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# HERITAGE IMPACT STATEMENT

Upper Australia Precinct,  
Taronga Zoo (SSD)

Prepared for

**TARONGA CONSERVATION SOCIETY AUSTRALIA**

24 July 2020

**URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:**

Senior Heritage Consultant	Alexandria Barnier, B Des (Architecture), Grad Cert Herit Cons, M.ICOMOS
Heritage Consultant	Meggan Walker, B Arts, archaeology (Hons)
Project Code	P0022665
Report Number	D001 – 16.07.2020 F001 – 24.07.2020

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# EXECUTIVE SUMMARY

Urbis has been engaged by the Taronga Conservation Society Australia (TSCA) to prepare this Heritage Impact Statement (HIS) to accompany a State Significant Development Application seeking approval for the implementation of the "Upper Australian Exhibit". This report has been prepared in accordance with the SEARs requirement for SSD-10456 (3) – Heritage, issued on 22 May 2020.

Taronga Zoo is listed as Item I34 on the Mosman Local Environmental Plan 2012. The item is identified as *"Rainforest Aviary", "Elephant House", bus shelter and office, floral clock and upper and lower entrance gates"*. None of the items individually noted in the MLEP listing are located within the Upper Australian Section (subject site). However, there are a number of items that are listed on the TSCA Section 170 Register within the subject area, including the Platypus House, as identified in Section 5 of this report.

This report therefore assesses the potential heritage impact of the proposed works on the significance of Taronga Zoo in its entirety and the significance of the items listed on the TSCA Section 170 Register. A summary impact assessment of each item of work is set out below in this executive summary.

In general, it is considered that the proposed works are consistent with the significant and ongoing use of the place as a Zoological Gardens and more specifically the use of the Upper Australian Section for the exhibition of Australian Native Animals. The works are proposed for the express intent of continuing this use. The heritage impact overall is considered to be neutral. The following points have been summarised from the detailed assessment set out in Section 5 of this report:

- Demolition proposed under this application is confined to the demolition of the wetlands ponds (including hide under timber bridge) and retaining wall to the west of the Nocturnal House Entry. The works also include earthworks to the west of the Nocturnal House entry to accommodate the new entry.
- The wetlands ponds are to be drained and the concrete base will be removed. Refer to Archaeological assessment under separate cover for discussion of sub surface impacts. The ponds will be filled in with earth however a small upper portion of the walls surrounding the wetlands ponds would be retained uncovered as a relic to show the original extents of the wetlands ponds.
- There would be some impact on item 123L as a result of the earthworks to the east of the Nocturnal House entry. The landforms in this area (above the Nocturnal House) have remained largely unchanged since the implementation of the Upper Australian Section in the 1970s. However, the adverse impact is not considered to be significant as it is confined to a small area.
- The curved brick wall to the right (east) of the entrance to the Nocturnal House which is currently obscured by later fabric is to be retained and unobscured by the later fabric. The demolition of the brick retaining wall to the left (west) of the Nocturnal House is acceptable to accommodate the new entry layout. The brick wall to the west of the entrance is to be salvaged and an opportunity for its incorporation on a new alignment investigated.
- In addition to the above, two concrete walls and the concrete roof are proposed to be demolished to accommodate the new entry to the Nocturnal House. The demolition works proposed to create the new entry are confined to the later 1970s wall constructed within the original Monkey Pitt. There are no impacts proposed to the original Monkey Pitt and the works to the 1970s fabric is considered to be minor and understood to be necessary to enhance to amenity of the Nocturnal House.
- Overall, given the modest scale of the proposed items and the dense tree canopy that characterises views from the harbour towards the Zoo, a views analysis shows that it is unlikely any of the structures will be visible from the Harbour.
- The overall objective for the landscaping in the Exhibit as set out in the Design Statement prepared by Lahz Nimmo is to showcase native Australian landscapes in an unobtrusive way and through working with the existing mature landscaping and topography as much as possible to ensure that the character of the place is retained and that the existing landscaping is respected. Excavation is confined to a small area to the east of the Nocturnal House. Further, none of the trees to be removed are listed on the Section 170 Register and none are identified to be of high retention value (refer Aboriginal Assessment Report). A total of 28 of the 37 trees to be removed are of low retention value.

In summary this report acknowledges various heritage impacts however concludes that overall, the proposed are supportable and any adverse impacts generated by the proposed are not significant in the context of the heritage listed Zoo overall.



# 1. INTRODUCTION

## 1.1. BACKGROUND

Urbis has been engaged by the Taronga Conservation Society Australia (TSCA) to prepare this Heritage Impact Statement (HIS) to accompany a State Significant Development Application seeking approval for the implementation of the "Upper Australian Exhibit".

This report has been prepared in accordance with the SEARs requirement for SSD-10456 (3) – Heritage, issued on 22 May 2020. In accordance with the consultation requirements of the SEARs Heritage NSW were contacted for comment on 16 June 2020.

Taronga Zoo is listed as Item I34 on the Mosman Local Environmental Plan 2012. The item is identified as "Rainforest Aviary", "Elephant House", bus shelter and office, floral clock and upper and lower entrance gates'. None of the items individually noted in the MLEP listing are located within the Upper Australian Section (subject site). However, there are a number of items are listed on the TSCA Section 170 Register within the subject area, including the Platypus House, as identified in Section 5 of this report.

This report therefore assesses the potential heritage impact of the proposed works on the significance of Taronga Zoo in its entirety and the significance of the items listed on the TSCA Section 170 Register.

## 1.2. SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

A request was made to the Minister for the issuance of SEARs, pursuant to clause 3(1), Part 2, Schedule 2 of the EP&A Regulation. SEARs were subsequently issued on 2 May 2020 and have informed the preparation of this HIS. Table 1 provides a summary of the SEARs as relevant to this HIS.

Table 1 Summary of heritage relevant SEARs for SSD-10456

Requirement	
<p>3. Heritage</p> <ul style="list-style-type: none"><li>A Statement of Heritage Impact (SOHI) prepared by a suitably qualified heritage consultant in accordance with the guidelines in the NSW Heritage Manual. The SOHI is to address the impacts of the proposal on the heritage significance of the site and adjacent areas and is to identify the following:</li></ul> <ul style="list-style-type: none"><li>All heritage items (state and local) within the vicinity of the site including built heritage, landscapes and archaeology, detailed mapping of these items, and assessment of why the items and site(s) are of heritage significance.</li><li>Compliance with the relevant Conservation Management Plan</li><li>Compliance with the Taronga Zoo Conservation Strategy, prepared by GML, dated 2002.</li><li>The impacts of the proposal on heritage item(s) including visual impacts, required BCA and DDA works, new fixtures, fittings and finishes, any modified services.</li><li>The attempts to avoid and/or mitigate the impact on the heritage significance or cultural heritage values of the site and the surrounding heritage items.</li><li>Justification for any changes to the heritage fabric or landscape elements including any options analysis.</li></ul> <ul style="list-style-type: none"><li>If the SOHI identifies impact on potential historical archaeology, an historical archaeological assessment should be prepared by a</li></ul>	<p>This HIS satisfies this requirement. Note that a Historical Archaeological Assessment has been prepared by Urbis under separate cover.</p>

<p><b>Requirement</b></p> <p>suitably qualified archaeologist in accordance with the guidelines Archaeological Assessment (1996) and Assessing Significance for Historical Archaeological Sites and Relics (2009). This assessment should identify what relics, if any, are likely to be present, assess their significance and consider the impacts from the proposal on this potential archaeological resource. Where harm is likely to occur, it is recommended that the significance of the relics be considered in determining an appropriate mitigation strategy. If harm cannot be avoided in whole or part, an appropriate Research Design and Excavation Methodology should also be prepared to guide any proposed excavations or salvage program.</p>	
<p><i>Consultation</i></p> <p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, local cultural organisations and affected landowners.</p>	<p>Urbis Heritage contacted Heritage NSW as delegate of the Heritage Council of NSW on 16 June 2020 inviting comments on the design. Response was received on 2 July 2020 confirming that no further consultation with the Heritage Council of NSW was required on built heritage matters.</p>

## 1.3. SITE LOCATION

The subject site is within the Upper Australia Precinct of Taronga Zoo, 2A Bradleys Head Road, Mosman. The Upper Australia Precinct is within the north eastern corner of the zoo, near the upper main entrance.



Figure 1 – Aerial imagery of part of Taronga Zoo. Subject site shown in blue shading.

## 1.4. METHODOLOGY

This Heritage Impact Statement has been prepared in accordance with the NSW Heritage Division guidelines 'Assessing Heritage Significance', and 'Statements of Heritage Impact'. The philosophy and process adopted is that guided by the Australia ICOMOS Burra Charter 1999 (revised 2013).

This report has been prepared in accordance with the SEARs requirement for SSD-10456 (3) – Heritage, issued on 22 May 2020. In accordance with the consultation requirements of the SEARs Heritage NSW were contacted for comment on 16 June 2020.

There is no Conservation Management Plan relevant to the works. However, the following reports have been considered in the preparation of this document:

- Conservation Strategy, GML, 2002
- Landscape Management Plan, Design 5 Architects, 2006

## 1.5. AUTHOR IDENTIFICATION

The following report has been prepared by Alexandria Barnier (Senior Heritage Consultant) and Meggan Walker (Heritage Consultant).

Unless otherwise stated, all drawings, illustrations and photographs are the work of Urbis.

Acknowledgment is given to the assistance of Jean Rice, Project Manager, Heritage Specialist at Taronga Zoo, who has provided access to Taronga Zoo archive files for the purpose of this report.

## 1.6. THE PROPOSAL

The proposed works will completely upgrade the existing Upper Australia Precinct, including a new exhibit design and layouts. This will include demolition of existing structures and some excavation works, while still remaining sympathetic to the design intent of the original 1970s exhibits. The Upper Australia Precinct will display critically endangered Australian animals that form part of Taronga's wildlife conservation and education programs and upgrade "star" attractions including kangaroo, koala, platypus, wombat and emu exhibits. The proposal will incorporate the following works:

- Refurbishment of the existing Nocturnal House;
- Construction of a new Koala encounter and canopy walk;
- Extension of the existing Macropod walkthrough;
- Creation of a new western pavilion;
- Upgrades to back of house facilities for animal care;
- Additional toilets and amenities for staff and visitors;
- Other supporting infrastructure and walkways; and
- Modifications to the existing ropes course including a new entrance.

The following plans prepared by lahznimmo have been referenced in the preparation of this report.

A – DA – 0001	Cover Page
A – DA – 0002	Site Analysis
A – DA – 0003	Site Survey
A – DA – 011	Existing Site Plan
A – DA – 012	Early Works Demolition Site Plan

A – DA – 013	Early Works Temporary End State Site Plan
A – DA – 014	SSDA Demolition Site Plan
A – DA – 015	Nocturnal House Demolition Plan
A – DA – 021	Proposed Site Plan
A – DA – 022	Site Sections
A – DA – 023	Site Sections
A – DA – 024	Photomontage
A – DA – 101	Pavilion and Ropes Bridge Floor Plan
A – DA – 102	Pavilion and Ropes Bridge Sections and Elevations
A – DA – 201	Tree House and Koala Walk Floor Plan
A – DA – 202	Tree House and Koala Walk Floor Plan
A – DA – 203	Tree House and Koala Walk Sections
A – DA – 301	Escarpment and Koala Talks Floor Plan
A – DA – 401	Nocturnal House Ground Floor Plan
A – DA – 402	Nocturnal House Sections and Elevations
A – DA – 501	Macropod Holding Yard Floor Plan, Section and Elevations
A – DA – 601	Southern Link Floor Plan, Sections and Elevations
A – DA – 701	Tree Protection and Removal Plan
A – DA – 702	Landscape Plan
A – DA – 703	Planting Zones Plan
A – DA – 704	Planting Palette
A – DA – 705	Planting Palette
A – DA – 706	Planting Palette
A – DA – 707	Surface Treatment Plan
A – DA – 708	Levels and Grading Plan





Figure 2 – Proposed demolition plan.

Source: lahznimmo Architects, May 2020. .

## 2. SITE DESCRIPTION

### 2.1. TARONGA ZOO

Taronga Zoo is located at Bradleys Head Road, Mosman and is situated in the Mosman Local Government area (LGA). The site is bounded by Bradleys Head Road to the east, Athol Wharf Road and Sydney Harbour to the south, Little Sirius Cove to the west and Whiting Beach Road to the north.

Taronga Zoo is legally described as Lot 22 on DP843294 and is Crown Land managed by the TCSA (the Zoological Park Board).

Taronga Zoo represents a blend of varying architectural styles, some designed to blend and others designed to stand out. The main entrance was designed as an elaborate Edwardian Baroque building featuring copper domed entranceway and ornate plaster decorations of flora and fauna. The early design of the zoo is primarily attributed to Colonel Alfred Spain, with the work continued by the Public Works Department. Strahan's 1970's masterplan redevelopment saw the construction of a number of exhibits in the 'Sydney School' style, with a primary focus on celebration of the Australian landscape.<sup>1</sup>

The zoo is largely divided into geographical sections, with the Australian precinct being the first designated geographical zone. Animals from the same region are grouped together and the design of the environment in these areas is intended to simulate the native environment of the animals where possible.

Taronga Zoo has been subject to numerous upgrade and redevelopment schemes, designed to stay compliant with contemporary regulations and best practice for animals in captivity, and meet the demands of the ever expanding collection.

### 2.2. UPPER AUSTRALIA PRECINCT

The proposed Upper Australia Precinct is located at the north-eastern corner of the Taronga Zoo site as shown in Figures 1 and 2. The site of the proposal contains existing animal enclosures and associated infrastructure with no substantial built form elements. Minor demolition, bulk earthworks and vegetation works are included in the proposal. However, it is the overall design intent to adapt as much as possible to the existing topography of the site and retain as much of the site's significant vegetation as possible. Full consideration of the geophysical, biodiversity, vegetation and heritage values of the site will be undertaken as part of the EIS process.

The site of the proposed Upper Australia Precinct is surrounded on three sides by existing zoo facilities and adjoins Bradleys Head Road near the northern main zoo entrance. Adjoining the subject site area, to the south, is the Australia Habitat Phase 1 and Taronga Wildlife retreat development which is completed and was open until COV-ID 19 forced its temporary closure. On the opposite side of Bradleys Head Road to the east of the site is Sydney Harbour National Park. The nearest residential areas to the proposal site are approximately 200m to the north on Bradleys Head Road and Whiting Beach Road. These areas are separated from the project site by the national park and the zoo's car parking, forecourt and main entrance building.

Existing uses and facilities in the Upper Australia Precinct area include:

- Avian wetland (1970s construction).
- Wild ropes course (recent construction).
- Nocturnal House (outer walls from original Baboon Pitt and fitout variously 1970s/recent).
- Macropod walk-through (1995 – note to be removed under Early Works DA).
- Koala experience (recent construction – note to be removed under Early Works DA).
- Platypus House (1970s construction – note to be removed under Early Works DA).

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<sup>1</sup> Couper, R., 2016.



The existing facilities largely comprise open air exhibits, pathways, landscaping and associated infrastructure/servicing areas. Key elements, including key heritage items, have been addressed individually below in this section.



Figure 3 View across wetland ponds.



Figure 4 Wild ropes course.



Figure 5 View towards Koala Experience.



Figure 6 View west across Macropod Walk.



Figure 7 View across Macropod Walk.

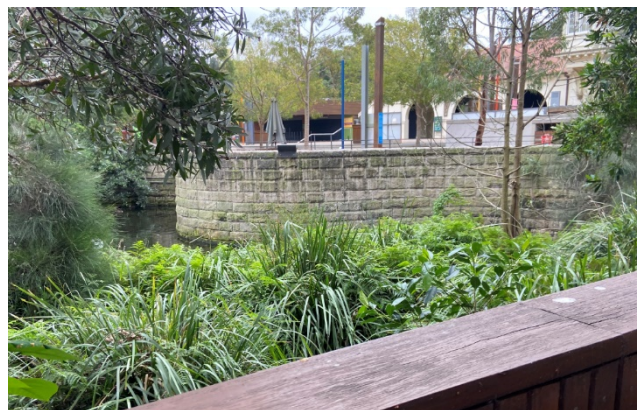


Figure 8 View north west from timber bridge towards stone wall (item 06L).



## 2.3. CIRCULATION

The circulation within the subject site dates from various periods. The LMP and CS map original section differently due to content and mapping conventions. The later LMP appears to attribute part of the path along the southern boundary of the site to the 1970s whereas the CMS incorrectly dates it to the original phase of construction. Research shows that this path was constructed through the centre of the original monkey pit (south part of the monkey pit demolished at the same time) therefore the only sections of path within the subject site from the original period of construction is that to the west and to the north of the Rainforest Aviary (orange section within blue boundary below).



Figure 9 LMP identification of highly significant pathways (orange – original layout, purple – 1970s). Subject site shown in blue.



Figure 10 View south along pathway on 1970s alignment.

The section of path above the Nocturnal House which is shown in purple above, appears to have been at least refinished during the 1995 Macropod Walk works where it is noted for new brick paving to match existing. The Macropod Walk loop comprises entirely later fabric (1995).



Figure 11 View north along pathway on 1970s alignment adjacent to Platypus House.



Figure 12 View south along pathway on 1970s alignment.





Figure 13 View west along pathway on 1970s alignment from outside Platypus House.



Figure 14 Brick walls and kerbing on original path alignment adjacent to wetland ponds.



Figure 15 View south towards path which extends over roof of Nocturnal House (path on right of image)



Figure 16 View to entrance to Macropod Walk (1990s fabric).

## 2.4. WETLANDS PONDS



Figure 17 View north across Wetlands Ponds.



Figure 18 View north across Wetlands Ponds.



## 2.5. NOCTURNAL HOUSE

The Nocturnal House was designed by the Government Architect of NSW and was officially opened on 1 August 1972. The Nocturnal house adapted the original Monkey Mountain exhibit (which dated from the 1920s). It was constructed within the original perimeter walls of the exhibit which are believed to be remnant. It is also purported that some access tunnels remain from the original exhibit. The southern wall of the building was constructed in the 1970s construction of the Nocturnal House. The Nocturnal House has brick retaining walls flanking the entrance.



Figure 19 Nocturnal House entrance.

Source:

<https://www.zoochat.com/community/media/taronga-zoo-2007-entrance-to-the-nocturnal-house.86950/>



Figure 20 Nocturnal House interior with exhibits to the centre and right of the image.



Figure 21 Nocturnal House interior with exhibits to the left of image.

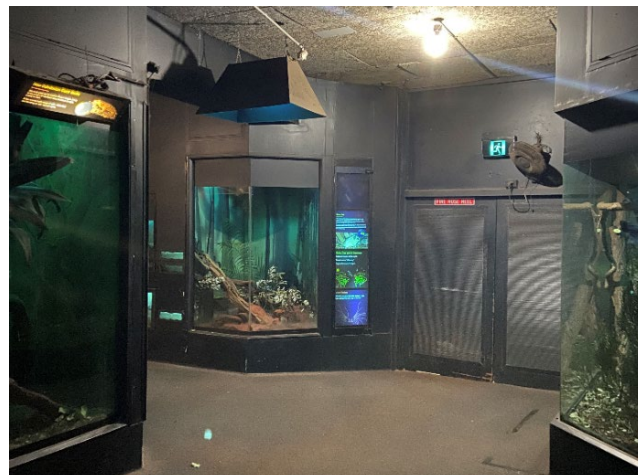


Figure 22 Nocturnal House interior with exhibits to the centre and right of the image.



Figure 23 Ceiling finish to Nocturnal House.



Figure 24 Sandstone birdbath within exhibit.





The first Zoo in Sydney had opened in 1879 and was known as the Royal Zoological Society's Gardens, located at Moore Park.<sup>5</sup> The site became too small for the expanding zoo, and the government and the Zoological Society began seeking alternate arrangements. Ashton Park was preferred and confirmed as the location as early as 1911, with initial hopes works could start as early as January 1912.<sup>6</sup> Ashton Park was eventually gazetted as the new home of the Taronga Zoological Gardens in May 1912. The first works began on the site at Mosman in 1912, with the zoo officially open to the public in 1916. The founding director of the zoo was to be Albert Le Souef, and he took inspiration from zoos in Europe – particularly in Hagenbeck's privately owned zoo in Hamburg, where animals were housed in facilities separated from the public not by bars, but by moats. Le Souef was quoted as having said:

*“the whole point of usefulness, as far as I was concerned, centred in Hagenbeck's Gardens in Hamburg....the style adopted there must sooner or later be copied by every zoo in the world...the idea of this new type of barless cage that we proposed to introduce in Sydney. It completely revolutionised all previous ideas of housing animals”.*<sup>7</sup>

So was the vision that started Taronga Zoological Park. Ground was broken on the site in October 1912, with an inaugural ceremony held involving the planting of trees and formal naming of the zoo.<sup>8</sup> Prior to this much of the zoo lands was covered in natural Australian bushland (see Figure 11). Construction went on until 1916. School student visits to the new zoo commenced in September 1916.<sup>9</sup> The Zoo officially opened on Saturday October 7<sup>th</sup> 1916, although advertisements identify that admission had occurred to the general public prior to this official opening date.<sup>10</sup>



Figure 26 – Original bushland covering Taronga Zoo

Source: NSW State Archives and Records, from :Report for the Year Ended 31<sup>st</sup> December 1916 of the Taronga Zoological Park Trust, Sydney”, Parliamentary Papers, Vol 4., 1917-18.

The zoo has been periodically updated since this time, to meet new standards for accessibility, animal welfare and the expansion of the collection. Figure 12 below demonstrates the Zoo in its original plan in 1916, with only approximately 23 animal exhibits on display.

<sup>5</sup> Watsford, R. 1920.

<sup>6</sup> Sydney Morning Herald, 10<sup>th</sup> November 1911. *Removing Jessie – How it Will Be Done. The New Zoo Site. Work to Start in January.*

<sup>7</sup> Le Souef, A. S. quoted in Sydney Morning Herald, 10<sup>th</sup> November 1911.

<sup>8</sup> The Sydney Morning Herald, 15 October 1912, *The New Zoo.*

<sup>9</sup> Sunday Times, 10 September 1916. *New Zoo Schools' Treat.*

<sup>10</sup> The Sun, 1<sup>st</sup> October 1916. *Sydney's 'Wonder Zoo' Taronga Park.*



Figure 27 – 1916 plan of Taronga Zoological Park.  
Source: Taronga Zoo Archives.

Following the departure of Le Souef in 1939, Taronga Zoo changed in design. Rather than the focus on barless exhibits with moats, the moats began to be filled in and chain and wire fences installed to allow visitors to get closer to the animals. Animal enclosures changed to contain concrete floor and walls under Le Souef's successor, Sir Edward Hallstrom, who was in charge from 1941-1967.<sup>11</sup> When Hallstrom retired the zoo underwent a major upgrade under the direction of Ronald Strahan, with the focus shifted from a menagerie for entertainment to education.<sup>12</sup> Strahan was the first director to actually be a zoologist, and was also responsible for the establishment of the Dubbo branch of Taronga Zoo, Western Plains Zoo.

### 1.3. UPPER AUSTRALIA PRECINCT

Under Strahan's direction, the first exhibits to be upgraded were those in the Australian collection. Strahan's focus on education led him to state that there was no justification for keeping animals in captivity unless the purpose was educational.<sup>13</sup> Strahan was director from 1967-1974 and inherited a zoo with ageing displays which was described as "*as depressing as a jail*".<sup>14</sup> Strahan was considerate of the animals welfare and displayed a particular interest in native Australian animals. He noted that the majority of Australian animals were nocturnal, which meant that "*if one is going to display this wealth of Australian animals, it can only be done by turning the night into day*".<sup>15</sup> The construction of a nocturnal house, for native animals which are active at night rather than during the day, was one of the biggest projects.<sup>16</sup> This involved the adaptation of the baboon pit, which was constructed in 1920, and was a concreted and stark enclosure which had been deeply excavated with mounding in the centre for the Baboons to climb.

In order to develop the proposed Australian section, previously existing structures and exhibits within the north-eastern portion of the zoo had to be demolished. The demolition plan for the Upper Australian Precinct is included in Figure 13 and Figure 14.

<sup>11</sup> GML, 2006. *Taronga Zoo Australian Sections 1 and 2: Strategic Heritage Advice*.

<sup>12</sup> *Education*, October 1972. Volume 53. No 18. *Taronga Zoo: Education Service*.

<sup>13</sup> *Ibid.*

<sup>14</sup> Higham, C. 1968. *The Bulletin: The Future is Bullish at Taronga*, February 10 1968.

<sup>15</sup> Ford, G. R. 1972, *Walkabout: The man who brought a fresh wind through Sydney's Zoo*. February 1972.

<sup>16</sup> *Ibid.*

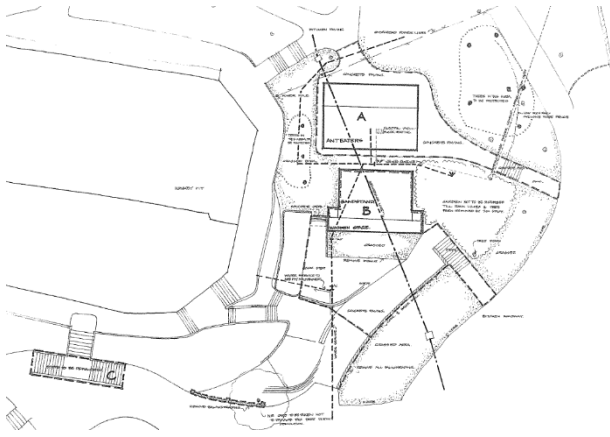


Figure 28 – demolition plan for the provision of the Australian Sections at Taronga Zoo, c. 1967  
Source: Taronga Zoo Archives.

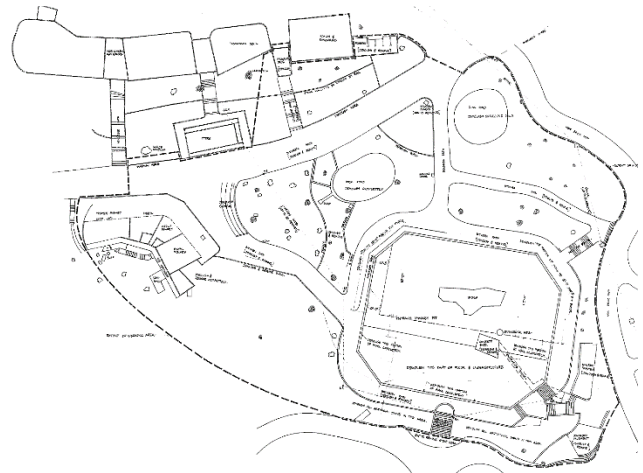


Figure 29 – demolition plan for the provision of the Australian Sections at Taronga Zoo, c. 1967  
Source: Taronga Zoo Archives.

One of the first facilities to be upgraded under Strahan's masterplan was the Platypus facilities, resulting in the construction of the Platypus house. This was followed by Kangaroo and wombat exhibits, where were landscaped and moated rather than fenced off by wire. Known as the Australian Section, during Strahan's time as director, this area close to the entrance became the focal point for native Australian animals in the zoo, with the platypus house alongside the nocturnal house, kangaroo enclosures, reptilian areas and koala exhibits (see Figure 15). In planning for this section, the following was included in the 1968 Taronga Zoo annual Report:

*"Since many overseas visitors come to the Zoo particularly to see Australian fauna, it is planned to locate a representative sample of Australian mammals, birds and reptiles into an area in the north-eastern area easily accessible from the present (and the proposed new) entrance.*

*The first stage of this development, consisting of large moated enclosures for emus, kangaroos, wallabies, tree kangaroos, and wombats, is now under construction."*<sup>17</sup>

<sup>17</sup> Taronga Zoo Park Trust, 1968. *1967-68 Annual Report*.







In the 1968 annual report for the zoo, the following was said about the planned waterfowl exhibit:

*“It is planned to convert the present circular water-fowl ponds (on the western side of the Australian section) into a cascade of irregular pools surrounded by well-planted refuge areas, and to bring the public into the enclosure along designated paths. Funds permitting, this project is scheduled for 1968/9.”<sup>19</sup>*

The wetlands ponds cover the western edge of the Australian section of the zoo. The waterfowl exhibit was designed by the planning committee for the zoo in 1969 and constructed by the newly established Works Department of the Zoo. It utilised part of the naturally occurring environment of Taronga, with part place on a projecting sandstone shelf. Other sections of the wetlands were artificially created, using granite blocks from Scotland. The wooden causeway which ran through the wetlands ponds area was designed to allow the exhibit to be viewed from multiple aspects.<sup>20</sup>



Figure 33 – bridge over the wetlands ponds section.

Source: Taronga Zoo Archives



Figure 34 – waterfowl section, 1970s.

Source: Taronga Zoo Archives

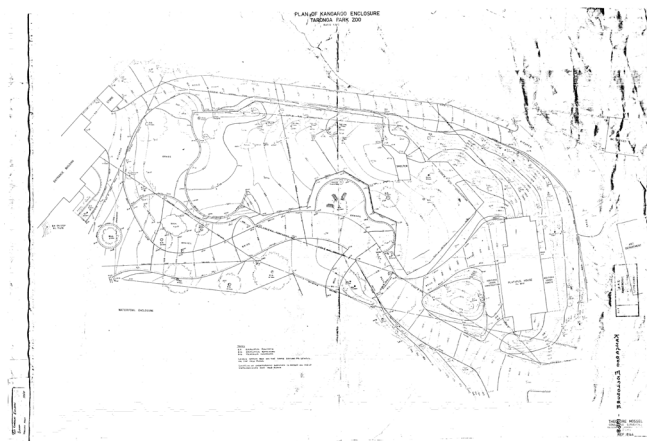


Figure 35 – plan of Kangaroo run and Wetlands Ponds areas, c.1970s

Source: Taronga Zoo Archives

<sup>19</sup> Taronga Zoo Park Trust, 1968.

<sup>20</sup> Strahan, R. 1991. *Beauty and the Beasts*.

The major changes to the wetlands ponds occurred when it was transitioned from the circular water holes to the cascading pond system with intentional landscaping for birds to rest under Strahan in the 1970s. Since the initial construction of this new style of waterfowl exhibit, little has change. The major exception to this is the access to the exhibit, with the wild ropes course installed in 2010 prohibiting access to the bridge and resulting in it's modification and partial demolition.<sup>21</sup>

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<sup>21</sup> Taronga Conservation Society Australia, 2018. *Taronga Zoo Australian Section (Upper) Heritage Items at Site October 2018*.

## 1.5. AUSTRALIAN LANDSCAPE

The Australian landscape section within the Australian precincts of Taronga Zoo were reflective of a growing community interest in native plants and was one of the first examples of an artificial bushland setting on public land.<sup>22</sup> The natural environment of the zoo was a significant factor in the development and design, with the paths following the natural contours of the land.

The landscape approach was heavily influenced by the newly formed Landscape Section within the Government Architect's Branch, who participated in the planning and detailing of hard and soft landscape works across the Australian Section. The approach was defined by the intention to use only native Australian plant species throughout the Australian section, and to use species specifically native to the Hawkesbury sandstone geology throughout the zoo.<sup>23</sup> Allan Correy was the landscape designer of the Australian sections. Of the design of the Australian Landscape section, he said the following:

*"Taronga Zoo set new standards in landscape design for others to follow, and the site planning methodology, design details, and planting techniques became standard practice on all subsequent large-scale projects undertaken by the Public Works Department Landscape section".<sup>24</sup>*

The Australian landscape section was another initiative of Ronald Strahan and supported the development ongoing around this Australian section and the wider zoo itself. Strahan had implemented a planning committee for the zoo, who in 1970 handed down the first Masterplan. This established a 'spine and ribs' plan for vehicular and pedestrian traffic management, whereby the roads of the zoo would traverse between upper and lower areas via a north-south spine, with ribs running east-west to which the exhibits would be organised, with a ring road for service vehicles.<sup>25</sup>

The landscaping in this section reflected the concept of an Australian section of Taronga Zoo. In this area, Australian native animals were concentrated and the landscaping reinforced this section as a celebration of Australian natives – both faunal and flora.<sup>26</sup> The Taronga Zoo Landscape Management Plan identifies the philosophy behind the precinct:

*The Australian sections were developed in the upper portions of the Zoo. Here, the landscape was designed to dominate with the structures being designed to be unobtrusive within it. Visitors were encouraged to walk through the exhibits and experience them firsthand. Many of the earlier exotic plantings were removed and the Australian native landscape was reintroduced using many species indigenous to the local area. A new palette of materials was introduced – dry stone walls, brick paths, brush and pine log fences.<sup>27</sup>*

The design intended to create a run for Kangaroos and emus, with smaller enclosures for wombats and allow these exhibits to be seen in a 'natural' environment (see Figure 20). The animals were separated from visitors to the zoo through the use of dry moats and short fences to permit viewing. The overall design was focused on an Australian character with landscape that complimented the architecture.<sup>28</sup> Construction of the landscape was a rigorous task, first involving the removal of intrusive species while retaining those that were native and deemed worth keeping. Paths were laid in the convention of the zoo with brick paths for pedestrians, and bitumen for service roads.<sup>29</sup>

The landscape design of the Australian sections of Taronga Zoo were award winning. In 1973, The Australian sections of Taronga Zoo received the RAIA Merit Award for Outstanding Environmental Design.

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<sup>22</sup> Correy, A., 2002. *Designing Sydney's Bushland Parks in the 1960s and 1970s* in *Australian Garden History*, vol 13, No. 6, pp. 4-7.

<sup>23</sup> Ibid.

<sup>24</sup> Ibid.

<sup>25</sup> Farmer, E.H., 1970. *Taronga Zoo* in 'Architecture In Australia', 59:6

<sup>26</sup> October 2018??

<sup>27</sup>, Britton, G & Wallace, B, 2006. Taronga Zoo Landscape Management Plan.

<sup>28</sup> Farmer, E. H. 1970.

<sup>29</sup> Ibid

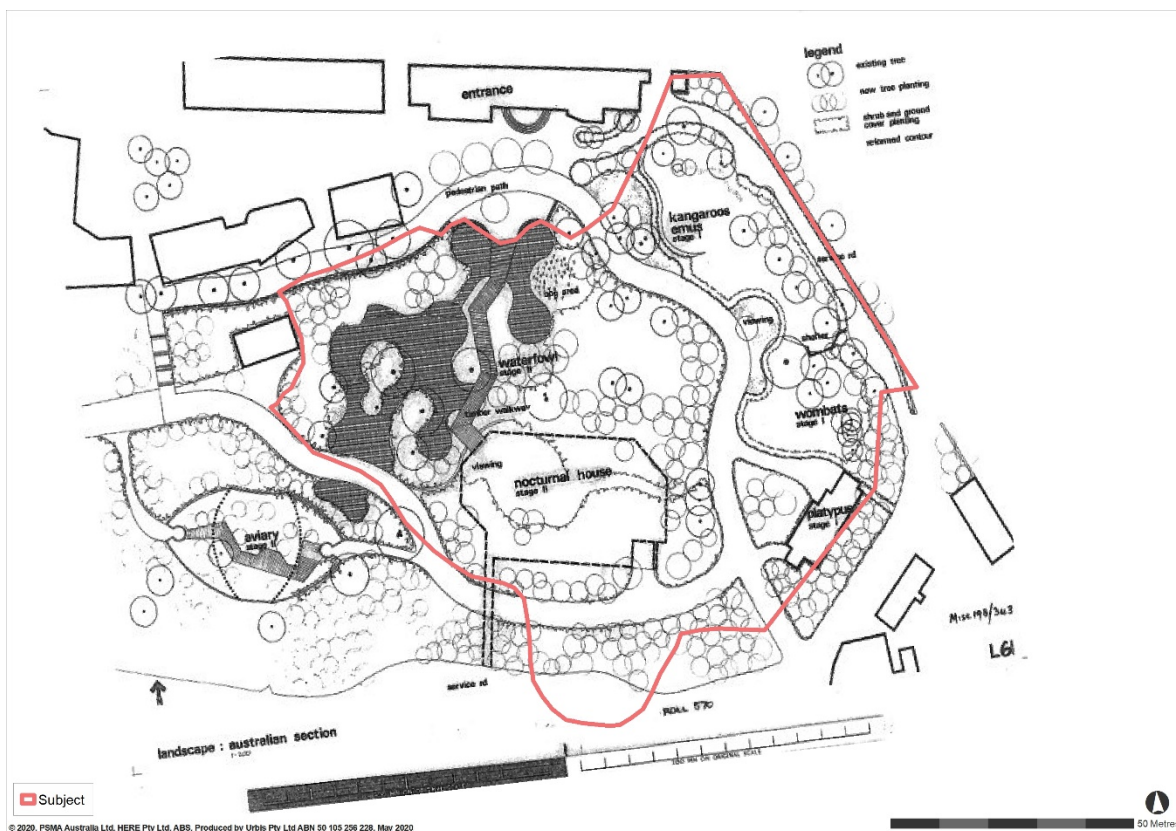


Figure 36 – landscape plan for the Australian section of Taronga Zoo.  
Source: Taronga Zoo Archives

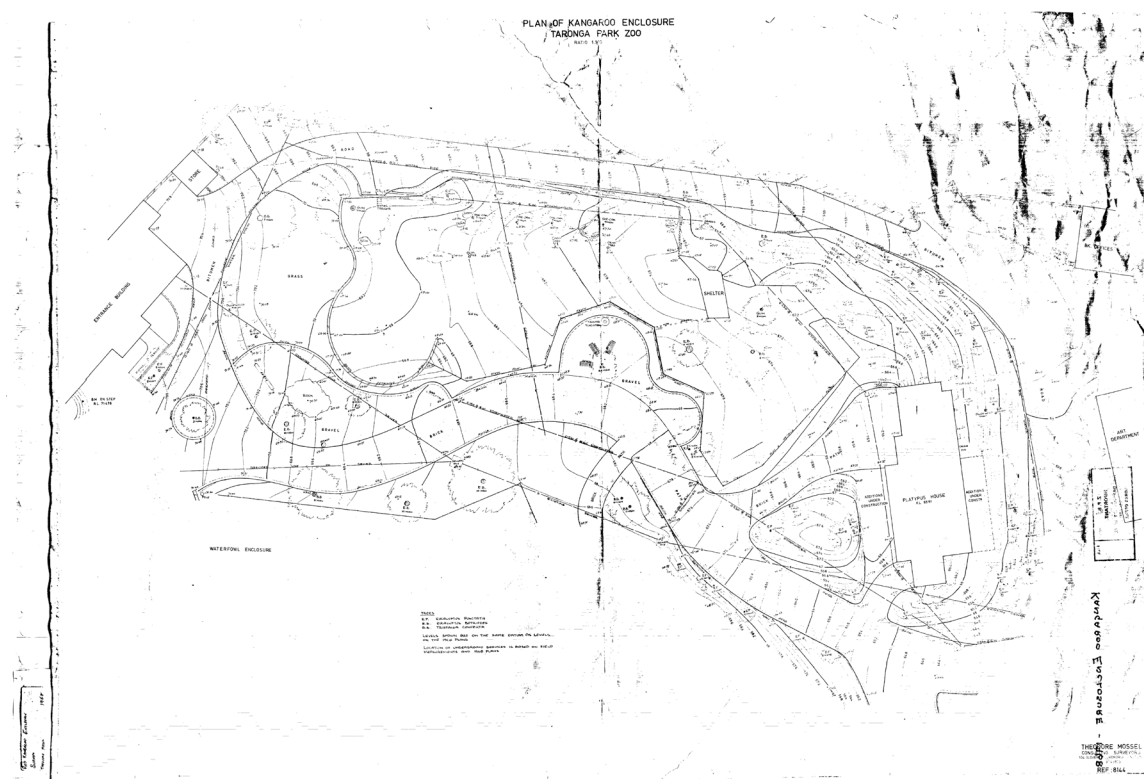


Figure 37 – c.1970s plan of Kangaroo enclosure in the Australian section  
Source: Taronga Zoo Archives



## 1.6. PROPERTY OWNERS

Table 2 Property Owners

Date	Owner
c. 1850s – 1890s.	Charles Jenkins & J. Holt
1890s – 1912.	Government (Military resumption and Athol Park)
1912-present day.	Taronga Zoological Society (now known as Taronga Conservation Society Australia)

## 1.7. DATE OF CONSTRUCTION

Taronga Zoo was constructed between 1913-1916, with the official opening date Saturday October 7<sup>th</sup> 1916. Many of the exhibits in the Upper Australia Precinct were established in the late 1960s and early 1970s. The wetlands ponds were developed in the early 1970s. The native landscaping surrounding the Australian sections was undertaken as part of the masterplan in the early 1970s.

## 1.8. ALTERATIONS AND ADDITIONS

Taronga Zoo has been modified extensively over time, reflecting social and cultural changes on approaches to animals in captivity. The changes implemented under the direction of Ronald Strahan across the late 1960s and early 1970s sought to develop the zoo as an educational facility, and the enclosures constructed during the time reflect this objective. One of the biggest changes undertaken by Strahan was the consolidation of the Australian collection into one area of the zoo, with native Australian landscaping and the redevelopment of the wetlands ponds to create a cascading exhibit for native Australian waterfowl rather than the circular ponds that has predated. The Wetlands ponds have been altered over the years, with the implementation of the ropes course preventing access to the wooden walkway.

## 4. HERITAGE SIGNIFICANCE

### 4.1. WHAT IS HERITAGE SIGNIFICANCE?

Before making decisions to change a heritage item, an item within a heritage conservation area, or an item located in proximity to a heritage listed item, it is important to understand its values and the values of its context. This leads to decisions that will retain these values in the future. Statements of heritage significance summarise the heritage values of a place – why it is important and why a statutory listing was made to protect these values.

### 4.2. STATEMENT OF SIGNIFICANCE – TARONGA ZOO

The following summary statement of significance for the place has been reproduced from the Conservation Strategy prepared by GML in 2002. Refer to the source document for the full assessment of significance.

*Taronga Zoo is a place of national significance as an urban Zoo with unique physical and associative attributes, including links with early modern zoo philosophy, a unique and powerful cultural landscape and a wide range of landscape elements, architectural styles and enclosure designs evidencing the development of zoos in Australia.*

*Features that contribute to Taronga's cultural landscape include the steeply sloping topography of the site, its location on the northern foreshore of Sydney Harbour; the exploitation of the natural stone landforms and complementary faux rock formations; the circulation layout and associated staircases and seating the exotic and grand built elements used for public buildings and animal enclosures; the native and introduced vegetation on the site, the internal visual corridors within the site and expansive views from the site across Sydney Harbour to the city skyline.*

*The original fabric at Taronga demonstrates the earliest example in Australia of Carl Hagenbeck's and early twentieth – century European zoological philosophies. In the differing design and approaches to the animal enclosures and aviaries, Taronga also evidences key aspects of international zoological philosophy that have influenced the Zoo's development throughout the twentieth century.*

*As an educational, entertainment and recreational facility. Taronga is a highly-revered institution within Sydney's social fabric, evoking memories across generations of visitors. The Zoo is also an important keystone in distinguishing Sydney's sense of place. For the zoological community, Taronga is internationally recognised as a leading centre of biodiversity conservation and for the Zoo's educational focus.*

*Taronga's archaeological resource has some potential to provide information about the Aboriginal community, the early use of the site as a quarantine station and the development of the Zoo. In combination, the extensive archive collection, built structures, landscape features and archaeological features at Taronga have great potential for research and community education.*

### 4.3. UPPER AUSTRALIAN SECTION SIGNIFICANT ELEMENTS

The below elements are within the subject site. The significance grading of elements is noted in the Conservation Strategy prepared by GML in 2002.

Table 3 Schedule of significant elements within the subject site.

Location Reference	Item name	Construction Date	Remarks	Significance Ranking
Item 06L	Sandstone retaining wall	Early	Modified and fabric made good as part of Upper Entrance Redevelopment 2010.	High
07L	East Sandstone perimeter wall	1913-14	Original site fabric defining the site boundary.  Sandstone materials use and detailing complementary to the cultural landscape.	High

Location Reference	Item name	Construction Date	Remarks	Significance Ranking
08L	Stonework and rock benches at Waterbird Lake	Unknown	Modified and fabric made good as part of Upper Entrance Redevelopment 2010.	
93B	Platypus House	1970s	<p>Evidences the shift in focus at Taronga during the 1970s towards an emphasis on the Australian animal collection.</p> <p>Outstanding example of the Sydney School architectural style.</p> <p>Roof and structure rebuilt in early 1990s and some modifications made for display of echidnas.</p> <p>Continues original use for which is was designed.</p>	High
94B	Nocturnal House	1970s	<p>Evidences the shift in focus at Taronga during the 1970s towards an emphasis on the Australian animal collection.</p> <p>Innovative adaptation of original Monkey Mountain exhibit.</p>	Some
99L	Early Path Layout	1913-1914	Original and early path layout. Altered in various locations since the Conservation Management reports were written.	Exceptional
107L	Australian Wetlands – ponds on three levels.	Redeveloped in 1970 as part of Australian Precinct.	Located on site of original water birds ponds.	Some
112M	Sandstone birdbath, inside Nocturnal House.		Movable item within a display in the nocturnal house.	High
123L	Australian Sections 1 and 2 landscaping, including greybrown brick paths, gutters, raised	Late 1960s-1980s	There have been alterations to paths etc. at various times. The listed item is a large area extending outside the Upper Australian section.	High

Location Reference	Item name	Construction Date	Remarks	Significance Ranking
	brick edges, brush fencing.			
135L	Gate pier	Early	Probably part of an entrance associated with the former Refreshment Rooms	High
153L	Bridge		Structure modified as part of Upper Entrance redevelopment works 2010 and access restricted by Ropes Course entry building in 2014 and since then largely demolished	High
192L	Lophostemon confertus (Brush Box)	Unknown	Mature tree to the east of the upper entry building – part of the eastern boundary plantings	High
239L	Lophostemon confertus (Brush Box)	Unknown	Mature tree along eastern boundary half way between Upper Entrance Building and the Taronga Centre	High
259L	Grey Gum and Brush Box, E. punctata and Lophostemon remnants within and around Macropod enclosure.	Unknown	Remnant and retained species within the 1970s redesign of Australian thematic area.	High

Source: Conservation Strategy, GML, 2002 and Taronga Conservation Society Australian Section (Upper) Heritage Items October 2018

## 5. IMPACT ASSESSMENT

The subject property is heritage listed under the Mosman Local Environmental Plan 2012, as shown on the heritage map below.



Figure 38 – Mosman Local Environmental Plan 2012.  
Source: *Mosman Local Environmental Plan 2012, HER\_003*

In addition, the below key items are located within the subject area and are listed on the TCSA Section 170 Register.

- 06L - Sandstone retaining wall
- 07L - East Sandstone perimeter wall
- 08L - Stonework and rock benches at Waterbird Lake
- 93B - Platypus House
- 94B - Nocturnal House
- 99L - Early Path Layout
- 107L - Australian Wetlands – ponds on three levels.
- 112M - Sandstone birdbath, inside Nocturnal House.
- 123L - Australian Sections 1 and 2 landscaping, including greybrown brick paths, gutters, raised brick edges, brush fencing.
- 135L - Gate pier
- 153L – Bridge
- 192L - *Lophostemon confertus* (Brush Box)

- 239L - Lophostemon confertus (Brush Box)
- 259L - Grey Gum and Brush Box, E. punctata and Lophostemon remnants within and around Macropod enclosure.

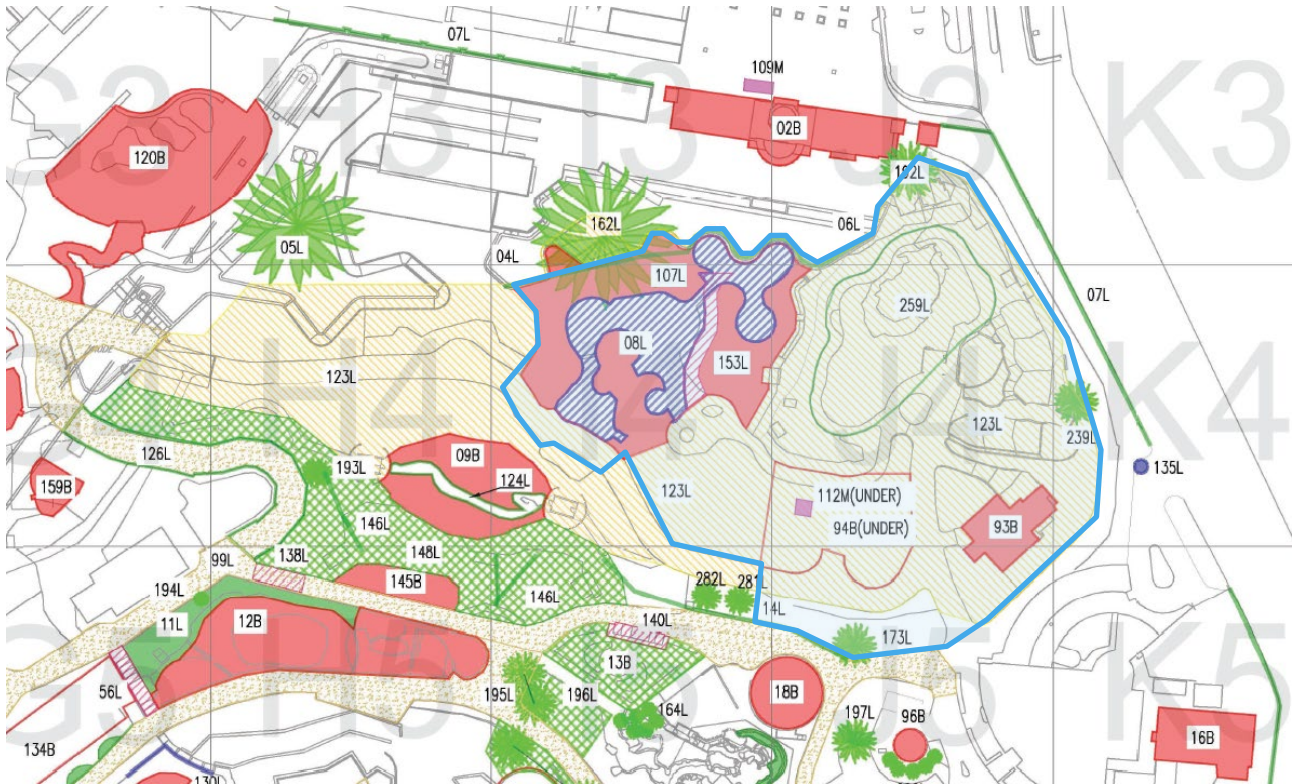


Figure 39 – Section 170 heritage items within the Upper Australia Precinct. Subject site approximately outlined blue.  
Source: TCSA



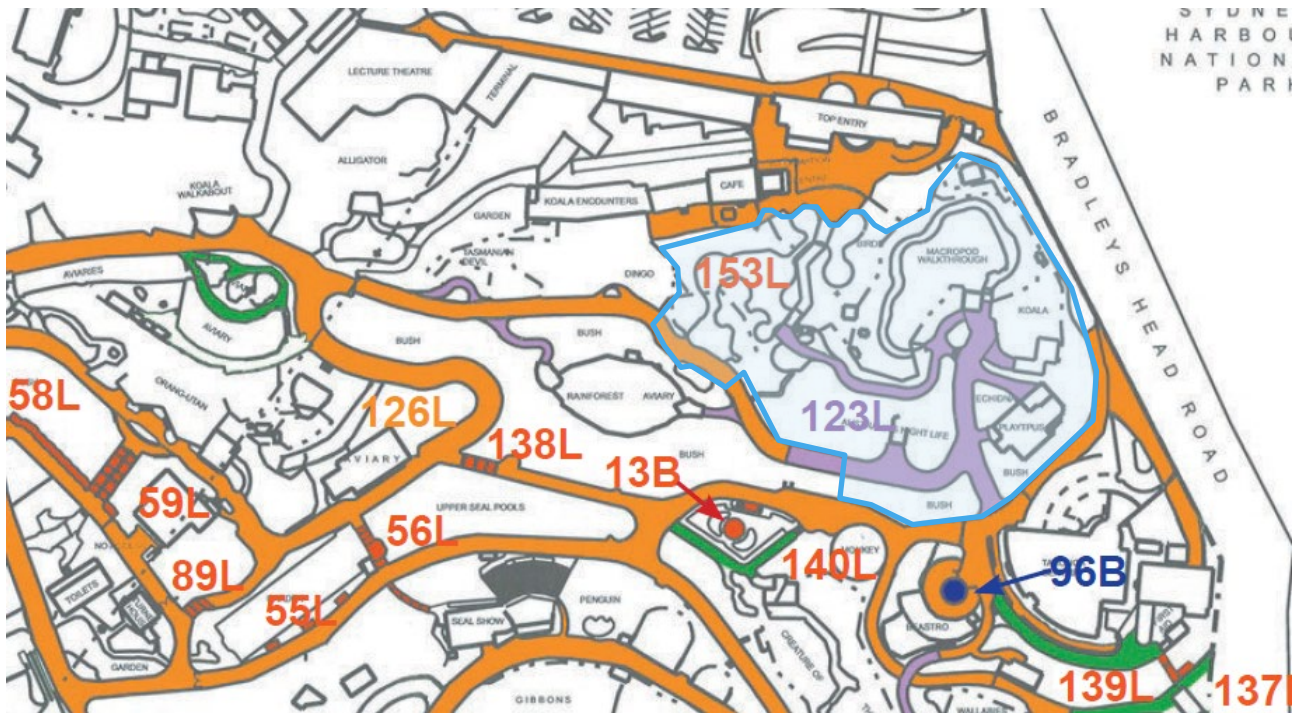


Figure 40 – Significant path system and related build landscape elements. Subject site approximately outlined blue.

Source: Landscape Management Plan 2006, Design 5

## 5.1. ASSESSMENT OF INDIVIDUAL ITEMS OF WORK

This section provides an individual assessment of each of the key items of works. The sections following this assess the works against the relevant management document policies and against each listed item.

### 5.1.1. Background (Early Works)

The bulk of the demolition works are subject to the recently submitted early works DA which was submitted to Mosman Council. The demolition works include the removal of many of the paths in the section, and the removal of the Platypus House and timber bridge. The demolition works were assessed to be acceptable overall from a heritage perspective in order to facilitate the revitalisation and ongoing use of the area for the exhibition of Australian animals. Further, it was found that the heritage impact on the Upper Australian Section (item 123L) is able to be mitigated through the salvage and reuse of the characteristic brick in the design of the new path layout. Refer to the HIS prepared by Urbis (June, 2020) for an assessment of these items. This section addresses only works proposed under this SSD application.

### 5.1.2. Nocturnal House

Minor works are proposed to be undertaken to the entrance of the Nocturnal House to create a new southern exit and keeper access. The curved brick wall to the right (east) of the entrance to the Nocturnal House which is currently obscured by later fabric is to be retained and unobscured by the later fabric. The new entrance however requires the removal of the wall to the left (west) of the existing entrance. This is acceptable to accommodate the new entry layout provided the wall is salvaged and is incorporated into the new wall on the amended alignment.

The new alignment of the entry wall is to parallel the original wall to the east of the entry i.e. it curves towards the east instead of west (per the original). This is considered to be an appropriate interpretation of the original layout of the area. The new entry will be built into the landscape in keeping with the character of the existing building, the built form being re-buried where possible to be concealed within the landscape.

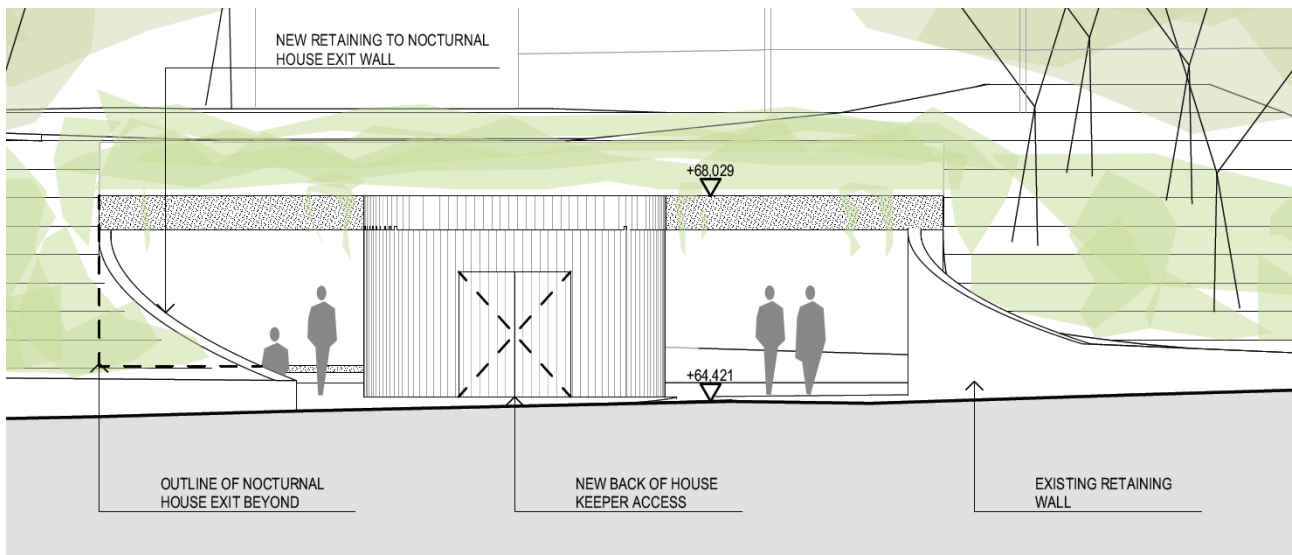


Figure 41 – Proposed Nocturnal House Entrance.  
Source: lahznimmo Architects

In addition to the demolition of the west retaining wall, two concrete walls and the concrete roof are proposed to be demolished to accommodate the new entry. The Nocturnal House was built within remnants of the original Monkey Pitt in the 1970s. The images below demonstrate that the original Monkey Pitt was truncated approximately halfway on an east west axis to create the Nocturnal House and a new wall constructed on the axis which is now the southern wall of the existing exhibit. The demolition works proposed to create the new entry are confined to this later 1970s wall. There is no impact proposed to the original Monkey Pitt and the works to the 1970s fabric is minor and understood to be necessary to enhance to amenity of the Nocturnal House.

The interior of the Nocturnal House is being removed as part of the exempt early works. This SSDA seeks approval for the new internal layout. The design of the exhibits has not been resolved at this stage however the exhibit layout generally follows the existing and the overarching approach will be to retain the existing character of the exhibition spaces which is characterised by Australian native landscape and in a simulated night-time setting. The proposed approach creates and immersive experience with largely open exhibits and opportunities to see back of house areas which is in line with the Zoo's values as an educational facility.

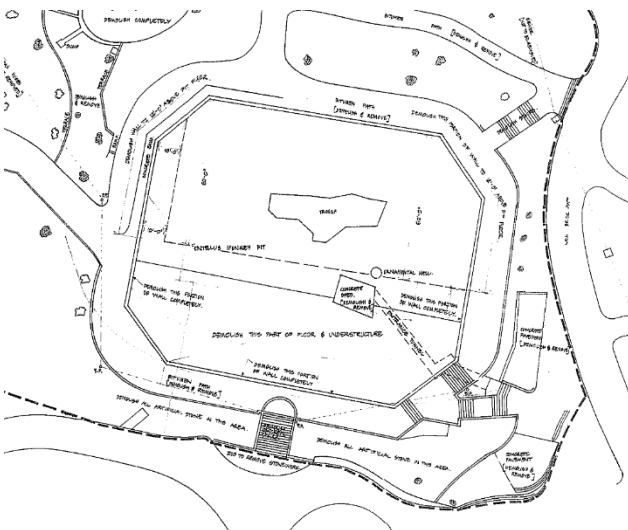


Figure 42 - c1970. Existing plans of Monkey Pitt.  
Source: Taronga Zoo Archives

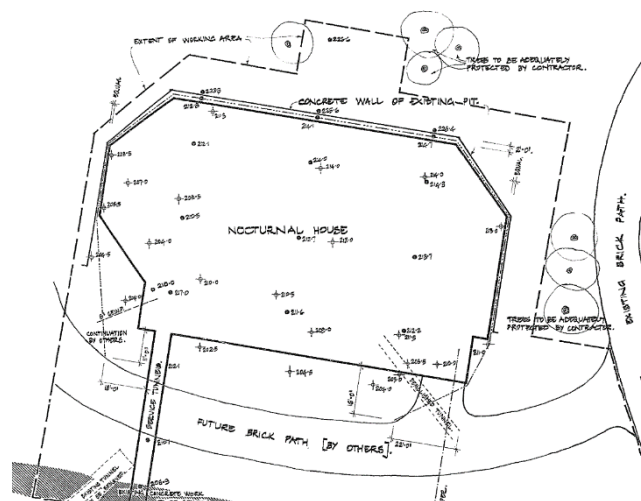


Figure 43 - c1970. Nocturnal House original plans showing new wall to southern extent of item (to be partly demolished under this application).

Source: lahznimmo Architects



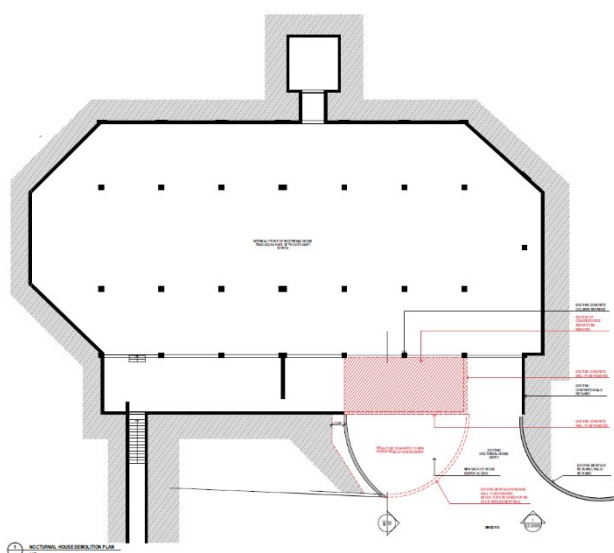


Figure 44 - Proposed works to Nocturnal House

Source: lahznimmo Architects

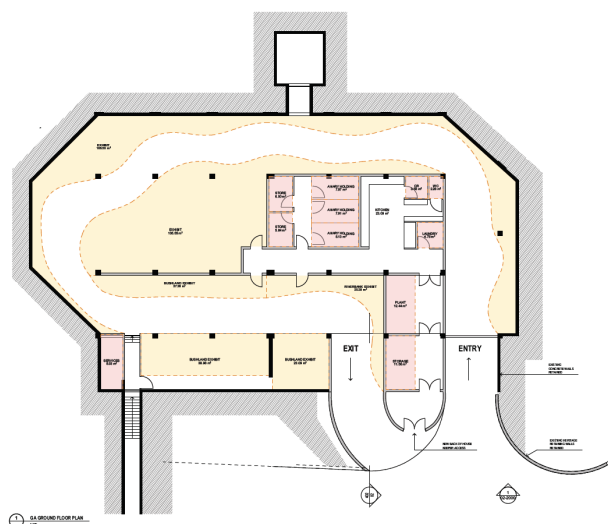


Figure 45 - Proposed works to Nocturnal House

Source: lahznimmo Architects

### 5.1.3. Treehouse

The proposed Treehouse will be a central feature within the Upper Australia precinct, connecting the Macropod with Koala exhibits and linking with the Nocturnal House to the south.

The Treehouse proposed to the north of the Nocturnal House is proposed to be a single storey only. The scale is appropriate and modest as a central gathering space. The Treehouse would present as a shelter among the trees rather than a building, being open on three sides. The open structural framing would maximise light into the Treehouse and further reduce the bulk.

There are no identified significant views which would be blocked by the construction of the Treehouse, it is however noted that the Treehouse is located within the area of lost views 65 (as identified in the LMP). Further, given the modest scale of the proposed items and the dense tree canopy that characterises views from the harbour towards the Zoo, the views which accompanies this application analysis shows that it is unlikely any of the structures will be visible from the Harbour.

The Treehouse would comprise a hardwood timber deck with hardwood timber sun shading and translucent polycarbonate roof sheeting above. The timber would have a combination of natural and charred finish. The roof would be clear polycarbonate sheeting above the structural timber. The materiality proposed is in keeping with the surrounding natural landscaping and would ensure that the landscape remains the dominant feature in the section. The perspectives below show the application of materials. Expanses of opaque/solid materials are avoided and visibility outward from the Treehouse are maximised.

The Treehouse viewing deck will provide views over the area which currently constitutes the macropod walk. The landscape surrounding the Treehouse is characterised by mature native trees growing out of rocky hilltop. This existing landscape setting will be largely retained, it will also be complemented by new sympathetic planting and stone animal rock shelters which will also reduce the prominence of the Treehouse.

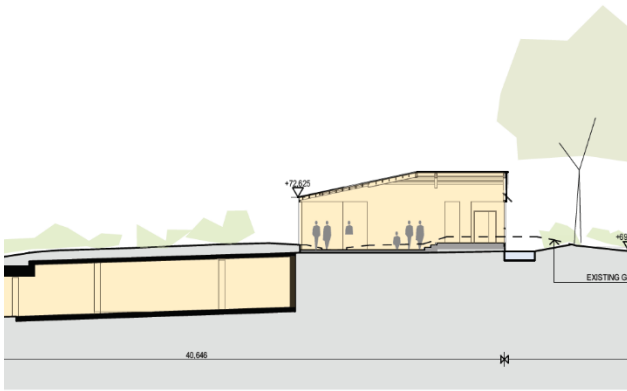


Figure 46 - Proposed Tree House Section.

Source: lahznimmo Architects



Figure 47 - Perspective of proposed Treehouse.

Source: lahznimmo Architects

#### 5.1.4. Western Entry Pavilion and Macropod Exhibit

The Western Pavilion provides the formal entry to the Upper Australia Precinct and is located in the south western portion the section. It is located adjacent to the existing Tree Kangaroo Back of House Building.

The pavilion will consist of a double height sculptural built element which will extend from the Ropes Course Bridge and around existing landscaping in the area. The element will be distinct as a marker of the entry to the section however it does not present as an enclosed bulk or building. Rather, it extends around existing landscaping and ensures built elements on the site are minimised by incorporating a number of purposes in an open structural form including entry pavilion, macropod airlock and ropes course bridge. It should also be noted that the element is minimally higher than the existing Tree Kangaroo Back of House Building. Therefore, the element is thoughtfully resolved and is not unduly dominant in the landscape.

There are no identified significant views which would be blocked by the construction of the Pavilion, it is however noted that the Treehouse is located within the area of lost views 65 (as identified in the LMP). Further, given the modest scale of the proposed items and the dense tree canopy that characterises views from the harbour towards the Zoo, the views which accompanies this application analysis shows that it is unlikely any of the structures will be visible from the Harbour.

The design of the proposed sculptural element is contemporary however the element will be a mix of natural recycled hardwood and anodised aluminium coloured complementary to the surrounding landscape and the existing materiality in the area. A new Ropes Course bridge of hardwood will span above a steel mesh containment fence at the southwestern edge of the Macropod exhibit to the north of the pavilion. The pavilion will also allow for an area for the interpretive storytelling for the Upper Australia precinct. This should be subject to an Interpretation Strategy to be implemented as part of the project.

The proposed landscape setting of the Western Pavilion will complement the existing character of the landscaping including the existing paperbark tree (refer landscaping section below).. Investigations are ongoing to incorporate at least some existing landscape plantings and pond walls within the design of the entrance plaza. This will be subject to detailed design development with ongoing advice from the heritage consultant.



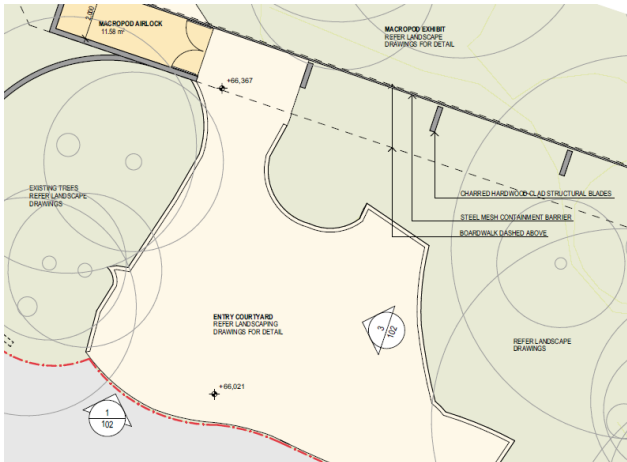


Figure 48 - Proposed entry to Macropod Exhibit.

Source: lahznimmo Architects



Figure 49 - Proposed Western Pavilion adjacent to Macropod Exhibit entry.

Source: lahznimmo Architects

The proposed Macropod Exhibit to the north west corner of the section is proposed to be constructed over the infilled Wetlands Ponds (item 107L). The wetlands ponds are to be drained and the concrete base will be removed. The wetlands ponds are significant as part of the original design of the Upper Australian Section. They also incorporate a hide under the timber bridge (to be demolished as part of the early works) to their eastern extent which allowed views of water birds at water level. Some adverse heritage impact must be acknowledged as a result of the infill of these ponds however in the context of the Australian Section overall and particularly the Zoo as a whole the adverse impact is not significant given the character of the section will be retained. Further, in order to partly mitigate the impact, the ponds will be filled in with earth however a small upper portion of the walls surrounding the wetlands ponds would be retained uncovered as a relic to show the original extents of the ponds. Refer to the Archaeological assessment under separate cover for discussion of sub surface impacts.

It is noted that a number of trees to be retained in the area of the Wetlands Ponds to be removed. As set out in the Arboricultural Impact Assessment Report the removal of the ponds is to consider sensitive construction methods. It is understood that the ponds will be retained and filled with earth (as discussed above) however if any demolition is required this should be undertaken by hand to ensure that there is no impact.

The new macropod exhibit to the north of the western entry pavilion and in the location the existing wetlands ponds is proposed to be void of any notable built elements aside from pathways and bench seating. The exhibit will enhance the existing landscape setting. As discussed above existing wetland pond edging will be retained where possible and will be subject to ongoing design input from the heritage consultant.



Figure 50 – View of Macropod Exhibit looking east towards Treehouse.

Source: lahznimmo Architects

### 5.1.5. Koala Exhibit

The Koala exhibit is located in the north-eastern part of the precinct, it is located across the existing macropod and koala areas. The existing Koala exhibit and the existing Macropod Walk paths are to be removed under separate approval pathways. The landscaping within the Macropod Walk area which was created for the exhibit in the 1990s is to be largely retained and incorporated to the north of the Exhibit.

The Exhibit constitutes an elevated boardwalk loop which extends from the Treehouse. Extending from the loop are individual encounter bays with modest roof structures (refer image below). The boardwalk loop surrounds a central Koala exhibit comprising native trees.

The individual encounter bays have been designed to minimise visual impact in terms of scale and character. Each bay would comprise one viewing shelter and one Koala shelter in the form of two separate small roof planes. These minimal sections of roof at varying heights would ensure that the exhibits remains unenclosed and do not unduly create artificial bulk in the natural landscape.

Profiled metal sheet roofing and corten roofing is proposed over the Koala Exhibit shelters and encounters entry portal. Fencing at ground level will be of folded corten steel. The public boardwalks will be of steel structure with natural Australian Hardwood decking and steel balustrade. These materials are typical of the Australian landscape and would present as lightweight planes amongst the trees. The detailed design of the Koala Bays is to be undertaken by animal keepers.

The landscape design of the koala exhibit will enhance established character of Upper Australia, in particular its trees that are established as koala “homes” and canopy cover will be retained and supplemented with new canopy planting.

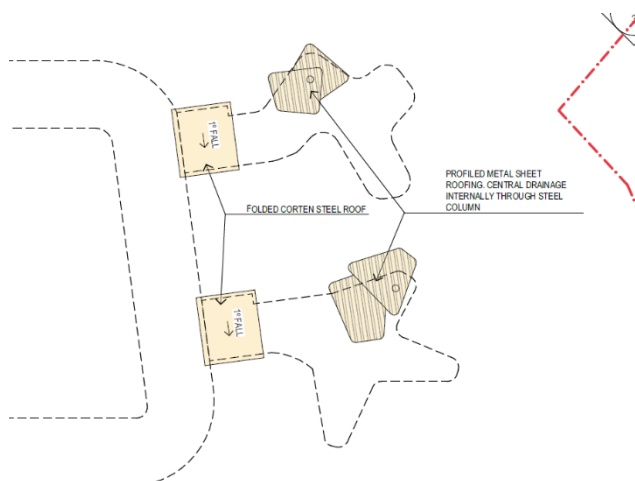


Figure 51 - Roof plan of Koala Exhibit.

Source: lahznimmo Architects



Figure 52 - Perspective of proposed Koala Exhibit.

Source: lahznimmo Architects

In addition to the shelters for the Koala Exhibit and the Macropod Holding area a large timber fence is proposed to the eastern boundary and presentation to the main street frontage on Bradleys Head Road to provide the animals with visual and acoustic privacy. Refer to the images reproduced below which show the extent to which the fence would be visible from the public domain.

There are no formally identified significant views which would be impacted by the proposed fence and the fence would not obscure views to any identified item of significance except the general trees within items 123L (Australian Landscape Section). However, it is acknowledged that the fence would be highly visible and would change the existing character of the backdrop behind the original stone wall (of exceptional significance) which extends along the boundary. In order to mitigate the visual impact the screen will be visually softened by the use of natural timber and a landscaping strip incorporated in front of the screen. Further, an irregular fence height has been implemented to ensure that the fence is of the minimal height necessary for the operational purposes which would further reduce the impact of the bulk.



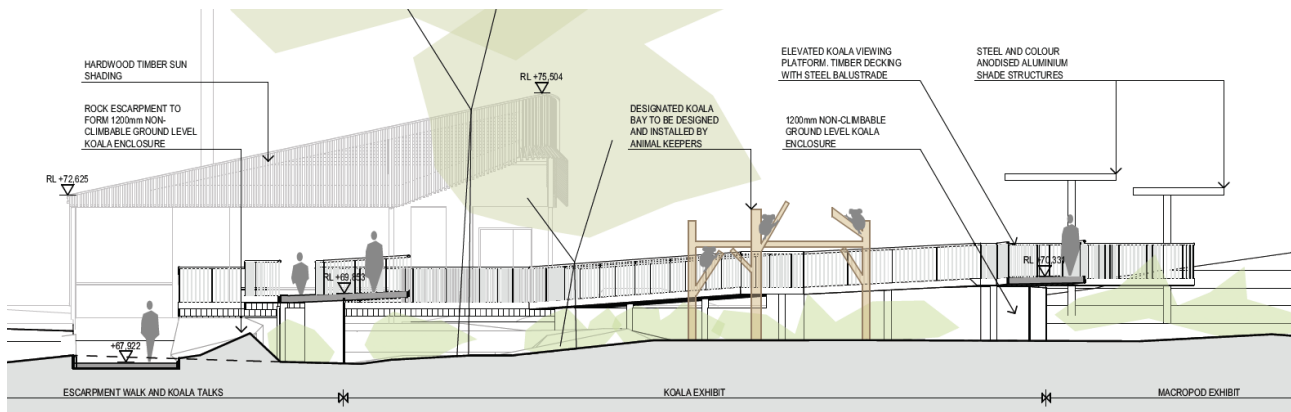


Figure 53 – Proposed Koala Exhibit.  
Source: lahznimmo Architects



Figure 54 – Proposed Koala Exhibit perspective of visible fabric from Bradley's Head Road.  
Source: lahznimmo Architects

### 5.1.6. Macropod Holding Area

The Macropod Holding Area has a similar character to the Koala Exhibit i.e. individual shelter with profiled metal sheet roofing and steel columns. The individual shelters would be set at a lower level than the Koala Exhibit and the acoustic and privacy timber fence would therefore appropriately be at a lower level as shown below. The section of fencing adjacent to the Macropod Holding Area which is visible above the original wall from Bradley's Head Road is minimal.

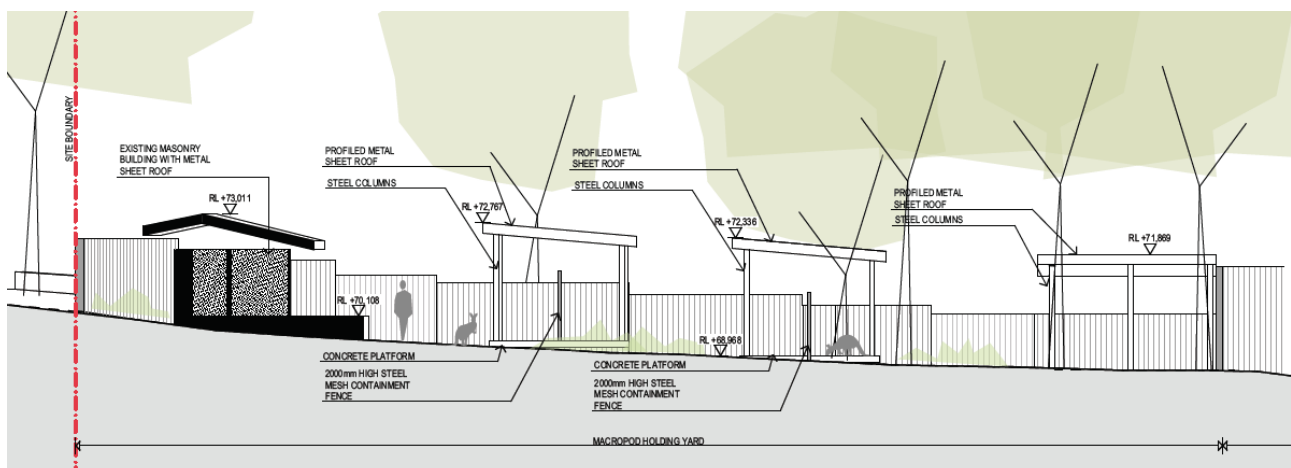


Figure 55 – Proposed Macropod Holding Area.

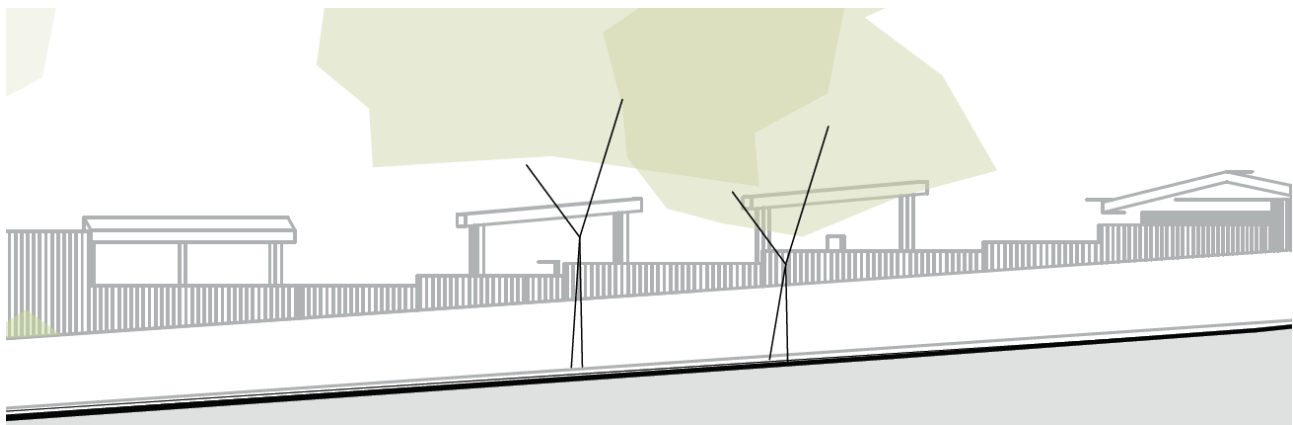


Figure 56 – View of the proposed Macropod Holding Area from Bradley's Head Road.  
Source: lahznimmo Architects

### 5.1.7. Tree Removal and Landscaping

This SSD proposes a wholistic treatment of the landscape including removal of some existing landscape and introduction of new to respond to the design for the new exhibits to be implemented in the section.

The minimum number of trees possible have been removed to accommodate the new exhibit and wherever possible the exhibit has been designed around the existing landscaping. A total of 37 trees are required to be removed to accommodate the Exhibit as set out in the Arboricultural Impact Assessment report prepared by Sydney Arbor Trees (June 2020).

None of the trees to be removed are those which are listed on the Section 170 Register. Further, the retention value of each of the trees from an Aboricultural perspective have been set out in the report. None which are identified to be of high retention value are proposed to be removed and only 9 of the 37 trees for removal are of moderate retention value. The remaining 28 trees to be removed are of low retention value, the Aboricultural Impact Assessment Report finds that trees which are of low retention value *should* be considered for removal and do not require special works or design modification to be implemented for their retention.

While it is noted that the trees to be removed are not individually identified to be significant from a cultural heritage or aboricultural perspective, their contribution to the presentation of Item 123L (Australian Sections Landscaping) is acknowledged. In order to ensure that the overall vegetated character of the section is retained a number of new mature trees are proposed to be introduced into the area.

The overall objective for the landscaping in the Exhibit as set out in the Design Statement prepared by Lahz Nimmo is to showcase native Australian landscapes in an unobtrusive way and through working with the existing mature landscaping and topography. In addition, new trees, grasses, bushes and flowers are proposed throughout the Exhibit. It is proposed to implement changes in the landscape character throughout the Exhibit. The design statement for the landscape expresses the intent to represent the diverse Australian landscapes, from dry rainforests and hanging paperbark swamps to open woodlands. This is considered to enhance the original landscape design intent of the section. In order to ensure the area remains as natural as possible informal bush tracks will supplement the formal paths where possible.

The landscaping design for the section has been broke up into 6 zones. The characteristics of each zone are outlined below. All the new plantings are designed to supplement the existing vegetation in the area which will be largely retained. Therefore, the original overarching character will be retained:

**Zone 1 (Paperbark Gully)** – The predominant trees in this area are Paperbark and Sydney Red Gum. The vegetation is supplemented by low lying ferns and grasses. The hard landscaping in this area includes exposed aggregate concrete and decomposed granite. Opportunities are to be sought in this area as part of detailed design development for the incorporation of salvaged bricks/pavers to reintroduce the historic, characteristic materiality of the area. Stone retaining walls are proposed throughout this section however some retaining walls will be those sections retained and conserved from the remnants of the wetlands ponds to be removed/infilled.

**Zone 2 (Dry Rainforest Gully)** – The predominant tree in this area is the Paperbark which will be supplemented by low lying ferns. This area will incorporate turf (species to be confirmed). The surfaces will constitute decomposed granite and new stone retaining walls. The natural sandstone animal rock shelter are appropriate in the context.

**Zone 3 (Upper Gully)** – This area features Paper and Sydney Red Gum as well as Australian Fan Palms. A mixture of low lying grasses and bushes supplement the trees. The surfaces will constitute decomposed granite and new stone retaining walls. The natural sandstone animal rock shelter are appropriate in the context.

**Zone 4 (Hilltop Woodland)** – The predominant trees in this area are Grey Gum and Sydney Red Gum. A mixture of low lying grasses and bushes supplement the trees. The existing exhibit will largely be retained in this area. However, the existing 1990s pathway is to be removed and replaced with new plantings. The area will feature sandstone animal rock shelters.

**Zone 5 (Gondwana Link)** – This area is characterised by Sydney Red Gum trees as well as a variety of small flowering plants. This area will feature recycled bricks salvaged from the removal of the 1970s pathways (subject to detailed design). In addition it will include exposed aggregate concrete and decomposed granite consistent with the other zones.

**Zone 6 (Existing Landscape Over Nocturnal House)** – The existing landscaping in this area was implemented in the 1970s when the Nocturnal House was created by installing a roof over the remnants of the original Monkey Pitt. This landscaping has significance as part of item 123L and its retention is therefore encouraged.

## 5.2. MANAGEMENT PLANS

### 5.2.1. Conservation Strategy, GML 2002

The proposed works are addressed below in relation to relevant policies set out in the Conservation Strategy prepared by GML in 2002.

Table 4 – Conservation Strategy, GML 2002

Policy	Discussion
<p><i>12.4.6 Use – Taronga should continue to be used as an urban Zoo.</i></p> <p><i>Items of exceptional significance that retain their original use should continue to be used for the same purpose. Items of high and some significance should continue to be used for their original use, if still applicable, however they may be adaptively re-used for other operational purposes, provided that these uses are not in conflict with the significance of the site or result in major adverse impacts to the individual element.</i></p>	<p>The Upper Australian Section is identified to be of high significance in the Conservation Strategy. It is significant for both its use and the landscape design including forms and vegetation. Specific impacts on the forms and vegetation are assessed elsewhere in this document however in relation to this policy it is considered that the works are compliant. The Zoo would continue to be used as an urban Zoo and the works proposed under this application are proposed for the express intent of revitalising the Upper Australia Section and continuing its use for its original purpose for the exhibition of animals native to Australia which is a major contributor to the significance of the Section. The fundamental purpose of the project would therefore not be in conflict with the significance of the site.</p> <p>The Nocturnal House, which was purpose, adapted (from the original Monkey Pitt) for the display of animals which are active at night is identified to be of some significance. The works proposed to this item are confined to those required to enhance the circulation and quality of the exhibits. There is no proposed change to the use of the item and the works would not be in conflict with the existing use.</p> <p>The only item identified as having some significance and to which works are proposed under this application resulting in the</p>

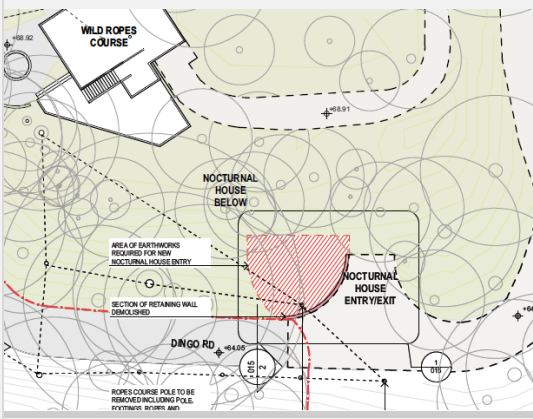
Policy	Discussion
	<p>discontinuation of the original use constitutes the wetlands ponds (items 107L). The wetlands ponds were constructed from the original water birds ponds and redeveloped in the 1970s. The use of the ponds including the ability to view the birds from water height from the hide underneath the timber bridge (to be removed as part of Early Works DA) will be terminated. The removal of the item is proposed to accommodate a larger Macropod Walk. Some adverse heritage impact is acknowledged given the removal of an original component of the 1970s exhibits of the Upper Australia Section. However, the impact is not significant in the context of the heritage significance of the zoo overall and the impact has been partly mitigated by the retention the pond walls which will remain partly unburied and retained as a visible relic of the original design.</p>
<p><i>12.4.8 New Work – Proposals for new development should be considered on the basis of a thorough understanding of the impact on the significance of the place. As a place valued by a wide range of communities, the sense of place and familiarity inherent in the fabric of the Zoo for these communities, within an ever changing environmental, must be considered an important attribute to be retained and reinforced in future development concepts.</i></p> <p><i>New buildings or enclosures are to be designed such that they will not mask or otherwise impair views or visual corridors either out to the harbour or to internal focal points, landmarks or scenically attractive sectors of the central, heritage core of the site.</i></p> <p><i>The potential impact of any new design as a new focal point or landmark within the Zoo – and possibly the harbour - should be considered as part of any development. New work will need to blend harmoniously with the surrounding environment including the setting of nearby heritage items.</i></p>	<p>All new elements are of a modest scale and have been designed to present as shelters/landscape elements rather than robust, enclosed buildings. Refer detailed assessment of individual elements in the section above. Therefore, there are no identified significant views (within or from the Zoo) which would be blocked by the construction of any of the new elements including the Pavilion, the Treehouse or the acoustic wall to the eastern boundary. It is however noted that the Pavilion and the Treehouse is located within the area of lost views 65 (as identified in the LMP) which will not be specifically reinstated as part of this project.</p> <p>Further to the above the materiality of all new works within the section has been designed to be complementary to the character of the landscape section generally. Specifically, a number of bricks salvaged as part of the early works are to be reintroduced around the section (subject to detailed design development). Further, the new structures would feature steel, metal sheet roofing and timber. These materials are those which are generally accepted as relating harmoniously with the Australian Landscape as common traditional building materials. They are therefore found to be appropriate in this context.</p> <p>The overall objective for the landscaping in the Exhibit as set out in the Design Statement prepared by Lahz Nimmo is to showcase native Australian landscapes in an unobtrusive way and through working with the existing mature landscaping and topography.</p>



Policy	Discussion
12.5.8 Archival Recording – Prior to, during and immediately after any future conservation works or adaptive reuse of any item of significance, an archival photographic record should be made. No demolition work or removal of a significant item should occur prior to completion of archival recording.	It is a recommendation of this report that this is undertaken prior to works.

## 5.2.2. Landscape Management Plan, 2006

Table 5 – Conservation Strategy, GML 2002

Policy	Discussion
<p>Policy 2.1.4:</p> <p>The original natural landscape features of the zoo site, including its basic topographic form, its extensive rock outcropping and shelving, and its remnant indigenous vegetation communities should be retained and conserved as a record of the natural landscape characteristics of the site that existed prior to zoo development.</p>	<p>The landscape philosophy for the Exhibit is based on the intention to work with the existing mature landscaping and topography. It is proposed to remove 37 trees to accommodate the Exhibit. None of these trees are individually heritage listed or of high retention value from an aboriginal perspective.</p> <p>The area proposed for excavation under this application is not a significant area in the context of the Zoo or the Section. The removal of earth is confined to the small area to the west of the Nocturnal House as shown in the image below. It should be noted that the earth proposed for removal is that which was infilled in the 1970s when the Nocturnal House was constructed within the original Monkey Mountain Exhibit. Therefore, there would not be any impact on the original topographic form, rock outcrops or shelving.</p> 

	<p>Figure 57 Proposed Demolition Plan</p> <p>Source: lahznimmo Architects</p>
<p>Policy 2.1.7:</p> <p>The character, layout, cultural plantings and built landscape elements of the highly significant Australian precincts should be retained, conserved, respected, managed and maintained.</p>	<p>The layout of the Upper Australian Section would be altered (subject to removal of paths as part of Early Works DA). The layout should be carefully recorded in detail prior to the commencement of works.</p> <p>There are landscape elements associated with the Wetlands Ponds which are proposed to be removed including the hide under the timber bridge (bridge to be removed as part of Early Works DA) and various retaining walls associated with the Wetlands Ponds. The Wetlands Ponds are listed on the S170 and identified to be of 'some' significance, therefore there is a commitment noted on the drawings to retain sections of walls and edging in the landscape, to be determined in consultation with the Heritage Consultant.</p> <p>The overall objective for the landscaping in the Exhibit as set out in the Design Statement prepared by Lahz Nimmo is to showcase native Australian landscapes in an unobtrusive way and through working with the existing mature landscaping and topography to ensure that the character of the place is retained. In addition, new trees, grasses, bushes and flowers are proposed throughout the Exhibit. The design statement for the landscape expresses the intent to represent the diverse Australian landscapes, from dry rainforests and hanging paperbark swamps to open woodlands. This is considered to enhance the original landscape design intent of the section.</p>
<p>Policy 2.1.8:</p> <p>The zoo landscape should continue to evolve and adapt to suit changing zoological management philosophies and practices in order to maintain the zoo's world class standing. However, all changes should respect and accommodate the significant aspects and elements of the existing landscape as identified in this report.</p>	<p>The proposed works are in line with this policy. The works have been designed with the explicit purpose of both enhancing the method of exhibiting the animals and rejuvenating their habitats. The Koala Exhibit in particular would be design in direct consultation with the animal handlers who will ensure best practice.</p> <p>As detailed in the section above which sets out a detailed assessment of each of the items of work, all works have been designed to be respectful to the Section in terms of both materiality and scale/form to ensure that the items blend seamlessly within the landscape.</p>
<p>Policy 2.1.11:</p> <p>The original path layout should be conserved and respected. New paths may be introduced, but should be sinuous in form and should</p>	<p>New paths are proposed to be introduced to replace those removed as part of Early Works DA. No further removal of original or 1970s paths is proposed under this application. Two key new paths are those for the Koala and Macropod Walks.</p>

<p>continue to respect the natural topography of the site.</p>	<p>The Koala Exhibit will constitute an elevated boardwalk of steel structure with natural Australian Hardwood decking and steel balustrade. The elevated design of the boardwalk ensures that no earthworks are required to facilitate the paths and that the topography below is conserved. The boardwalk would allow the public to walk amongst the trees and have an immersive experience with the animals.</p> <p>The Macropod Walk would be located over the existing area of the Wetlands Ponds (to be removed – assessed above). The landscaping in this area would incorporate remnants of the Wetlands Ponds however there are no early paths which are required to be interpreted.</p> <p>In order to ensure the Section remains as natural as possible informal bush tracks will supplement the formal paths where possible.</p>
<p>Policy 2.3.2:</p> <p>It is preferable to retain the original use of the spaces and elements located within these zones, but if this is not possible, an appropriate new use may be accommodated, provided it results in minimal impact on the significant visual character, contextual setting, spaces and fabric, and that their associations and original design intent is respected and, if possible, strengthened.</p>	<p>Most of the existing exhibits will be facilitated in the new design within the section including koalas, macropods and native animals which reside in the Nocturnal House. As discussed above the Wetlands Ponds will be removed and the animals currently exhibit there will be removed. In place of the Wetlands Ponds the Macropod Walk will be accommodated. This use is considered to be appropriate to the section as one which exists currently, and which has the ability to showcase both native flora and fauna.</p> <p>The new structures associated with the new Macropod Walk area including the airlock as well as the Western Pavilion and ropes course bridge are assessed in the section above. However, in the summary the structures are of a modest scale. They are appropriately detailed in terms of both materiality and form such that they respond to the existing landscape and are not unduly visually dominant.</p>

### 5.3. HERITAGE IMPACT ON SIGNIFICANT ITEMS WITHIN SUBJECT AREA

Table 6 Impact on Significant items within the site

Item/Significance	Policy and Recommendation	Proposal	Assessment of Heritage Impact
<b>Item 06L – Sandstone retaining wall</b>  <b>Local</b>  <b>High</b>	<i>Maintain Fabric. (CS)</i>  <i>Conserve walls insitu. (LMP)</i>	There are no works proposed which directly impact this item.	<b>Conclusion:</b> No heritage impact.  The wall is to be appropriately protected during construction.
<b>Item 07L – Sandstone perimeter wall.</b>  <b>State</b>  <b>Exceptional</b>	<i>Maintain fabric. Works to be undertaken with heritage advice. (CS)</i>	No works proposed as part of this application.  The early works requires that the sandstone perimeter wall is temporarily removed for construction access and is reconstructed following the construction of the exhibit.	<b>Conclusion:</b> No heritage impact as part of this application.  The wall is to be reconstructed in accordance with the Construction Management Plan prepared as part of the Early Works DA.
<b>Item 08L – Stonework and rock benches at Waterbird Lake.</b>  <b>Local</b>  <b>Level of significance not assessed in CS or LMP</b>	N/A	Stoneworks and rock benches to be variously removed as part of the infill of the wetlands ponds and the implementation of the macropod walk.	<b>Conclusion:</b> Adverse Heritage Impact acknowledged however the impact is not considered to be significant in the context of the Section and the Zoo as a whole.  The wetlands ponds are to be drained and the concrete base will be removed. The wetlands ponds are significant as part of the original design of the Upper Australian Section. They also incorporate a hide under the timber bridge (to be demolished as part of the early works) to their eastern extent which allowed views of water birds at water level. Further, in order to partly mitigate the impact and to ensure the history of the place is able to be interpreted, the ponds will be filled in with earth however a small upper portion of the walls surrounding the wetlands ponds would be retained uncovered as a relic to show the original extents of the ponds. Refer to the Archaeological assessment

Item/Significance	Policy and Recommendation	Proposal	Assessment of Heritage Impact
			under separate cover for discussion of sub surface impacts.
<b>Item 93B – Playtpus House</b>  <b>Local</b>  <b>High</b>	<i>Conserve in accordance with heritage advice. (CS)</i>	No works proposed under this application.	<p><b>Conclusion:</b> No heritage impact as part of this application.</p> <p>Demolition of this item is proposed under the early works application to be submitted to Mosman Council which was accompanied by a separate Heritage Impact Statement.</p>
<b>Item 94B – Nocturnal House</b>  <b>Local</b>  <b>Some</b>  <b>Exceptional</b>	<i>Conserve in accordance with heritage advice. (CS)</i>	Minor demolition works to entrance, and internal fitout proposed.	<p><b>Conclusion:</b> No adverse heritage impact.</p> <p>The new entrance to the Nocturnal House requires the removal of the wall to the left (west) of the existing entrance. This is acceptable to accommodate the new entry layout provided the wall is salvaged and is incorporated into the new wall on the amended alignment. The new entry will be built into the landscape in keeping with the character of the existing building, the built form being re-buried where possible to be concealed within the landscape.</p> <p>Two concrete walls and the concrete roof are proposed to be demolished to accommodate the new entry. The demolition works are confined to the later 1970s wall introduced to adaptively reuse the original Monkey Pitt. There is no impact proposed to the original Monkey Pitt and the works to the 1970s fabric is minor and understood to be necessary to enhance to amenity of the Nocturnal House.</p> <p>The new interior exhibit layout generally follows the existing and the overarching approach will be to retain the existing character of the exhibition spaces which is characterised by Australian native landscape and in a simulated night-time setting. The proposal approach creates and immersive experience with largely open exhibits and opportunities to see back of house areas which is in line with the Zoo's values as an educational facility. The sandstone birdbath which is within one of the exhibits and listed on the S170 list will</p>

Item/Significance	Policy and Recommendation	Proposal	Assessment of Heritage Impact
			be salvaged and reused in one of the exhibits or elsewhere on the Zoo site.
<b>Item 99L – Original and early pathway layout, including stairs linking levels.</b>  <b>State</b>  <b>Exceptional</b>	<i>Conserve in accordance with Conservation Management Plan, Landscape Management Plan and heritage advice. (CS)</i>  <i>Conserve original path layout.</i>  <i>Conserve asphalt finish on main paths and do not introduce other materials and finishes (apart from bricks in Australian precincts). (LMP)</i>	<p>No works proposed as part of this application.</p> <p>Partial removal of original paths and 1970s proposed as part of recent early works DA.</p>	<p><b>Conclusion:</b> No heritage impact as part of this application.</p> <p>Partial demolition of this item is proposed under the early works application to be submitted to Mosman Council which was accompanied by a separate Heritage Impact Statement.</p>
<b>Item 107L – Australian Wetlands – ponds on three levels.</b>  <b>Bluestone edges and beaches with wetlands vegetation.</b>  <b>Local</b>  <b>Some (CS)</b>  <b>High (LMP)</b>	<i>Conserve in accordance with Landscape Management Plan. (CS)</i>  <i>Conserve wetland ponds. Retain as water feature. (LMP)</i>	<p>The wetlands ponds are proposed to be drained and the concrete base will be removed.</p>	<p><b>Conclusion:</b> Adverse heritage impact acknowledged however the impact is not considered to be significant in the context of the Section and the Zoo as a whole.</p> <p>The proposed Macropod Exhibit to the north west corner of the section is proposed to be constructed over the infilled Wetlands Ponds (item 107L). The wetlands ponds are to be drained and the concrete base will be removed. The wetlands ponds are significant as part of the original design of the Upper Australian Section. They also incorporate a hide under the timber bridge (to be demolished as part of the early works) to their eastern extent which allowed views of water birds at water level. Some detrimental heritage impact must be acknowledged as a result of the infill of these ponds. In order to partly mitigate the impact, the ponds will be filled in with earth however a small upper portion of the walls surrounding the wetlands ponds would be retained uncovered as a relic to show the original extents of the ponds. Refer to the Archaeological assessment under separate</p>



Item/Significance	Policy and Recommendation	Proposal	Assessment of Heritage Impact
			cover for discussion of sub surface impacts.
<b>Item 112M – Sandstone birdbath, inside Nocturnal House.</b>  <b>Local</b>  <b>High</b>	<i>Conserve and maintain. Place in dedicated moveable heritage storage until long term use/location is known. (CS).</i>	As part of the implementation of the Australia Exhibit overall this item will be salvaged, conserved and reinstated in a suitable new location.	<b>Conclusion:</b> No adverse heritage impact.
<b>Item 123L – Australian Sections 1 and 2 landscaping</b>  <b>Local</b>  <b>High</b>	<i>Conserve brick paths in Australian precincts, including brick edges and gutters. If sections of brick paving are to be replaced, match existing bricks in colour, texture, size and pattern of laying (LMP)</i>  <i>Conserve brick edges and gutters to brick paths (LMP).</i>  <i>Continue to use brush fencing for enclosure fencing in Australia 1 precinct (LMP).</i>		<b>Conclusion:</b> Adverse heritage impact acknowledged however the impact is not considered to be significant in the context of the Section and the Zoo as a whole for the below reasons. <ul style="list-style-type: none"> <li>There is no major excavation proposed as part of this early works DA. Only earth to be removed is that west of Nocturnal House Entry which was filled in the 1970s when the Nocturnal House was constructed beneath.</li> <li>No removal of trees listed on the S170</li> <li>No removal of trees of high retention value</li> <li>Replacement landscaping to complement existing and evoke different types of natural Australian landscapes.</li> <li>Overall character of the place would be retained through appropriate landscape and sensitive design of new built elements.</li> </ul>
<b>Items 135L – Gate pier</b>  <b>Local</b>  <b>High</b>	<i>Conserve gate pier in situ.</i>  <i>Conserve unpainted finish on adjoining brick and stone walls. (LMP)</i>	There are no works proposed which directly impact this item.	<b>Conclusion:</b> No heritage impact.
<b>Item 153L – Bridge</b>  <b>Local</b>	<i>Bridge should be retained and adapted as</i>	No works proposed as part of this application.	<b>Conclusion:</b> No heritage impact as part of this application.  Partial demolition of this item is proposed under the early works application to be

Item/Significance	Policy and Recommendation	Proposal	Assessment of Heritage Impact
High	<i>viewing platform. (LMP)</i>	It is proposed to remove the remnants of this bridge as part of the Early Works DA.	submitted to Mosman Council which was accompanied by a separate Heritage Impact Statement.
Items 192L – Lophostemon confertus (Brush Box)  Local High	<i>Retain and conserve. (LMP)</i>	There are no works proposed which directly impact this item.	<b>Conclusion:</b> No heritage impact.  Tree to be protected during construction.
Item 239L – Lophostemon confertus (Brush Box)  Local High	<i>Retain and conserve. (LMP)</i>	There are no works proposed which directly impact this item.	<b>Conclusion:</b> No heritage impact.  Tree to be protected during construction.
Item 259L - Grey Gum and Brush Box, E. punctata and Lophostemon remnants within and around Macropod enclosure.  Local High	<i>Retain and conserve. (LMP)</i>	There are no works proposed which directly impact this item.	<b>Conclusion:</b> No heritage impact.  Trees to be protected during construction.

## 5.4. HERITAGE DIVISION GUIDELINES

The proposed works are addressed in relation to relevant questions posed in the Heritage Division's 'Statement of Heritage Impact' guidelines.

**The following aspects of the proposal respect or enhance the heritage significance of the item or conservation area for the following reasons:**

The Upper Australian Section is identified to be of high significance in the Conservation Strategy. It is significant for both its use and the landscape design including forms and vegetation. The works proposed under this application are proposed for the express intent of revitalising the Upper Australia Section and continuing to use it for its original purpose for the exhibition of animals native to Australia. The Zoo would continue to be used as an urban Zoo and the Section would be revitalised for its original purpose, enhancing its significance.

Most of the existing exhibits and animals will be facilitated in the new design within the section including koalas, macropods and native animals which reside in the Nocturnal House. In place of the Wetlands Ponds the Macropod Walk will be accommodated. This use is considered to be appropriate to the section as one which exists currently, and which has the ability to showcase both native flora and fauna.

The new interior exhibit layout of the Nocturnal House generally follows the existing and the overarching approach will be to retain the existing character of the exhibition spaces which is characterised by Australian native landscape and in a simulated night-time setting. The proposal approach creates and immersive experience with largely open exhibits and opportunities to see back of house areas which is in line with the Zoo's values as an educational facility.

The overall objective for the landscaping in the Exhibit as set out in the Design Statement prepared by Lahz Nimmo is to showcase native Australian landscapes in an unobtrusive way and through working with the existing mature landscaping and topography as much as possible to ensure that the character of the place is retained and that the existing landscaping is respected. Excavation is confined to a small area to the east of the Nocturnal House. Further, none of the trees to be removed are listed on the Section 170 Register and none are identified to be of high retention value (refer Aborigicultural Assessment Report). A total of 28 of the 37 trees to be removed are of low retention value.

Overall it is considered that all works are respectful of the significance of the place (in conjunction with the mitigation measures set out below) and the overall revitalisation in accordance with the original design intent enhances many aspects of this important Section.

**The following aspects of the proposal could detrimentally impact on heritage significance. The reasons are explained as well as the measures to be taken to minimise impacts:**

The proposal involves the partial/total loss of some items which are identified on the S170 Register. However, in summary adverse heritage impacts where they exist are not considered to be significant in the context of the Section or the Zoo as a whole for the below reasons.

The most notable loss of fabric identified to be of some significance constitutes the removal/infill of the Wetlands Ponds. The proposed Macropod Exhibit to the north west corner of the section is proposed to be constructed over the infilled Wetlands Ponds (item 107L). The wetlands ponds are to be drained and the concrete base will be removed. The wetlands ponds are significant as part of the original design of the Upper Australian Section. They also incorporate a hide under the timber bridge (to be demolished as part of the early works) to their eastern extent which allowed views of water birds at water level. Some adverse heritage impact must be acknowledged as a result of the infill of these ponds. In order to minimise impacts and ensure some understanding is retained of the development of exhibits in this area, the ponds will be filled in with earth however a small upper portion of the walls surrounding the wetlands ponds would be retained uncovered as a relic to show the original extents of the ponds.

Mitigation measures relevant to the proposed works overall are outlined in the section below.

## 5.5. MANAGEMENT RECOMMENDATIONS AND MITIGATION MEASURES

The following management recommendations and mitigation measures are recommended

- The Heritage Council of NSW is to be notified of the demolition of items listed on the TSCA Section 170 Register.
- The entire section is to be archivally recorded before any works are commenced. Detailed recording of the Wetlands Ponds and the current layout and character of the paths is to be undertaken.
- A Construction Management Plan is to be prepared which outlines the protection of trees to be retained (in accordance with the Arboricultural Impact Assessment Report) and item 06L – the sandstone retaining wall in the vicinity of the Wetlands Ponds (which are to be infilled). If any sections of the Wetlands Ponds are to be removed infilled rather than infilled, removal of fabric by hand is to be employed where any risk exists to proximate items.
- Detailed design development is to include demonstrated consultation with the Heritage Consultant to ensure that the design resolution of the below is sympathetic to the significance of individual items, the Section and the Zoo overall:
  - Selections of walls and edging to be retained and left visible remnant from the Wetlands Ponds.
  - Area for incorporation of salvaged bricks and paving (salvaged from demolition carried out under early works) into new path design.
  - Detailed design of the Nocturnal House entrance and the new alignment of the brick wall to the west of the entrance (bricks to be salvaged).
  - Detailed design of the Nocturnal House exhibits. However, it is appreciated that the design of these is to be driven by best practice for the accommodation and exhibition of animals.
  - Methodology for protection of and item 06L – the sandstone retaining wall in the vicinity of the Wetlands Ponds (which are to be infilled).



## 6. CONCLUSION AND RECOMMENDATIONS

It should be appreciated that the Zoo is in an unprecedented time of a forced temporary closure with little warning. The Zoo are utilising this time to see the implementation of a major exhibit, the 'Upper Australian Exhibit'. The Upper Australian Section is identified to be of high significance in the Conservation Strategy. It is significant for both its use and the landscape design including forms and vegetation. The works proposed under this application are proposed for the express intent of revitalising the Upper Australia Section and continuing its original purpose for the exhibition of animals native to Australia. The Zoo would continue to be used as an urban Zoo and the Section would be revitalised for its original purpose, enhancing its significance.

In summary this report acknowledges various heritage impacts however concludes that overall, the proposed are supportable and any adverse impacts generated by the proposed are not significant. In conclusion the revitalisation of the precinct and the continued use of the area for the exhibition are strongly encouraged. The works are considered compatible with Taronga's heritage value as "an educational, entertainment and recreational facility". The management recommendations and mitigation measures set down in this report are to be employed in the detailed design resolution of the works.

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[Note: Some government departments have changed their names over time and the above publications state the name at the time of publication.]

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