LINDFIELD LEARNING VILLAGE

RESPONSE TO SUBMISSIONS - BUILT HERITAGE

12 SEPTEMBER 2019
PREPARED FOR SINSW

URBIS

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1. INTRODUCTION

OVERVIEW

This Heritage Impact Assessment has been prepared by Urbis Heritage on behalf of the NSW Department of Education and School Infrastructure NSW (the Applicant). It accompanies a Response to Submissions Report in support of State Significant Development Application (SSD 16_8114) for Lindfield Learning Village (the site).

On 24 October 2018 the Minister for Planning granted partial development consent to SSD 8114 for Phase 1 construction and operation of a new school for 350 students. The remainder of SSD 8114 (as originally proposed) has not yet been granted consent and has been subject to further investigation, assessment and engagement with the relevant agencies (DPE, RFS, OEH, RMS, TfNSW) and Council.

The Response to Submissions and supporting documents seek approval for the remainder of SSD 8114, being:

Phase 2(a)

- Minor internal works within the approved Phase 1 area to accommodate an additional 35 students.
- The additional 35 students (a total of 385 enrolled students) is needed for Day 1 Term 1 2020, prior to Phase 2(b) being completed.
- Phase 2(a) will occur immediately on approval to allow the additional students for Day 1 Term 1 2020.

Phase 2(b) of construction:

- Works to accommodate 1,050 students (including the approved 350).
- Repurposing of the Phase 1 area.
- A loop road around the southern portion of the site for emergency vehicles, buses and drop off and pick up vehicles.

Phase 3 of construction:

- Works to accommodate an additional 950 students in the western wing of the building.

Vegetation management will be required to achieve the necessary APZ. The SSD does not seek approval for vegetation management outside the site boundary.

The purpose of this Heritage Impact Statement is to:

- Outline how relevant agency submissions have been responded to (**Section 2**)
- Outline how relevant conditions of consent (Phase 1 approval) have been responded to (**Section 3**); and
- Assess the heritage impact of key changes to the plans/further design development primarily in Phase 2 and 3 which have been documented since the partial approval of the development in October 2018 (**Section 4 and 5**).

The subject site is located on Eton Road in Lindfield and is identified as an item of local heritage significance by Ku-ring-gai Council, item: I422 (Ku-ring-gai Local Environmental Plan 2015).

This report is an addendum to both the Heritage Impact Statement (HIS) prepared in June 2017. Reference should be made to the HIS for an assessment of the impact of the proposed works originally proposed under the SSD. Refer to the Conservation Management Plan prepared by Urbis in November 2018 for a full description, history and assessment of significance for the site.

2. METHODOLOGY AND PROPOSED WORKS

This Heritage Impact Statement has considered the issues raised by agencies during exhibition of SSD 8114 and subsequent Response to Submissions for Phase 1, the conditions of consent following SSD8114 and key changes to the SSD plans.

This response to submissions also addresses the following conditions (SSD8114) related to heritage:

B43 – Heritage Elements

(a) Retention and methodology of timber ceiling to Library

(b) Fabric of building to be salvaged for reinstalment such as parquetry floor

(c) Retaining the spiral stairs towards the southern boundary of the building and installing lockable gates to prevent access as they are not BCA compliant

B44 – Fire Wall

Impact on timber panelling in Cafeteria and how wall is constructed in lightweight steel which can be removed in the future.

The following key changes to the plans have been assessed in the preparation of this report.

- Omission of rooftop additions
- Construction of the Link Road
- Partial Demolition of Link Between Stages 1 and 5 for Link Road
- Landscaping Works to south of the building
- Minor demolition south façade Level 1
- Part demolition of Slab Level 4 Zone F Courtyard for Light Well
- Refurbishment of Existing Planters
- Removal of Concrete Wall Adjacent to Spiral Stair at secondary entrance (Level 4)
- Removal of concrete on Level 1 and 2 to Allow for Services Reticulation
- Removal of Fire Wall and Repair of Parquetry in Cafeteria
- Alterations to theatre interiors

The below plans have been referenced in the preparation of this letter:

Table 1 – Drawing List – DA

Sheet No.	Sheet Name	Revision
DA-2-200	Cover Sheet	C
DA-2-100	Site Plan	B
DA-2-101	Indicative Construction Management Plan	C
DA-2-102	Phase 1-3 Site Plan	B

Sheet No.	Sheet Name	Revision
DA-2-103	Lot Boundary Plan	B
DA-2-120	Construction Staging Plan – Level 0	B
DA-2-121	Construction Staging Plan – Level 1	B
DA-2-122	Construction Staging Plan – Level 2	B
DA-2-123	Construction Staging Plan – Level 3	B
DA-2-124	Construction Staging Plan – Level 4	B
DA-2-125	Construction Staging Plan – Level 5	B
DA-2-126	Construction Staging Plan – Level 6	B
DA-2-127	Construction Staging Plan – Level 7	B
DA-2-128	Construction Staging Plan – Roof	B
DA-2-200	Proposed Floor Plan – Level 0	B
DA-2-201	Proposed Floor Plan – Level 1	C
DA-2-202	Proposed Floor Plan – Level 2	C
DA-2-203	Proposed Floor Plan – Level 3	C
DA-2-204	Proposed Floor Plan – Level 4	C
DA-2-205	Proposed Floor Plan – Level 5	C
DA-2-206	Proposed Floor Plan – Level 6	C
DA-2-207	Proposed Roof Plan	B
DA-2-300	North and South Building Elevation	C
DA-2-301	East and West Building Elevation	C
DA-2-400	Building Sections – Sheet 1	B
DA-2-401	Building Section – Sheet 2	B
DA-2-901	Building Perspectives	B

3. OVERVIEW OF HERITAGE SIGNIFICANCE

The significance of the subject site and its component elements are set out in the Conservation Management Plan prepared by Urbis (November 2018). The statement of significance and significance maps of key levels have been reproduced below.

3.1. STATEMENT OF SIGNIFICANCE

Lindfield Learning Village is of state heritage significance for its historic, aesthetic, associative, social and representative values, and for its rarity. It is also of research potential at a local level.

The Lindfield Learning Village is of historic significance at State level, primarily due to the important role of the Campus in the development of Australian Architecture in the second half of the twentieth century, and the role of the Campus in the development of Australian landscape design, and an appreciation for natural bush settings associated with the influential Sydney School. The Campus also influenced the design of educational buildings, with an emphasis on spatial planning to create a social environment. The Campus is also historically significant for its place in the development of teachers' education in NSW, and is representative of the substantial investment by State and Federal Government into Higher Education in the 1960s and 1970s. The Campus also has historical significance at a local level, for the role the Campus has played in education on the North Shore.

The Lindfield Learning Village has significant associations with important government and private practice architects and landscape architects, including David Turner and Peter Stronach. The associations with Bruce Mackenzie and Alan Correy are particularly important, as the Campus retains the ability to clearly illustrate the landscape design and construction techniques closely associated with the work of these influential landscape designers. The site is a major example of the application of Mackenzie's philosophy of building carefully within a pristine natural environment rather than starting with a cleared site and creating an 'artificial' natural landscape.

The Lindfield Learning Village has a high level of aesthetic significance, arising from the natural bushland setting, the buildings themselves and the landscape design and has won several awards including the Sulman Medal in 1978, a 1972 RAIA Merit Award and a Royal Australian Horticultural Society Award for Bush Landscape Design. The Campus remains largely intact and is a seminal example of the Neo-Brutalist style in Australia, moderated by the influence of the Sydney School of architecture and the landscape design philosophies of Bruce Mackenzie and Alan Correy. The integration of the buildings with the natural bushland setting and topography of the site is particularly significant. The campus was also influential in the design of educational buildings, with an emphasis on spatial planning to create a social environment for students and staff. The site is of heritage significance as a seminal and rare example of these combined styles and hence is regarded as an important, demonstrating research value.

Former staff and students of the Lindfield Learning Village, during its time as various tertiary institutions have a special association with the site from working and studying at the unique site. The entry of the Campus on the Royal Australian Institute of Architects' Register of 20th Century Heritage, and nomination for State Heritage Register listing, indicates an appreciation for the site in terms of its significance for the development of Australian architecture and landscape architecture in the second half of the twentieth century.

The Campus is both a representative example of the design influences present in the building and its landscaped setting, and also rare in the combination of Neo-Brutalist and Sydney School influences on such a scale and with such a high degree of success. The presence of protected, rare, vulnerable and uncommon indigenous plant species in the vegetation of the site and its surroundings adds to the rarity value.

3.2. SIGNIFICANCE MAPPING

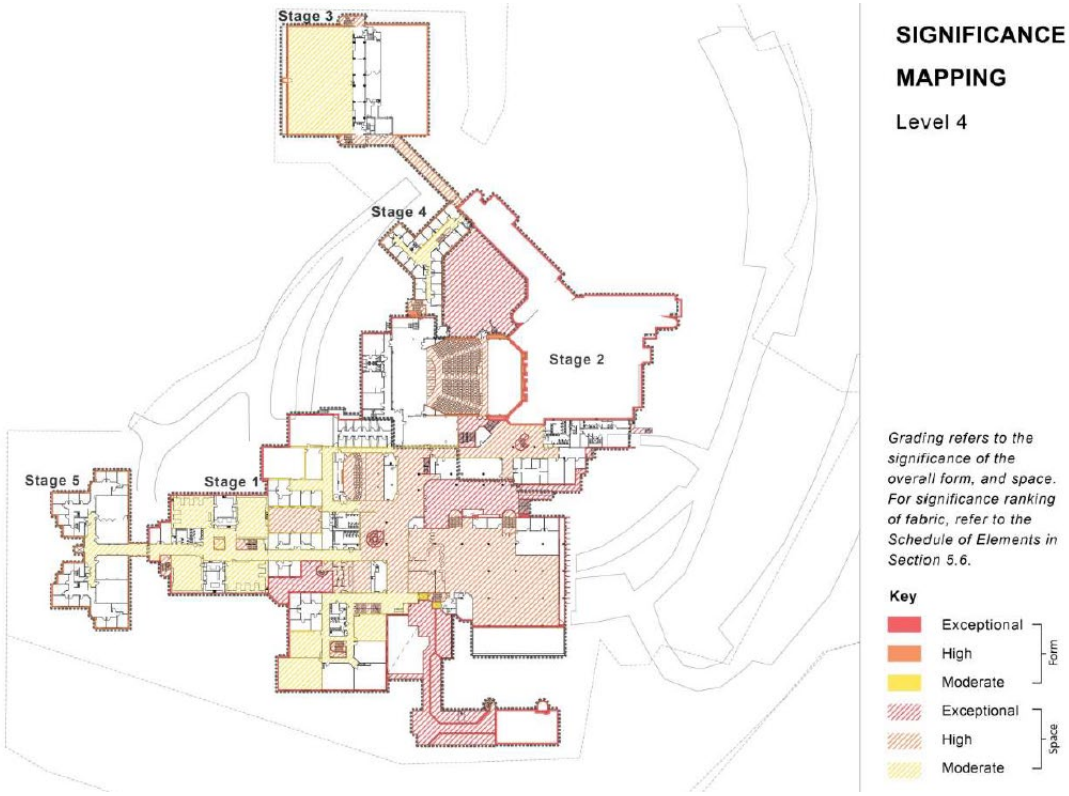


Figure 1 – Significance mapping – Level 4

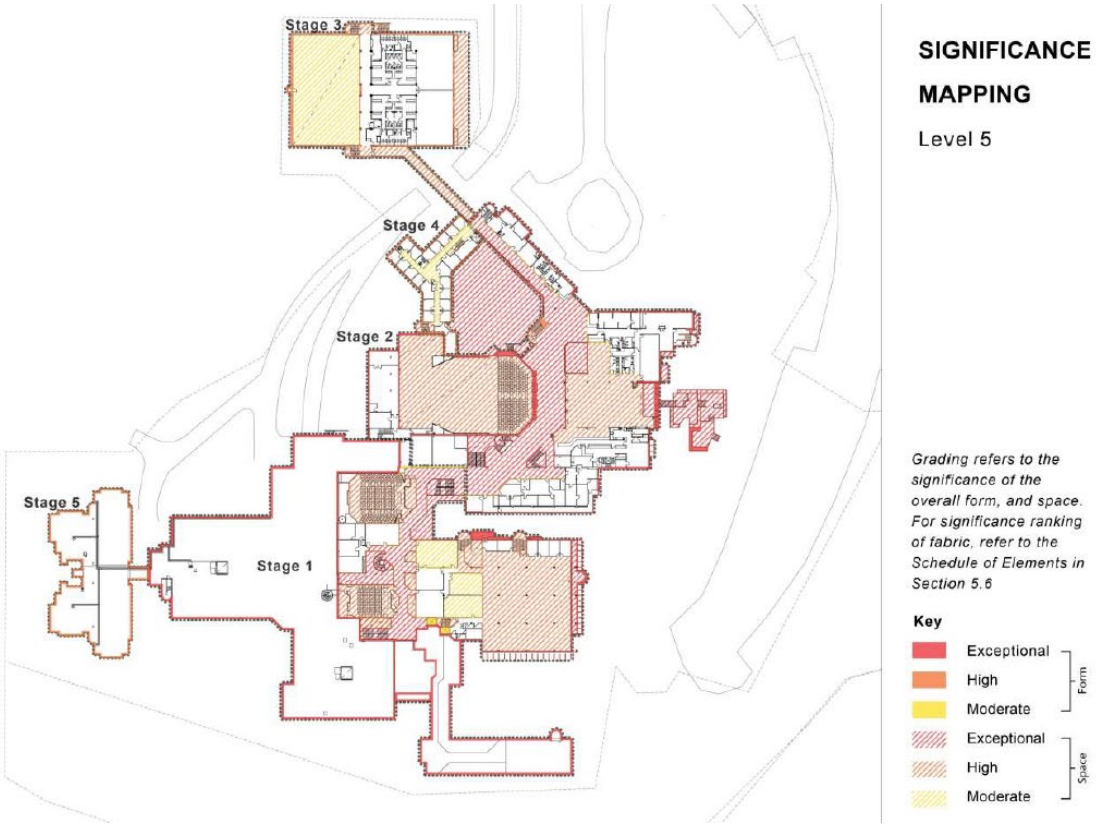


Figure 2 – Significance mapping – Level 5

4. CONSERVATION POLICY

A conservation policy explains the principles to be followed to retain, conserve, restore or reveal the heritage significance of a place, and how that significance can be enhanced and maintained. This relies on a full understanding of the significance of the place, and a review of the constraints and opportunities arising from that significance.

Urbis prepared a Conservation Management Plan for the site (November 2018) with policies for future development set out in Section 9. Key policies have been reproduced below and responded to throughout the assessment in the following sections.

Policy 22	The site should preferable retain its use as an educational facility (tertiary, secondary or primary).
Policy 24	Any proposed use of the complex must include a whole of site approach. It is not acceptable for only part of the site to be adapted to future use.
Policy 27	New works impacting highly significant fabric should be designed to be reversible in the future. This includes the ability to reinstate elements in the future which have been removed.
Policy 29	New works must not diminish the interpretation of the significant form, scale general configuration and principal elevations of the place.
Policy 36	Any vertical additions are not to impact on the existing response of the built form to the topography i.e. retaining the stepped and modulated response characteristic of the Sydney Style, and the lower levels to the southern side of the building.
Policy 37	Alterations to the existing fenestration of highly significant stages must be minimal and designed carefully with regard for the pattern of fenestration on the respective elevation. Additions are not to disrupt the significant rhythm of the fenestration of the primary elevations, particularly the southern elevation of Stage 1. Alterations should be limited to those required by condition or compliance, and where the latter is required, designed in conjunction with heritage advice.
Policy 44	The planter beds should be retained and conserved.
Policy 51	Materials for new additions should be identifiably new but of a robust nature in response to the brutalist character of the building. Design of future additions should also consider the material applied to the previous additions to avoid an ad hoc approach.
Policy 60	Retain and conserve all off-board concrete and pre-cast concrete. Minor penetrations for services or access must be designed in consultation with the heritage consultant and subject to the appropriate approvals.
Policy 80	If the timber batten ceilings must be removed for the installation of services, a methodology should be prepared for the removal and salvage of the ceiling and its reinstatement after the installation of services. If services are proposed to be installed through the ceiling a methodology should be prepared to ensure minimal removal and impact on fabric.
Policy 82	The original timber parquetry flooring in the Cafeteria in Stage 2 building should be retained and conserved. Parquetry which is required to be removed to allow for any required fire solution is to be stored on site and reinstated as soon as is practicable. Removal of parquetry must be the minimum required to facilitate the chosen fire solution. Any new parquetry must match the original in size, species, finish etc.
Policy 124	The introduction of new roads within the area identified for development should be reduced to the minimum necessary for the school use, fire compliance and emergency vehicle access.
Policy 125	The existing roads and parking areas, combined with pedestrian pathways and stairways, particularly within the eastern and southern portions of the site should be retained and re-used where possible (although particular significance has not been ascribed to these features, other than the car parks). Any replacement of pathways and stairs should follow the aesthetic of the existing, i.e. meandering and lightly touching the landscape.

Policy 130 Construction of any proposed fences throughout the site must consider both the built heritage, landscape and cultural heritage values of the site, as well as the bushland character. The replacement of fences should seek not to require tree clearance.

Policy 131 Fences should be painted in a recessive colour so the relationship between the building and landscape is not impacted.

5. RESPONSE TO AGENCY SUBMISSIONS

Following the submission of the original SSD application a number of agency submission were received. The below comments were received from Rajeev Maini as a delegate of the NSW Heritage Council on 11 August 2017. Urbis has provided a response below each comment in the context of the Phases 2 and 3 submission.

Agency Comment:

A suitably qualified heritage consultant should be nominated for this project and provide input into the detailed design resolution and conservation methodologies adopted to minimize impacts to heritage values.

Response:

Urbis Heritage have been consulted and provided heritage input throughout the design development process of Phases 2 and 3. Urbis was consistently involved in the construction phase of Stage 1 and provided resolution on key heritage issues.

Agency Comment:

New works should be designed to be reversible in the future.

Response:

The proposed works facilitate the ongoing use as an education facility and safeguard the significance of the use. It is necessary to carry out interventions to the building in order to reasonably function as an educational facility. Where works impact on significant fabric, such as removal of concrete, Urbis has assessed these works and sought to minimise physical and/or visual impacts.

Urbis notes that there is an opportunity to remove additions and reconstruct removed elements if required in the future, however 'reversibility' traditionally implies that the altered element or fabric can be restored to its original condition, for instance removed fabric may be able to be salvaged and can be reused in the building if required. This will not be the case for the removal of non-significant elements of the site and should not be necessary having regard to the assessed significance values.

It should also be noted that since the preparation of the Stage 1 Response to Submissions document Urbis has been made aware of the requirement to remove a substantial number of trees in the surrounding area to comply with RFS requirements. While there is potential, as per the approach above, to plant new trees in the future, planting of the trees in the same locations as those existing is unlikely due to the ongoing requirements for compliance. Further, the new trees would not reach maturity for several years after they are planted. Complete reversibility is therefore not achievable in regard to the landscape design however the proposal is assessed to have an acceptable heritage impact to facilitate the reuse of the place.

Agency Comment:

A schedule of conservation works should be prepared for existing buildings.

Response:

It is understood that this document was prepared by Apex in October 2018. In addition, Trevor Waters of Waterstone Concrete has developed and implemented a methodology for the cleaning of the concrete.

Agency Comment:

Proposed maintenance works should be guided by appropriate methods prepared by a qualified heritage consultant.

Response:

It is recommended that this is addressed by way of a condition of consent.

Agency Comment:

A detailed grading of significance should be prepared in accordance with the Heritage Council's publication Assessing Heritage Significance 2001.

Response:

Refer to the Conservation Management Plan prepared by Urbis November 2018 which includes detailed significance mapping and a schedule of significant elements. Key plans have been reproduced above in this report.

Agency Comment:

An Interpretation Strategy for the building should be prepared to guide how information on the history and significance of the building will be provided for the students and general public.

Response:

Refer to the Interpretation Strategy prepared by Urbis November 2018.

Agency Comment:

A photographic archival recording of the building should be prepared prior to the commencement of works.

Response:

Refer to Photographic Archival Recording of the entire building prepared by Alex Mayes in September 2018.

Agency Comment:

David Turner, former GAO project architect, should be consulted.

Response:

An ongoing effort to locate David Turner was undertaken throughout 2017/2018. The project team was made aware that David Turner was overseas and passed away at the start of 2019.

6. RESPONSE TO CONDITIONS OF CONSENT (STAGE 1)

Heritage Elements (Condition 43)

(a) Retaining the extant timber ceiling of the existing library area. This must include a methodology for the removal and salvage of ceiling and its reinstatement after the installation of services and include measures to minimise impacts as a result of the installation of services;

Response:

Interventions to the timber ceiling in the former library are proposed. The ceiling would be reinstated following the installation of services in line with Policy 80 of the CMP. The below statement prepared by DesignInc in collaboration with Urbis outlines the requirement for alterations to the ceiling:

To ensure this space meets current regulation there is extensive amount of modifications to lighting, mechanical and fire (sprinklers) which means portions of the ceiling have to be modified and/or disturbed (RCP AR-244K[12] in appendix). The nature of this work means working with the asbestos & SMF insulation both of which have been flagged in the Hazardous Materials Report produced by GreenCap (Refer to J142882 UTS Lindfield - HazMat Survey Report - June 2016)

In line with the relevant condition of consent DesignInc has set out the following methodology for the treatment of the ceilings in the context of the new services.

1. Remove timber ceiling carefully & associated grid

2. Dispose of any asbestos in accordance with hazardous material legislation

3. Carefully remove the SMF insulation which is bonded to the rear of the timber panelling – this is careful work which must be undertaken by a hazardous materials specialist in a controlled environment as it involves disturbing friable material

4. Remove and salvage each batten to be re-applied to a new backing sheet

5. Reinstate ceiling with new grid system @ 600c/c to match existing, allowing for new services to penetrate where required – noting the new services have carefully been positioned to ensure unnecessary disruption of the ceiling is avoided

6. New timber battens may be required where damaged battens need to be replaced – the type of timber batten and associated treatment is to be clarified in accordance with Heritage preference. The fixing is to be nail fixed (secret fixings) with putty lightly sanded to match the existing

7. Entire ceiling to be reinstated at same height using the majority of original timber on a new grid and panel system with services largely concealed within. There may be an acoustic insulation subject to acoustic engineering advice which will sit above the timber battens and black backing sheet in the ceiling void

Fire Wall to Cafeteria & Associated Parquetry (Condition 43(b), 44 and 45)

(b) Significant fabric affected by the internal firewall (including parquetry floor within the cafeteria) must be salvaged and stored for reinstatement

Response:

A fire wall was constructed between the northern section of the school and Phases 2 and 3 in order to facilitate the implementation of the partial school. Urbis acknowledged that this item of work would impact the quality of the spaces (including the cafeteria and the central circulation spine). Urbis supported the construction of the fire wall (refer Urbis letter dated 24 August 2018) only on the basis that it was reversible, required in order to implement the school by the required time and on the basis that it would be removed pending the implementation of the remainder of the school. Urbis not only strongly supports the removal of the fire walls but considers this item of works to be necessary in mitigating the detrimental heritage impact generated by the construction of the fire wall.

In Urbis Response to Submission letter (August 2018) the fire wall was identified to be an ad hoc addition which would intersect key spaces including the cafeteria and the central circulation spine. The removal of the fire wall is strongly supported to reverse the detrimental impacts generated by the construction of the fire

wall. The fire wall was installed as a temporary measure and can be removed without any impact on the significant fabric in the space.

It is understood that parquetry in the cafeteria space to the north of the fire wall has been removed and stored in order to achieve fire separation. As per Policy 82 of the CMP it is a recommendation of this report that the removed parquetry is retrieved from storage, and reinstated, in keeping with the area to the south of the fire wall. Where there is not enough intact original parquetry to cover the flooring, the species should be investigated, and new timber sourced to match.

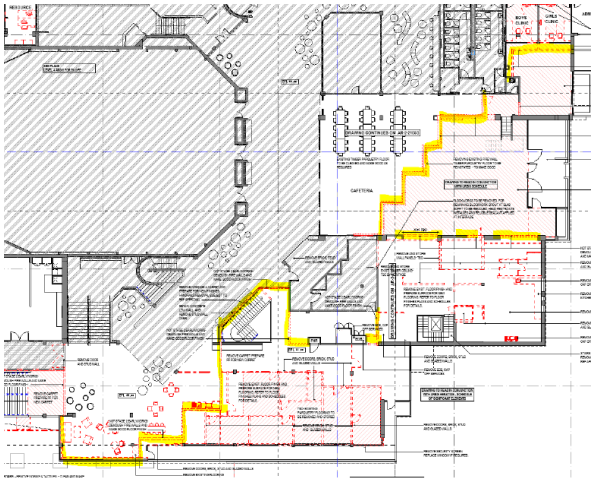


Figure 3 – Removal of fire wall as shown highlighted.

Source: DesignInc

Figure 4 – Parquetry to the rear (east) of the cafeteria to be retained and matched.

Source: Urbis

7. ASSESSMENT OF HERITAGE IMPACT – ADDITIONAL EXTERNAL WORKS

7.1. PREAMBLE

Several key changes to the original design have been developed since the submission of the Stage 1 application. From a heritage perspective these have not been developed in response to agency submissions but are generally a result of further investigations on the site or as a bi product of agency submissions relevant to other disciplines. Urbis considers that the changes are overall acceptable from a heritage perspective given they complete a suite of works which will see the entirety of the former William Balmain Teachers College utilised for education. This is entirely in line with Policy 24 of the CMP which stipulates that it is not acceptable for only part of the site to be adapted for use. It is considered that the proposed works in Phases 2 and 3 retain the same values as those retained in Stage 1.

The key changes to the plans have been assessed in this section (external) and the section below (internal).

7.2. OMISSION OF ROOFTOP ADDITIONS

Three covered outdoor learning areas (COLAs) were initially proposed to the rooftops in order to fulfil the operational requirements of the building. These were discernibly new structurers and were supported on the basis that they would appropriately respond to the strength in the original form of the heritage item. They would also be set back from the existing building facades. The extent of 'coloured' external cladding was subsequently reduced after the exhibition of the EIS and confined to discrete areas of the external facades and COLA structures to minimise the prominence and visual impact on the building.

The revised SSD submission addressed in this letter omits the rooftop additions entirely from the scheme. Although the rooftop additions were supported in the initial scheme as above there is recognised benefit in their omission from a heritage perspective. Policy 36 of the CMP acknowledges the response that the existing building forms have to the landscape i.e. that they retain the stepped and modulated response characteristic of the Sydney Style with the lower levels to the south of the building. The omission of the rooftop additions would ensure that there is no potential for any items to obscure this relationship.

The removal of the rooftop play areas would further encourage the use of the surrounding bushland by the students and enhance the relationship between the use of the building and its setting.

Figure 5 – Original SSD proposal showing rooftop additions omitted from revised scheme.

Source: DesignInc

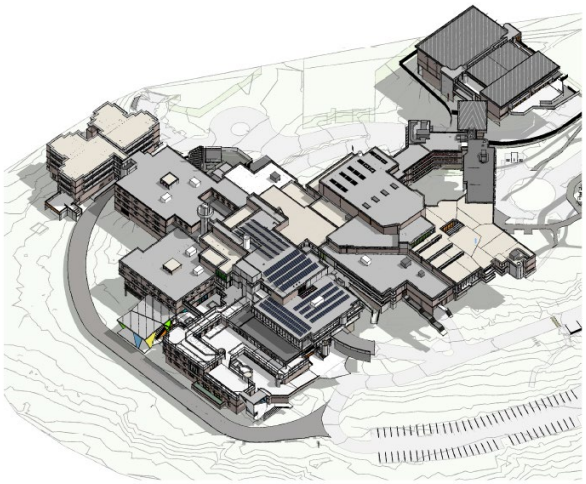


Figure 6 – Revised SSD proposal showing rooftop additions omitted from revised scheme.

Source: DesignInc

7.3. LINK ROAD

A link road is proposed from the southern extent of Dunstan Grove, along the southern side of the building extending to the carpark to the east of the building. The link road is required to address a substantial number of traffic concerns and is a requirement of RMS. The traffic issues created by the use of the subject site has been historically acknowledged. In order to ensure that the proposed use is feasible and successful over a long term a comprehensive solution to the traffic issues has been engineered. This is line with Policy 124 of the CMP which allows for introduction of new roads only where necessary for the school use, fire compliance or emergency vehicle access.

The Link Road would require the removal of an additional 10 trees. It is acknowledged that this proposed in a landscape which has already been denuded of most of its trees. Although 10 trees is a small number in the context of the surrounding National Park some heritage impact must be acknowledged.

The Link Road would be located in between the building and the surrounding landscape. It would constitute a division between the building and the National Parks albeit it is a division which would be flat to the landscape. Notwithstanding, the link road provides a solution to a traffic issue which has been an issue throughout the history of the utilisation of the site. The futureproofing of the site will be achieved through comprehensive operational solutions. Therefore, the link road is supportable given the intention for the ongoing use of the building for an education purpose and given that the road does not significantly detract from the ability to interpret the building within its bush setting.

Figure 7 – View towards Stage 1 building across area proposed for link road.

Source: DesignInc

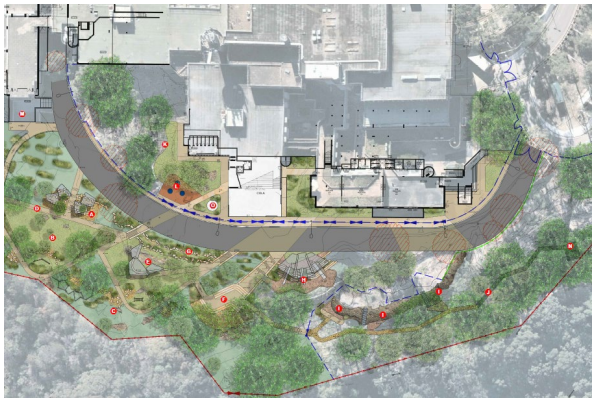


Figure 8 – Proposed location of link road (shown pink).

Source: DesignInc

7.4. PARTIAL DEMOLITION OF LINK BETWEEN STAGES 1 AND 5 FOR LINK ROAD

In order to facilitate the construction of the link road addressed above it is required to remove a portion of the link between Stages 1 and 5 of the building. The link road is required to pass through this area as the alternative would require that it passes around the west side of Stage 5. The proposed solution is entirely within the DoE land and would require the removal of substantially less trees than the alternative. This is in line with Policy 125 of the CMP which stipulates that new roads into bushland should be restricted to those required for emergency and fire fighting vehicles.

The link between the stages is noted as being of moderate significance in the CMP. It is considered that the modifications to this element are acceptable in order to facilitate the accommodation of a substantial number of children at the place by way of increased traffic accommodation.

There would be no impact on the following fabric as a result of this item of work:

- The principal forms of either Stage 4 or 5 (only the link between them will be impacted).
- The concrete balustrade to the south of the link and to the west of the proposed link road.
- Level 2 slab which is visible as exposed concrete.

The proposed demolition affects the ground floor section of the link and the bulk of fabric to be removed to facilitate this addition constitutes the anodised glazing which is attributed little significance in the CMP (Urbis 2018). The first-floor connection is retained over the road and the original configuration of the link remains able to be interpreted. The works would however require the removal of the slab at Level 1 and the removal of the planter box adjacent to the link (north).

The removal of the planter box would have some heritage impact as the planter boxes are part of the original landscape planning of the school and are preferred to be retained in accordance with Policy 44 of the CMP. The subject planter box to be removed however is located in an area of lesser significance and in the context of what is considered to be a service/utilise courtyard. This courtyard includes roller doors and access to carparking. The planter box does not demarcate a major entrance to the building and its removal would facilitate the resolution of a long-established traffic issue associated with the site.

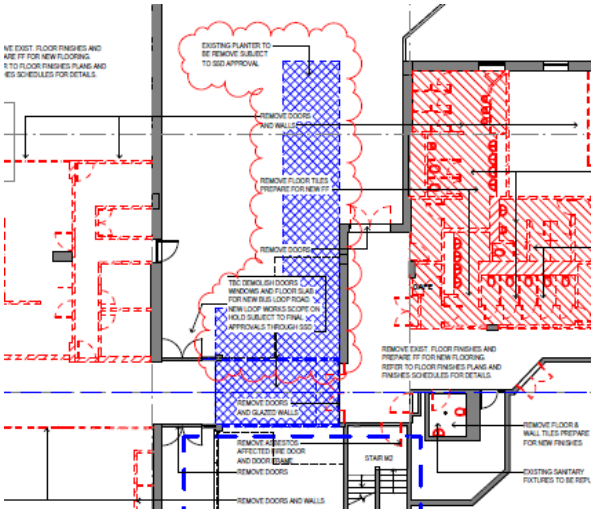


Figure 9 – Proposed demolition plan showing removal of the link and planter.

Source: DesignInc

Figure 10– View south towards link to be removed. Planter to left of image.

Source: Alexander Mayes

7.5. LANDSCAPING WORKS

The open area to the southern section of the school will be subject to landscaping works, similar to the Stage 1 landscaped section. Refer to the arborist report

It is recognised that the link road represents a significant intervention into the landscape. Therefore, in order to retain the natural landscape character as much as possible the landscaping works have been designed with an intention to use natural materials and minimise works to that required for the school use. Turfed areas have been minimised throughout. Turf is concentrated to the western end. The turf species is proposed to be *Nara Zoysia Macrantha* which is a native species.

Sandstone logs are proposed between the access road and the terraced lawn area (area G). The material has been chosen for its reference to the natural landscape. The finish of the sandstone would be as natural as possible while allowing the stones to function as seating. The sides of the logs would have rough split face finishes. The retaining logs would have a number of breaks and pockets of native grass and shrubs such that the logs are integrated well with the surrounding landscape. Crushed sandstone would be utilised between the stones rather than turf. The trail would incorporate additional sandstone logs. These would be placed at different angles to minimise the amount of apparent intervention.

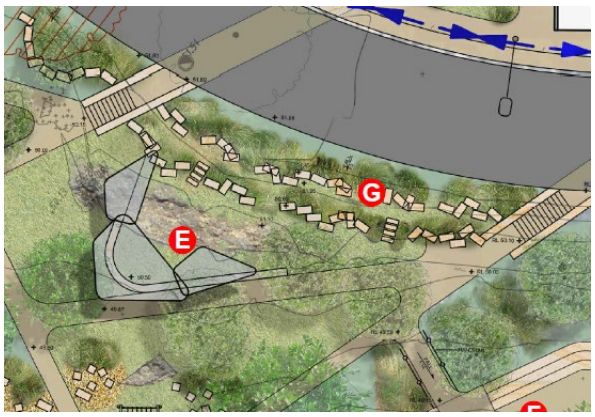


Figure 11 – General layout of sandstone logs.

Source: DesignInc

Figure 12 – Sandstone log precedent.

Source: DesignInc

There are no shelter structures (in addition to the COLA) proposed to the north of the Link Road. Three shelter structures are proposed to the south of the Link Road to shade the informal learning areas. the shelters would be located below the level of the road and would therefore not block views to the significant south façade of the building. The roofs of the shelters would be constructed of thin perforated aluminium with a shallow side profile to mitigate visual impacts. The colour is proposed to be mid to dark sand and have been designed such that they minimal reflection. As such, they would not be highly visible from a distance or in the context of views to the entire southern façade. The shelter posts are proposed to be hardwood or powder coated aluminium and be referential to the eucalypt tree trunks.

Figure 13 – Plan of shade structure.

Source: DesignInc

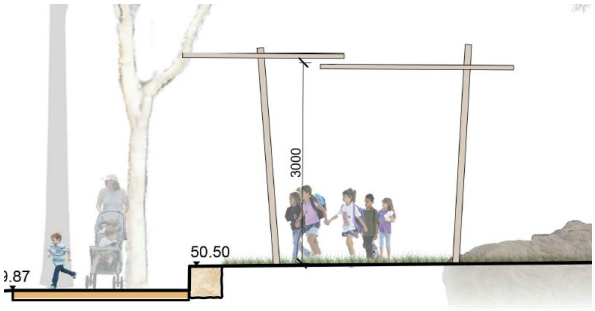


Figure 14– Section drawing showing shade structure.

Source: DesignInc

A slide play precinct is proposed to be located to the east end of the landscaped area. it is proposed to install three tubular covered slides with colour to minimise visual impact and reflection. Pockets of indigenous vegetation including *Lomandra* and *Astrodanthonia* would soften the expanse of sandstone. Refer precedent image below.

A climbing wall is also proposed to be located to the east east of the landscaped area. The colours of the hand holds for the climbing rocks have been designed such that they both indicate the level of climbing difficulty and so they don't dominate the appearance of the natural rock. Refer to the precedent image below for the proposed colour scheme.

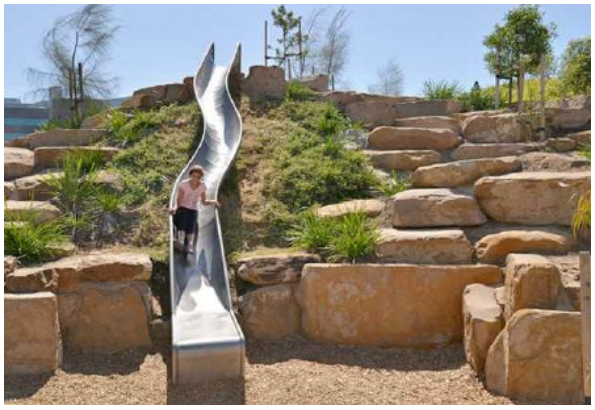


Figure 15 – Precedent image showing pocket planting around slide.

Source: DesignInc

Figure 16 – Natural coloured climbing hand holds.

Source: DesignInc

It is proposed to install a boardwalk close to the southern boundary of the site which terminates in a teaching area. the balustrade would be steel framed on power coated base plates on the rock where applicable. The boardwalk is located within a natural area of landscape and the slope of the site.

As proposed under the original SSD, a security perimeter fence would be installed. The fence would be dark grey or green such that it is recessive in the context of the natural landscape (policy 131 of the CMP). A 1300mm solid portion of balustrade on the south east corner of the loop road is also proposed to prevent risk of a car running into the landscaped area beyond which would be utilised by children. This will have no significant visual impact.

7.6. PROPOSED BUSHFIRE MANAGEMENT SOLUTIONS

Several solutions to mitigate the identified bushfire risk are proposed – tree clearing, Link Road and alterations to the building to achieve compliance including fire shutters and installation of steel windows to replace aluminium. It is understood that the tree clearing is not the subject of this application.

Link Road

In addition to the tree clearing, the Link Road is also proposed as a solution to mitigate the fire risk. The Link Road would be located in between the building and the surrounding landscape. As described in the section above, it would constitute a division between the building and the National Parks albeit it is a division which would be flat to the landscape and enables the understanding and interpretation of the original design intent of the building within a bush setting. The Link Road is supported on the basis that it contributes to the solution for two significant site constraints, bushfire and traffic. It is understood that without a response to these constraints they have the ability to preclude the intended use of the site. Refer to assessment of Link Road above.

Building Alterations

It is understood that discussions with the Rural Fire Services have been extensive regarding changes required to the building to achieve BAL-FZ. As determined during the RFS consultation regarding the Partial School it was concluded that the Lindfield Learning Village was to meet BAL 140 requirements. The existing aluminium windows do not meet the requisite standards for fire protection at present. In order to comply and in addition to the required tree removal to BAL Flame Zone requirements, each opening must be covered with either a fire shutter or the aluminium window frames must be replaced with steel.

The following principles have been developed to drive the design of both the fire shutters and new steel windows where necessary.

- The application of fire shutters is preferred to windows which have concrete sun hoods which are able to mostly obscure the shutters.
- The rails which are required down either side of the windows to guide the shutters should be painted black/dark grey to match the window and would be set immediately next to the window opening. This

would allow the shutters to be read as part of the window arrangement rather than an addition which would be caused by setting the rails off from the openings and having brick visible in between.

- The preference is to install shutters to the inside of the building where the accommodation of the box for the fire shutters requires more room than available between the window frame and any concrete blades. The exceptionally significant internal courtyard does not have externally mounted shutters for this reason.
- Where long runs of window require additional steel members to support the shutter boxes, these members are to align with existing mullions.
- There is an opportunity to install a horizontal shutter across the roof of the fishpond, in preference to the application of individual shutters to each window.
- Reconstruction of windows with a steel frame have been applied only where this does not have a significant impact on the continuity between the original aluminium window mullion and the pre-cast concrete blades in front or the geometry of the waffle slab.

Individual solutions will be developed with detailed input from Urbis for each window, door or opening which comprise either approach, or a combination of both and having regard to the heritage significance, design intent and specific circumstances of the component elements. Urbis is to be provided with shop drawings for every fire shutter for sign off prior to ordering.

DesignInc in collaboration with Urbis have developed a solution for the proposed entry at Level 4. Not that doors required for fire egress including those at level 4 are ideally not to be covered by shutters. As such, the Level 4 entry is required to be reconstructed in steel.

The same principles have been applied to this entry as to the main entry at Level 5. As per the main entry the double height entry is not able have the steel frame elements in the same alignment as larger fire doors are required to the lower floor. As such, the existing alignment of the framing to the upper half of the entry with the waffle slab axis has been prioritised.

The size of the steel frame & fire rated glass does limit the panels to 3.1 x 1.3, which is shorter than the existing. In order to keep the primary horizontal breakup of the entry a second horizontal members have been added above the member which will be replaced at the existing level.

It is considered that the above resolution of the design was successful from a heritage perspective in the delivery of the Phase 1 school. It is considered entirely appropriate from a heritage perspective that the same principles are applied to the Phase 2 school.

Any required additions to the façade must be resolved in consultation with Urbis. This includes the opportunity for Urbis to review shop drawings of any solutions.

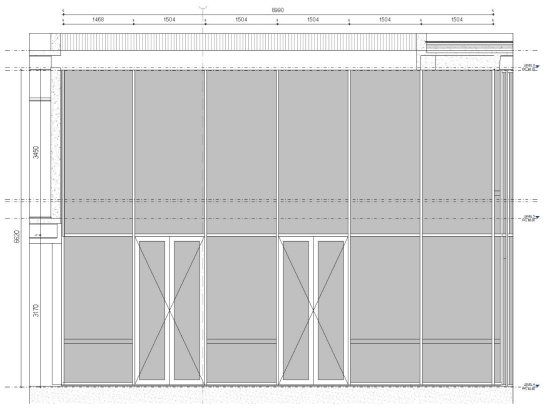


Figure 17 – Existing Level 4 entrance steel frame layout.

Source: DesignInc

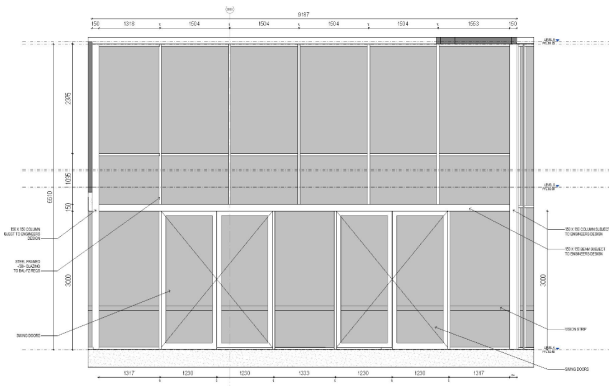


Figure 18 – Proposed Level 4 entrance steel frame layout.

Source: DesignInc.

Figure 19 – Existing breakup of secondary entry.

7.7. DEMOLITION SOUTH FAÇADE LEVEL 1

A small amount of demolition of the south façade at level 1 is proposed to allow for the introduction of doors to this façade and enhance permeability of the building. This item of work would include the removal of existing louvres and small sections of brick wall to the south façade. The southern façade of the building is of high significance for its overall form and composition of materials which are highly characteristic of the architectural style, and specifically its concrete detailing including exposed slab and window hoods.

The proposed demolition at level 1 would impact only anodised windows which are graded as little significance in the CMP (Urbis 2018) and a small amount of brick. The windows are not part of a significant fenestration pattern and therefore the demolition is in line with Policy 37 of the CMP which stipulates that significant rhythms of fenestration to the southern façade are not to be disrupted.

The new opening would retain the same header height as the existing windows and would therefore have no impact on the exposed concrete slab edge above.

There are no other existing openings proposed at this level on this façade. As such, the new larger openings would not disrupt an existing fenestration pattern. The new doors at this level are proposed to be black and in keeping with the existing profile of windows and doors throughout.

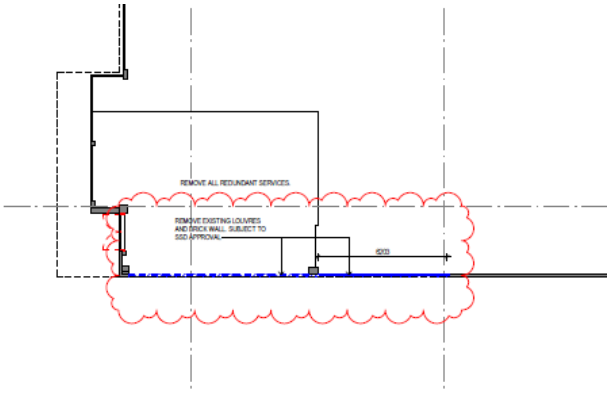


Figure 20 – Proposed demolition to southern façade.

Source: DesignInc

Figure 21 – Area proposed for demolition.

Source: DesignInc.

7.8. DEMOLITION OF SLAB LEVEL 4 ZONE F COURTYARD FOR LIGHT WELL

It is proposed to remove a section of the floor slab to the south of the Level 4 entrance to achieve light access to the space below (level 3 of the previous library). The proposed lightwell would require the removal of only a small section of original tiles.

However, the significance of the southern façade of the courtyard (north façade of the original library) must be acknowledged and the impact of introducing new materials within its context must be carefully considered. It is proposed to either install a new horizontal window into the slab or to build up a 'light box'.

The installation of a new window would have a negligible impact when the southern wall of the courtyard is viewed as a whole. The window would be installed into the slab and would be minimally noticeable in its context. This option would have the least heritage impact.

There is a potential alternate option to install a 'light box' which is extruded vertically from the square opening. This would be a noticeable addition to the original, highly significant courtyard space. However, such an extrusion would be of the same architectural language as the forms on the southern wall of the courtyard, which represent external expressions of the internal function.

The option pursued is subject to fire requirements which are yet to be determined. The design of this element must be resolved in conjunction with Urbis.

7.9. ALTERATIONS TO COLA

The proposed COLA has been shortened and widened in contrast to the original SSD submission. The COLA would also function as a bus stop in addition to a shade structure.

As per the original design, the COLA would remain under the height of the exposed slab at Level 3. Note that the COLA has been specifically designed such that there is no impact on the characteristic spiral stairs to the east of the COLA which are of high significance. These design elements ensure the COLA continues to respond to Policy 29 of the CMP which stipulates that new works are not to diminish the interpretation of principal elevations.

The original design principles (origami and colour in contrast to the existing concrete and solid construction) are featured in the revised design and are in accordance with Policy 51 of the CMP.

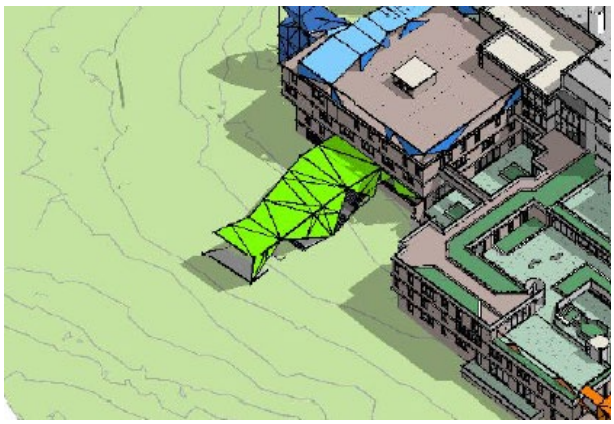


Figure 22 – Original SSD proposal showing original COLA design.

Source: DesignInc

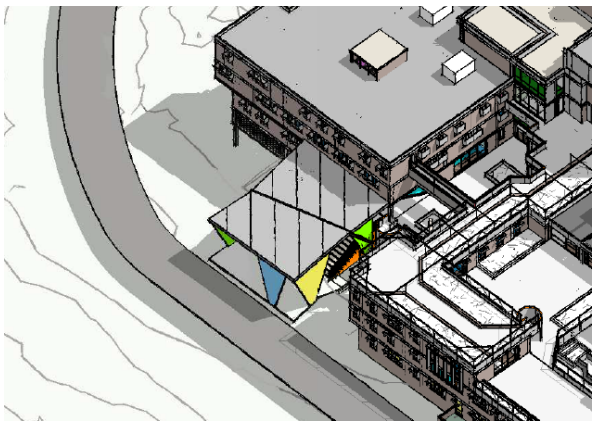


Figure 23 – Revised SSD proposal showing revised COLA design.

Source: DesignInc

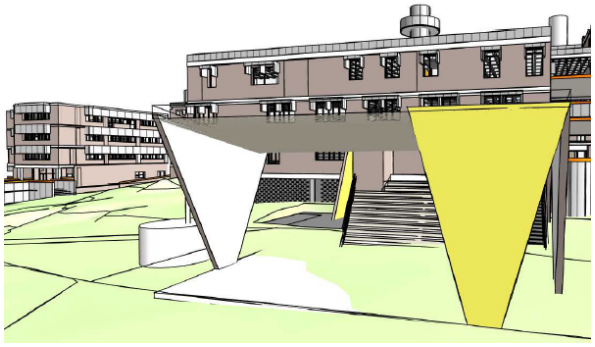


Figure 24 – Proposed alterations to COLA.

Source: Lacoste Stevenson

Figure 25 – Proposed alterations to COLA.

Source: Lacoste Stevenson

7.10. REFURBISH EXISTING PLANTERS

The existing planters are original features of the courtyards and rooftop gardens which are noted in the CMP to be of exceptional significance. The refurbishment would include the installation of a new drainage system and replacement of tiles where damaged. This item of work is in line with Policy 44 of the CMP which stipulates that the planter beds should be retained and conserved.

The new drainage system for the plants would have no impact on the presentation of the planter beds. The only apparent alteration would be the installation of drainage pipes (approx. 100mm) which would be visible at the lower levels. It is understood that the waterproofing and maintenance of the plant beds has historically been problematic at this site. The planter beds are understood to have been refurbished a number of times including the replacement of plants (most of which no longer exist).

The application of a long-term solution for the waterproofing and maintenance of the planter beds is encouraged. Refer to the landscape plans for the species proposed for the planter beds.

The existing tiles, specifically their natural tone contribute to the unique character of the building. As such, where possible, existing tiles would be retained. Urbis must be provided with a sample of any replacement external tiles before ordering.

Figure 26 – Planter bed to Level 3.

Source: Alexander Mayes

Figure 27 – Planter beds to Level 4.

Source: Alexander Mayes

7.11. WOOD AND METAL ELEVATION – DUST EXTRACTION

The wood and metal workshops require a dust extraction & welding bay, both items require external additions to the structure. These will be done in Vitrapanel (colour to be confirmed). There is also a steel roof required externally to provide an external learning area. This is a modest addition and will not detract from the already utilitarian façade in terms of form or materiality.

The Science labs on Level 3 & 4 require fume cupboards to function which have 300mm diameter external flues to be fixed to the side of the building. The dust extractors have been deliberately located the labs with fume cupboards on the north side of the building to avoid any fixtures being located on the south façade.

Figure 28 – Wood and metal elevation.

Source: Lacoste Stevenson

Figure 29 – Proposed changes to the Wood and Metal Elevation.

Source: Lacoste Stevenson

7.12. SPIRAL STAIRS

Modifications are proposed to spiral stairs throughout the building for compliance. The spiral stairs on the southern courtyard at level 4 can be used by way of performance solution due to the width being less than 1m (810mm). The handrails are to be positioned to ensure the stair treads & risers are compliant and also adding a tread insert to avoid the non-compliant open riser. It is proposed to install pink handrails and an orange aluminium riser plate to close the gap and ensure compliance of this part. The pink handrails are in keeping with the original design intent and the orange risers are appropriate to the design principles applied in Stage 1. The orange risers are in keeping with the overlay of contemporary development and will be easily identifiable as part of the later development phase.

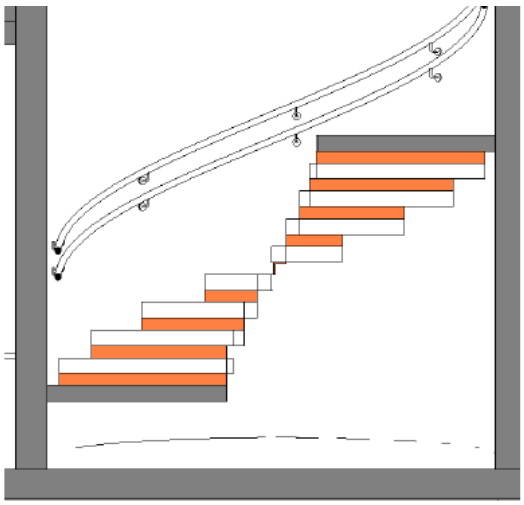


Figure 30 – Proposed stair risers.

Source: Lacoste Stevenson

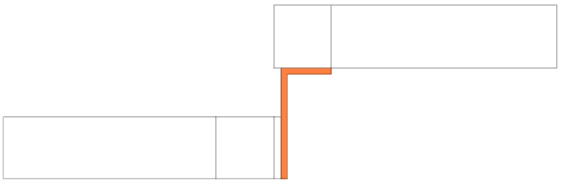


Figure 31 – Proposed stair risers.

Source: Lacoste Stevenson

8. ASSESSMENT OF HERITAGE IMPACT – INTERNAL

8.1. REMOVAL OF CONCRETE WALL ADJACENT TO SPIRAL STAIR

The partial removal of the concrete wall adjacent to the spiral stairs at the secondary entrance (Level 4) is proposed to increase the light permeation through the building (Please refer to drawing AR-2-2104J & AR-2-2304J for details). The proposed demolition includes the removal of two portions of wall (3853mm wide and 3376mm wide x 2.7 metres high).

This item of work would require the removal of a substantial amount of original fabric which is a highly significant item identified in the CMP. It is acknowledged that the monolithic expanses of concrete throughout the building contribute strongly to its character.

Notwithstanding the above, the work would read as a penetration to a wall rather than the removal of the wall in its entirety. The wall is double height however there would be no impact on the concrete on the upper (Level 5) section of the wall and the lower part would be supported by substantial retained columns and the original configuration would therefore be able to be interpreted. The opening would be below the double line showing the slab level below Level 5.

It is considered that the opening of the wall behind the staircase would give further prominence to the spiral staircase which is of high heritage significance and would not unreasonably detract from the overall character of the concrete materiality. The requirement for light permeation throughout the building is further acknowledged.

The structural engineering report has confirmed that the removal of the portion of concrete wall as proposed would have no impact on the structural integrity of the wall above or the adjacent stair.

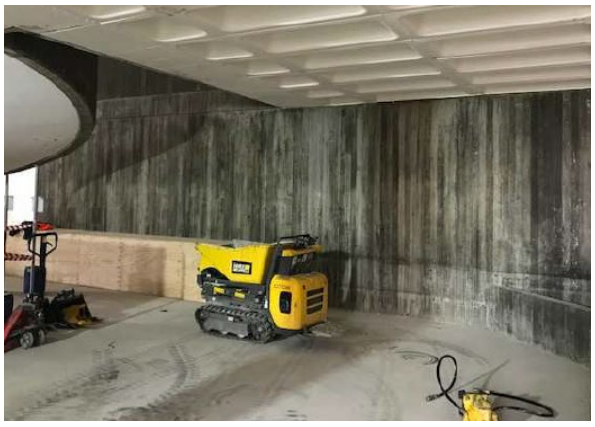


Figure 32 – Wall to be partly demolished.

Source: Lacoste Stevenson

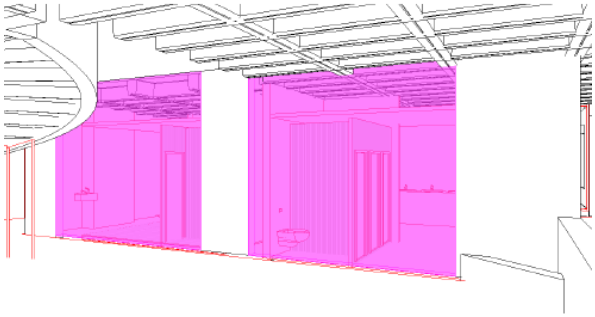


Figure 33 – Section of concrete wall to be removed shown shaded pink.

Source: Lacoste Stevenson

8.2. REMOVAL OF CONCRETE ON LEVEL 4 TO ALLOW FOR RECEPTION WINDOW

The cut out of an opening within the concrete element at the Level 4 Main Entry is required to enable a functioning reception to operate at the entry. Please refer to drawing AR-2-2104K & AR-2-2304K for details.

The requirement for the reception, and secure reception and associated air lock has been set out by DesignInc (italics) in consultation with the Department of Education (quote) and reproduced below.

The building is of a large nature and has three main points of entry, one being in Stage 1 where a reception is currently located. The second entry point is to the south where buses will be dropping children off in Zone N and the access will be through Level 2 of Zone N building or the adjacent courtyard to gain entry into the building. The third point of access which was used for the UTS is on Level 4 which has a large feature staircase which leads students, teachers & visitors from the upper or lower car park into the core of the building. This third point of entry will become more popular in Stage 2 as the Homebases and associated

classrooms are in closer proximity to this and it is also the closest point of entry to the two lecture theatres which may be used for external events.

Schools have a high level of security requirement which the Department of Education's Security Unit endorse. To have an unoccupied & unmonitored point of access form the public domain would be a huge security risk to the school. The School have outlined the importance of this reception and associated air lock as 'a critical safety issue to have administration staff at this major entry point to the school. This will be the entry for students and we will be directing the public and parents to the entry on level 5. All other student services will be co-located with the admin at the level 4 entry. It would be extremely problematic from an operational perspective for us not to have admin in this location. The secure entry and air-lock are critical for student safety.'

A number of options for the implementation of the reception area have been investigated in consultation between DoE, Urbis and DesignInc. These options have been set out in the table below and against each the identified heritage impact is set out.

All of the proposed options have a material heritage impact. The preferred option is option 3 which has been copied below. It is acknowledged that this option will have an adverse material impact which would is essentially not reversible (Policy 27 of CMP). However, it is understood that the reception facility is an essential operational requirement and is partly facilitated by Policy 60 of the CMP which allows some change for access. To this end the preferred option involves the least impact (considering both visual and physical impacts).

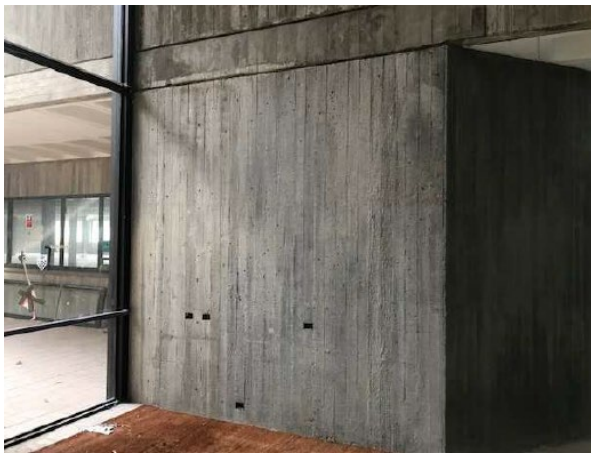


Figure 34 – Wall to partly be demolished.

Source: Lacoste Stevenson

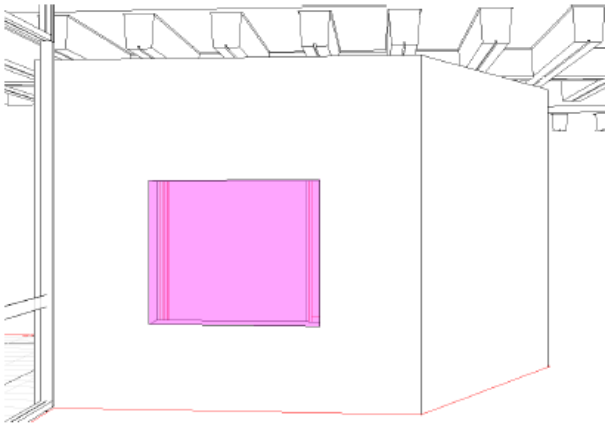
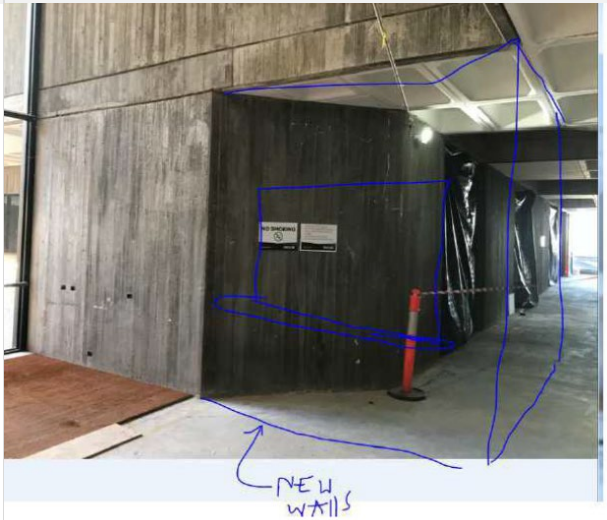


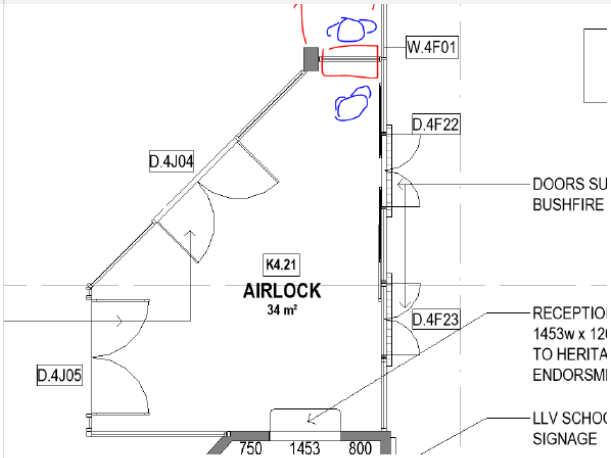
Figure 35 – Section of concrete wall to be removed shown shaded pink.

Source: Lacoste Stevenson

Table 2 – Alternative options investigate for reception area.

Option	Image	Heritage Impact
1	 Picture 1 – Reception option 1. *Source: DesignInc*	• This option would require the permanent removal of fabric of high significance. The area of the concrete wall outlined in blue would be required to be removed. • The chamfer wall would be required to be removed. This chamfer contributes to the collection of geometries which define the space and as such removal would have detrimental heritage impact. • The demolition of part of the concrete wall would interrupt the double height expanse of concrete at Level 4 and 5 • Margins would be retained either side of the opening to show a penetration in a wall rather than a wall removed. • The new addition would significantly project into the Level 4 circulation space which is of high significance. Views along the corridor from the entry would be obscured which would have a heritage impact.
2		• The chamfer wall would be required to be removed. This chamfer contributes to the collection of geometries which define the space. • The double height expanse of concrete would be retained. • The new addition would significantly project into the Level 4 circulation space which is of high significance. Views along the corridor from the entry would be obscured which would have a detrimental heritage impact.

Option	Image	Heritage Impact
	Picture 2 – Reception option 2. *Source: DesignInc*	
3 **DesignInc have determined that Option 3 is the most appropriate**.	 Picture 3 – Reception option 3. *Source: DesignInc*	• This option would require the permanent removal of fabric of high significance. The area outline in blue would be required to be removed for the reception window. • This option would interrupt the double height expanse of concrete at Level 4 and 5 • Margins would be retained either side of the opening to show a penetration in a wall rather than a wall removed.
4		• This option would require the permanent removal of fabric of high significance. The chamfer wall would be required to be removed. This chamfer contributes to the collection of geometries which define the space. • The new addition would project into the Level 4 circulation space which is of high significance. Views along the corridor from the entry would be obscured. • The impact on the significant fabric is not considered to be proportionate to the limited benefit that would be provided by its demolition.

Option	Image	Heritage Impact
	Picture 4 – Reception option 4. *Source: DesignInc*	
5	 Picture 5 – Reception option 4. *Source: DesignInc*	• The chamfer wall would be required to be removed. This chamfer contributes to the collection of geometries which define the space. • The double height space would be retained. • The new addition would project into the Level 4 circulation space which is of high significance. Views along the corridor from the entry would be obscured. • The impact on the significant fabric is not considered to be proportionate to the limited benefit that would be provided by its demolition.
Additional option (north of airlock).		• The double height expanse of concrete would be retained. • Views south along the circulation corridor at Level 4 from the airlock would be retained. • The reception area would be located directly adjacent to the stairs to level 5. The junction between the top of the reception pod and the open stair well would require a well resolved deign solution. • Views from the stair well south along the Level 4 corridor would likely be impacted.

Option	Image	Heritage Impact
	Picture 6 – Reception option to north of airlock *Source: DesignInc*	

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All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

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