



Children's Garden and Community Precinct, Hamilton Botanic Gardens, Vic.

Landscape Design Report

Date issued: 20 October 2021

Prepared for:

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Client



Engineers



Cost Consultant





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Attachments		
A.	Planting design report.	
B.	Landscape Detailed Documentation	
C.	Engineering Documentation	

Issues and Meeting log:

Item	Date	Responsibility
Site Meeting	07.10.2020	OSLA
Presentation and submission of Phase 01 Site Analysis and Background Report	28.10.2020	OSLA
Presentation and submission of Phase 01 Site Analysis and Concept Design Report	17.12.2020	OSLA
Presentation and submission of Phase 01 Site Analysis and Concept Design Report	10.02.2021	OSLA
Submission of Landscape Design Report - For Approval	27.08.2021	OSLA
Submission of Landscape Design Report	20.10.2021	OSLA



01/ Introduction.



01/

The Botanic Gardens – Children’s Garden Community Precinct project is a continuation of work outlined in the Botanic Gardens Conservation Masterplan, which has been endorsed by Heritage Victoria. With this understanding and agreed guiding principles, the project will deliver on a key recommendation to construct a Children’s Garden within the existing Botanic Gardens boundaries.

The site of the proposed Children’s Gardens and Community Precinct is in the Southern corner of the Hamilton Botanic Gardens. The site is approx. 5,500 sqm.

In July 2020 Southern Grampians Shire Council engaged Outerspace Landscape Architects Pty Ltd and design team to prepare the concept design and detailed design for the Children’s Gardens. The Design Team consists of:

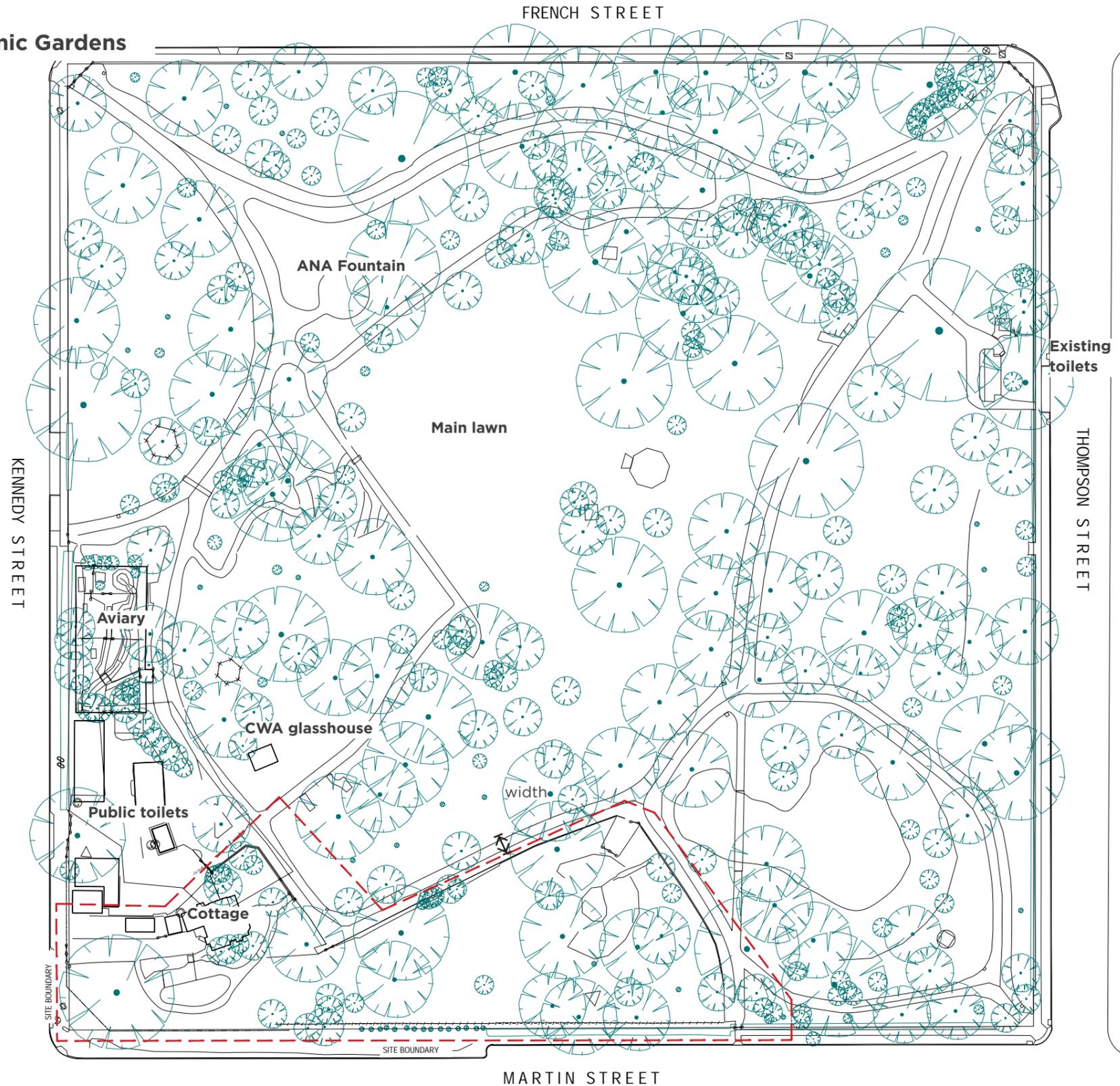
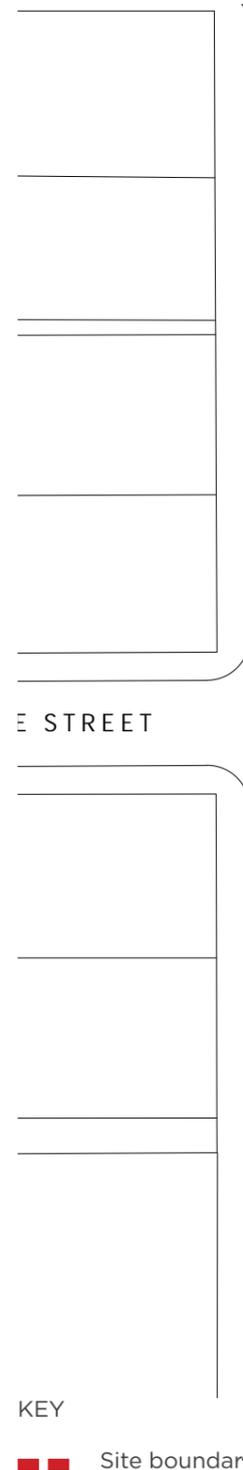
- Outerspace Landscape Architecture - Landscape Architecture
- WSP Australia - Civil, structural, electrical, and hydraulic Engineering
- Rider Levett Bucknall - Cost Planning
- Plant Agent - Specialist Planting Advice
- Artists - Romanis Trinham Collaborations



Hamilton, Vic Location map.

Introduction.

Hamilton Botanic Gardens



KEY
— Site boundary

Site location plan.



02/ Background research and site analysis.



2.1/

The Hamilton Botanic Gardens is Victoria's fourth oldest botanic garden. Following its inclusion on the Victorian Heritage Register the Hamilton Botanic Gardens has received the highest heritage protection from the State.

William Ferguson, Director and landscaper from the Royal Botanic Gardens in Melbourne, undertook the first planting in 1870. However from 1881, the gardens were developed to a plan by William Guilfoyle, the curator of the Royal Botanic Gardens and one of Australia's greatest garden designers and botanists. The Hamilton Botanic Gardens is one of the most intact examples of 19th century regional gardens in the State of Victoria, and an important example of the work of Guilfoyle.

This diagram shows the existing site survey overlaid onto Guilfoyle's 1881 drawing.



Figure 2: William Guilfoyle

William Guilfoyle

Guilfoyle's legacy.

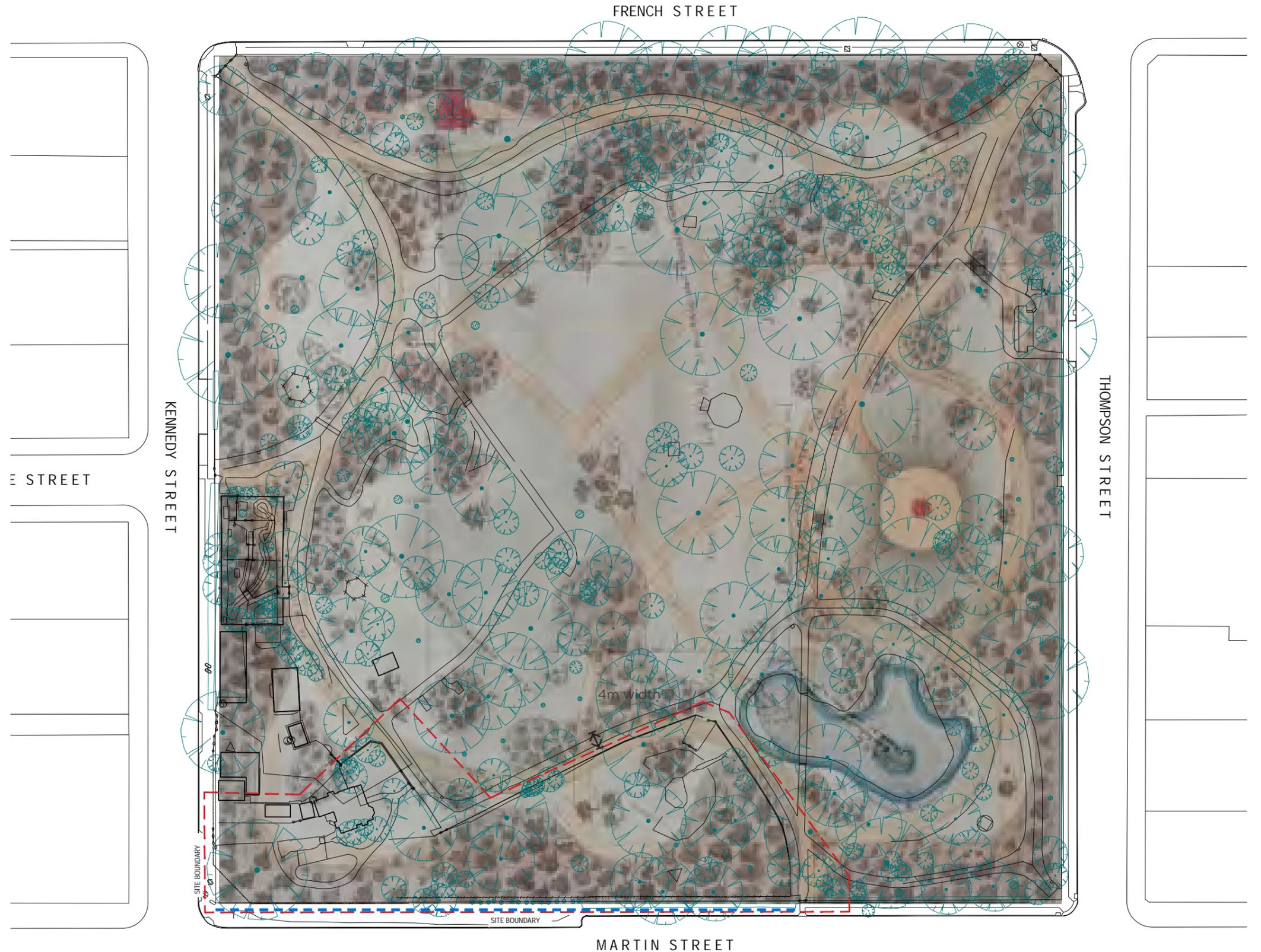


Diagram of existing paths and proposed paths as per the Masterplan path network



2.2.2/ Functional review.

The masterplan describes key directions for site access, DDA access and highlights the sites steep topography.

Extract: Masterplan Section 2.1 Circulation, Access and Pathways:

All pathways should continue to be of asphalt construction. When new edging or replacement of the red brick is required mild steel should be used until it is eventually rolled out across the site. Where the pathway is bordered by bluestone garden bed edging this should be retained.

- The major perimeter pathway should be modified to better reflect William Guilfoyle's intentions as per the Master Plan drawing. This path should be narrowed to 4m in width.
- All other connecting pathways should be a consistent width of 1.5m and of the same materials as the perimeter path.
- 01** The straight path leading from the ANA Fountain to the native garden should be modified in accordance with the Master Plan drawing.
- 02** The straight path from the play equipment to the native garden is to be removed.
- 03** The "furcated" entrances to the Gardens intended by William Guilfoyle are to be added/reinstated. This requires modification to the perimeter pathway near the B.C. Naylor entrance.
- Access to the Botanic Gardens and Carparking**
- 04** Gravel paths along French and Kennedy Streets to be eventually replaced with asphalt.
- 05** External pathway is to be continued along Martin and Kennedy Streets.
- 06** Disable parking bays are to be provided at the new Martin/Kennedy Street entrance.
- - Martin street entrances should be a minimum 1800mm wide to allow for DDA access. ie Two wheelchairs to pass or parents with a pram and children in tow.

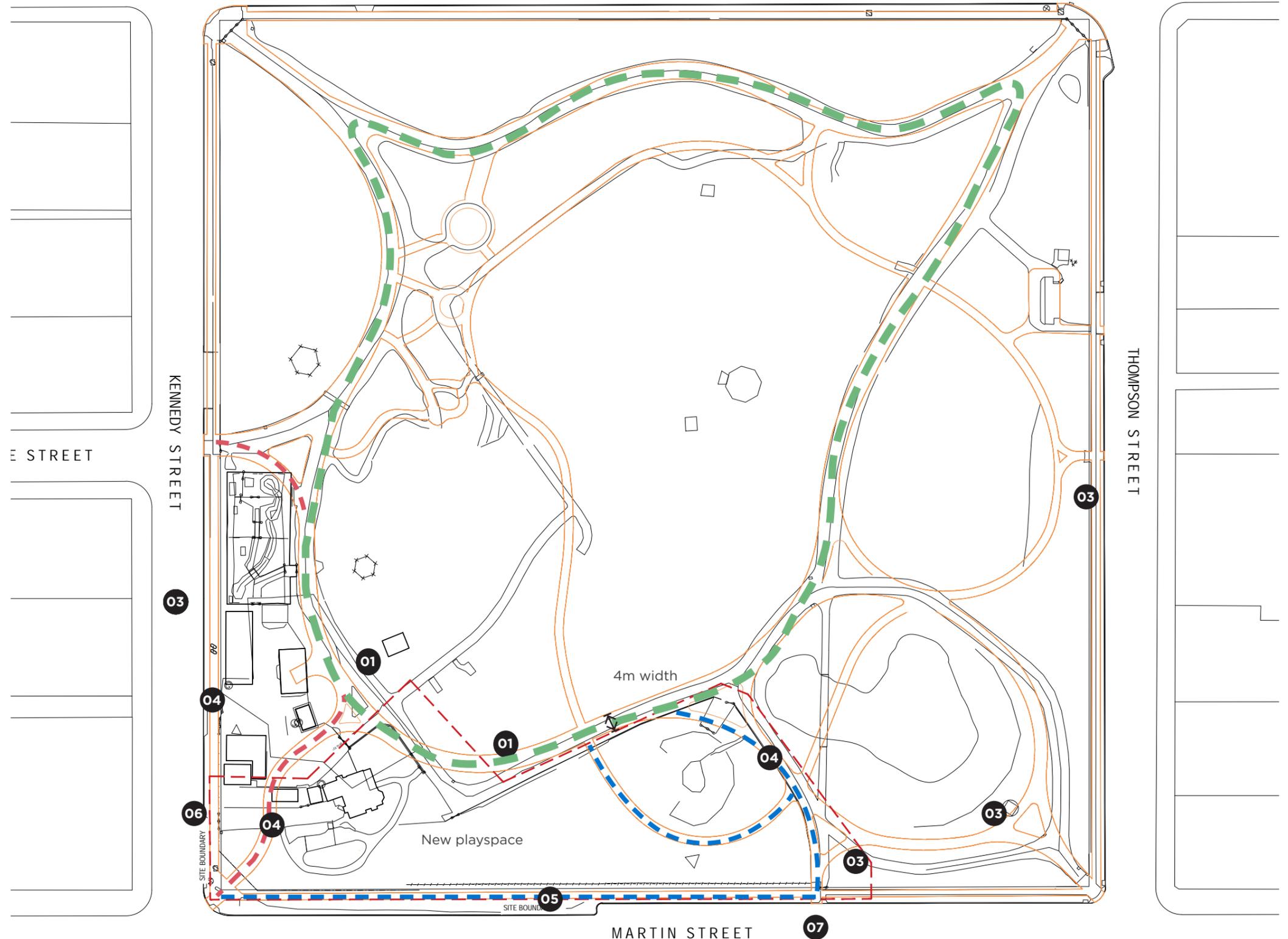


Diagram of existing paths and proposed paths as per the Masterplan path network



2.3/

Significant existing trees.

2.3.1/ Existing significant trees.

There are several significant species as part of the botanic collection in this location.

The design for the Children's Garden and Playspace has had to carefully consider the Tree Protection Zones and avoid any significant disturbance in this areas.

Refer to the Arborists Reports as follows for further information:

- Preliminary Aboricultural Report, 16th November 2020 C92104 [202011-SGSC-HamBotGdns-PAR-C92104]
- Preliminary Aboricultural Report, 29th January 2018 CC91059 [201801-SGSC-HamiltonBG-C91059-Pathworks-PAR-Ver1]

Pinus wallichiana and Pinus radiata which were present in the 1984 survey have subsequently been removed. Pinus wallichiana will be reinstated as part of this project.

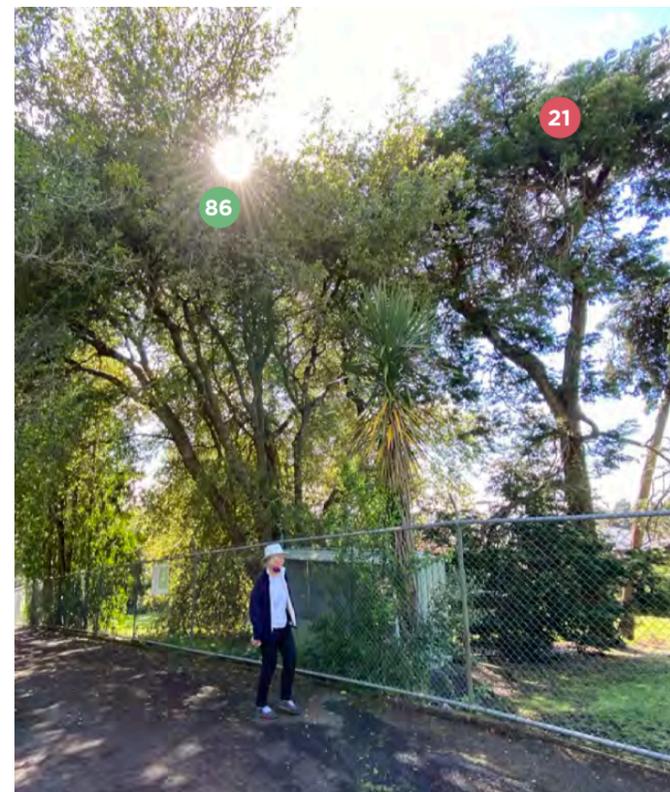
Significant Tree Schedule

Arborists Report Ref No.	Scientific name	Common Name	Proposed treatment.
86	<i>Quercus agrifolia;</i>	Coast Live Oak	Retain and protect
87	<i>Hesperocyparis lusitanica;</i>	Cedar of Goa	Retain and protect
83	<i>Cedrus atlantica f. glauca;</i>	Blue Atlas Cedar	Retain and protect
71	<i>Cordyline australis;</i>	Ti Kouka	Retain and protect
74	<i>Cupressus torulosa;</i>	Bhutan Cypress	Retain and protect
78	<i>Pinus pinaster;</i>	Maritime Pine	Retain and protect.
NA	<i>Platycladus orientalis;</i>	Chinese Arborvitae	Retain and protect
80	<i>two rare Pinus sp. (planted c1985); Pinus nigra var. corsicana (now subsp. laricio).</i>		Remove. Tree has died and must be removed. Refer to Arborists Report.

High Retention Value Trees



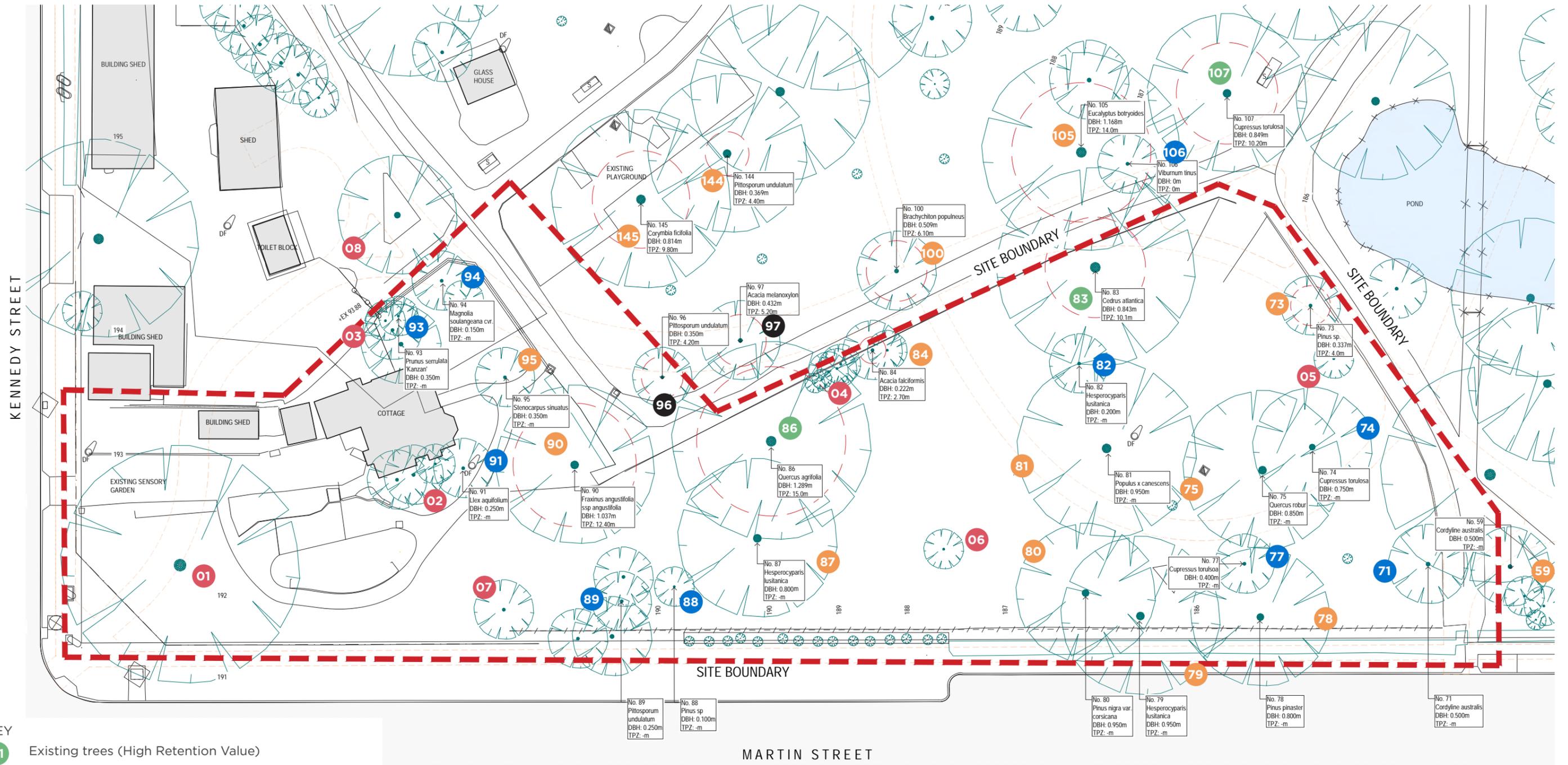
83 *Cedrus atlantica* Atlas Cedar
Category A (High Retention Value)



86 *Quercus agrifolia* National Trust Registered
Category A (High Retention Value) ULE 25-50 years



2.3.2/ Significant tree location plan.



- KEY**
- 01 Existing trees (High Retention Value)
 - 01 Existing trees (Moderate Retention Value)
 - 01 Existing trees (Low Retention Value)
 - 01 Existing trees (Unsuitable Retention Value)
 - 01 Existing trees/ Copse of trees (No Arborists Report)



2.4/

Consultation.

Stakeholder consultation has occurred with:

- Outerspace Landscape Architects Pty Ltd
- Plant Agent Planting Specialist
- Romanis Trinham Artists
- Friends of the Hamilton Botanic Gardens
- Gardener - Frank and team
- Uncle Johnny
- Winda-Mara Aboriginal Corporation
- Budj Bim Rangers
- Heritage Victoria

Representatives of Southern Grampians Shire Council:

- Project manager Darren Ames - Coordinator Recreation Services
- Evelyn Arnold
- Susannah Milne



Design team meeting with the Friends of Botanic Gardens.



Design team meeting with the Budj Bim Rangers



Design team meeting with the Budj Bim Rangers



03/ Project benchmarks.



03/

Project benchmarks.

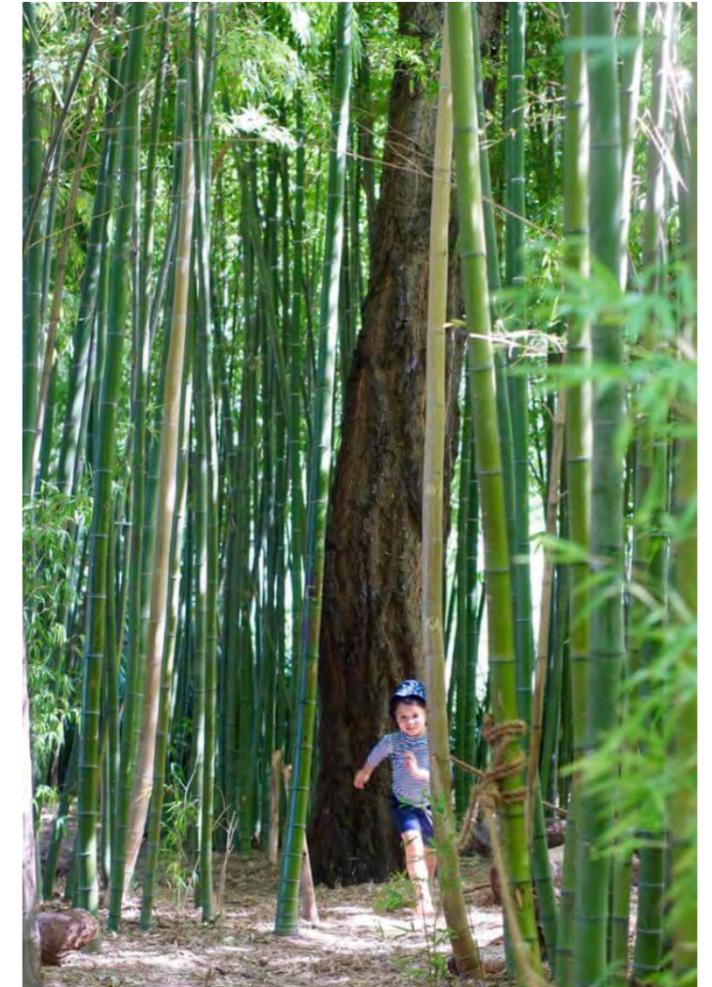
3.1/ The Ian Potter Foundation Children's Garden, RGB



Water play area



Open areas nearby



Playful planting



Secret play areas



Sand play



Sculptural forms



Water rill



Cubbies



Scale Comparison

Ian Potter Children's Wild Play 1.15 Hectares

Children's Gardens and Playspace Hamilton 0.6 Hectares



3.2/ Cranbourne Botanic Gardens

Key inspiration: A playful landscape rather than play elements.



Playful Masterplan



Water play



Water play



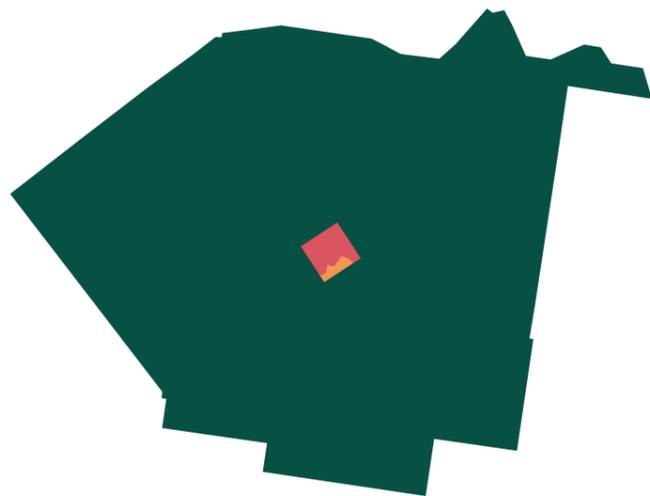
Bicycle loop



Water play and Native planting



Native flower display - Paper Daisies



Scale Comparison

Royal Botanic Gardens Cranbourne 369.0 Hectares

Children's Gardens and Playspace Hamilton 0.6 Hectares



3.3/ Bridges Road Regional Playspace

The Bridge Road Regional Play Space is within the Bridge Road Athletics Precinct. The community input provided insight as to how children play, interact, discover, socialise and learn. This information was applied in the design process to inform the different areas and types of play across the play space.

The play space includes a variety of play equipment including a flying fox and trampolines, natural play elements such as a sensory garden and water channel, custom play elements such as monkey bars and climbing structures, and picnic facilities for the enjoyment of the whole family.

Bridge Road Playspace project budget: 1.4 million



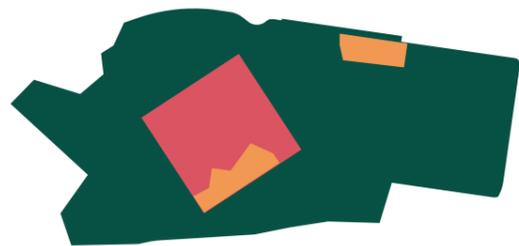
Stone Terraces



Sand Play



Water Rill



Scale Comparison

Bridge Road Regional Playspace 69.0 Hectares



Artwork With Mark and Glenn



Sand Play



Custom Bridge Structure



3.4/ Centennial Park, Sydney NSW



Climbing structure



Climbing structure



Climbing structure



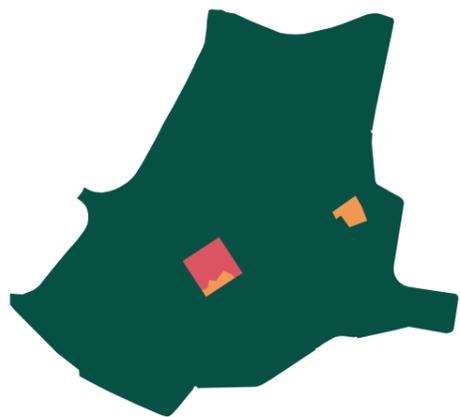
Climbing structure



Climbing structure



Climbing structure



Scale Comparison

Centennial Park 1.15 Hectares

Children's Gardens and Playspace Hamilton 0.6 Hectares



04/ Design proposal.

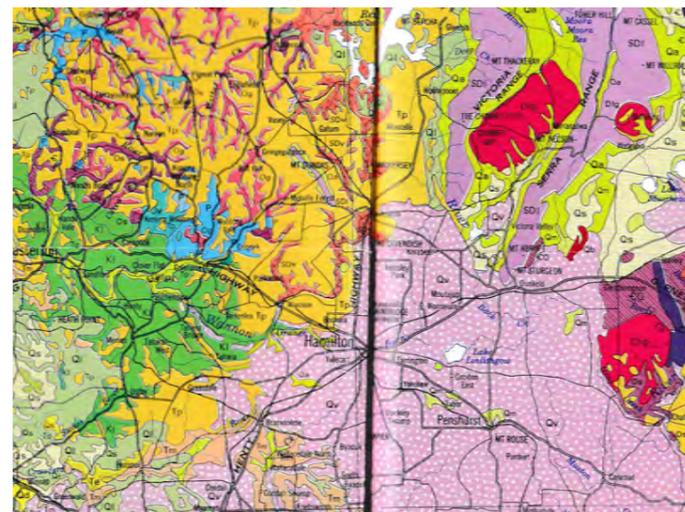


4.1/

4.1.1 The local landscape.

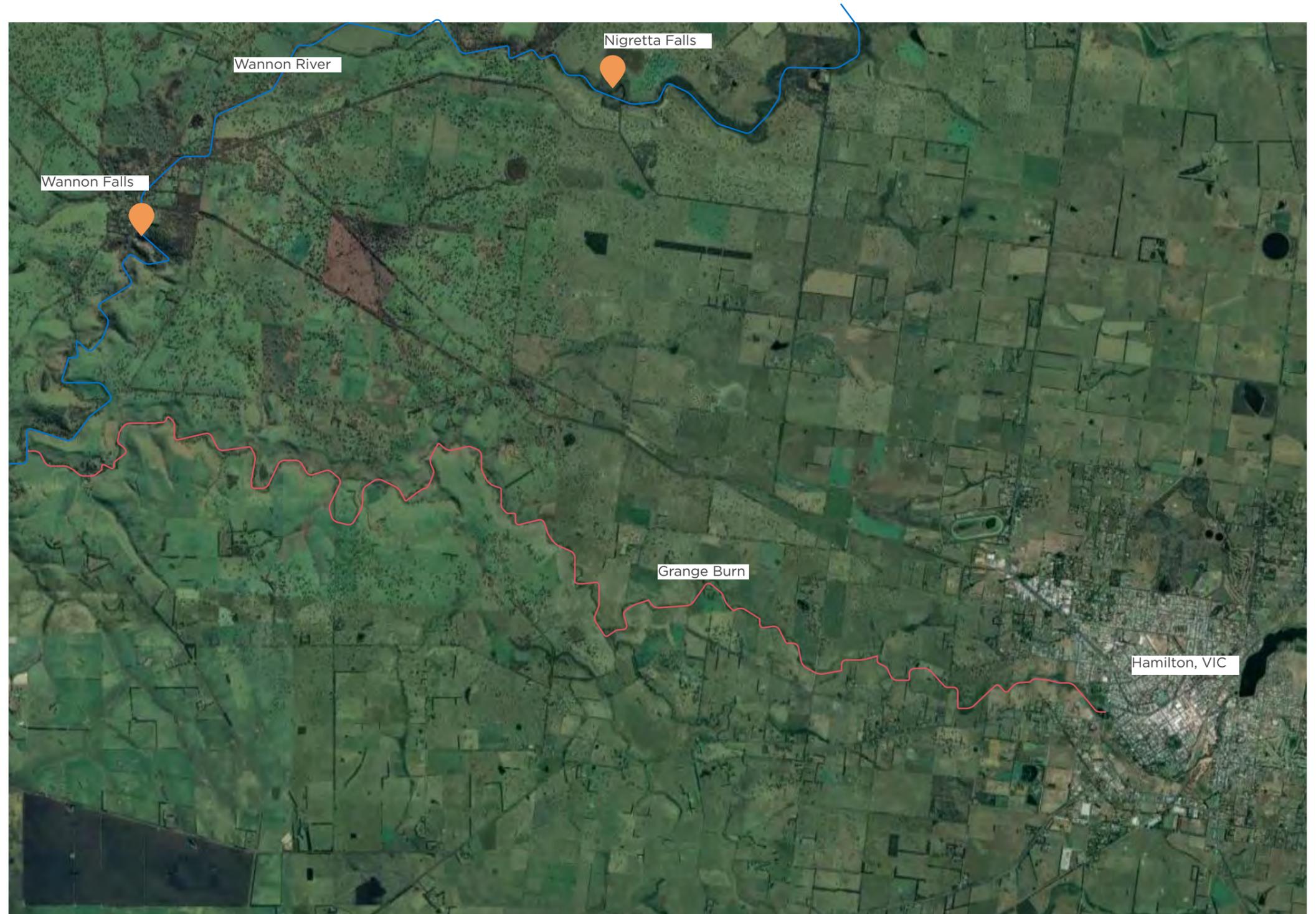
The Wannon River, a perennial river of the Glenelg Hopkins catchment, is located in the Western District of Victoria, Australia.

Grange Burn is a tributary of the Wannon River and flows to the Hamilton side. The creek, as well as its surrounding areas, is important not just for recreation but also for agriculture and ecology. The waters are home to native fish, which have unfortunately become threatened over time. These include the Glenelg Spiny Crayfish, Little Galaxias, and the Variegated Pygmy Perch. The area is also home to one of the most abundant platypus populations, which visitors may see along the walking trail.



Victorian geology.

Design inspiration



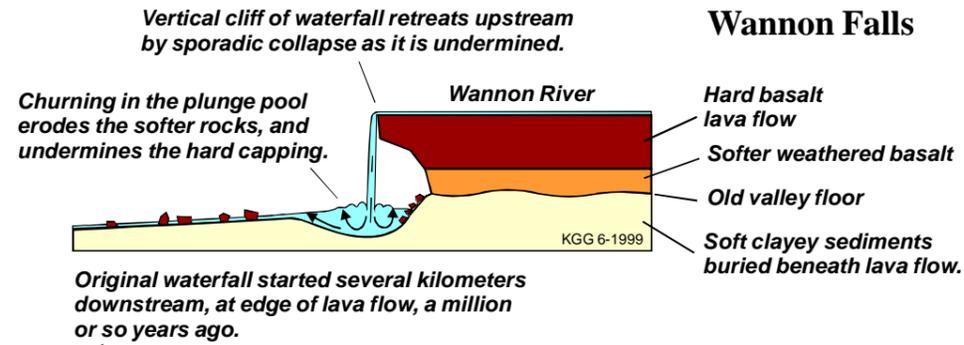
Key watercourses and falls



4.1.2 Sketch ideas and design generation.

Wannon Falls

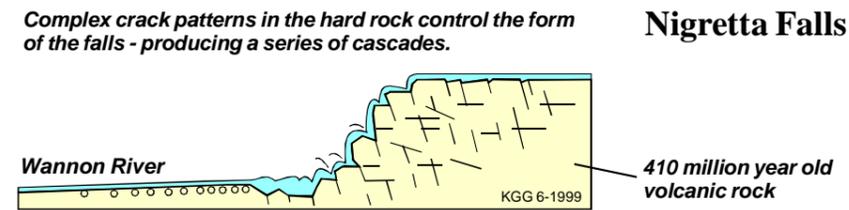
The dark basalt rock of the Wannon Falls is a reminder of its volcanic origins, and deep green mosses grow in the consistently damp environment. Downstream of the Falls, rocks tumble down to form a series of rapids and the narrow river valley walls are lined with chunky outcrops of lichen covered rock.



Wannon Falls

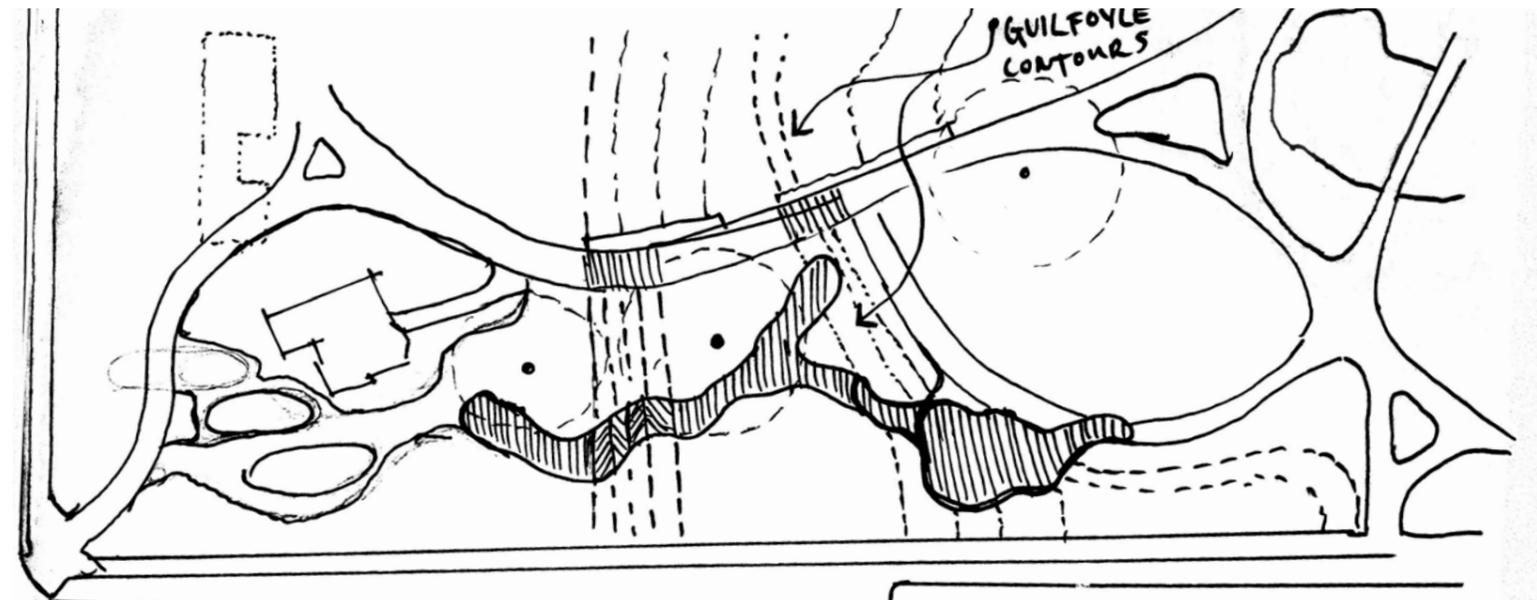
Nigretta Falls

The Nigretta Falls are made of a much harder, older rock that has lighter terracotta tones and deep grooves incised vertically in the surface. Paths to the bottom of the Falls allow a more intimate experience with the churning waters. Both Falls are seasonally variable, with cascading floods creating dramatic and powerful overflows, that slow to a more sedate flow after periods of lesser rainfall.



Nigretta Falls

Initial Concept Sketches





4.2/

Proposed landscape typologies.

We have created key landscape types with distinctive planting characters and materials. Each will provide children with a different play and interaction experience. The five main areas of the landscape design are:

- The grassland maze
- The lawn spill out
- The water play
- The water cascade
- The fall

These have been informed by the Masterplan and the community consultation process.

The Grassland Maze



The Lawn Spill Out



The Fall



The water



The Cascade

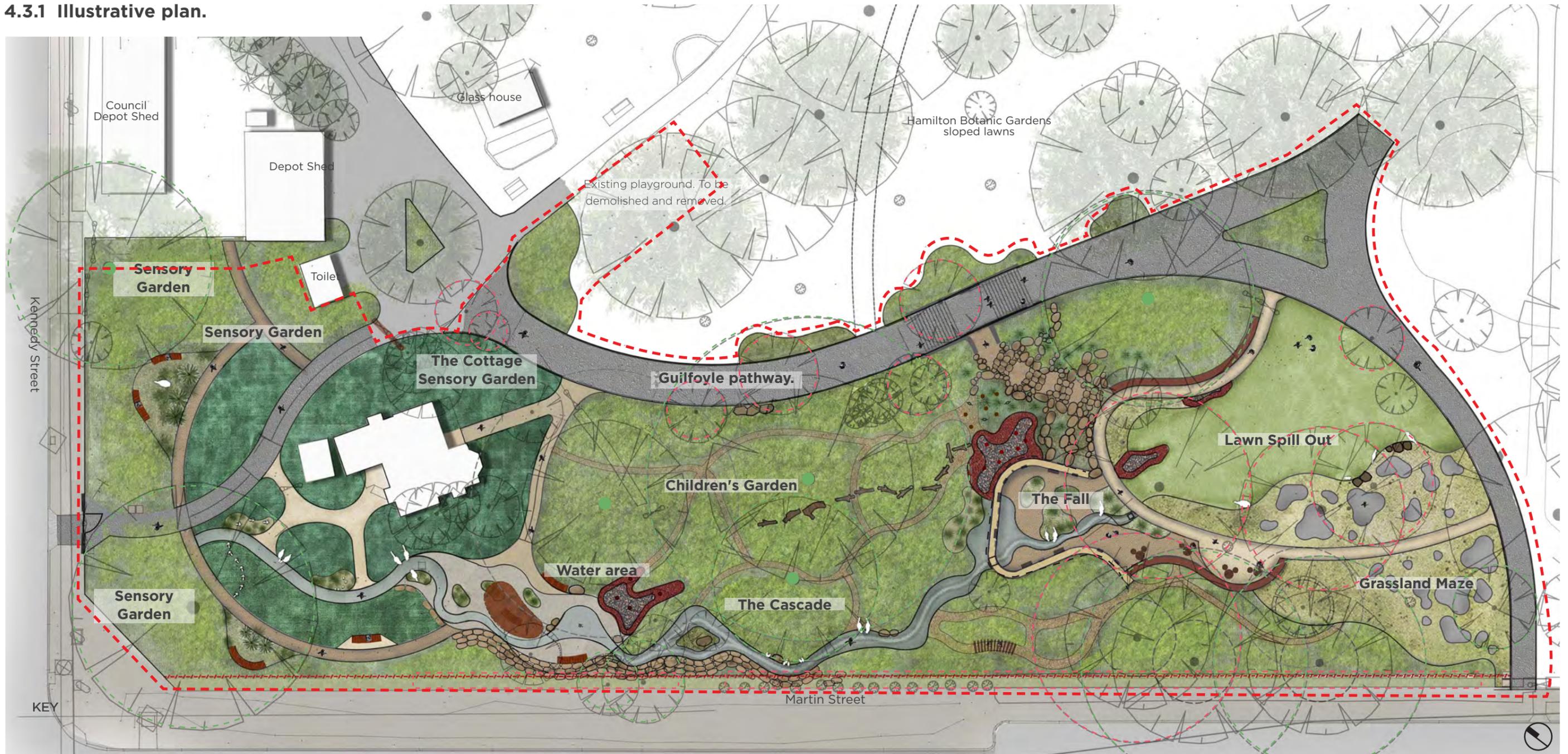




4.3/

Proposed design.

4.3.1 Illustrative plan.



Site boundary	Guilfoyle planting	Gravel	Ex. Asphalt	Cascade water	Picnic settings	Precast Paving	Brick seating edge
Existing trees to be retained	Cottage Sensory planting	Concrete paving	Proposed Asphalt	Basalt stone work	Log run	Shelter	Brick stairs.
Existing trees to be removed	Grassland planting	Irrigated lawn	Rubber softfall	Bench with back rest	Tunnel	Balustrade	Proposed gate.



4.3.2 Design diagrams.

Realizing the Guilfoyle pathway alignment was a key objective of the design. However, given today's DDA standards a ramp is not achievable. Instead, there is a set of DDA compliant stairs, located in between the Tree Protection Zones. This enables easier access from the Martin Street end to the Cottage. Wheelchair access is from either the Kennedy Street end new gate or from Martin street existing access.

The design has two areas of all accessible play - at the top near the water play and at the bottom near the Fall. A sloped playful garden with 1:10 falls spans between the two levels.

There is no wheelchair access into the building.

Accessible Zones and Circulation



Circulation

-  Wheel chair route
-  Accessible route (DDA)
-  Play route
-  Toilet Block



05/ Materials and planting palette.



5.1/

Materials palette.

The proposed materials palette will be cost efficient and easy to maintain. Where possible we have used granitic gravel paving. Insitu concrete paving with exposed aggregate is used to provide with DDA accessibility and around the water channel.

The water channel is made of bluestone paving units. This represents the landscape from which it come - the basalt plains. Paths will be lined with a brick edge. There are a moment of rubber surfacing to provide area for young children to safely play.

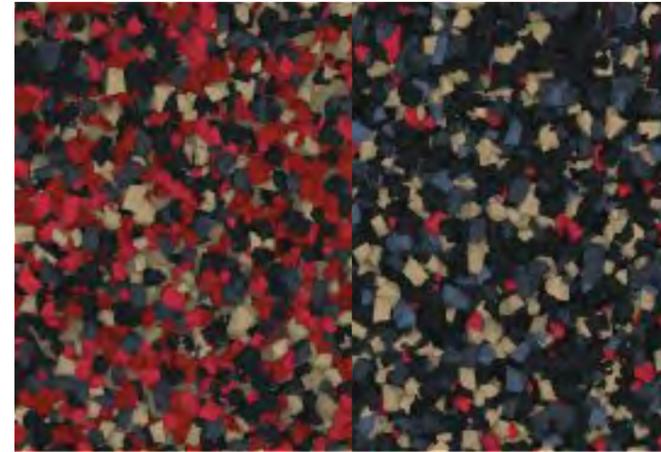
The use of hard paving and retaining walls have been minimized as much as possible to avoid the Tree Protection Zones.

The detailing of the furniture is all consistent so that they will be easy to repair or replace if required.

Further detail on the materials selection is provided in the Landscape Selections Schedule document.



Stone clad wall.



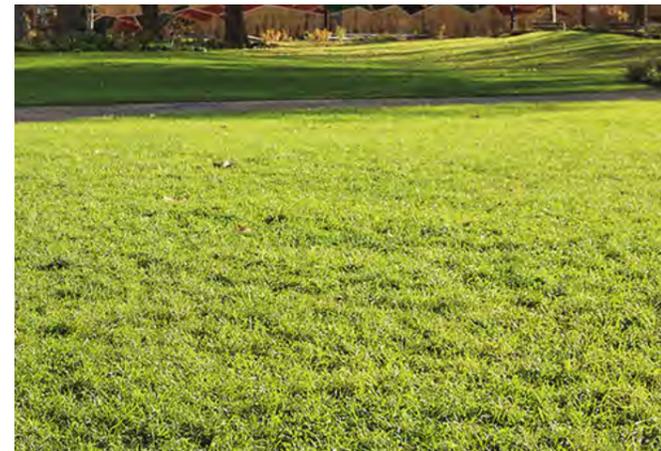
Rubber surface.



Creek bed paving. Bluestone paving units.



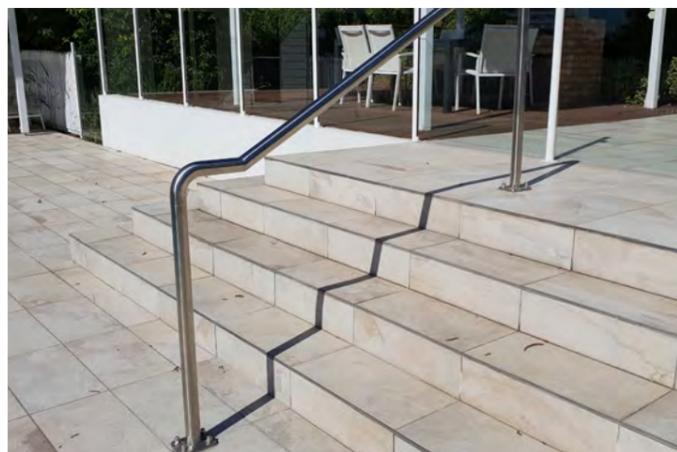
Artwork inspired by fire patterns,



Lawn.



Insitu concrete with exposed aggregate.



Hand rails stainless steel



Circular seat.



Bluestone stair case.



5.2/ Planting palette.

5.2.1 Planting selection criteria and strategies

The planting plan and approach for this project, given its context, will be instrumental to the success of a playful and interactive place. Planting selection has been developed with planting Specialist Plant Agent.

There are several planting selection criteria that were considered.

The final layouts of the plants species will be provided with the For Construction Issue.

SOCIAL

- Children's nature play
- Local community groups and events
- Recreational walkers and picnickers
- Regional visitors

ENVIRONMENTAL

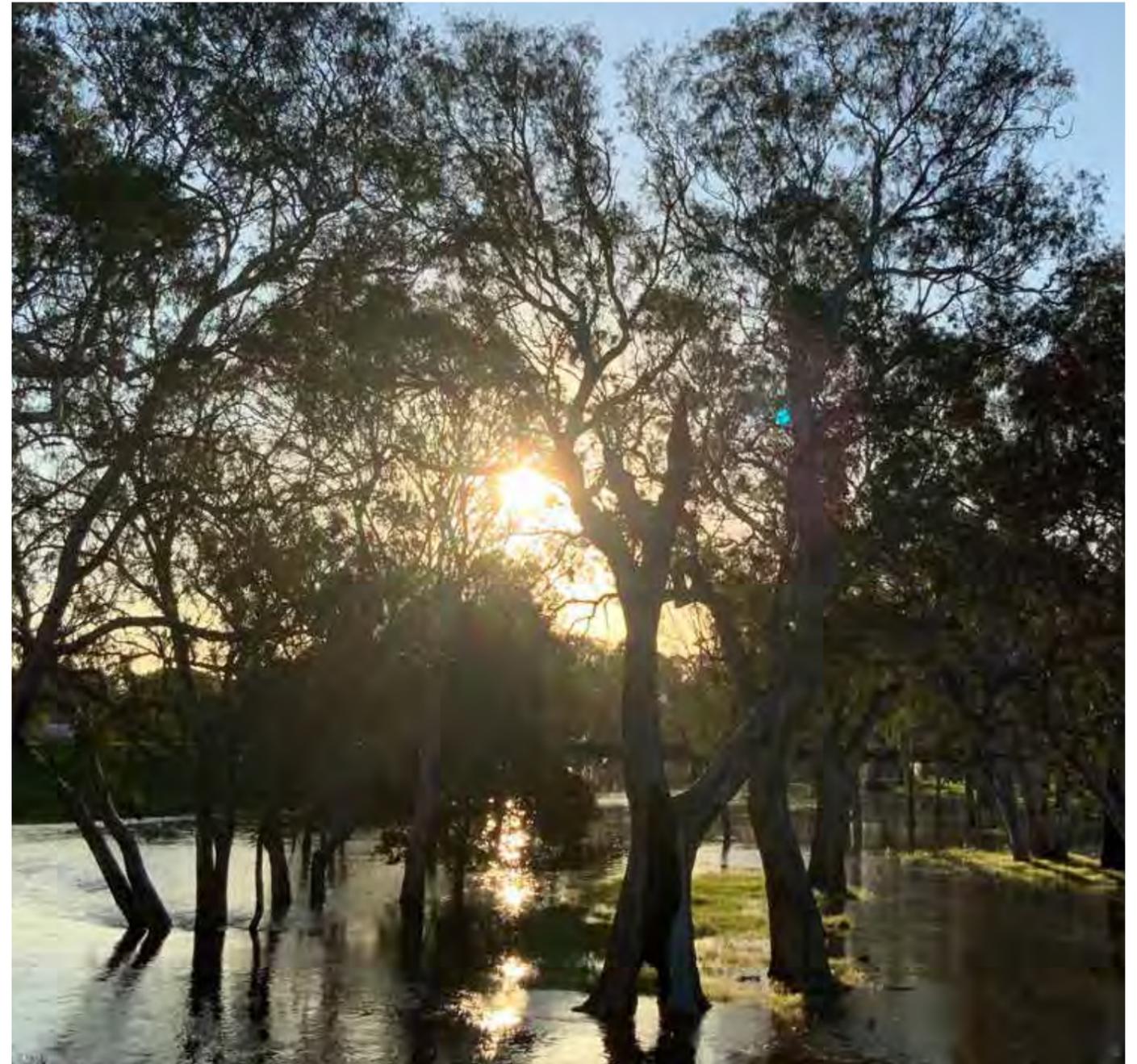
- South-west aspect
- Shade and cooling from hot dry summers
- Light and seasonal variation in cool winters
- Preserve existing significant trees
- Water: respond to seasonal inundation from surface run-off, water-logging and adjacent pond
- Basalt plains geology (impact on drainage) increase structure and diversity

ECOLOGICAL

- Water
- Existing bird and amphibian species
- Indigenous vegetation inc rare and endangered

CULTURE

- Acknowledge indigenous custodians
- Re-interpret Guilfoyle legacy
- Contemporary regional town



Landscape context from Preliminary Planting Design Concepts for Hamilton Botanic Gardens Children's Nature Play Garden



5.2.2 Planting design strategies.

The planting strategies are:

ATMOSPHERE

Amplify cooling and lushness of south-west aspect. Dappling of light to create changeable light conditions at different times of day / year

STRUCTURE

Buffer planting along street boundary and main pathway/ ramp/stairs. Integrate a safe play space.

- Robust species around rocks
- Vertical sculptural forms to cast striking silhouettes and shadows, as well for wayfinding
- Low -medium Management requirements

INDIGENOUS PRESENCE

Accentuate the geology and falls by contrasting sizes of planting combinations i.e. open mid-story

- River Reg Gum regeneration in a simulated floodplain
- Grassy swathes to accentuate low lying, open green expanse

COLONIAL HERITAGE

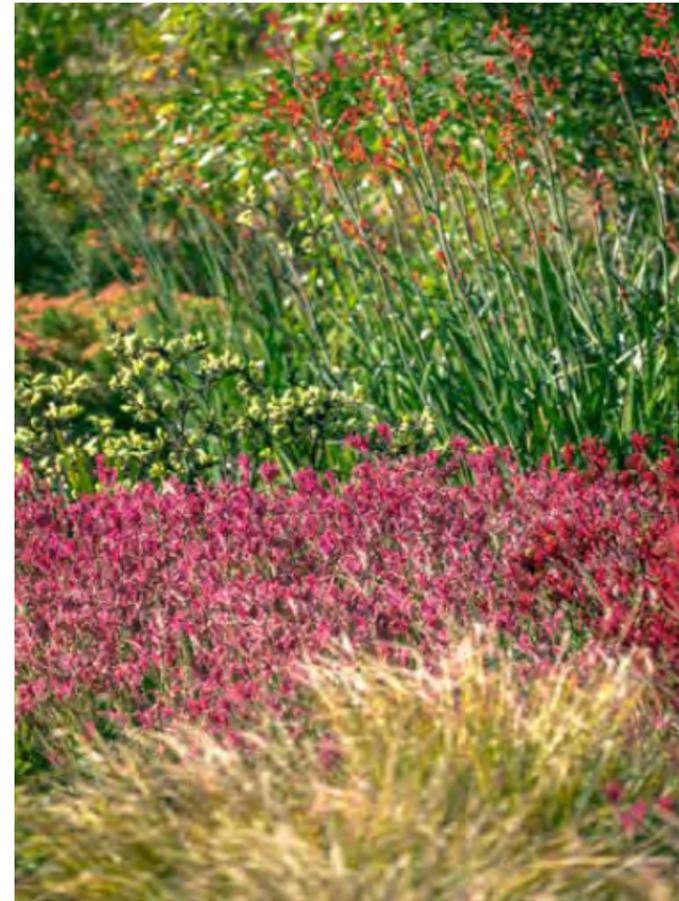
- Guilfoyle planting techniques
- Mass and void
- Large curving garden beds consisting of various sized shrubs
- Boundary hedge (low 1.2m high)
- Sub-tropical, exotic, bold textured foliage specimens
- Coniferous-type species near boundaries
- Cottage Sensory garden



Guilfoyle's picturesque naturalism



Ficus Parcellii



Hyper-sensory garden



Vertical elements to announce arrival



Tea-tree groves



Mass and void



06/ Heritage interpretation.



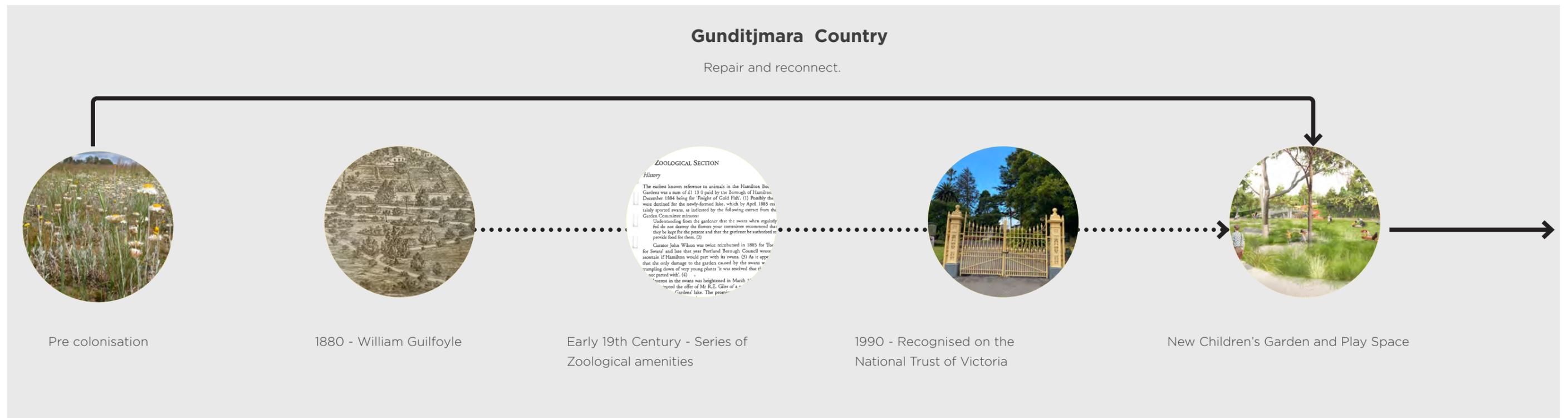
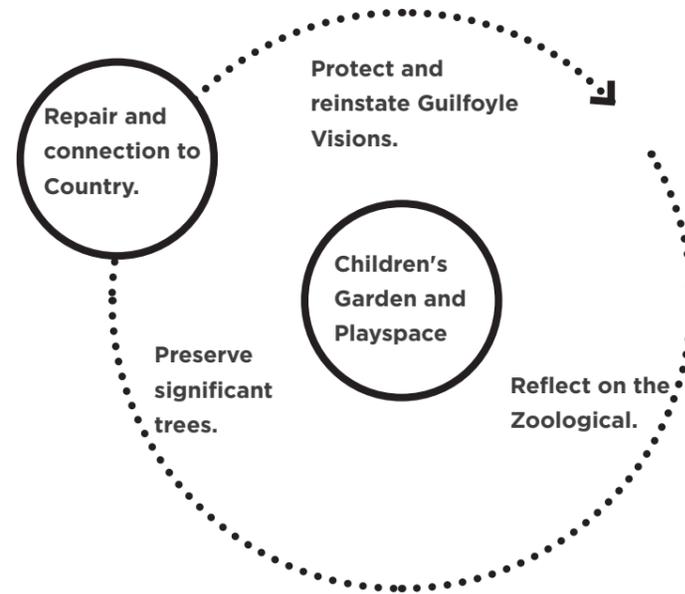
6.1/

Hamilton Botanic Garden, located on Gunditjmara Country, is significant for its botanical and zoological history. In interpreting these complex histories we aim to tell a story about the past and gesture towards the future.

The approach to artwork was developed in collaboration with Romanis Trinham collaborations. We have three/four key narratives of heritage interpretation:

- **Repair and connection to country.**
- Fire, A story about care and regrowth.
- Essence of before
- **Protect and reinstate Guilfoyle Vision**
- **Reflect on Zoological**
- **Preserve the botanical significance**

Overall approach.



Overall approach to Heritage Interpretation diagram

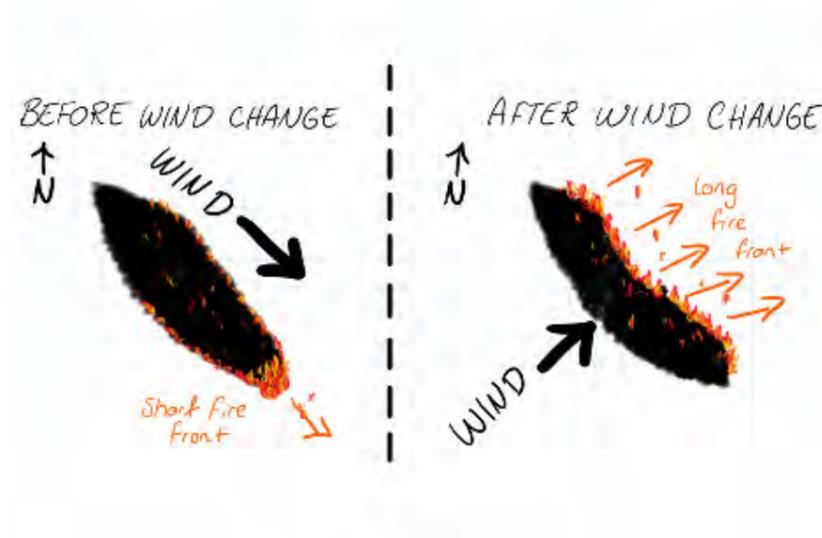


6.2/ Repair and connection to Country.

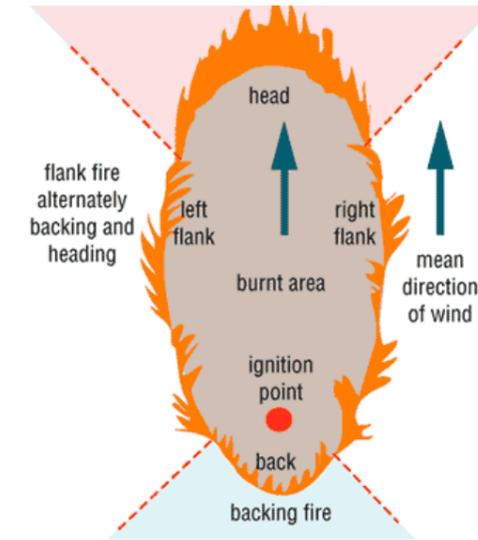
6.2.1/ Fire, A story about care and regrowth

Our country is affected by bush fires that are unprecedented in their scale and fueled by unprecedented climatic conditions. Indigenous land management practices and revival of cultural burning practices could help restore our land. Traditional Owners suggest the controlled burning seasons suited to country types could save Australia from mega-fires.

Informed by discussions with the Budj Bim and Gunditjmarra, integrated artwork presents fire in a playful lens of burn and heal. We believe the integrated artworks will enable education and discussion around care for country practices.



Fire movement diagram



Fire movement diagram



Grasslands fire.



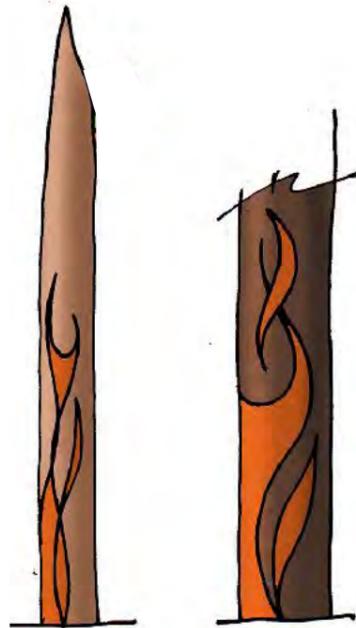
Signs of regrowth.



6.2.2/ Fire, A story about care and regrowth

Fire has unique behavior determined by climate, vegetation and topography. It burns outwards from the ignition point forming a ring. This behavior has been translated onto the ground surface in blackened and reddish rubber. Timber posts with fire markings and flashes of red invite children to jump from tree to tree following the fire.

After fire there is regrowth. The regrowth is abundant and bright green, taking the form of 'seedlings' creating a maze for children to run through. The seedlings will be fabricated from blackened steel with moments of iridescent green.



Fire Artwork Examples



Regrowth Artwork Examples



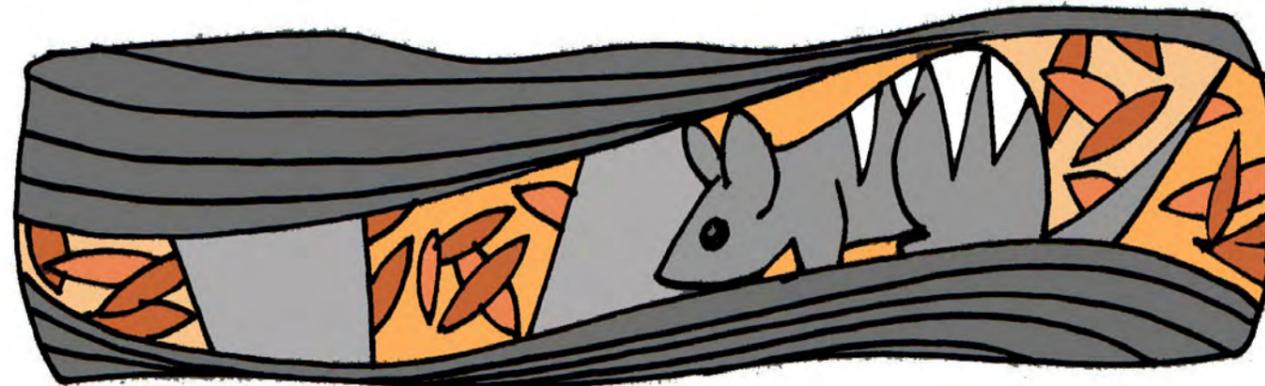
KEY
 Fire
 Regrowth



Romanis Trinham Collaborations have compiled these sketches to describe the proposed artwork elements. The locations and structural details are covered in the landscape drawings.

6.2.2/ Essence of before

The use of fossilised leaves in the stone will create an essence of the landscape before. Romanis Trinham Collaborations are inspired by the Gondwana era landscape and want to bring these unique elements of discovery to the children's garden. They will be located in the wall of the "The Fall".



Romanis Trinham Collaborations PL August 2021



6.3/

Reflect on the Zoological.

6.3.1/ Key excerpts from Hamilton Botanic Gardens Conservation Analysis 1993.

Although not a part of Guilfoyle's original vision, Zoological exhibits formed an important component of the Hamilton Botanic Garden since a least mid-1880's. The early fauna was predominantly exotic but in the twentieth century many more Australian animals were included. Over time however menageries have been removed due to changing fashions and animal welfare expectations.

The proposed play space is sited on the corner of the gardens which was formerly a menagerie. It contained several animals including kangaroos, emus, birds and even a monkey.

We propose to interpret the Zoological history as well as the changing trends towards animals and landscape in the integrated artworks in the play space.

4.7 ZOOLOGICAL SECTION

History

The earliest known reference to animals in the Hamilton Botanic Gardens was a sum of £1 13 0 paid by the Borough of Hamilton in December 1884 being for 'Freight of Gold Fish'. (1) Possibly these were destined for the newly-formed lake, which by April 1885 certainly sported swans, as indicated by the following extract from the Garden Committee minutes:

Understanding from the gardener that the swans when regularly fed do not destroy the flowers your committee recommend that they be kept for the present and that the gardener be authorised to provide food for them. (2)

Curator John Wilson was twice reimbursed in 1885 for 'Food for Swans' and late that year Portland Borough Council wrote to ascertain if Hamilton would part with its swans. (3) As it appeared that the only damage to the garden caused by the swans was the trampling down of very young plants 'it was resolved that the swans be not parted with'. (4)

Interest in the swans was heightened in March 1886 when the council accepted the offer of Mr R.E. Giles of a pair of white swans for the Botanic Gardens' lake. The promiscuous mix of black and white birds caused concern in some quarters and the Hamilton Spectator published a letter from Samuel Winter Cooke, of Murdall, 'as to the 'Albion' and 'Ethiop' federating and fraternising'.

Sir - We have white swans. Black swans were put on the same sheet of water, and disappeared, though their wings were cut. It was always assumed that the white swans had driven them away. I am told by a friend that he has seen, in the public gardens at Hyeres in the south of France, the two varieties on the same piece of water, living in apparent friendship, but my friend adds that the sheet of water was considerably larger than mine, and I know that the latter is very much more extensive than the lake at the Hamilton public gardens. I think I am correct in saying that both varieties are kept on the same sheet of water in St James' Park in London. I am inclined to be of the opinion that they will not do together on such a small lake as that at Hamilton, but the experiment could be made. Plenty of food, ample for both kinds, might keep them friendly. (5)

In July 1893 the curator was authorised to continue to get meat for feeding the birds from Mr. Thomas Brown 'in exchange for a few flowers' although a year later he was instructed to obtain an order from the Town Clerk 'when necessary to procure seed for the birds in the gardens'. (6) In June 1892 B H Gumnow had been paid 4s 6d for 'Fares & Freight for Fish & Blackbirds', fauna presumably destined for liberation in the gardens. (7)

In October 1900 the Gardens Committee received a letter from the Fish Acclimatising Society, Geelong stating that fry was available. The gardener was instructed to obtain a supply of perch, trout and trench. (8) The basin of the ANA fountain (1908) was also intended to be stocked with fish and planted with aquatic plants. (9)

The earliest known reference to an aviary [q.v.] in the gardens was in 1904 and in January 1906 the Gardens Committee recommended 'that about 20 yards of wire netting be provided to enable the curator to build a cage for a pair of eagles'. (10) 'Amongst other gentlemen who have contributed to the adornment of the gardens' commented the Hamilton Spectator in 1908, 'is Mr W McQueen, who has donated a small aviary containing 7 canaries, and also a bushel of canary seed. Mr King has also presented another native companion'. (11)

In January 1905 the Gardens Committee recommended to the council 'not to keep an emu in the gardens' and in July 1909 recommended that the kangaroo yards 'be removed to a place nearer the cottage'. (12)

In the 1930s, when Hamilton was sewered, plans prepared at that date recorded the existence of a large shed on Kennedy Street, (on the site of the present flight aviary), several smaller cages and a small weatherboard building adjacent to Martin Street in a fenced

animal enclosure. Monkeys were apparently once housed in the zoological enclosure. Writing in 1961, Huif recorded that

Peacocks and swans used to roam the gardens, and make a nuisance of themselves some years ago. Picnic parties found them very troublesome. Originally the bird cages were down near the ornamental lake, but were moved to their present position near Skene Street when the area for the emus and kangaroos etc. was extended...Mr R. Middleton...enlarged the zoological section. (13)

In February 1965 the council approved expenditure of £400 to re-fence the kangaroo enclosure. (14)

With introduction of new government regulations, the Town Clerk wrote in June 1966 to the Secretary of the Fisheries and Wildlife Department:

My Council has always had a small zoo, maintained in the Botanical Gardens near the Caretaker's Residence. In conformity with the new Police Offences (Animals) Regulations I hereby apply for an application for a permit to keep a private zoo...The birds and animals are well cared for, attended to daily and housed in recently re-built cages. Council will have to build two new cages and alter two existing cages in order to comply with the Regulations and these works have been discussed on the site, by the City Engineer, with your District Inspector. (15)

There followed a long list of native game and from time to time this list was updated and dispatched to the Director of Fisheries and Wildlife.

Current State

The zoological section of Hamilton Botanic Gardens currently consists of a flight aviary [q.v.], a small animal enclosure [q.v.] and a large animal enclosure (inhabited by emus and wallabies) on Martin Street. A list of native fauna held at Hamilton Botanic Gardens in 1991 is appended.

These are all kept in the small display cages opposite C.W.A. glasshouse except peacocks and hens. These free roam around the gardens at will.

Analysis

Zoological exhibits have formed an important component of the Hamilton Botanic Gardens since at least the mid 1880s. The early fauna was predominantly exotic (swans, goldfish, blackbirds) but in the twentieth century many more Australian animals were included. Such a pattern mirrors contemporary attitudes to zoological gardens and acclimatisation.

In 1857 the Zoological Society of Victoria had been formed and early the next year £3,000 and a 30 acre site in Richmond (opposite the Melbourne Botanic Gardens) were granted by the government. (16) A zoo was established and Ferdinand Mueller, director of the Melbourne Botanic Gardens, was also appointed as director of the zoological gardens. (17) Mueller included many animal enclosures within the botanic gardens, although these were swept away by William Guilfoyle, upon his appointment as Director at the Melbourne Botanic Gardens in 1873.

A more wide ranging body - the Acclimatisation Society of Victoria - was established in 1861 and included many members of the Zoological Society of Victoria amongst its number. (18) Acclimatisation of both plants and animals was popular during the nineteenth century and Edward Wilson, former Argus editor, argued in 1858 for the need for man to help increase the bounteousness of that antipodean land, Australia, that nature had so incompletely supplied with plants and animals of use to man. Moreover, he asked, had not residents in the Australian colonies an equal right to the pleasures

Native fauna as at 1991		
emu	<i>Dromaius novaehollandiae</i>	2
pacific black duck	<i>Anas superciliosa</i>	6
crimson rosella	<i>Platycercus elegans</i>	4
common bronzewing pigeon	<i>Phaps chalcoptera</i>	22
superb parrot	<i>Polytelus swainsonii</i>	7
australian king parrot	<i>Alisterus scapularis</i>	1
turquoise parrot	<i>Neophema pulchella</i>	7
elegant parrot	<i>Neophema elegans</i>	2
scarlet-chested parrot	<i>Neophema splendida</i>	1
alexandra's parrot	<i>Polytelus alexandrae</i>	4
mulga parrot	<i>Pezoporus varius</i>	3
blue-winged parrot	<i>Neophema chrysastoma</i>	4
sulphur-crested cockatoo	<i>Cacatua galerita</i>	5
galah	<i>Cacatua roseicapilla</i>	2
cape barren geese	<i>Ceriopsis novaehollandiae</i>	2
cockatiel	<i>Nymphicus hollandicus</i>	14
white cockatiel	<i>Nymphicus hollandicus</i>	6
white brush-tailed possums	<i>Trichosurus vulpecula</i>	6
zebra finches	<i>Poephila guttata</i>	103
king quail	<i>Coturnix chinensis</i>	10
red-browed firetail finch	<i>Aegintha temporalis</i>	8
red-necked wallaby	<i>Macropus rufogriseus</i>	3
dama wallaby	<i>Macropus eugenii</i>	6
swamp wallaby	<i>Wallabia bicolor</i>	1
stubble quail	<i>Coturnix novaeseelandiae</i>	1
crested pigeon	<i>Ocyphaps lophotes</i>	4
red-rumped parrot	<i>Pezoporus haema tonorus</i>	11
Exotic fauna as at 1990		
guinea pig	6 budgerigars	40
canaries	4 peacock and hens	4
lovebirds	30	

enjoyed by Englishmen at home - the beautiful music of English birds and the thrill of hunting the same game as were hunted in England? (19) The Acclimatisation Society of Victoria was granted £5,500 and land at Royal Park, where, in the 1860s the foundations of the present Melbourne Zoo were established. (20) Gillbank records that

The main purpose of these gardens [at Royal Park] was not so much to display the animals, as to provide a staging depot for animals in transit - for the re-equilibration of animals after long sea voyages, pending their despatch to a rural property or their being 'loosed' on crown land. Unfortunately this did not satisfy the public, who wanted to see exciting (and expensive) animals like lions and tigers. The public eventually won. (21)

The Winter family at Murdall were involved in the Acclimatisation Society of Victoria. Samuel Winter Cooke, nephew of Samuel Pratt Winter, corresponded regarding the swans at Hamilton Botanic Gardens; Ferguson and Mueller's consignment of plants to Hamilton in 1870 represented another facet of the Acclimatisation Society of Victoria.

Towards the late nineteenth century there was a marked shift in attitudes towards acclimatisation, zoos and native fauna. Whereas previously native fauna was seen as inferior 'game', it was increasingly viewed as something worthy of protection, especially in light of burgeoning nationalistic sentiment. Nature conservation was accorded increasing recognition - several reserves purely for conservation of native fauna and flora (such as Tower Hill and Wilson's Promontory) were set aside in Victoria from the 1890s - and organisations such as the Royal Australian Ornithological Union (established in 1901) catered for these new concerns. Social changes caused by industrialisation and urbanisation also triggered the development of humanitarian attitudes towards animals. (22)

This shift in attitude was demonstrated in the zoological section

of Hamilton Botanic Gardens in the early decades of the twentieth century. Whilst exotic animals were still featured, native animals were acquired in increasing numbers and the manner in which they were housed reflected changing attitudes towards confinement of animals; the move from constricted cage to open range enclosure being the most obvious manifestation of this shift. The Flight Aviary reflects the most recent change in attitude and here birds are housed in a large (albeit confined) space with vegetation attempting to simulate that found in natural habitat.

A number of the other Victorian provincial botanic gardens such as Camperdown, Ballarat, Colac, Williamstown and Warrnambool, had animal enclosures but Hamilton is the only one which continues this tradition (with the possible exception of a small modern aviary at Williamstown). The gardens at White Hills, Bendigo, still retains zoological exhibits, although this garden can no longer be regarded as a botanic garden but rather a municipal park.

Assessment of Cultural Significance

- Zoological exhibits: A
- ANA Flight aviary: B
- Kangaroo yards: B
- Bird cages near cottage: N

References

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- 2 Borough of Hamilton, Committee Minute Book No. 1, £338, 8 April 1885.
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- 4 Borough of Hamilton, Committee Minute Book No. 1, £360, 23 October 1885.
- 5 *Hamilton Spectator*, 6 March 1886, p.2.
- 6 *ibid.*, No. 2, £365, 25 July 1893; £411, 9 April 1894.
- 7 Borough of Hamilton, Ledger, 10 June 1892.
- 8 Borough of Hamilton, Committee Minute Book No. 3, £445, 8 October 1900.
- 9 *Hamilton Spectator*, 23 March 1908, p.2.
- 10 Borough of Hamilton, Committee Minute Book No. 4, £378, 18 January 1906.
- 11 *Hamilton Spectator*, 29 February 1908, p.2.
- 12 Borough of Hamilton, Committee Minute Book No. 4, £317, 24 January 1905; Minute Book No. 15, £238, 8 July 1909.
- 13 Huif, *op.cit.*, p.7.
- 14 Report, [11 February 1965], held in City Engineer's file.
- 15 Copy of letters on City Engineer's file, dated 7 June 1966, 28 June 1967, 6 April 1970.
- 16 Linden Gillbank, 'The origins of the Acclimatisation Society of Victoria: practical science in the wake of the gold rush, Historical Records of Australian Science, 6 (3), 1986, p.369.
- 17 D.M. Churchill, T.B. Muir & D.M. Sinkora, *The published works of Ferdinand J.H. Mueller (1825-1896)*, Muelleria, 4 (1) 1978, p.10.
- 18 Gillbank, *op.cit.*, p.371.
- 19 *The Times*, 20 and 28 October 1858 as paraphrased in Gillbank, *op.cit.*, p.362.
- 20 Gillbank, *op.cit.*, p.371.
- 21 *ibid.*, p.372.
- 22 This section is derived from the discussion in Francine Gilfedder, 'Aviaries in private and public gardens of Victoria: A changing perspective of the landscape', research report, M.L.A., Faculty of Architecture and Planning, University of Melbourne, 1987.



6.3.1/ Proposed sculptures.

Animal sculptures will be located along the banks of the winding water channel, reminding visitors of the previous exhibits and kept animals. There will be a mix of exotic and indigenous species, all that were previously kept at the gardens. Although the exotic animals, will mostly be located near to the cottage and sensory style English garden and the natives' species with the Australian plants, there may be a monkey to find along the way.

The indigenous species will be carved from Victorian basalt, as they are of this landscape, just as the stone is and long lasting. While the exotic animals will be sculptured from steel, perhaps in frames, telling the story of a life in cages and handled materials.

Proposed exotic animals sculptures

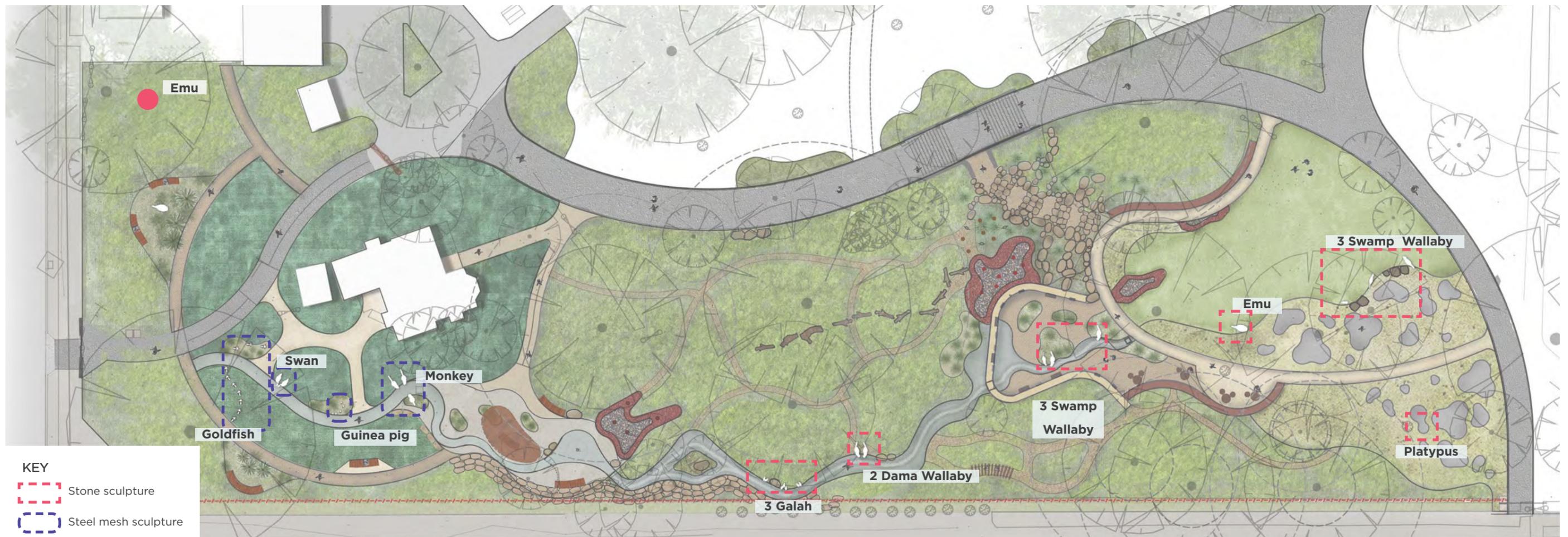
- Steel frame
- Fabricated materials
- Steel or composite materials



Corten and Stainless Steel rod animals. Representing cages and Topiary Frames.

Proposed native animal sculptures

- Victorian basalt natural stone
- Of country
- Long lasting
- Natural texture
- Responsive to the climate and environment







Attachment A Planting design report.

PRELIMINARY PLANTING DESIGN CONCEPTS

Hamilton Botanic Gardens
CHILDREN'S NATURE PLAY GARDEN

December 2020
updated 21 April 2021

*In collaboration with
Outerspace Landscape Architects*



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INSPIRATION

Landscape context

*Iconic Geriwerd (Granpians) formation and vast volcanic plains of south west Victoria.
The landscape embodies an intimate relationship between the indigenous Gunditj
Mirring culture, geology, woodlands, water and fauna.*



Right: Wannaon Falls steep drop and erosion from water backwash creates a vivid impression of the power of water.
Mist emerging can be an element of the garden, which is accentuated by the backlighting of the open grassy woodland.

Centre: water edge inspires a close an ephemeral interaction with water

Bottom: Velvet carpet of moss hugging rocks and fill in crevices in shady, cool spots for children to feel.



INSPIRATION

Landscape context



Top: Indigenous grass swathes capture wind and create sound for a more dynamic 'lawn' substitute. Mowing or whippersnipping regimes can be used to create seasonal variations in patterns, such as zigzags, swirls and mazes.

Above: woodland bird species in the region, Yellow Robin, Superb Fairy Wren Male, Spotted Pardalote,

Right: River Red Gum (*Eucalyptus camaldulensis*) river floodplain in Northern Grampians after seasonal inundation. Potential to replicate at HBG with by harvesting surface water at lowest point and planting small seedlings of species .



INSPIRATION

Site context

Hamilton, VIC regional town in a historic agricultural region. Current regional town revitalisation initiative by state and local governments present opportunities to reignite significant landmarks and amenities, such as Hamilton Botanic Gardens (HBG).



Left: Bridge over pond at HBG is a focal point and natural transition from new Children's Nature Play Garden. Surrounding lush, strappy species can be repeated into new planting areas, especially along water courses. Gynea Lily (*Doryanthes excelsa* and *D. palmeri*) are robust, upright and feature spectacular tall red flower spike. A symphony can be created by repeat planting clumps.

Top right: stone wall a signature element of HBG. The interaction between stone and plants is a recurring theme in the planting design scheme.

Bottom right: Remnant makeshift shelter inspires ideas about cubbies, teepees, groves and caves for children to play and construct.



INSPIRATION Precedents

Looking to planting design precedents that invite play, exploration, spectacle and interaction with water. The previous use of the site as a bird enclosure was fondly remembered by many in the town and region. We hope to recreate a sense of wonder and new memories for a whole new generation of visitors to the gardens.



Top left: Royal Park Nature Play Playground, Melbourne sets a new benchmark. Playspace and planting design are expertly woven. A diverse species selection is key to the aesthetic, ecological, environmental and social performance.

Bottom left: Ian Potter Children's Garden at Royal Botanic Gardens, Melbourne is a triumph. The scale of the space is optimised by intimate groves in many different flavours.

Top right: A sensory showcase at an entrance creates a sense of occasion. Mass planting for optimal visual and aromatic effect is needed for high impact

Bottom right: contemporary interpretation of a Guilfoyle mass planting at Horse Island. All Australian natives used for contrasting foliage and plant forms.



PLANTING: SELECTION CRITERIA

SOCIAL

- Children's nature play
- Local community groups and events
- Recreational walkers and picnickers
- Regional visitors

ENVIRONMENTAL

- South-west aspect
- Shade and cooling from hot dry summers
- Light and seasonal variation in cool winters
- Preserve existing significant trees
- Water: respond to seasonal inundation from surface run-off, water-logging and adjacent pond
- Basalt plains geology (impact on drainage)
- Increase structure and diversity of planting

ECOLOGICAL

- Water quality to support fauna
- Support existing bird and amphibian species
- Integrate indigenous vegetation species including rare and endangered

CULTURE

- Acknowledge indigenous custodians
- Re-interpret Guilfoyle legacy
- Contemporary regional town



PLANTING: STRATEGIES

Planting strategies developed in response to Laidlaw & Laidlaw Masterplan, updated client brief, Outerspace Landscape Architects concept design, arborist reports and site visit (9 Oct, 2020)

ATMOSPHERE

- Amplify cooling and lushness of south-west aspect
- Dappling of light to create changeable light conditions at different times of day / year

STRUCTURE

- Buffer planting along street boundary and main pathway/ramp/stairs. Integrate as a play space.
- Robust species around rocks
- Vertical sculptural forms to cast striking silhouettes and shadows, as well for wayfinding
- Low -medium Management requirements

INDIGENOUS PRESENCE

- Accentuate the geology and falls by contrasting sizes of planting combinations, i.e. open mid-story
- River Reg Gum regeneration in a simulated floodplain
- Grassy swathes to accentuate low lying, open green expanse

COLONIAL HERITAGE

Guilfoyle planting techniques

- Mass and void
- Large curving garden beds consisting of various sized shrubs
- Boundary hedge (low 1.2m high)
- Sub-tropical, exotic, bold textured foliage specimens
- Coniferous-type species near boundaries

Cottage

Sensory garden

CALLITRIS COPSES

A re-interpretation to Guilfoyles penchant for conifer specimens along boundaries. Australia boasts a variety of species in the pine-like genera of Callitris. Here, grown closely to create a strong vertical upright stand, in which children can play hide and seek, build cubbies and explore.



Callitris columellaris
Callitris glaucohylla
Callitris rhomboidea
Callitris oblonga

TEA-TREE GROVES

A range of Tea Tree, *Leptospermum* species are selected for their compact habits to be cloud pruned. Ranging from small to mediums sized, the shrubs are arranged in close clumps to form groves. Crowns are contoured in irregular forms, whilst the bottom branches are lifted to create a vast play space for children, as they sit, crawl and run through the varying gaps of the understory. Serves as an informal hedge and buffer to path edges, boundary fences and stairs. Foliage is scented and flowers are prolific.

Alternative genera are also considered to simulate a similar effect.



Leptospermum wooroonoran
Leptospermum polygalifolium 'Copper Glow'
Leptospermum 'Riot'
Leptospermum rotundifolium 'Lavender Queen'
Leptospermum 'Daydream'

ROCKY OUTCROPS

Ferny, mossy, orchids and grassy species emerge from rocks and near waterways. The various shades of green combine to create a shimmer with water and light. Hardy and shallow rooted, species are intricately woven along edges, crevices and on rock faces. A safe place can be found for rare and endangered species.



CORDYLINE AND GYMEA ISLETS

Cordyline is a favourite of Guilfoyle, which display a stunning range of foliage colours and compliment existing stands. The upright stems are stark, especially when accompanied by low, soft and fine textured groundcovers.

GyMEA Lily (*Doryanthes*) also used for vertical accent and creating ribbons along the contours.



GyMEA Lily, *Doryanthes palmeri*
Cabbage Tree, *Cordyline australis*

Mosses, *Asplenium*, Bracken, Viola and *Dichondra*

Baloskion tetraphyllum, *Molineria capitulata*, and *Macrozamia communis*

Geitonoplesium cymosum

Cyathea cooperi and *Lepidozamia peroffskyana*



RIVER RED GUM AND GRASSY PLAINS

Dedicated areas for self-sowing River Red Gum (*Eucalyptus camaldulensis*) saplings and grasses from the region. A less formal inflection to HBG, but one that is familiar in the region. Knitting this raw thread into the planting scheme is important symbolically -reconciling indigenous heritage of the landscape. It is also important ecologically for birds and amphibians to be integrated in the gardens.



Eucalyptus camaldulensis,
Sapling growth and bark (detail)

GRASSES
Microlaena stipoides,
in spring (detail) and summer

Additional genera to consider,
Danthonia, *Auustrotipa* and *Themeda*



HYPER-SENSORY GARDEN

A bold array of colours and aromas planted in mass groupings to make a powerful, year-round sensory impact. The inclusion of Australian native bushfoods brings a new purpose to the existing sensory garden area. Highly floriferous species are selected to attract birds, insects, butterflies and bees.



Kniphofia 'Percy's Pride'

Echium 'Cobalt Towers'

Anigozanthus, Kangaroo Paw

Lavender and Rosemary hedges



Experiment with ornamental uses, such as hedging, and shapely sculpting of trunks.

Austromyrtus dulcis, Midgenberry

Backhousia citriodora, Lemon Myrtle

Citrus australasica, Finger Lime,



PLANTING LIST

PLANTING THEME	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT/ m	NOTES
CALLITRIS COPSES	<i>Callitris columellaris</i>	Coast Cypress Pine	8	tolerates winds
	<i>Callitris glaucohylla</i>	White Cypress-pin	10	
	<i>Callitris oblonga</i>	Pygmy Cypress Pine	5	prefers wetter conditions
	<i>Callitris rhomboidea</i>	Oyster Bay Pine	6	
TEA-TREE GROVES	<i>Leptospermum wooroonooran</i>	Wooroonooran Tea Tree	2	
	<i>Leptospermum polygalifolium</i> 'Copper Glow'	Copper Glow Tea Tree	2-Mar	burgundy foliage, arching branches
	<i>Leptospermum</i> 'Riot'	'Riot' Tea Tree	1.5	bright pink flowers in spring
	<i>Leptospermum rotundifolium</i> 'Lavender Queen'	'Lavender Queen' Tea Tree	1.5	large showy lavender flowers
	<i>Leptospermum</i> 'Daydream'	'Daydream' Tea Tree	2	tolerates damp
	<i>Leptospermum petersonii</i> 'Little Lemon Scents'	'Little Lemon Scents' Tea Tree	2	tough, highly fragrant foliage
	<i>Leptospermum morrisonii</i> 'Burgundy'	'Burgundy' Tea Tree	3	burgundy foliage
	<i>Leptospermum liversidgei</i> 'Mozzie Blocker'	'Mozzie Blocker' Tea Tree	2	crushed leaves repel mosquitos, ideal around water bodies.
	<i>Leptospermum obovatum</i> 'Starry Night'	'Starry Night' Tea Tree	2.5	pendulous branches with striking white flowers
	ROCKY OUTCROPS	<i>Asplenium australasicum</i>	Birds Nest Fern	0.6
<i>Blechnum neohollandicum</i>		Prickly Rasp-fern	.3-.4	erect, hardy fern
<i>Calochlaena dubia</i>		Bracken Fern	.6-2	arching fronds, hardy
<i>Crinum pedunculatum</i>		Swamp Lilly	0.6	fragrant white flowers and lush strappy foliage
<i>Cyathea australis</i>		Rough Tree Fern	10	robust in sun if roots can be wet
<i>Cyathea cooperi</i>		Lacy Tree Fern	3-Jan	faster growing
<i>Dichondra ripens</i>		Kidney weed		round leaved matting groundcover
<i>Geitonoplesium cymosum</i>		Scrambling Lilly vine	6	scrambling climber with fragrant flowers
<i>Lepidozamia peroffskyana</i>		Scaly Zamia	6	prefers sheltered conditions
<i>Macrozamia communis</i>		Burrawang (Cycad)	1.5-2	grows well in dry shade or sun, wide spreading fronds
<i>Molinieria capitulata</i>		Palm Grass	0.5	suitable for growing under mature, shaded trees

PLANTING THEME	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT/ m	NOTES
CORDYLINE AND GYMEA ISLETS	<i>Cordyline australis</i>	Cabbage Tree	20	
	<i>Doryanthes excelsa</i>	GyMEA Lilly	1.2	flower spike can reach between 2-4m tall
	<i>Doryanthes palmeri</i>	Giant spear Lilly	3	heavy 5m tall flower droops under weight. Tall sword like leaves.
RIVER RED GUM AND GRASSY PLAINS	<i>Eucalyptus camaldulensis</i>	River Red Gum	20+	coppice routinely to ensure multiple stems and dense vertical habit
	<i>Austrostipa elegantissima</i>	Feather Spear Grass	0.4	light, feathery 'puff's of seasonal flowers
	<i>Dichelachne crinita</i>	Longhair Plume grass	0.6	tall erect grass
	<i>Microlaena stipoides</i>	Weeping Grass	0.25	soft tufts suited as a lawn substitute
	<i>Themeda triandra</i>	Kangaroo Grass	0.5	rusty, red bronze flower heads in summer
	HYPER-SENSORY GARDEN	<i>Anigozanthus flavida cv</i>	Kangaroo Paw	1.5
<i>Echium candicans x E. pininana</i> 'cobalt tower'		Echium 'Cobalt Towers'	2	
<i>Kniphofia</i> 'Percy's Pride'		'Percy's Pride' Hot Pokers	0.7	
<i>Lavendula dentata</i>		French lavender	0.6	tolerates a range of conditions, inc. humidity
<i>Rosmarinus officinalis</i> 'Tuscan Blue'		Tuscan Rosemary	0.6	
Native bushfoods		<i>Austromyrtus dulcis</i>	Midgenberry	0.5
	<i>Backhousia citriodora</i>	Lemon Myrtle	12	
	<i>Citrus australasica</i>	Finger Lime	2	

TREE REVIEW

Review arborist report of existing trees.
 Assess at site and select specimens to be retained.
 To be discussed further with stakeholders.



- RETAIN**
- 59 *Cordyline australis*
 - 71 *Cordyline australis*
 - 75 *Quercus robur*
 - 83 *Cedrus atlantica glauca*
 - 91 *Ilex aquifolium*
 - 93 *Prunus serrulata 'Kanzan'*
 - 94 *Magnolia x soulangeana cvr.*
 - 95 *Stenocarpus sinuatus*



- RETAIN - confirm species**
- Quercus ?*



- REQUIRE FURTHER CONSULTATION**
- 78 *Pinus pinaster*
 - 89 *Pittosporum undulatum*
 - 90 *Fraxinus angustifolia ssp. angustifolia*



Attachment B Landscape documentation.



Attachment C Engineering documentation.

