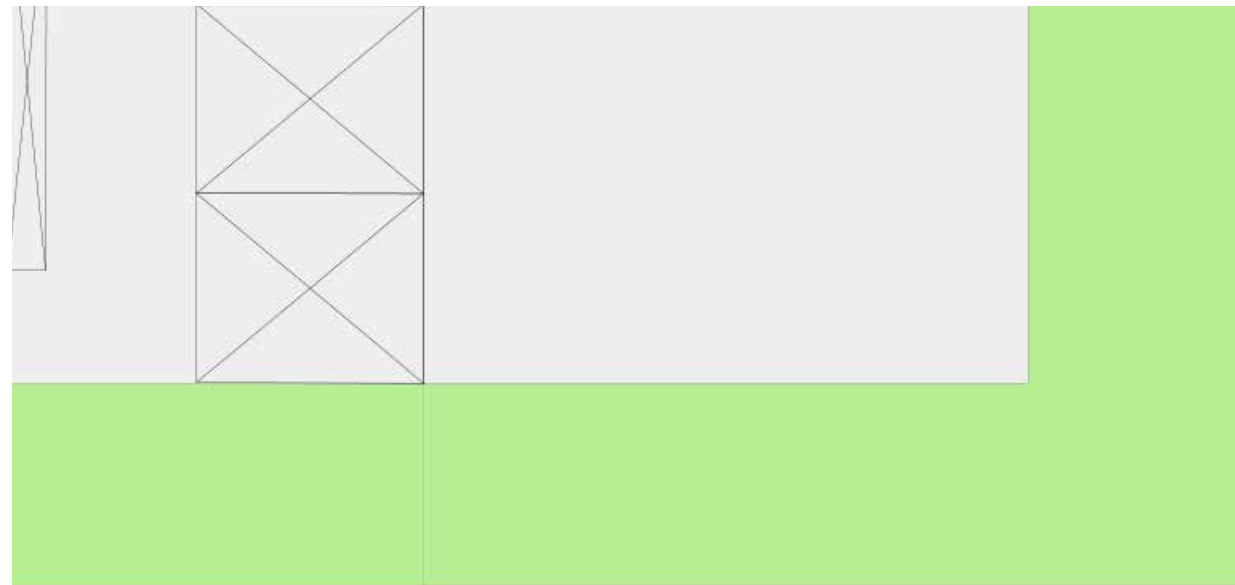
TYPICAL SECTION OF 1m WIDTH MODULE 1:25@A3

FACADE PLANTER - 2-3M WIDTH MODULE

DESCRIPTION

2-3m Module (600mm – 800mm soil depth)

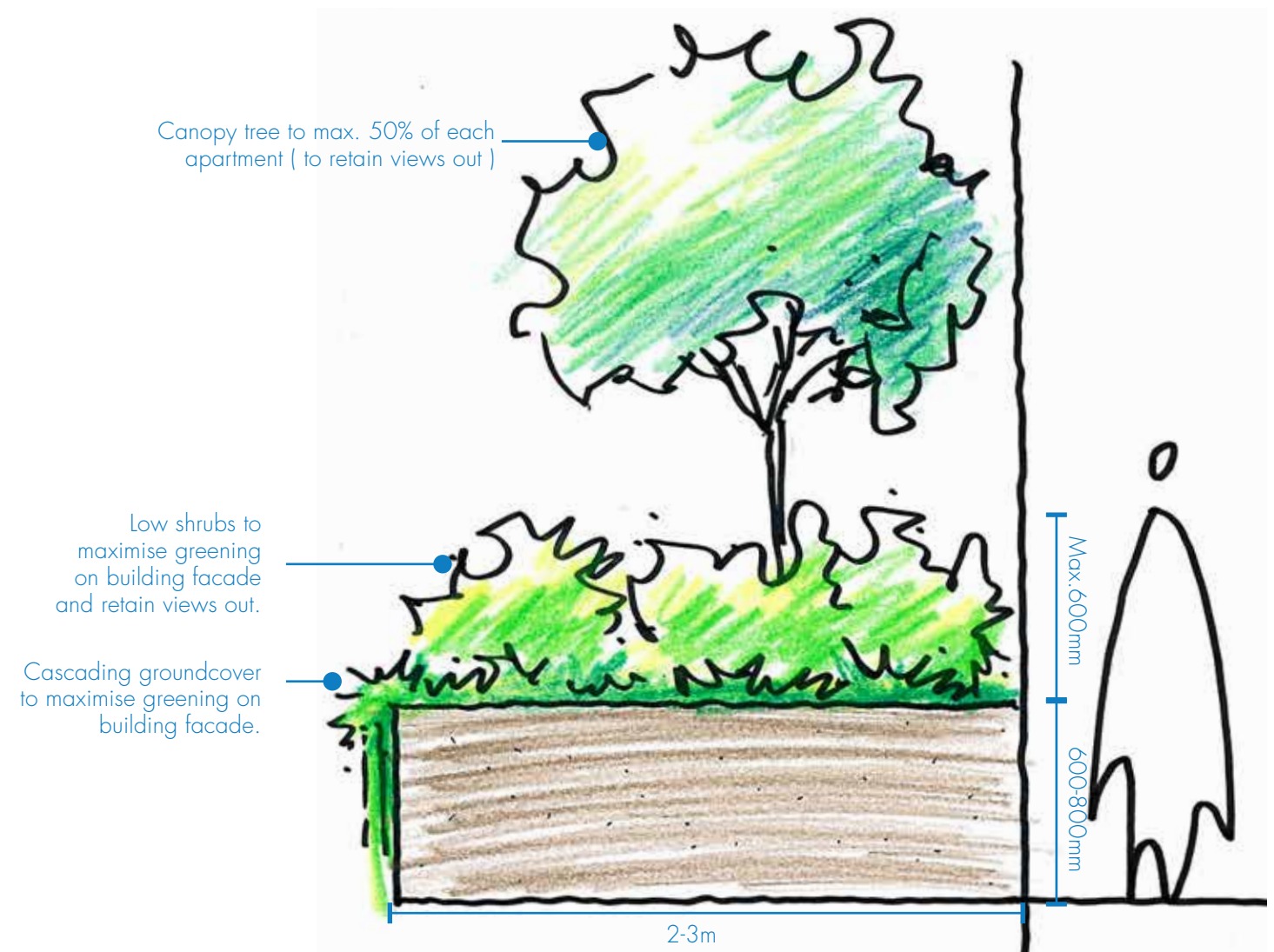
Additional width allows for large shrubs / small trees clear of the facade, complemented by a diverse understorey of cascading groundcovers consistent with the 1m Modules.



3TH FLOOR PLAN 1:100@A3



2m WIDTH MODULE



TYPICAL SECTION OF 2-3m WIDTH MODULE 1:25@A3

FACADE PLANTER - 4M+ WIDTH MODULE



12TH FLOOR PLAN 1:100@A3



4m+ WIDTH MODULE

DESCRIPTION

4m+ Module (600mm – 1000mm soil depth)

Large soil volumes support the growth of several medium sized trees, capable of achieving the design intent of 'sky-forests'.

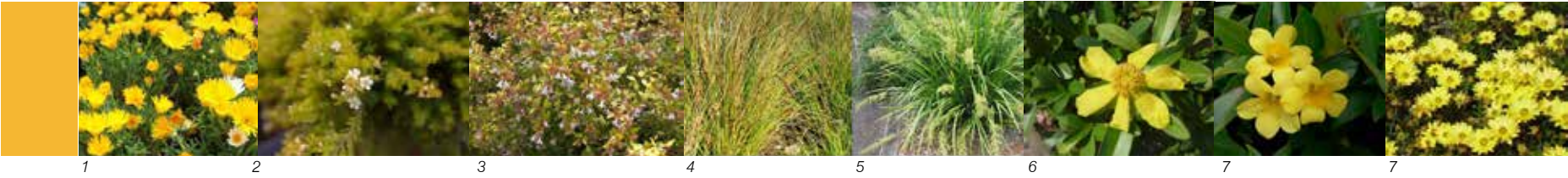


TYPICAL SECTION OF 4m +WIDTH MODULE 1:25@A3

HIGH ENVIRONMENTAL EXPOSURE



- 1. *Nandina domestica* 'Nana'
- 2. *Pyrostegia venusta*
- 3. *Callistemon* 'Little John'
- 4. *Allocasuarina nana*
- 5. *Russellia equisetiformis*
- 6. *Agonis flexuosa* 'Nana' / 'Weeping Wonder'
- 7. *Mesembryanthemum* - red flower
- 8. *Arctotis* - red flower



- 1. *Mesembryanthemum* - yellow flowering form
- 2. *Baeckea virgata* 'Dwarf'
- 3. *Abelia x grandiflora* 'Dwarf'
- 4. *Carex appressa*
- 5. *Lomandra hystrix*
- 6. *Hibbertia scandens*
- 7. *Gelsemium sempervirens*
- 8. *Arctotis* - yellow flower

MODERATE ENVIRONMENTAL EXPOSURE



- 1. *Callistemon* 'White Anzac'
- 2. *Coprosma x kirkii* 'Variegata'
- 3. *Stachys lanata*
- 4. *Conostylis candicans*
- 5. *Westringia* 'Smokey'
- 6. *Hardenbergia violacea* 'Edna Walling Snow Flake'
- 7. *Scaevola albida* 'White Carpet'
- 8. *Pandorea jasminoides* 'Lady Di'



- 1. *Acmena smithii* 'Alyn Magic'
- 2. *Leptospermum* 'Mesmer Eyes'
- 3. *Pandorea jasminoides* 'Southern Belle'
- 4. *Trachelospermum tricolor*
- 5. *Dietes iriodes* / *grandiflora*
- 6. *Jasminum polyanthum*
- 7. *Canavalia maritima*
- 8. *Sollya heterophylla*
- 9. *Liriope muscari* 'Just Right'
- 10. *Vinca major*



- 1. *Callisia fragrance*
- 2. *Davalia pixidata*
- 3. *Lomandra* 'Lime Tuff'
- 4. *Sansevieria trifasciata*
- 5. *Buxus microphylla microphylla*
- 6. *Ficus coronata*
- 7. *Muhlenbeckia complexa*
- 8. *Stephania japonica*

LOW ENVIRONMENTAL EXPOSURE



- 1. *Phyllodendron* 'Xanadu'
- 2. *Lomandra hystrix*
- 3. *Blechnum cartilagineum*
- 4. *Cissus rhombifolia*
- 5. *Monstera oblique* 'Dwarf'
- 6. *Cissus antarctica*
- 7. *Ophiopogon japonicus*
- 8. *Cyrtomium falcatum*
- 9. *Adiantum aethiopicum*



- 1. *Calochlaena dubia*
- 2. *Nephrolepis cordifolia*
- 3. *Microsorium* spp.
- 4. *Cordyline stricta*
- 5. *Hedera canariensis*
- 6. *Plectranthus verticillatus*

NOTE

Species mix across all planters will be determined by environmental exposure (solar / wind) to ensure resilience.