



DESIGN 5

A R C H I T E C T S

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SYDNEY OPERA HOUSE

FUNCTION CENTRE & BALLET REHEARSAL ROOM PROJECTS

Heritage Impact Statement

1.0 BACKGROUND & PURPOSE OF REPORT

Design 5 - Architects has been engaged by the Sydney Opera House Trust (SOHT) to prepare an assessment of the Heritage Impact of the proposed alteration of the existing Northern Function Room facility and adjacent spaces fronting the Northern Broadwalk to accommodate a new Function Centre, and the consequent re-location of the Ballet Rehearsal Room within the Podium. The new location for the rehearsal room will require alterations and fitout of existing spaces.

A more detailed description is given below in Section 4 of this report.

The report has been prepared by Alan Croker (director) of Design 5.

2.0 SEARS REQUIREMENT

The requirements for this Heritage Impact Statement (HIS) are stated in Schedule 2 of the Secretary's Environmental Assessment Requirements (SEARS) for Application No. SSD 7881, as issued 30 August 2016. They are as follows:

The application must include a Heritage Impact Statement (HIS) prepared by a qualified Heritage Consultant. The HIS must address any impact to the heritage significance of the Sydney Opera House and its setting, including impacts to the world heritage buffer zone and/or Aboriginal, historic or archaeological significance.

- *The HIS must provide a detailed assessment of each of the key proposed elements, and implications of BCA compliance and construction issues.*
- *The HIS must consider current and known future access requirements under the Building Code of Australia and the Disability Discrimination Act 1992 and assess the heritage impact of these requirements.*
- *The HIS must assess the proposal against the requirements of the following documents:*
 - *NSW Heritage Manual;*
 - *Matters of National Environmental Significance Significant Impact Guidelines 1. 1;*
 - *Management Plan for the Sydney Opera House;*

- *Conservation Management Plan Sydney Opera House: A Revised Plan for the Conservation of the Sydney Opera House and its Site (3rd Edition);*
- *Draft Conservation Management Plan (4th Edition);*
- *Utzon Design Principles; and*
- *Relevant Council EPLs.*
- *The HIS must demonstrate that the proposed works present the best option with the least heritage impacts.*

The requirement to assess the proposal against the Draft Conservation Management Plan (4th Edition) was discussed at a meeting with the Heritage Division on 16 September 2016, and it was agreed that this would not be required. Refer also to Section 6.3 of this report.

3.0 BASIS OF ASSESSMENT

This Heritage Impact Statement (HIS) assesses the proposal against the following documents:

- *Matters of National Environmental Significance – Significant Impact Guidelines 1.1*, EPBC Act 1999, Department of the Environment 2013
- *Sydney Opera House, A Revised Plan for the Conservation of the Sydney Opera House and its Site*, by James Semple Kerr. Third Edition, SOHT, 2003 (referred to below as the CMP 3rd edition)
- *Sydney Opera House, Utzon Design Principles*, SOHT May 2002 (referred to below as the UDP 2002)

The *Management Plan for the Sydney Opera House* (prepared in 2005 as part of the bilateral agreement negotiations) references the CMP and the Utzon Design Principles and provides a framework for protection of the World and National Heritage values of the Sydney Opera House site. It has been endorsed by the Heritage Division, Department of Planning (formerly the NSW Heritage Office). The Management Plan states that approval of actions in relation to the Sydney Opera House site may only be made in accordance with the Management Plan, which defers to the CMP 3rd edition for an assessment of heritage impact of proposals. Refer also to Section 6.3 of this report regarding status of the CMP.

Assessment of these projects against the *Sydney Opera House Accessibility Master Plan* is addressed in the EIS accompanying this application.

3.1 Methodology

This Heritage Impact Statement has been prepared in accordance with the principles and processes of the *Australia ICOMOS Burra Charter 2013*. The preparation of this Heritage Impact Statement also follows the process and model recommended in the NSW Heritage Manual, specifically the NSW Heritage Office guideline *Statements of Heritage Impact* (revised 2002), including consideration of alternative options and their impact.

3.2 Documents reviewed

The following documents prepared by Tonkin Zulaikha Greer Architects:

Function Centre

Drawings - Sydney Opera House – Front of House – Function Centre
160825 DA Issue_Function Centre.pdf (cover sheet dated 25 August 2016 – Rev A)

Ballet Rehearsal Room

Drawings - Sydney Opera House – Front of House – Ballet Rehearsal Room
160815 DA Ballet Rehearsal Room.pdf (cover sheet dated 2 August 2016 – Rev A)

4.0 BRIEF DESCRIPTION OF PROPOSAL

The proposed projects are briefly described as follows:

4.1 Function Centre

The proposal adapts and enlarges the space presently occupied by the Northern Function Room facility to house a fully internal function space to seat approx. 200 people, with full kitchen and associated facilities. This will be achieved by creation of new openings within the main interconnecting walls to provide a larger space that can be subdivided if required. This facility is presently operated by Aria Catering for catered functions and events and requires the use of an external marquee to accommodate the required seating.

The present kitchen located within a number of constrained spaces will be relocated to the present Ballet Rehearsal Room space. This requires the relocation of the present Ballet Rehearsal Room. Refer to 4.2 below.

Back-of-House facilities associated with the Function Centre will be located within areas adjacent to this facility – many already in use with the Function Centre as toilet facilities and store areas.

The curved glass wall facing the Northern Broadwalk will be retained with two new pairs of bronze framed glazed doors added.

The present entry on the western side of the Function Room area will be enlarged utilising existing details.

The present marquee structure will be removed from the Northern Broadwalk and minor modifications to the paving to allow temporary placement of fixed umbrellas or bollards, and connection to services for events.

4.2 Ballet Rehearsal Room

The proposal for the new Function Centre requires the existing Ballet Rehearsal Room space to be used as a kitchen. Thus the rehearsal room is to be relocated to a space on the western side of Central Passage, close to Stage Door. This space is presently occupied by two levels of meeting rooms and sits within the area originally intended for below stage facilities for Utzon's proposed major hall, south east of the present Playhouse.

5.0 ISSUES & CONSIDERATION OF ALTERNATIVES

5.1 Function Centre

While not a performance venue, the function room facility provides a unique location for celebratory events, whether or not they are associated with the Opera House's core activities as a performing arts centre, as well as a revenue stream to assist funding other activities.

The present function room facility utilises an external marquee that has been assessed as intrusive in the setting and external spaces of the Opera House and should be removed. Using the marquee, the facility can presently seat 250 with a dance floor. Accommodating this number within the confined spaces within the Podium is not possible without major modifications to open up a larger space. The seating capacity of the proposed facility is 210.

The present administration area on Level +12 to the north of the Western Foyers and Drama Theatre was considered, however the available space between the rear of the Drama Theatre stage and the exterior of the Podium is less than what is possible with the location proposed.

It is apparent that there are no alternative locations for a function room facility on the site, and within the Podium that can accommodate 200+ seated guests and have direct access to the broadwalks. Both the CMP 3rd edition and draft 4th edition have identified this location as suitable for some form of food and beverage facility, but both have stressed the requirement that this must not have any additional enclosed or semi-enclosed structure external to the Podium. The current proposal supports this approach.

Various options and configurations for opening up the original load bearing walls within the space were explored and all have structural as well as heritage and aesthetic implications. The configuration proposed in this application is the most preferred, retaining a strong sense of the original spaces and minimising additional structural works. Further refinements of the structural solution are proposed in this assessment.

The kitchen and associated preparation and storage areas for a function facility must be efficient in their layout and function and the present arrangement falls well short of this requirement. The original brief for the Function Centre included only those spaces presently occupied by the facility, plus minor additional spaces to the east and west. As the functionality of the kitchen areas was investigated in more detail, it became apparent that the existing spaces were inadequate, and a larger area was required. The location and size of the adjacent Ballet Rehearsal Room was identified as an ideal solution, however it is the last surviving original rehearsal room on the Joan Sutherland Theatre (JST) side of the building.

5.2 Ballet Rehearsal Room

Investigations were carried out as to potential alternative locations for the Ballet Rehearsal Room, and the following options were considered:

1. The adjacent central 'megastore' for theatre equipment, consolidated and moved to its present location in 2012. This store has been fitted with a mezzanine floor and lift and requires a large single space. It was originally designed and fitted out as an orchestra / chorus rehearsal room for the Opera Theatre (now JST) and its original timber 'wobbly' panel fitout removed to storage when it was altered for the megastore.
2. The present office / meeting room spaces immediately east of the Western Foyer toilet facilities, south east of the Playhouse, on the west side of Central Passage in close proximity to Stage Door. These spaces presently occupy a double height volume behind the Concert Hall and loading dock lifts and have been revised and fitted out since 1973.

Option 1 would require relocation of the equipment megastore, possibly to the 2nd location proposed for the rehearsal room – west of Central Passage. This option was not favoured as it did not provide the preferred functionality for either the megastore or the rehearsal room. The space in the former orchestra / chorus rehearsal room (megastore) is longer and narrower than the existing rehearsal room, whereas the space available in Option 2 is wider and more regular. Its main functional disadvantage is its more remote location from dressing rooms and other facilities, requiring performers to cross Central Passage.

An important principle underpinning Jørn Utzon's original design was that all the processes for preparing a performance were contained within the Podium, beneath the auditorium they were to be presented in – either the major hall (now Concert Hall) or minor hall (now Joan Sutherland Theatre – JST). There were originally 4 rehearsal rooms beneath the JST, and with this proposed relocation, none will remain.

While neither option was considered ideal, the Opera House preferred Option 2 on the basis that it could be a temporary location, until a better option presents itself or the full Opera Theatre Renewal project is undertaken and all associated backstage facilities are revised.

These issues are discussed in Sections 10 and 11 of this heritage assessment report.

With the projects included in this DA, there was a rigorous process of review amongst user groups, consultants, the Opera House's heritage architect, Eminent Architects Panel and Conservation Council at both schematic and concept design stages.

6.0 HERITAGE LISTINGS & STATUTORY FRAMEWORK

6.1 Listings

The Sydney Opera House is listed on the following statutory registers:

- World Heritage List (UNESCO) 2007
- National Heritage List (Australian Government) 2005
- State Heritage Register (NSW Government) 2003
- Sydney Local Environmental Plan 2005 (City of Sydney Council)

The Sydney Opera House is listed on the following non-statutory heritage registers:

- National Register of Significant 20th Century Buildings (Australian Institute of Architects)
- National Trust of Australia (NSW) register
- Register of the National Estate (archived list with the Australian Heritage Council)

6.2 Statutory framework

The statutory framework for approvals for the Opera House is presently as follows:

Commonwealth: *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

- Part 3, Division 1, identifies Commonwealth requirements relating to World Heritage properties and National Heritage places.
- Approval must be obtained from the Commonwealth Minister for the Environment for actions that are likely to have a significant impact on matters of national environmental significance (including National and World Heritage sites) under the EPBC Act.
- The Sydney Opera House site was subject to a bilateral agreement between the Australian Government and the State of New South Wales made in 2005 pursuant to Section 45 of the EPBC Act however this expired in 2010. Under the terms of that agreement (Clause 8.1), an action taken at the Sydney Opera House site would not require the approval of the Commonwealth Minister for the Environment, Heritage and the Arts where:

the taking of the action has been approved by the State of New South Wales or an agency of New South Wales in accordance with the Management Plan for the Sydney Opera House ...

State (Planning): *Environmental Planning and Assessment Act 1979* (EP&A Act) and *State Environmental Planning Policy (State and Regional Development) 2011*

- All development on land identified as being within the Sydney Opera House site is designated as State significant development (SSD) (Schedule 2) that requires consent under the EP&A Act.
- The Minister for Planning is the consent authority for SSD.

State (Planning): *Environmental Planning and Assessment Regulation 2000 (Regulation)*

- Clause 288 of the Regulation requires the consent authority to take into consideration the *Management Plan for the Sydney Opera House* (prepared 2005 as part of the bilateral agreement negotiations) in relation to development on the Sydney Opera House site. The Management Plan references the CMP and the Utzon Design Principles.
- The Management Plan provides a framework for protection of the World and National Heritage values of the Sydney Opera House site and has been endorsed by the Heritage Division, Department of Planning (formerly the NSW Heritage Office).
- The Management Plan states that approval of actions in relation to the Sydney Opera House site may only be made in accordance with the Management Plan, which defers to the CMP 3rd edition for an assessment of heritage impact of proposals.

State (Planning): *Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (REP)*

- The Opera House site falls within the Sydney Harbour Catchment area designated in the REP. It also is within the Foreshores and Waterways area and is designated as a Strategic Foreshore Site.
- The REP sets out a number of considerations that must be taken into account when submitting a DA (see clauses 13-15; Division 2 of Part 3 and Part 5 of the REP).

State (Heritage): *Heritage Act 1977*

- An approval from the Heritage Council under section 60 of the Heritage Act is required for development on the Sydney Opera House site. Where the development has been approved as SSD, the approval under section 60 of the Heritage Act cannot be refused by the Heritage Council.

6.3 Conservation Management Plan (CMP) status

The CMP 3rd edition has been formally endorsed by the authorities and is the version that has formal standing in any statutory assessment or approval.

The draft CMP 4th edition retains and expands on the philosophical approach and policies of the 3rd edition, providing more detail on many aspects. It has also been updated to include the World Heritage Listing and consequent obligations. This draft has been on public exhibition and then reviewed by the NSW Heritage Division and via a rigorous peer review process, but has not yet been finalised or formally endorsed by the authorities. The assessment in this HIS is based on the 3rd edition, but informed by knowledge gained in preparing the 4th edition. The impacts on World, National and State heritage values are discussed separately to the CMP.

7.0 IMPACT ON WORLD HERITAGE VALUES OF THE SYDNEY OPERA HOUSE

In 2007, the Sydney Opera House was inscribed on UNESCO's World Heritage List (WHL) for its Outstanding Universal Value (OUV) as a "masterpiece of human creative genius" under criterion (i) of the Operational guidelines for the implementation of the World Heritage Convention.

The Sydney Opera House was inscribed on the WHL for the following values:

Outstanding Universal Values

The Sydney Opera House constitutes a masterpiece of 20th century architecture. Its significance is based on its unparalleled design and construction; its exceptional engineering achievements and technological innovation and its position as a world-famous icon of architecture. It is a daring and visionary experiment that has had an enduring influence on the emergent architecture of the late 20th century. Utzon's original design concept and his

*unique approach to building gave impetus to a collective creativity of architects, engineers and builders. Ove Arup's engineering achievements helped make Utzon's vision a reality. **The design represents an extraordinary interpretation and response to the setting in Sydney Harbour. The Sydney Opera House is also of outstanding universal value for its achievements in structural engineering and building technology.** The building is a great artistic monument and an icon, accessible to society at large.*

Criterion (i)

*The Sydney Opera House is a great architectural work of the 20th century. It represents multiple strands of creativity, both in architectural form and structural design, **a great urban sculpture carefully set in a remarkable waterscape and a world famous iconic building.***

Comment

The proposed Function Centre and the relocated Ballet Rehearsal Room will have negligible impact on the architecture and setting of the Opera House, however the works will include the removal of the highly intrusive marquee on the Northern Broadwalk – used in conjunction with the existing function facility. This will considerably improve the setting and clarity of the Opera House as an architectural icon.

The proposed works for the Function Centre itself will involve substantial modifications to the system of load bearing concrete walls that support the northern end of this part of the Podium. This is not part of the unique structural system and technology that was developed for the folded and cranked beams and prefabricated ribbed shell structures.

In conclusion, it is considered that the proposed works in this application will have negligible impact on the Outstanding Universal Values that enshrine Sydney Opera House on the World Heritage List. The removal of the present marquee on the Northern Broadwalk will have a positive impact on these values.

8.0 IMPACT ON NATIONAL HERITAGE VALUES OF SYDNEY OPERA HOUSE

The following is the Summary Statement of Significance of the National Heritage values of the Sydney Opera House. ***Emphasis added*** on aspects of significance relevant to the assessment of heritage impact of the works in this current application.

The Sydney Opera House, constructed between 1957 and 1973, is a masterpiece of modern architectural design, engineering and construction technology in Australia. It exhibits the creative genius of its designer, the Danish architect Jørn Utzon and the contributions to its successful completion by the engineering firm Ove Arup and Partners, the building contractors M.R. Hornibrook, and the architects Hall, Todd and Littlemore. It is an exceptional creative and technical achievement in the national history of building design and construction in Australia.

Since its completion the Sydney Opera House has attracted world wide acclaim for its distinctive design, enhanced by its prominent location on Bennelong Point within a superb harbour setting. With its soaring white roof shells set above a massive podium, the Sydney Opera House is a monumental urban sculpture, internationally acclaimed as an architectural icon of the twentieth century. Its many national and international awards reflect its pivotal place in the national story of creative and technical achievement in Australia. The challenges involved in executing Utzon's design inspired innovative technical and creative solutions that were groundbreaking in the history of architectural design and building construction in Australia, particularly the roof shells that were based on the geometry of the sphere and demonstrated the extraordinary creative potential of the assembly of prefabricated, repeated components.

The interior spaces also reflect the creative genius of Utzon and his successors, Todd, Hall and Littlemore, who completed the building after Utzon's departure from the project in 1966.

*The Sydney Opera House is the most widely recognised building in Australia, and is cherished as a national icon and world-class performing arts centre. It represents an enduring symbol of modern Sydney and Australia, both nationally and internationally, reflecting changing social attitudes towards Australian cultural life in the decades after World War II. **The Sydney Opera House has played a seminal role in the development of Australia's performing arts, enhancing the cultural vitality of the nation.** It continually attracts nationally and internationally acclaimed performers, and is a mecca for visitors from around Australia and overseas.*

The peninsula on which the Sydney Opera House now stands has a special association with Bennelong, an Aboriginal man who became a prominent and influential figure in the early colony and played a significant role in mediating interactions between Aboriginal people and early settlers.

Comment

The proposed Function Centre and the relocated Ballet Rehearsal Room will have negligible impact on the external architecture and setting of the Opera House, however the works will include the removal of the highly intrusive marquee on the Northern Broadwalk – used in conjunction with the existing function facility. This will considerably improve the setting and clarity of the Opera House as an architectural icon within its harbour setting.

The proposed works for the Function Centre itself will involve substantial alteration to spaces defined by Jørn Utzon's structure, but fitted out by Peter Hall. Both Utzon and Hall's work will be respected by these works. Refer also to discussion in Section 10 of this report.

The relocation of the Ballet Rehearsal Room to allow space for the Function Centre kitchen will involve fitting out the new space with Peter Hall's white birch plywood 'wobblers' salvaged from the existing rehearsal room. This will retain and respect the significant Peter Hall regime for the performers' and back-of-house areas, continuing it into refurbished spaces, in accordance with the CMP. Refer to discussion in Section 10 of this report.

The Function Centre itself, while not a performance venue, will play a minor role in the identity of the Opera House as a performing arts centre and will assist funding performances at the House in the future via its revenue stream.

See the more detailed listed values of the place under the individual National Heritage criterion below.

8.1 National Heritage criteria

The Sydney Opera House is registered on the National Heritage List for meeting its listing criteria A, B, E, F, G and H. The values of the Sydney Opera House that meet the National Heritage criteria are set out in full in Appendix C of the Management Plan for the Sydney Opera House (August 2005) and also in the listing of the Sydney Opera House on the National Heritage List, available at <http://www.deh.gov.au/cgi-bin/ahdb/search.pl>

The extracts from the National Heritage values, under each of the criterion below, summarise and draw attention to the aspects of significance that are relevant to the assessment of heritage impact of this suite of projects.

NHL Criterion A Events, Processes

The place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history.

Relevant key values from National Heritage values:

- “The Sydney Opera House represents a masterpiece of modern architectural design, engineering and construction technology in Australia.”
- “It is a national icon that has become an internationally-recognised symbol of modern Australia and of Sydney, Australia’s largest city”
- “a seminal role in Australia’s performing arts history, enhancing the cultural vitality of the nation and continuously attracting nationally and internationally recognised performers from around the world”

Comment

The alterations to accommodate the Function Centre will have negligible impact on the external architecture of the Opera House. The removal of the intrusive marquee on the Northern Broadwalk will have a positive impact on its architecture and setting. The internal alterations to the original structure to form the main spaces for the Function Centre affect significant elements within the Podium but not the unique folded and cranked beams or the ribbed shell roof structure. Further refinement of the design of these alterations should be undertaken in the design development and documentation stages to reduce their impacts.

Most major performing arts centres internationally now boast a range of venues within their complexes that are available for hire for non-performance events and celebrations. The proposed Function Centre at the Opera House will upgrade the present facility to provide a dedicated signature function venue within the Podium that is worthy of this nationally significant place, strengthening it as a symbol of modern Australia.

The use of the Function Centre may not greatly enhance the cultural vitality of Sydney, but it will form part of the suite of unique venues on offer attracting national and international performers. It is important to note that while not envisaged or proposed, should this facility be further enlarged in the future to occupy space that should otherwise be used for performance related activities, it could potentially threaten the viability of the Opera House as Australia’s premier performing arts centre.

NHL Criterion B Rarity

The place has outstanding heritage value to the nation because of the place’s possession of uncommon, rare or endangered aspects of Australia’s natural or cultural history.

Relevant key values from National Heritage values:

- “The Sydney Opera House is a cultural icon that has no counterpart in Australia. With its distinctive sail-like concrete shell roofs standing boldly upon a massive granite-faced platform, located prominently on the Sydney Harbour foreshore, the Sydney Opera House is the most widely recognised building in Australia, and one of the most definitive national architectural icons of the twentieth century. It is also a rare example of a national cultural centre that has gained widespread recognition and respect as a performing arts venue.”

Comment

The projects included in this application will not have any adverse impacts on these values. The removal of the intrusive marquee on the Northern Broadwalk will have a positive impact on its architecture and setting.

NHL Criterion E Aesthetic characteristics

The place has outstanding heritage value to the nation because of the place’s importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.

Relevant key values from National Heritage values:

- “With its distinctive sail-like concrete shell roofs standing boldly upon a massive granite-faced platform, located prominently on the Sydney Harbour foreshore, the Sydney Opera House is the most widely recognised building in Australia, and one of the most definitive national architectural icons of the twentieth century.”
- “The building’s ability to emotionally move people and invoke a strong aesthetic response is enhanced by the experience of approaching, entering and moving around the building and surrounds.”
- “The distinctive interiors including the foyers surrounding the major auditoria, the Reception Hall (now the Utzon Room), the Box Office foyer, and the Bennelong Restaurant designed by Utzon and Peter Hall, enhance the relationship between the interior and exterior of the building.”

Comment

The projects included in this application will not have any adverse impacts on these values. The removal of the intrusive marquee on the Northern Broadwalk will have a very positive impact on its architecture and setting.

The proposed design and fitout of the Function Centre is very likely to result in a signature space with strong aesthetic qualities consistent with these values.

NHL Criterion F Creative or technical achievement

The place has outstanding heritage value to the nation because of the place’s importance in demonstrating a high degree of creative or technical achievement at a particular period.

Relevant key values from National Heritage values:

- “The ‘hybrid’ interior spaces of the Sydney Opera House reflect the creative genius of both Utzon and Todd, Hall and Littlemore, who completed the building and interior finishes after Utzon’s departure. The major public spaces with outside views, for example were designed by Utzon (and completed by Peter Hall) to be finished in natural materials, textures and colours similar to those on the exterior of the building in order to bring the outside inside (Kerr 2003, 69).”
- “the creation of sensory experiences to bring pleasure to the building’s users, ...reinforced by Utzon’s application of counterpointing techniques using light and dark tones, soft and hard textures and richly treated warm and cool interior colours.”
- “The interior spaces designed by Peter Hall, including the major auditoria known as the Concert Hall and Opera Theatre, and the minor performance spaces, performers’ and staff areas, and rehearsal rooms, known collectively as ‘Wobbly Land’ because of the distinctive ‘U’ shaped timber panelling, demonstrate the distinctive design solutions that made the Opera House a functioning performing arts centre in the 1970s, and reflect the prevailing aesthetic values, building standards, and financial constraints of the day.”

Comment

The pink granite terrazzo floor finish, proposed for retention in the Function Centre spaces, was introduced by Hall and was consistent with Utzon’s concept to use materials from the external palette for such spaces as these. This and other aspects of this proposal to retain significant features by both Utzon and Hall, including unpainted off-form concrete walls and the white birch moulded timber ‘wobbly’ panels, will retain and respect these national values.

The proposed design and fitout of the Function Centre is consistent with Utzon’s design techniques including counterpoint of colour, texture and materials.

NHL Criterion G Social value

The place has outstanding heritage value to the nation because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

Relevant key values from National Heritage values:

- "building's role as a cultural icon is also derived from the numerous performances conducted there (100,000 since 1973), and the place's role as a focal point for community events. The Sydney Opera House is a mecca for both Australian and international visitors to Sydney, attracting over 100 million visitors since the opening in 1973."

Comment

The proposed Function Centre, while not a performance venue, will provide another signature space for the enjoyment of those who attend a function there.

It is important that the area within the Podium to be occupied by the Function Centre and its associated facilities remains generally within the area of the proposal so that it does not threaten the Opera House's primary use as a performing arts centre.

NHL Criterion H Significant people

The place has outstanding heritage value to the nation because of the place's special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history.

Relevant key values from National Heritage values:

- "The Sydney Opera House is directly associated with Jørn Utzon"
- "The peninsula on which the Sydney Opera House now stands has a special association with Bennelong"

Comment

The proposed suite of projects will not have any adverse impacts on these values.

8.2 Summary assessment of heritage impact on National Heritage values

The proposed Function Centre and the relocated Ballet Rehearsal Room will have negligible impact on the external architecture and setting of the Opera House, however the works will include the removal of the highly intrusive marquee on the Northern Broadwalk – used in conjunction with the existing function facility. This will considerably improve the setting and clarity of the Opera House as an architectural icon within its harbour setting.

The internal alterations to the original structure to form the main spaces for the Function Centre affect significant elements within the Podium but not the unique folded and cranked beams or the ribbed shell roof structure. Further refinement of the design of these alterations should be undertaken to reduce their impacts in the design development stage.

Original Utzon and Hall features and characteristics will be retained and respected in these works. These include the pink granite terrazzo paving in the Function Centre and the white birch moulded plywood 'wobbly' ceiling panels.

The relocation of the Ballet Rehearsal Room to allow space for the Function Centre kitchen will involve fitting out the new space with Peter Hall's white birch plywood 'wobblies' salvaged from the existing rehearsal room.

The Function Centre itself, while not a performance venue, will play a minor role in the identity of the Opera House as a performing arts centre and will assist funding

performances at the House in the future via its revenue stream.

It is important that the area within the Podium to be occupied by the Function Centre and its associated facilities remains generally within the area of the proposal so that it does not threaten the Opera House's primary use as a performing arts centre.

In summary, the proposed projects in this application will not have an adverse impact on the national heritage values of the Opera House.

9.0 IMPACT ON STATE HERITAGE VALUES OF THE SYDNEY OPERA HOUSE

The CMP 3rd edition is used as the basis for discussion and assessment of the heritage impact of the proposed projects on the State Heritage values of the Sydney Opera House.

The following is the Statement of Significance of the State Heritage values of the Sydney Opera House. **Emphasis added** on aspects of significance relevant to the assessment of heritage impact of this project.

*The Sydney Opera House is of State significance as a twentieth century architectural masterpiece sited on a prominent peninsular in Sydney Harbour. In association with the Sydney Harbour Bridge it has become an internationally recognised symbol of Sydney and Australia, which is also widely admired by local citizens. **Designed for the NSW Government by renowned Danish architect Jørn Utzon between 1957 and 1966, and completed in 1973 by Hall, Todd and Littlemore, the building has exceptional aesthetic significance because of its quality as a monumental sculpture in the round, both day and night, and because of the appropriateness of its design to its picturesque setting. Its public spaces and promenades have a majestic quality, endowed by powerful structural forms and enhanced by vistas to the harbour and the city.** An icon of modern architecture, the Sydney Opera House uses the precise technology of the machine age to express organic form. It has scientific and technical significance for the ways in which its construction continually pushed engineering and building technologies to the limit. It also has significance for the extensive associations of the site with many famous people and important themes in Australian history. Abutting the site of the first settlement of Europeans in Australia at Sydney Cove, the Sydney Opera House stands on Bennelong Point, Aboriginal land which was named after a Wangal Aboriginal man and which is of significance in the history of the entanglements and interactions between Aboriginal and non-Aboriginal cultures in Australia. Other historic themes associated with the site include the arrival of the First Fleet in Sydney Cove, scientific investigation, defence, picturesque planning, marine and urban transport and most recently, cultural showcasing. Since its official opening by the Queen in 1973, the Sydney Opera House has been the scene of many notable achievements in the performing arts and has associations with many nationally and internationally renowned artistic performers. **The Sydney Opera House provides an outstanding visual, cultural and tourist focal point for Sydney and Australia.***

Comment

The proposed Function Room and the relocation of the Ballet Rehearsal Room to a temporary location will have very little impact on the aesthetic qualities and characteristics of the architecture and setting of the Opera House. The removal of the intrusive marquee on the Northern Broadwalk will have a very positive impact on its architecture and setting.

The internal alterations to form the main spaces for the Function Centre affect significant structure within the Podium but should retain the power and character of the off-form concrete structure. Further refinement of the design of these alterations should be undertaken in the design development and documentation stages to reduce their impacts on the fabric.

9.1 State Heritage Register criteria

The Sydney Opera House is listed on the SHR for meeting all its listing criteria (a)-(g). The values of the Sydney Opera House that meet the SHR criteria are set out in full in the NSW Heritage Database, available online at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5054880>

The extracts from the SHR values, under each of the criterion below, summarise and draw attention to those aspects of significance that are relevant to the assessment of heritage impact of the suite of proposed projects in this application. Design 5's assessment of heritage impact is summarised at the end of this section.

SHR criterion a) Historical significance

An item is important in the course, or pattern, of NSW's cultural or natural history.

Relevant key values from SHR values:

- The Sydney Opera House has historical significance as a modern architectural masterpiece, recognised internationally as a symbol of Sydney and Australia,

Comment

No significant historical values from the SHR listing are impacted by this proposal.

SHR criterion b) Associative significance

An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history.

Relevant key values from SHR values:

- "its success as a performing arts centre has been described as 'spectacular' partly because of the building's 'ability to attract great artists from all over the world'."

Comment

No significant associative values from the SHR listing are impacted by this proposal.

SHR criterion c) Aesthetic significance

An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW.

Relevant key values from SHR values:

- "Its public spaces and promenades have a majestic quality endowed by powerful structural forms and enhanced by vistas to the harbour and the city."
- "Its aesthetic quality is largely attributed to the 1957 prizewinning design by Jørn Utzon."
- "Its aesthetic quality was also enhanced by the high quality completion work by Hall, Todd & Littlemore, by the technical support given throughout by the internationally renowned engineering firm of Ove Arup & partners, and finally by M.R. Hornibrook, the contractor of stages two and three (Kerr, 2003, 32)."

Comment

The proposed Function Centre will provide a venue with majestic qualities and broad views towards the harbour and be more consistent with original spaces in the Opera House. The proposed finishes will retain and respect the work of both Utzon and Hall.

The alterations internally to form the three interconnected double height spaces for the Function Centre affect significant structural elements within the Podium but not the unique folded and cranked beams. Further refinement of the design of these alterations should be undertaken in the design development and documentation stages.

SHR criterion d) Social significance

An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons.

Relevant key values from SHR values:

- "The Sydney Opera House is of social significance as an internationally recognised symbol of Sydney, one of Australia's leading tourist attractions and a focal point for community events. It is also widely admired by Sydneysiders, and can be seen to contribute importantly to the sense of place in the Sydney CBD."
- "As a world-class performing arts centre, the Sydney Opera House has enhanced the cultural vitality of the nation."
- "It has also hosted many "everyday" cultural activities as well as providing free public access to its harbour-side Broadwalk. Of the 85,000 people estimated to visit each week in 2003, about a quarter came for performance-related reasons while the rest came to experience the building and its environment."
- "In offering this remarkable accessibility to a broad public, Sydney Opera House can be seen to be fulfilling Cahill's hope that it would be "a monument to democratic nationhood"."

Comment

The Function Centre itself is not a performance venue, however it will host private events and this facility may contribute to its reputation and standing as a tourist attraction as well as contribute to some degree to its sense of place. Its success will be in large part dependant on the finesse of its detailed resolution and execution, and the selection of the signature art work to be applied to the folding door arrangement on the south wall.

Through the revenue stream it should provide, the Function Centre will assist funding future performances and cultural activities at the Opera House.

The Function Centre may potentially introduce members of the public to the Opera House that may not have attended performances at the place.

SHR criterion e) Research potential

An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history.

Relevant key values from SHR values:

- none relevant

Comment

There are no significant research potential values identified from the SHR listing that are impacted by this proposal.

SHR criterion f) Rarity

An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history.

Relevant key values from SHR values:

- "It is an exceptional landscape (and seascape) monument because of its quality as a sculpture in the round, both day and night, and because of the appropriateness of its design to its setting and the picturesque quality of the setting."

- “It is also unique in so far as it has become an internationally recognised symbol of Sydney and Australia, which is also widely admired by local citizens.”

Comment

There are no significant rarity values from the SHR listing that are negatively impacted by this proposal.

The removal of the marquee from the Northern Broadwalk will have a very positive impact on the setting of the Opera House.

The proposed design and fitout of the Function Centre should provide a unique venue for events and celebrations that will be sought after and admired by the public.

SHR criterion g) Representativeness

An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural or natural environments.

Relevant key values from SHR values:

- “... an internationally recognised building representative of major performance arts centres.”
- “It is outstanding because of its innovative design appropriate both to its entertainment functions and to its harbour-side setting, and because of the esteem in which it is held in Australia and internationally.”
- “Its success as a performing arts centre has been described as ‘spectacular’ partly because of the building's ‘ability to attract great artists from all over the world’.”

Comment

Most major performing arts centres internationally now boast a range of venues within their complexes that are available for hire for non-performance events and celebrations. The proposed Function Centre at the Opera House will upgrade the present facility to provide a dedicated signature function venue within the Podium that is worthy of this internationally significant place.

The removal of the intrusive marquee will improve the setting and views of the Opera House, particularly from the harbour and thereby enhance the building's esteem at all levels.

It is important that the area within the Podium to be occupied by the Function Centre and its associated facilities remains generally within the area of the proposal so that it does not threaten the Opera House's primary use as a performing arts centre.

9.2 Summary assessment of heritage impact on State Heritage values

The proposed Function Room and the relocation of the Ballet Rehearsal Room to a temporary location will not have any negative impact on the aesthetic qualities and characteristics of the architecture and setting of the Opera House however, the removal of the highly intrusive marquee on the Northern Broadwalk will have a very positive impact on these qualities and improve the public esteem and standing of the building. The proposed design and fitout of the Function Centre will provide a space with majestic qualities and broad views towards the harbour on its north side. This will make it more consistent with the original spaces in the Opera House and retain and respect the work of both Utzon and Hall. Its success will be in large part dependant on the finesse of its detailed resolution and execution, and the selection of the signature artwork to be applied to the folding door arrangement on the south wall.

The alterations to form the three interconnected double height spaces for the Function Centre affect significant structure within the Podium but should retain the power and character of the off-form concrete structure. Further refinement of the design of these alterations should be undertaken in the design development and documentation stages to reduce impacts on the fabric.

The Function Centre itself is not a performance venue, however it will host private events and may contribute to the Opera House's reputation and standing as a tourist attraction and to some degree to its sense of place.

Creation of this enhanced Function Centre requires the relocation of the Ballet Rehearsal Room to a less optimal but potentially temporary location. It is therefore important that the area occupied by the Function Centre and its associated facilities is not further increased in the future as this could potentially threaten the Opera House's primary use as a performing arts centre.

The assessment of heritage impact on individual spaces and fabric is discussed in the section below (compliance with CMP 3rd edition).

10.0 COMPLIANCE WITH SYDNEY OPERA HOUSE CONSERVATION PLAN (CMP) 3RD EDITION

The CMP 3rd edition was developed in preparation for the listing of the Sydney Opera House on the NSW State Heritage Register (SHR) in 2003. The CMP draft 4th edition has retained and further developed the methodology and policies in the 3rd edition, however it has not yet been formally adopted and is not therefore used for this assessment. Refer to discussion in Section 6.03.

The CMP identifies and defines the significant values of the Sydney Opera House and then formulates policies framed to retain these values. The following discussion assesses the impact of the proposed suite of projects in the following order:

- Significant values,
- Significant elements of the place, and
- Relevant policies.

10.1 Significant values – discussion of impact

The following Statement of Significance from CMP 3rd edition summarises the significant values of the place (emphasis in bold type added as it relates to this assessment):

The Sydney Opera House is a dramatic expression of the genius of a then relatively unknown architect, Jørn Utzon (whose subsequent international fame was in part a result of the design of the building), of the high quality completion of the work by Hall, Todd and Littlemore, and of the technical support given throughout by the internationally renowned engineering firm of Ove Arup and Partners and finally by M.R. Hornibrook, the inventive contractor of stages two and three.

The Sydney Opera House is of exceptional significance because of:

- *its spectacular quality as sculpture in the round both by day and night;*
- ***its inspired design solution in response to its setting;***
- *the picturesque quality of the peninsula setting;*
- *the way in which its fabric reflects the contemporary philosophy of creating refined forms from machine-made components;*

- *the way in which the plastic arts, geometry and technology were drawn on to create a structure at the leading edge of endeavour;*
- ***the majestic quality of its public spaces contained by powerful structural forms;***
- ***the evidence of its fabric in expressing its place in twentieth century architecture (not excluding the troubled history of its construction);***
- *the seminal influence of some of its design and construction techniques;*
- ***its function as a performing arts centre of world renown;***
- ***its almost mythological status as a cultural icon (then and now) arising from all the above, from the high public interest in its protracted and controversial development; and from its power to attract artists, patrons and tourists on a national and international level.***

This significance is intensified by the extensive associations of the site and its structures, including:

Aboriginal and European contact (Bennelong and his house); scientific investigation (Flinders and Baudin); defence (Phillip's 1788 redoubt to Greenway's Fort Macquarie, 1817–1901); Picturesque planning (Macquarie to Utzon); marine and urban transport (overseas shipping and local ferry wharves, tram terminal and depot); popular recreation; and, finally, the nation's most famous cultural icon (The Opera House) and its legions of national and international performers.

Those values noted above in bold type are relevant to the proposed projects. Taking each of them separately, the following comments are made:

- ***its inspired design solution in response to its setting;***

Comment:

The proposed Function Centre will have a positive impact on the external appearance of the Opera House with the removal of the intrusive marquee. This will strengthen the clarity of the original design response to its setting, however this is also dependant on not introducing new intrusive items or clutter. Refer to discussion elsewhere in this report.

- ***the majestic quality of its public spaces contained by powerful structural forms;***

Comment:

The proposed design and configuration of the Function Centre will reintroduce a sense of the original majestic qualities and powerful structural forms that define this part of the Podium. This takes into account the alterations proposed to these structural elements. It will essentially be a public space, although used as a private function facility.

- ***the evidence of its fabric in expressing its place in twentieth century architecture (not excluding the troubled history of its construction);***

Comment:

Wherever possible in both projects, the evidence of evolution and manufacture of its fabric is retained and exposed. The presence and character of this fabric will be enhanced by the removal of later paint finishes in key areas.

- *its function as a performing arts centre of world renown;*

Comment:

The relocation of the last remaining original rehearsal room from beneath the JST will potentially have a negative impact on the function of the place, requiring performers to cross the Central Passage to access it. This potential impact on the function of the place will not be fully understood until this new rehearsal room is operational. At present its potential impact has been assessed as high, but acceptable.

- *its almost mythological status as a cultural icon (then and now) arising from all the above, from the high public interest in its protracted and controversial development; and from its power to attract artists, patrons and tourists on a national and international level.*

Comment:

The proposed creation of an enhanced and visually unique Function Centre will provide another attraction for the public within the building although it's relatively private use will make it relatively less accessible than other public areas. This in turn should enhance its reputation and *its power to attract artists, patrons and tourists*

10.2 Significant elements – discussion of impact

Broadly the elements and areas listed below (following the main headings in the *Schedule of levels of significance* in the CMP 3rd edition), will be potentially affected to varying degrees by the proposed works:

- Topographical setting – significance ranking A
- Broadwalk – significance ranking A
- Furniture of forecourts and broadwalk
- Form, fabric and structural systems of the Opera House – significance ranking A
- Podium exterior – significance ranking A
- Performers' and staff areas – significance ranking B-C
- Lavatories, locker rooms and dressing rooms – significance ranking C-D
- Harbour Restaurant complex spaces – significance ranking B
- Service areas – significance ranking C-D
- Central vehicle passage space, level 12 – significance ranking B

Each element is discussed below in relation to this proposal. At the end of each discussion section a table sets out the components of each element and their significance as listed in the CMP, with comments on the impact on each. The significance rankings are taken from the CMP 3rd edition and are as follows:

- A – Exceptional significance
- B – Considerable significance
- C – Some significance
- D – Little significance
- Int – intrusive element

10.2.1 Topographical setting

The enlarged entry to the Function Centre on the western side, close to the northern entry to Central Passage, will not be noticeable in any of the longer views of the Opera House.

While the changes externally to the Podium are minimal, the activities at the Function Centre itself will potentially have some impact on views towards the Opera House from the east, north and west. These impacts could range from very positive to negative, depending on the selection and design resolution of the temporary umbrellas, bollards and outside furniture items. Refer to discussion below – Sections 10.2.2 and 10.2.3.

The removal of the existing intrusive marquee and its associated infrastructure (planter boxes, screens, bollards etc, is considered a very positive improvement. This emphasises one of the primary objectives of this revised Function Centre.

Element	Significance	Potential impact of proposal	Comment
Topographical setting	A	Moderate	Refer to comments below.
Unencumbered exposure to the harbour on three sides, permitting views to the Opera House from neighbouring ridges and headlands, particularly Dawes Point, Observatory Hill, Mrs Macquarie's Point, Garden Island, Bradley's Head, Cremorne Point, Kurraba Point, Kirribilli, Milson's Point and McMahon's Point; the waters of the harbour, city buildings and the harbour bridge;	a	High – positive	Removal of marquee will be a positive change affecting many of these views. Proposed temporary umbrellas have potentially some impact, depending on final design resolution of these. Other changes proposed will not be visible externally.
open relationship with the Bennelong ridge, its garden landscape and the sandstone cliff face of the Tarpeian Rock;	a	none	Not affected by proposal
vistas, progressively or suddenly enlarging to views, from The Rocks, the northern end of Circular Quay, East Circular Quay, Macquarie Street, the Botanic Gardens and the harbour.	a	none	Not affected by proposal

10.2.2 Broadwalk

The comments made above in relation to setting apply equally here and are repeated for emphasis.

The fabric (paving, railing etc) of the Broadwalk remain substantially unaffected by this proposal.

The potential impacts on the open character of the Broadwalk from the selection and design resolution of the temporary umbrellas, bollards and outside furniture items could range from very positive, to negative. It is therefore essential that these items, regardless of who provides them, be designed and selected in close consultation with the Opera House's heritage architect, Eminent Architects Panel and Conservation Council. Design excellence and adherence to the Utzon Design Principles and the CMP should be paramount considerations.

These temporary elements will be removed and stored when not required for events leaving the Broadwalk uncluttered.

To comply with the various codes, a section of ramped paving is proposed to negotiate the difference in internal and external floor levels. This is accompanied by sections of bronze handrailing. The proposed locations and configurations should be tested in the design development stage so that potential visual impacts and intrusions into the broadwalk are minimised.

The removal of the existing intrusive marquee and its associated infrastructure (planter boxes, screens, bollards etc, is considered a very positive improvement. This emphasises one of the primary objectives of this revised Function Centre, not to repeat the mistakes of the past or reintroduce a different form of intrusive clutter.

Element	Significance	Potential impact of proposal	Comment
Broadwalk	A	Moderate	Refer to comments below.
Open character of broadwalk surrounding the Opera House;	a	High – positive	Removal of marquee will considerably improve open character. Proposed temporary umbrellas have potentially some impact, depending on final design resolution of these.
precast granite slab paving;	a	low	Modifications to provide fixings and service access points will retain slabs and be relatively unnoticed
precast granite sea wall skirting panels;	b	none	Not affected by proposal
location of outdoor eating area in north-east corner of broadwalk with tables, chairs, shades and trees in pots;	b	High – positive	Removal of marquee and associated infrastructure will remove clutter. Proposed temporary umbrellas and new furniture have potentially some impact, depending on final design resolution of these. Potted plants are to be avoided.
remains of 1862 and 1900 masonry sea walls under broadwalk;	c	none	Not affected by proposal
supporting pile structure;	d	none	Not affected by proposal
venue for hire in 2002 (marquee)	int	High – positive	Marquee and associated infrastructure will be removed.

10.2.3 Furniture of forecourts and broadwalk

Most of the furniture items listed in the CMP 3rd edition have either been altered or removed. Whilst not part of this application, the Function Centre will require furniture and fittings for external use, including umbrellas, bollards, tables and chairs. The proposed configuration of fixings in the paving for temporary umbrellas and bollards is supported. It will allow flexibility in the arrangement of these items and potentially provide a sense of informality. There should be no opportunity to connect up the umbrellas, either to each other, or to the Podium, or provide drop down weather protection.

External furniture items associated with the Function Centre do not form part of this application and are yet to be selected. As their potential impact will be dependant on this selection, it is important it be carried out with the close consultation and approval of the Opera House's heritage architect, Eminent Architects Panel and Conservation Council. It is strongly recommended that sample pieces of each furniture item be trialled and tested in location, before full orders are placed. The emphasis should be on simplicity, fine design,

and adherence to the Utzon Design Principles and the CMP.

External furniture, including umbrellas and bollards, will be stored within the Podium when not in use.

An important principle is that there should be no potted plantings. This is a man made peninsular and Utzon specifically advised that there be no soft landscaping.

10.2.4 The form, fabric and structural systems of the Opera House

The spaces comprising the present Northern Function Room facility are defined by the impressive curved and radial off-form concrete walls from the original Podium construction with a continuous band of glazed openings below a deep ring beam (shelf) to the north. Minor alterations have been made in the past, however apart from unsympathetic painting and other finishes, these walls retain their original Utzon form and character.

The proposed works in the Function Centre and their impacts are noted below.

- Creation of new openings, and blocking of others in the main curved loadbearing wall defining the southern side of the double height space. High level service penetrations will be blocked using cast concrete with formwork markings to match the adjacent original work. New openings will be at door level and may require intermediate columns and additional strengthening around the openings and to the piers below. These works could potentially alter the original nature and character of this wall to a framed system around and separating the openings. Such change in character would be a high impact and should be avoided. It would be contrary to the nature of the original Podium structure of load bearing concrete blade walls without columns or pilasters. Alternative methods to strengthen around these openings are being explored to address this issue. Refer to comments regarding recent discussion on this issue under the dot point below.
- As documented for this application, the proposal includes removal of the two main original radial concrete walls, and replacement with a pair of off-form concrete walls with the required strengthening, housing retractable sliding doors to subdivide the space. This would be a substantial loss of original Utzon fabric and would not be supported. Discussions between this author and the project team on 21 September 2016, suggest it may be possible to retain these original walls while creating the required openings, and solve the structural issues by less intrusive means. This solution should be refined further during design development stage.
- The sense of three interconnecting double height spaces defined by the exposed original off-form concrete walls is supported. The proportion of the retained wall sections, the treatment of their cut faces, and the method of structural strengthening are details that require resolution.
- Removal of part of curved wall and adjacent walls south of western entry to form an entry vestibule. This will have a moderate but acceptable impact on original structure and fabric.
- Removal of part of curved wall and adjacent walls east of present Ballet Rehearsal Room to form servery and other facilities. This will have a moderate but acceptable impact on original structure and fabric.
- Alteration and enlargement of the original hooded entry area from the Broadwalk at western end of space. The original details will be replicated. This will have a moderate but acceptable impact on original structure and fabric.
- Removal and replacement of services and equipment in void over curved corridor, including replacement of supporting mezzanine slab. This will have a minor and acceptable impact on original fabric.

The proposed Ballet Rehearsal Room space was originally part of a larger backstage area for the major hall, before the change in program in 1966-67. When the Opera House opened in 1973, this area was used as an exhibition space. It has more recently been converted to meeting rooms with the insertion of a mezzanine slab.

The proposed works to form this space and their impacts are noted below.

- Removal of existing internal structure, including mezzanine slab to form double height space beneath original beamed slab ceiling. Low impact.
- Creation of two openings (window and door) in the original off-form concrete walls separating this space from Central Passage. High impact locally, but acceptable.
- New floor structure to provide level floor at Central Passage level.

Those structural components that will be altered as part of these projects have been assessed and rectification works designed by Arup engineers.

Element	Significance	Potential impact of proposal	Comment
The form, fabric and structural systems of the Opera House, including	A	High	A number of structural elements including curved load bearing walls in the Function Centre area will be altered and some cross walls fully removed. High impact.
roof shells with pedestals, ribs, boxed beams, warped surfaces, tile lids and lightning conductors	a	none	Not affected by proposal
bronze louvre walls infilling shell ends	a	none	Not affected by proposal
podium clad and paved with monumental precast granite	a	Low	Minor alterations to provide wider entry to west side of Function Centre
folded beams throughout the building	a	none	Not affected by proposal
reinforced radial cranked beams in northern foyers	a	none	Not affected by proposal
glass walls and supporting structures	b	none	Not affected by proposal
surface treatment of exterior pedestal feet	int	none	Not affected by proposal

10.2.5 Podium exterior

The proposed works that affect the podium exterior are confined to the JST side of the building and should be hardly noticeable in the finished work. They include:

- Alteration and enlargement of the original hooded entry area from the Broadwalk at western end of space. The original materials and details will be replicated. This will have a moderate but acceptable impact on original structure and fabric and will be largely unnoticed due to its location.
- Two new pairs of bronze framed glass doors will be inserted into the glazed northern front of the Function Centre. The details will match the existing doors. Minimal impact.
- Minor modification of the details concealing the ends of the radial walls to accommodate a changed configuration internally. Minimal impact on podium exterior.

Element	Significance	Potential impact of proposal	Comment
Podium exterior	A	moderate	Enlarged hooded entry to west side of Function Centre
solid character of side walls with precast granite slabs of monumental size, including hoods to openings	a	moderate	Minor alterations to provide wider entry to west side of Function Centre, but existing details and solidity of podium will remain
use of large scale precast granite slabs for paving and steps	a	none	Not affected by proposal
uninterrupted sweep of steps from bottom to top and from side to side	a	none	Not affected by proposal
open character bronze railing on podium edge and at the extremities of the steps	a	none	Not affected by proposal
access steps and balconies on the northern walls of the podium	a	none	Not affected by proposal
bronze vehicle doors to the central passage and Bennelong dock	b	none	Not affected by proposal
existing pedestrian entries off the western broadwalk	b	none	Not affected by proposal
design of picket additions to fence at the northern lip of the podium	int	none	Not affected by proposal
design of radial palisade fencing introduced where the northern ends of the podium decks meet the [external] steps	int	none	Not affected by proposal
large black sign pylon with strong silhouette and comic hammer head (security camera) on landing of monumental steps	int	none	Not affected by proposal

10.2.6 Performers' and staff areas

The only performer area affected will be the existing Ballet Rehearsal Room. The original fitout in this space will be removed and re-installed in a similar configuration in the relocated rehearsal room. The original sound isolated box-within-a-box structure of the original rehearsal room will be retained in situ.

In Utzon's original design, and when the building opened in 1973, there were five rehearsal rooms, three large and two small. The smaller two on Level +12 were recently converted to accommodate the relocated Recording Studio and Media Suite; the original orchestra / chorus rehearsal room on this same level was converted to offices some years ago, and in 2012 was fitted out to accommodate a consolidated theatre equipment store – referred to as the central or 'megastore'. With the proposed removal of the Ballet Rehearsal Room from its original position, only one of the original suite remains – the Main Rehearsal Room off Level +30, under the Concert Hall. No rehearsal spaces will survive on the JST side of the building, however this proposal is supported by major stakeholders and user groups. This is discussed in greater detail in Section 11 of this report.

The removal of this original rehearsal room and its relocation is considered a high negative impact, only acceptable because it's new location will be temporary until a more suitable and appropriate solution can be found. Refer to discussion on alternatives in Section 5.2 of this report.

The re-use of Peter Hall's wobbly fitout in the new rehearsal room is considered positive. It is important that the existing wobbly panels are not cut down or modified to fit the new space.

In the new and altered staff areas, it will be important to continue the Hall design regime, at least in a modified form, with simple finishes.

Element	Significance	Potential impact of proposal	Comment
Performers' and staff areas	B-C	High	Ballet Rehearsal Room will be relocated from original location and fitout removed. Performer dressing rooms and most other staff areas remain unaffected.
Character of white painted off-form concrete with services concealed by moulded white birch panels (wobblies) in front of wall and/or below ceiling – the latter with lighting strips and sprinklers set between them. Smaller spaces may be treated with unmoulded white birch veneer to selected surfaces.	b	High	Impact on original Ballet Rehearsal Room high. The new space for the relocated Ballet Rehearsal Room will be fitted out with existing salvaged wobblies, using the Hall regime of finishes. Except for the Ballet Rehearsal Room, most areas remain unaffected.

10.2.7 Lavatories, locker rooms and dressing rooms

Most of the lavatories affected have been previously altered and are of low significance. Their removal and reconfiguration is required to accommodate enhanced kitchen and back-of-house facilities for the Function Centre. Minimal impact.

The fitout of these spaces will be resolved during detailed design and tender documentation. In accordance with the CMP, it is strongly recommended that the Peter Hall design regime should be extended into new spaces and facilities.

Surviving original fitout, fittings and fixtures should be salvaged for repair works elsewhere in the building.

Element	Significance	Potential impact of proposal	Comment
Lavatories, locker rooms and dressing rooms	C-D	low	Existing lavatories serving the Function Centre will be removed, reconfigured and refitted. All other facilities remain unaffected.
all 1973 joinery, fittings, fixtures and furniture	b	low	Original joinery fittings and fixtures to be retained where this is possible. This should be resolved during design development stage.
metal towel dispenser units design	int	low	These will be removed in affected areas.

10.2.8 Harbour Restaurant complex spaces

The proposal to substantially alter and open up the internal spaces of the existing function facility to create three double height interconnected spaces with adjacent access corridor and service areas is generally supported. The detail is discussed below.

The impact of the proposed works on the structure and walls defining these spaces is discussed in Section 10.2.4 of this report and not repeated here. These structural works include the following:

- Creation of new openings, and blocking of others in the main curved loadbearing wall defining the southern side of the double height space.
- Major alteration and strengthening of the two main original radial concrete walls, and construction of additional walls to house retractable sliding doors to subdivide the space. Note this is different to what is shown in the documents, but is based on subsequent discussions with the project team. Refer also to Section 10.2.4.
- Removal of part of curved wall and adjacent walls south of western entry to form an entry vestibule.
- Removal of part of curved wall and adjacent walls east of present Ballet Rehearsal Room to form servery and other facilities.
- Alteration and enlargement of the original hooded entry area from the Broadwalk at western end of space.
- Removal and replacement of services and equipment in void over curved corridor, including replacement of supporting mezzanine slab.

Other works affecting these spaces and their potential impacts are as follows:

- Retention and repair of original pink granite terrazzo flooring, extending this to include all proposed public areas. This is an original finish, consistent with Utzon's concept of using natural materials from the exterior palette for spaces that address the outside. It was preferred to its removal and replacement with carpet, considered elsewhere (except in Bennelong Restaurant) as inappropriate in these 'outdoor' related spaces. This is a positive impact and is strongly supported.
- Retention and re-use of original white birch plywood wobbly ceiling panels in the double height spaces where they exist and extending this system to all double height public areas. Other materials were explored, including the recent Utzon ceiling panel design from the Western Foyers. The proposed retention of the wobbly system in these spaces maintains the connection with Peter Hall and other spaces within the Podium, at the same time as honouring Utzon's original idea of assembling prefabricated moulded plywood panels to conceal services and finish ceilings. This is considered a positive impact and strongly supported.
- Installation of fine curved timber battened lining to lower height ceilings in public areas. This is a new design detail for the Opera House and does not follow either Peter Hall's ideas, or Utzon's for lining low height corridors. It could potentially look out of character, however we recommend it be explored further and tested with a full size mock-up in the detail design process.
- Construction of two additional pairs of bronze framed glass doors on north wall to match existing. These will provide greater access to the Northern Broadwalk and should fit seamlessly with the existing original work. Positive impact.
- Construction of sliding wall panels to close off entry vestibule from main function space. These retain the clarity of the space and the structural system of simple concrete blade walls. The detail resolution of both the opening and the doors will need clarity and refinement to maintain their visual strength and simplicity, consistent with Utzon's detailing of other large openings in the Podium.
- Construction of tapestry / fabric clad door system to curved and other walls to provide functional flexibility and a focal art piece in the main function space. The evolution of these doors considered a number of options, but most delivered a conventional result, which in most buildings could be regarded as adequate and

appropriate. At Sydney Opera House however it was considered that if the dramatic and significant structure within the Podium was to be altered to the extent required, and a significant rehearsal room relocated, the result should be one that delivers an exceptional space worthy of Utzon's vision and the world heritage standing of the Opera House. It is our conclusion that this proposal delivers this result, and the key to it is in large part this proposed system of multi-function curved doors and the possibility of a signature art work / tapestry on these doors. While the Function Centre is not a performance space, a signature artwork fully integrated with the architecture has the potential to make this a unique and sought after venue, consistent with Utzon's design principles. It is acknowledged that the commissioning and execution of such an artwork may extend beyond the timeframe for the completion of these works, however ideally it should be in place when this Function Centre is opened. Positive impact.

- Alteration to existing service and storage areas to accommodate new services and uses associated with Function Centre. Much of the equipment and their associated spaces have been altered over time and their further alteration to improve functionality is considered a minor, but positive impact.

Individual elements listed in the CMP 3rd edition are discussed in the table below.

Element	Significance	Potential impact of proposal	Comment
Harbour Restaurant complex spaces	B	High	Refer to comments below.
Original walls	c	High – negative	A series of larger openings will be introduced into the main curved wall, requiring structural strengthening to be carried out. High impact but acceptable The main radial walls (original) are shown to be removed in the drawings and replaced with a new pair of 'portal' walls, housing retractable doors. Very high impact and already being reconsidered. Refer to discussion in 10.2.4. Existing paint will be stripped from the off-form concrete re-instating some of the power and character of Utzon's original Podium structure.
Floor and fittings	d	High – positive	Except for the ceiling 'wobblies' the original fittings in this space have already been removed. The ceiling wobblies will be retained and extended to the full length of the main double height public spaces. Positive impact. The original pink granite terrazzo floor will be retained, and extended into public areas where it is missing. Positive impact.
Textile wall panelling	int	High – positive	Any remaining panelling will be removed. Design resolution of new panelling elements yet to be resolved.

10.2.9 Service areas

A number of minor service areas within and around the Function Centre will be affected by these works, however many have already been altered, particularly those areas affected by the relocation of the Ballet Rehearsal Room.

These service areas were originally fitted out in accordance with Peter Hall's back-of-house regime of white or unpainted and unlined walls, floors and ceilings, with exposed carefully arranged colour coded services and conduits. Door finishes, numbering and hardware were consistent. It is very important that Hall's original design regime is retained and extended into these new or altered spaces. Should this principle be followed, the proposed changes are considered positive.

Element	Significance	Potential impact of proposal	Comment
Service areas	C-D	low	
Character of white painted off-form concrete walling with applied colour-coded services;	b	low	Most areas remain unaffected. In affected areas, it will be important to continue the Hall design regime of simple finishes.
Individual spaces so treated (including plant rooms, workshops, service corridors, vehicle access areas, storage and below-stage areas).	c-d	low	Most areas remain unaffected. In affected areas, it will be important to continue the Hall design regime of simple finishes.

10.2.10 Central vehicle passage space, level 12

The proposed viewing window and service access door in the original off-form concrete wall for the relocated Ballet Rehearsal Room will have some impact on the fabric and character of the Central Passage. At present there are no similar window openings in this space.

Element	Significance	Potential impact of proposal	Comment
Central vehicle passage space, level 12	B	moderate	Impact confined to new openings to east wall of proposed Ballet Rehearsal Room and consequent visibility from Central Passage.
Stage door	c	none	Not affected by proposal
Concrete block additions for storage	int	none	Not affected by proposal

10.3 Compliance with CMP policies

It is clear from the Statement of Significance in the CMP that the Sydney Opera House derives its significance primarily from its form (design structure and construction), function and setting. These three components are interdependent and as each of them is crucial to this significance then each must be maintained to the highest level. These are discussed below within the framework of relevant policies from the CMP 3rd edition.

Policy 1.1 Utzon, Hall and the approach to change – Utzon's principles

All work on the Sydney Opera House should be carried out within the framework of Jørn Utzon's design principles as endorsed in 2002.

Comment

The proposed works have been designed and will be documented and carried out within the framework of Utzon's Design Principles.

Policy 1.2 Utzon, Hall and the approach to change – Utzon's concepts

The following fabric and attributes are essential to Utzon's concept for the Sydney Opera House and should be retained in any future development:

- a. the relationship between the three shell groups and the platform below;*
- b. the shell geometry and the ceramic tile cladding;*
- c. the canted alignments of the major shell groups;*
- d. the supporting structural systems throughout the building;*
- e. the visually free standing sculptural form of the building unobstructed by adjacent erections;*
- f. the open and uncluttered character of the forecourt and grand stair by which the raised podium is gained;*
- g. the visual relationship with the harbour setting from the podium – including the foyers surrounding the auditoria;*
- h. the retention of a 'natural' palette of materials for external fabric.*

Comment

The proposed Function Centre involves alteration to some of the large scale load bearing wall structure within the north end of the Podium, but does not affect any of the structure supporting the roof shells. These alterations have the potential to visually change its original character from a load bearing wall structure to a framed structure and should be further resolved at the design development and documentation stage with the involvement of the Opera House's heritage architect, Eminent Architects Panel, and Conservation Council.

The open and uncluttered character of the Northern Broadwalk should be improved by this proposal with the removal of the intrusive marquee structure.

Policy 1.3 Utzon, Hall and the approach to change – treatment of hybrid 'outside' spaces

Hybrid spaces, such as the foyers surrounding the major auditoria and the reception hall, reflecting the work of both Utzon and Hall, may be retained, or reworked in accordance with Utzon's concepts and principles, provided the qualifications set out in Policy 56.1 are accepted.

Comment

The main Function Centre spaces directly address the Northern Broadwalk and in many respects have a similar relationship with the setting to the foyers surrounding the main auditoria and the Western Foyers. The Function Centre spaces are also 'hybrid' spaces, created and defined spatially by Utzon, but completed and fitted out by Hall.

The proposed works to these spaces respect both Utzon and Hall, retaining elements of both, but also introduce new elements (curved doors lined with signature tapestry) that align closely with Utzon's concepts and design principles.

The proposal aligns with this policy.

.... he [Peter Hall] strove for a 'commonality of character' that enabled 'all the spaces within the Opera House to be recognisably part of the same building'. 'With the decision to use white birch veneered plywood for the Concert Hall ceiling and chair shells it seemed logical,' he said, 'for both practical and aesthetic reasons, to extend its use' to those areas where a 'higher standard of finish' was required – even to the fitout of toilets. These were to be the spaces heavily used by the 'public, artists and administration' (ibid., 187) but did not include the 'outside' spaces such as the foyers. There the predominant character had already been established by Utzon's concrete structure. (CMP pp 45-46)

The need for commonality and a limited palette of materials extended to the full range of details, but it was the white birch veneer in its various forms that made a major contribution to the unity of the performers' and staff spaces within the podium. Hall therefore appealed to future generations to ensure that change was not considered in isolation but that the parts should continue to be related to the whole and 'produce the feeling, despite its size and diversity of its functions, that it is one building'. He finished his appeal with the pithy advice: 'Isolated detail changes are enough to undermine that quality' (Hall. 1990, 199–200). (CMP p46)

Policy 1.4 Utzon, Hall and the approach to change – Hall's interiors

In any adaptation for modest functional improvement, interiors designed by Hall should retain or recover the character of his original design regimes with their co-ordinated detailing.

Comment

The intent of the works is to respect both Utzon and Hall and this is confirmed in the DA documents. The retention of Hall's moulded white birch plywood wobbles on the ceiling of the double height spaces aligns with this policy, as does the retention of the terrazzo floor.

In back-of-house performers' and service areas fitted out by Hall, it is appropriate that Hall's design regime is retained and continued in accordance with Policy 1.4, noting also that Hall's minimalist approach to these spaces followed Utzon's intent for them.

Policy 1.5 Utzon, Hall and the approach to change – Major works

Major works within the auditoria and podium are acceptable where technical advance, expert advice, design quality, adequate resources and meticulous construction can be combined to create performance and service facilities that will improve function and reinforce or enhance the significance of the Sydney Opera House, provided that:

- *the work is planned in the context of an overall plan for the place;*
- *the scheme is developed in accordance with Policy 56.1 on the management of change.*

Comment

The extent of changes proposed in this project would suggest this should be regarded as 'major works' and therefore this policy applies.

Although this Function Centre is yet to be realised, the expert advice and design quality evident in the documentation submitted confirms this project should improve the functionality of the Function Centre, and support and enhance the significance of the Opera House. If approved to proceed, adequate resources should be gathered to fund and execute it with meticulous construction. The project involves a yet to be commissioned artwork and it is essential that this be included in the project. Its success is dependant on it.

The only negative in terms of the role this project plays in supporting and enhancing this significance, is that it requires the removal of the last remaining rehearsal room from beneath the JST and relocates it on the other side of Central Passage, further away from the JST suite of dressing rooms and other performers' facilities. It has been agreed by the Opera House that this new location is temporary until a more suitable location is found, or the Utzon designed Opera Theatre renewal project is carried out as described in the Gold Book 2007. Whilst not ideal, this possibly temporary negative impact is considered acceptable.

The projects have been developed and will be hopefully executed in accordance with advice as described in policy 56.1.

Policy 2.2 Views and vistas

The Sydney Opera House Trust should ensure that no erection in the area under its control interferes with any view or vista to or from the Opera House.

Policy 3.1 Open and uncluttered setting

The erection of long stay structures as venues for hire (or for any other purpose) is unacceptable on the forecourt, broadwalk and podium stairs and platform.

Comment

The proposed Function Centre will include the removal of the existing marquee on the Northern Broadwalk. This is the structure specifically referred to in Policy 3.1. This will considerably enhance the setting of the Opera House on this northern side and reinstate unobstructed views and vistas to and from this area of the Broadwalk and Podium.

Policy 3.2 Open and uncluttered setting

Long stay commercial concessions to sell merchandise and foodstuffs with their attendant service, supply, storage, waste, sign and shelter requirements are inappropriate on the forecourt, broadwalk and podium stairs and platform.

Policy 3.3 Open and uncluttered setting

Objects should only be permitted on the forecourt, lower forecourt sea wall path, broadwalk, podium deck and steps, if they do not interrupt or intrude upon the open and uncluttered character of the place, or if they are absolutely necessary for the safety of visitors.

Comment

These policies are essential in guiding the design, selection and placement of temporary umbrellas, bollards and external furniture used in conjunction with the new Function Centre. Noting that external furniture does not form part of this application, adherence to these policies should be considered at all times throughout the design development, documentation, construction and ongoing management of this facility.

Policy 6.1 External form

The Opera House should retain unchanged its external form of roof shells, glass wall concept, podium and podium steps, forecourt and broadwalk.

Policy 6.2 External form

Proposals that obscure the original exterior form of the Opera House are unacceptable.

Policy 9.1 Openings in podium walls

No treatment of the podium should diminish the impressive effect of its solid side walls with their minimal horizontal fenestration nor disrupt the contrast with the ceramic clad shells and glass walls above.

Policy 9.2 Openings in podium walls

New Broadwalk level openings are acceptable provided they can be carried out in accord with Policy 9.1 above and will achieve functions and effects that materially add to the significance of the place.

Comment

The removal of the marquee from the Northern Broadwalk will remove a major intrusive element that presently obscures the exterior of the Podium.

The proposed enlargement of the entry to the Function Centre from the Broadwalk has been designed to retain the form, details and material language of the Podium and should not be noticeable as a change. The new glazed doors in the northern wall of the Podium will utilize the same form, detail and materials as the adjacent existing doors and should also not be noticeable as changes.

These proposed changes will therefore comply with these policies.

Policy 11.1 Podium “platform”, broadwalk and forecourt

The exterior platform of the podium, the broad-walk and the forecourt are important open spaces which set off the Opera House and should be kept free of permanent structures or wheeled vehicles. Furniture should be kept to a minimum and should not intrude aggressive tonal or colour contrasts with the surrounding built form. Temporary structures for occasional celebrations or manifestations should be designed to be erected, used and dismantled without damage or alteration of the fabric.

The outdoor eating area with its tables and sun shades on the northeastern part of the broadwalk is an exception to this policy. It is adjacent to what was once the takeaway bar and restaurant within the podium and was a part of the early concept (fig 32a). The bar and restaurant are now a function venue.

Policy 11.2 Podium “platform”, broadwalk and forecourt

Use of the north-east broadwalk should enable the area to retain the character of a public outdoor space without enclosed built structures. It should also allow pedestrian vision across the entire broadwalk. Provision may be made for tables, chairs, overhead protection, planters and limited transparent wind breaks, provided these do not exceed the footprint of the original outdoor eating area designed by Peter Hall

Comment

The comments made in relation to Policies 2.2, 3.1, 3.2, and 3.3 above are also relevant here and Policies 11.1 and 11.2 should also guide the design, selection and placement of temporary umbrellas, bollards and external furniture used in conjunction with the new Function Centre, right through to its ongoing management.

Policy 13.1 Paving and cladding of podium and broadwalk

The existing paving and cladding system of precast and etched pink reconstituted granite slabs of monumental size should be retained.

Comment

Minor modifications are proposed to the paving to accommodate fixings for temporary umbrellas and bollards, and access to services, as well as compliant access ramps, but in all other respects the paving should remain unchanged.

Policy 22.3 Interior lighting – redesigned spaces

In any major redesign of spaces in which architectural character is important, the emphasis should be on concealed or unobtrusive light sources that reveal or reinforce that character, in addition to illumination for the safe and effective function of the space.

Policy 22.5 Interior lighting – safety

Any safety issues should be addressed without disrupting the requirements in the policies above.

Comment

Lighting will be an essential part of these proposed projects. Details will be developed in accordance with these policies during the design development and documentation stages of the project.

**Policy 23.1 Character and treatment of internal spaces – “Wobbly Land”
– performers’ and staff areas**

Spaces fitted out with wobbly regimes should retain the characteristics and quality of that regime.

**Policy 23.2 Character and treatment of internal spaces – “Wobbly Land”
– performers’ and staff areas – adapted spaces**

Work necessary to adapt existing wobbly spaces to new or upgraded functions should be designed:

- *to continue the original characteristics and quality of the space or to complement those characteristics;*
- *to have minimum impact on the original fabric.*

**Policy 23.4 Character and treatment of internal spaces – Timber finishes used
by Hall**

All removed white birch veneered elements should be safely stored and catalogued for future reuse.

Comment

The proposed Function Centre will retain Peter Hall’s moulded plywood wobbly ceiling system in the main double height spaces. Elsewhere in the public spaces, a different ceiling treatment will be applied in line with Policy 1.5 – major works. It is understood that in other spaces, the Hall regime will apply.

Documents describing the proposed Ballet Rehearsal Room confirm the intent to retain and respect Peter Hall’s design regime by re-using the removed elements from the original rehearsal room in this space. It is important that the original plywood elements are not modified or cut down in the process of re-erection. All remaining original elements should be safely stored in accordance with Policy 23.4.

Policy 24.1 Character and treatment of internal spaces – Service areas

In accordance with policy 1.4 (Hall’s interiors) the general character of the service areas should be retained in any future adaptations.

Policy 24.2 Character and treatment of internal spaces – Service areas

Care should be taken during alteration and upgrading of services to remove those with no likely future use and to maintain a tradition of neat and precise installation of colour coded services.

Comment

Documents describing the works confirm the intent to retain and extend Hall’s design regime into refurbished staff and service spaces. This will need to be monitored throughout the design development and documentation phases to ensure this objective is not lost.

**Policy 26.1 Character and treatment of internal spaces – Internal adaptation and
alteration**

In keeping with policy 1.4, changes and extensions of use, technical improvements and upgrading of access and facilities should be permitted where they can be carried out without loss of quality and character in the spaces involved.

Comment

DA documentation suggests the quality and character of spaces affected by these proposed projects will be retained, however it is important that refinement and consistency of details be continued during the design development and documentation phases.

Policy 38.1 Care of the fabric – Removal or alteration of fabric

Any proposal to remove or alter original and/or significant fabric should:

- *have regard to the level of significance of the fabric and to the impact on the character and quality of the place affected;*
- *be checked to ensure there is no feasible alternative;*
- *only be considered in the context of an overall plan.*

The last point in policy 38.1 above will help to prevent a series of ad hoc minor removals or alterations resulting in the progressive degradation and, ultimately, destruction of significant elements of the place.

Policy 38.2 Care of the fabric – Removal or alteration of fabric

Where significant fabric is removed and capable of subsequent re-use on site, its location should be recorded and the items catalogued and stored safely against possible future replacement or relocation in a space of appropriate character.

Comment

The works to form the new Function Centre and its associated kitchen involve the removal or alteration of significant fabric. In determining the nature and configuration of these changes, considerable regard was made for the significance of the fabric affected and the potential impacts on the space concerned.

Removed concrete elements will break up and be lost, however timber panelling and other fittings will be recorded, salvaged and stored for re-use elsewhere in accordance with these policies.

Policy 39.1 Treatment of intrusive items

Items identified as intrusive in this conservation plan should be removed.

Policy 39.1 Treatment of intrusive items

Priorities and a time based program for the removal or modification of intrusive items should be established and incorporated into any program of works.

Comment

The removal of the marquee will be a cause for celebration as it has been one of the most prominent intrusive items on the whole site.

It is important that great care and consideration be given to the design, selection and placement of any object, furniture or fixing on the Northern Broadwalk to ensure none of these become intrusive items in the future.

Policy 41.1 Treatment of unpainted precast and off-form concrete

Interior and exterior surfaces of unpainted concrete ribs, pedestals and beams should remain unpainted and their details unobscured.

Comment

It is proposed that unpainted concrete remain unpainted and exposed. Existing paint on the off-form concrete walls in the Function Centre will be removed to re-instate the visual power and character of the original structure.

Policy 47.2 Housekeeping – Locks

The relevant family character of door locks and associated furniture should be retained in any future work.

Comment

It is intended these items be resolved in accordance with this policy during the design development and documentation stage.

Policy 48.1 Artworks

Artworks acquired in the future should be visually compatible with the character of the space in which they are to be set and capable of long life with ordinary maintenance and without intrusive protective coverings or treatments.

Comment

The proposal to commission an artwork to be applied to the folding door screen on the south wall of the main space in the Function Centre should include this policy as part of the commissioning brief.

Policy 49.1 Managing the process of change – Use, approach and review

The Sydney Opera House should continue its primary use as a performing arts centre and its importance as a tourist attraction should be recognised. The building and its setting should not be altered to accommodate uses that will vitiate its significance and character. The approach should be sufficiently flexible to permit the delivery of a high level of performance and provision of services.

Policy 49.2 Managing the process of change – Use, approach and review

The policies set out in this document should be applied irrespective of the use to which the building, or its parts, are put.

Policy 49.3 Managing the process of change – Use, approach and review

Proposed changes of use to any part of the building should only be considered in the context of a co-ordinated plan for the whole building and priorities established to determine which functions must be kept on site and which may be located elsewhere.

Comment

The proposed Function Centre is intended to be a venue for hire for commercial and private events that can also be used in conjunction with the performance venues. It is additional to the primary use of the place as a performing arts centre. While ideally a facility such as this is not desirable on such a tightly constrained site, it is becoming the expected norm internationally that a world renowned performing arts centre will have spaces such as this that are available for hire.

The design of the Opera House Function Centre seeks to establish a signature venue that is unique to the Opera House, and thus a much sought after location. The proposed internal design will be unlike any other and should retain a very strong Opera House 'character', striving for excellence in its design, fitout and presentation and is potentially an important part of the revenue stream for the place. This excellence in design and its signature unique character make it worthy of being located here. Anything less and it would be difficult to support.

The Function Centre is not insubstantial and requires a kitchen and related facilities that involve the relocation of the last remaining rehearsal hall from beneath the JST. The main rehearsal room under the Concert Hall side of the Podium remains unaffected. The relocation of the rehearsal room to a less convenient location within the Podium is considered a major but acceptable impact and is unlikely to threaten the primary use of the site.

In the longer term and in accordance with Policy 4.1, it is essential that other non-performing arts functions are not introduced or existing ones expanded further, to potentially threaten the ongoing viability of the Opera House as a world renowned performing arts centre. While not proposed here, if this were to eventuate, it would result in a substantial loss of significance, affecting its Outstanding Universal Value.

Policy 50.1 Managing the process of change – compatibility

Uses are unacceptable if they require alterations, additions and facilities that:

- *vitiate the original concept of the designers of those elements of the place that are assessed as being of exceptional significance;*
- *degrade the character and quality of fabric, spaces and relationships;*
- *are likely to cause excessive wear and tear, or disfigurement, to significant fabric.*

Comment

The changes proposed in the Function Centre project have a number of negative impacts, and apart from the relocation of the Ballet Rehearsal Room they do not endanger or diminish the original concepts of either Utzon or Hall for the affected spaces, or the Opera House generally. Nor do they degrade the character and quality of fabric, spaces and relationships for the affected areas.

Where negative impacts do occur, the disfigurement of significant fabric is mitigated by careful consideration of details, junctions and linings. These require further refinement and if necessary, prototyping, in the next stages of design development. It is essential that the Sydney Opera House's heritage architect, Eminent Architects Panel and Conservation Council be involved in this process.

The relocation of the Ballet Rehearsal Room from beneath the JST to a more remote location in the Podium is not preferred, but is considered acceptable as an interim solution until a better location is found, or the full renewal of the Opera Theatre is undertaken.

Policy 51.1 Managing the process of change – Relating levels of significance to proposals

The more significant a concept, fabric, relationship, space of vista, the more should care be exercised in preparing proposals that may affect the place – the objective being to ensure that the work not reduce, and may reinforce, the identified significance.

Comment

The projects proposed in this DA involve the removal or alteration of significant fabric. In determining the nature and configuration of each part of the projects, considerable regard was made for the significance of the fabric affected, the potential impacts on the space concerned, and the role of the particular project in supporting the broader significance of the place.

Policy 52.1 Managing the process of change – Use of the Burra Charter

The future conservation and development of the place should be carried out in accordance with the principles of the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (Burra Charter) as revised in 1999.

Comment

All decisions thus far relating to the projects in this application have been in accordance with Burra Charter principles and processes. This should continue to the completion of the project.

Policy 56.1 Managing the process of change – Sequence and advice in developing proposals

Continuity of relevant and experienced heritage conservation advice should be provided as part of the process by which changes to the Sydney Opera House and its setting are developed and executed. The timing of this advice is important. For major projects it should be drawn upon:

- *initially, at the concept stage;*

- during the development and refinement, or alteration, of the proposal;
- for a formal statement of heritage impact, or its equivalent, in response to the completed development application;
- to keep a watchful eye on work actually underway.

Comment

Heritage conservation advice has been sought throughout the design stages for this project and this HIA assesses the completed development application. It is important that this specialist advice continue through to completion of the project to ensure the broader as well as detailed conservation objectives are achieved.

Policy 59.1 Managing the process of change – External processes

Changes that may have a 'significant effect' on the heritage significance of the Sydney Opera House and its site should be referred to the relevant consent authority.

Comment

The proposed Function Centre and Ballet Rehearsal Room projects involve some major changes that will have a high impact on some fabric and spaces. These impacts have been assessed in this Heritage Impact Statement and this will accompany an application for approval from the relevant consent authorities.

10.4 Conclusion re CMP compliance

The proposed Function Centre and Ballet Rehearsal Room will affect a number of significant parts and aspects of the Sydney Opera House. These impacts are discussed in detail above and summarised here.

Function Centre

The proposed Function Centre will be located within the present northern function room facility, referred to in the CMP 3rd edition as the Harbour Restaurant complex of spaces. It is ranked as having considerable significance (B), although many of the associated service areas are considered as having little significance (D).

The assessment of this proposal against the CMP concludes that the proposal constitutes a major change as defined in Policy 1.5, and therefore the Utzon character and design regime should be strengthened. The main spaces are essentially hybrid 'outside' spaces and the proposal retains, respects and strengthens the work of both Jørn Utzon and Peter Hall. This balance is supported.

The proposed alterations within the Podium to create three interconnecting double height function spaces defined by the exposed original off-form concrete walls will facilitate the removal of the existing intrusive marquee and its associated infrastructure (planter boxes, screens, bollards etc). This is considered a very positive improvement and emphasises one of the primary objectives of this revised facility.

The proposed design and configuration of the Function Centre will reintroduce a sense of the original majestic qualities and powerful structural forms that define this part of the Podium. The proposed design retains a very strong Opera House 'character', and should strive for excellence in its fitout and presentation. This excellence in design and its signature unique character make it worthy of being located on this site and should enable it to play an important role in the revenue stream for the place.

The proposed alterations will have a range of impacts and it is recommended that further analysis and resolution be carried out in the detail design and documentation stage to minimise these. Discussions between this author and the project team since completion of the DA documentation indicate that these impacts will be reduced. This is particularly important in regard to the following:

- The extent of removed walls and method of structural strengthening where original structure is cut or removed;
- Treatment of cut faces of original walls;
- Resolution of sliding wall / door panels;
- Resolution of curved door system on main south wall;
- Resolution of timber battened ceiling over the lower height spaces;
- Resolution of external ramped surfaces and handrails;
- The selection and design resolution of the temporary umbrellas and bollards (acknowledging that while selection of external furniture is also important, it does not form part of this application).

The proposed tapestry / artwork cladding for the curved door system will provide an important focal art piece in the main function space. It is acknowledged that the commissioning and execution of such an artwork may extend beyond the timeframe for the completion of these works, however ideally it should be in place when this Function Centre is opened.

Removal of existing Ballet Rehearsal Room with all its fittings and finishes to another location in the Podium, and construction of new function centre kitchen is considered a high impact as it removes the last remaining rehearsal room beneath the JST. Refer to Ballet Rehearsal Room summary below. This rehearsal room is ranked as having some significance (C).

Ballet Rehearsal Room

The relocation of the last remaining original rehearsal room from beneath the JST will potentially have a negative impact on the function of the Opera House, requiring performers to cross the Central Passage to access it. This potential impact may not be fully understood until this new rehearsal room is operational. It has been agreed by the Opera House that this new location is temporary until a more suitable location is found, or the Utzon designed Opera Theatre renewal project is carried out as described in the Gold Book 2007. Whilst not ideal, this possibly temporary negative impact is considered high but acceptable.

The works to create the new Ballet Rehearsal Room generally affect fabric and spaces of little significance (C), however, proposed openings for a door and window on the east side will affect the Central Passage, ranked as having exceptional significance (B). These impacts are considered moderate and acceptable.

The proposed fitout of the rehearsal space with white birch moulded plywood 'wobbly' panels salvaged from the existing ballet rehearsal room, retains Hall's regime for performers' areas and is considered a positive impact.

It is essential that all details for both these projects, including those listed above, be resolved in close consultation with the Opera House's heritage architect, Eminent Architects Panel and Conservation Council. Design excellence and adherence to the Utzon Design Principles and the CMP should be paramount considerations.

11.0 DISCUSSION OF COMPLIANCE WITH THE UTZON DESIGN PRINCIPLES

The *Utzon Design Principles* (UDP) provide important guidance on the intended role of particular spaces and elements and on how they should be treated in the future. Relevant quotes are provided below.

Danger in too many functions – building has limited size

“But the inherent danger in large buildings, which have become popular, is that there is a tendency to want to fill too many functions and rooms into those buildings.”

“It is not a good idea to fit more rooms inside the building... more functions than it can hold.”
(UDP page 50)

Comment

Jørn Utzon cautions against introducing additional functions into the Opera House and the proposed Function Centre could be considered one of those functions. While acknowledging this caution, the north-east corner of the Podium has always been considered an ideal location for some form of food and beverage or function centre. With the ready availability of other food offerings in Circular Quay and along the Lower Concourse, a public restaurant in this location has limited viability, whereas a function centre is viable here. Nonetheless its use of this space must be considered and balanced with the higher priority need for facilities to support the ongoing operation of the performance venues themselves. It should therefore not be expanded beyond the area proposed.

Care needed before change

“So I really advise the future decision makers to carefully contemplate all aspects of the intended modifications before changing the Opera House as such.” (UDP page 52)

Comment

All aspects of this proposal have been considered and reviewed by Opera House decision makers and the proposal is now supported.

People with knowledge of the building important

“Concerning - the remodelling and maintenance of the Opera House. I feel there are a number of people who have known and followed this building throughout its existence. I think it would be a good idea to place in the hands of these people and their companies the maintenance and the possible renovations, as they know the Opera House intimately through their work on the building.”

“Arups office is of course of key importance as they know where things are, what parts of the building can take certain loads, what has been hung in different places, the way the walls, materials etc, which are important for the total structure of the house have been constructed and applied.”
(UDP page 52)

Comment

Arup and Steensen Varming (original consultants on the Opera House) are engaged as structural and services consultants on the suite of renewal projects. Thus they bring their knowledge of the construction of the building with them to inform the current works and other consultants.

Objective is to bring joy

“The architects’ gift to society is to bring the people a big joy from the surroundings that architects create.” (UDP page 59)

Succession of visual and audio stimuli

“So going to the Opera House is a succession of visual and audio stimuli, which increase in intensity as you approach the building, as you enter and finally sit down in the halls, culminating with the performance.” (UDP page 68)

Beautiful experience oriented in the harbour

"...People have a beautiful experience entering and walking up the stairs and entering the auditoria, while they are all the time oriented in the beautiful harbour and have the views of the spectacular Sydney Harbour setting." (UDP page 59)

Comment

The proposed design and finishes for the Function Centre are intended to align with these principles and establish its spaces as worthy of the Sydney Opera House. Its success will be in large part dependant on the finesse of its detailed resolution and execution, and the selection of the signature art work to be applied to the folding door arrangement on the south wall.

Consideration of details like doors

"So if you open that butterfly door it opens, much faster than this door, it's closed but halfway, and then you open it, giving you a feeling of easier access." (UDP page 59)

Neutral and rich colours

Exterior colours were nature's colours. Within this landscape you had the halls which were to be richly decorated in festive colours. (UDP page 71)

Comment

The proposed Function Centre aligns with these principles.

Although not a copy of Utzon's original butterfly doors, the proposed curved folding doors are an ingenious solution to provide access, privacy and flexibility to the main spaces. This will be enhanced by the proposed artwork / tapestry to be applied to them, providing a visual focus to the space as well as richness and colour.

Cultural symbol

"The conception and the design of the Sydney Opera House is based on... the desire to create a building which will form a home for those activities essential to the cultural life of a big city." (UDP page 62)

Comment

Presentation of the performing arts is at the very heart of this building, as is the pursuit of excellence.

The Function Centre itself is not a performance venue, however it will host private events and may contribute to the Opera House's reputation and standing as a cultural centre.

The proposed design and finishes for the Function Centre are intended to establish this facility as worthy of the Sydney Opera House. Its success will be in large part dependant on the finesse of its detailed resolution and execution, and the selection of the signature artwork to be applied to the folding door arrangement on the south wall. These could potentially differentiate it from other venues in the city, making it unique and much sought after, and consistent with Utzon's design principles.

It is important that the area within the Podium to be occupied by the Function Centre and its associated facilities is not further increased. If that were to happen, then this non-performance facility could potentially threaten the Opera House's primary use as a home for the performing arts.

Functional concept of base and shells

"Within its mass (the plateau), could house all the facilities for preparing the performances with stage sets etc." (UDP page 65)

Comment

There are two aspects to this particular principle. The first is the preparation for performance taking place within the Podium. At present the available space is minimal and many service and administrative functions are now housed in other buildings in the city to allow the core performance preparation and administrative functions to take place on the site. The proposed Function Centre (which is not performance related) increases the strain on available space and requires the relocation of the Ballet Rehearsal Room in order to accommodate appropriate kitchen facilities.

The second is Utzon's concept of grouping these preparation spaces beneath their related auditorium (major and minor halls). In his original design, (and as executed by Hall), there were 4 rehearsal rooms beneath the minor hall (now JST), and a much larger rehearsal hall beneath the major hall (now Concert Hall). This project will remove the last remaining rehearsal room from beneath the minor hall and relocate it to the other side of Central Passage and more remote from the performers' dressing room and other facilities. Whilst not ideal, the Opera House considers this as a temporary location pending the implementation of the full Opera Theatre Renewal project (described in the Gold Book 2007), or an alternative location should one be identified in the future.

Concrete and ply

"The walls will show the concrete as it was constructed, contrasting with the moulded plywood panels which form the components of the furniture and fixings." (UDP page 71)

Comment

The proposed design and fitout of the Function Centre and relocated Ballet Rehearsal Room will comply with this principle. Where paint has been applied to significant concrete structure, it will be stripped off, further strengthening the adherence to Utzon's intent.

Under control by strict geometry

"...the only way to attack the ...major parts of the building would be to bring them under control by a strict geometry and then divide them into uniform components, which can be produced by machine under strict control both as regards dimensions and quality." (UDP page 75)

Surfaces comprehended because of geometric order

"All large surfaces are easily read or comprehended because of the geometric order." (UDP page 75)

Comment

The design and fitout of the Function Centre and relocated Ballet Rehearsal Room respect this principle, retaining the dominant reading of curved and radial walls with openings and subdivisions carefully considered to respect their geometry.

The retention of the 'wobbly' plywood ceiling panels in the main spaces respects Hall's work in trying to adhere to these same principles. The proposed use of the curved timber battens in the lower ceilings should also reflect these, however the details and finer resolution of these ceilings could take place during the detail design and documentation phases of the project.

12.0 COMPLIANCE WITH SYDNEY LOCAL ENVIRONMENT PLAN 2012 (SYDNEY LEP 2012)

The Sydney Opera House is listed as a Heritage Item on Schedule 5 of the Sydney LEP 2012 (Item 11712). The listing includes “forecourt, seawall, platform and interiors.” Before granting consent, an assessment of the impact of any proposed development is required via a ‘heritage management document’. A conservation management plan is also required. (Clauses 5.10 (5) and (6) of the LEP 2012)

Section 10 of this Heritage Impact Statement assesses the proposed projects in this application against the CMP 3rd edition. This accords with the heritage conservation requirements in the LEP 2012.

13.0 CONCLUSION

The impacts of the proposed Function Centre and Ballet Rehearsal Room on the significant values of the Opera House are described in detail above in this report. Large sections of the conclusion in Section 10 are repeated below.

It is our assessment that the proposed works in this application will have negligible impact on the Outstanding Universal Values that enshrine Sydney Opera House on the World Heritage List and will respect the work of both Jørn Utzon and Peter Hall.

Proposed minor alterations externally will be consistent with existing details and materials and will be largely unnoticed. Proposed alterations within the Podium to accommodate the Function Centre will facilitate the removal of the present marquee on the Northern Broadwalk. This will have a substantial and positive impact on these values.

Jørn Utzon cautions against introducing additional functions into the Opera House and the proposed Function Centre could be considered one of those functions. While acknowledging this caution, the north-east corner of the Podium has always been considered an ideal location for some form of food and beverage or function centre. With the ready availability of other food offerings in Circular Quay and along the Lower Concourse, a public restaurant in this location has limited viability, whereas a function centre is viable here. Nonetheless its use of this space has been considered and balanced with the higher priority need for facilities to support the ongoing operation of the performance venues themselves. It should therefore not be expanded beyond the area proposed.

Most major performing arts centres internationally now boast a range of venues within their complexes that are available for hire for non-performance events and celebrations. The proposed Function Centre at the Opera House will upgrade the present facility to provide a dedicated signature function venue within the Podium that is worthy of this nationally significant place, strengthening it as a symbol of modern Australia. Its success will be in large part dependant on the finesse of its detailed resolution and execution, and the selection of the signature artwork to be applied to the folding curved door arrangement on the south wall.

The impacts of these projects are high on the fabric of the Function Centre spaces, and on the functional and location significance of the existing ballet rehearsal room, but should not adversely affect the Opera House’s national or state heritage values. These impacts affect spaces and fabric of exceptional / considerable significance and it is our recommendation that a referral to the Commonwealth Government under the EPBC Act should be made.

Function Centre

The proposed Function Centre will be located within the present northern function room facility, referred to in the CMP 3rd edition as the Harbour Restaurant complex of spaces. It is ranked as having considerable significance (B), although many of the associated service areas are considered as having little significance (D).

The assessment of this proposal against the CMP concludes that the proposal constitutes a major change as defined in Policy 1.5, and therefore the Utzon character and design regime should where possible be strengthened. The main spaces are essentially hybrid 'outside' spaces and the proposal retains, respects and strengthens the work of both Jørn Utzon and Peter Hall. Significant Hall elements to be retained include the pink granite terrazzo floor finish in the Function Centre, and the white birch wobbly panels in the Function Centre and relocated Ballet Rehearsal Room. This balanced approach is supported.

The proposed design and configuration of the Function Centre will reintroduce a sense of the original majestic qualities and powerful structural forms that define this part of the Podium. The proposed design retains a very strong Opera House 'character', and should strive for excellence in its fitout and presentation. This excellence in design and its signature unique character make it worthy of being located on this site and should enable it to play an important role in the revenue stream for the place.

The proposed alterations will have a range of impacts and it is recommended that further analysis and resolution be carried out in the detail design and documentation stage to minimise these. This is particularly important in regard to the following:

- The extent of removed walls (particularly radial walls) and method of structural strengthening where original structure is cut or removed;
- Treatment of cut faces of original walls;
- Resolution of sliding wall / door panels;
- Resolution of curved door system on main south wall;
- Resolution of timber battened ceiling over the lower height spaces;
- Resolution of external ramped surfaces and handrails;
- The selection and design resolution of the temporary umbrellas and bollards (acknowledging that while selection of external furniture is also important, it does not form part of this application).

Discussions between this author and the project team on 21 September 2016, suggest it may be possible to reduce a number of potentially negative impacts on original structural elements and this should be explored further in the detail design and documentation stage.

The proposed tapestry / artwork cladding for the curved door system will provide an important focal art piece in the main function space. While the Function Centre is not a performance space, a signature artwork fully integrated with the architecture has the potential to make this a unique and sought after venue, consistent with Utzon's design principles. It is acknowledged that the commissioning and execution of such an artwork may extend beyond the timeframe for the completion of these works, however ideally it should be in place when this Function Centre is opened.

Removal of existing Ballet Rehearsal Room with all its fittings and finishes to another location in the Podium, and construction of new function centre kitchen is considered a high impact as it removes the last remaining rehearsal room beneath the JST and is not consistent with Utzon's original planning ideas for the Podium. Refer to Ballet Rehearsal Room summary below. This rehearsal room is ranked as having some significance (C).

Ballet Rehearsal Room

The relocation of the last remaining original rehearsal room from beneath the JST will potentially have a negative impact on the function of the Opera House, requiring performers to cross the semi-public Central Passage to access it. This potential impact may not be fully understood until this new rehearsal room is operational. It has been agreed by the Opera House that this new location is temporary until a more suitable location is found, or the Utzon designed Opera Theatre renewal project is carried out as described in the Gold Book 2007. Whilst not ideal, this possibly temporary negative impact is considered high but acceptable.

The works to create the new Ballet Rehearsal Room generally affect fabric and spaces of little significance (C), however, proposed openings for a door and window on the east side will affect the Central Passage, ranked as having exceptional significance (B). These impacts are considered moderate and acceptable.

The proposed fitout of the rehearsal space with white birch moulded plywood 'wobbly' panels salvaged from the existing ballet rehearsal room, retains Hall's regime for performers' areas and is considered a positive impact.

In the new and altered staff and service areas for both these projects, it will be important to continue the Hall design regime, at least in a modified form, with simple finishes. The fitout and finishes for these spaces will be resolved during detailed design and tender documentation. In accordance with the CMP, it is strongly recommended that the Peter Hall design regime should be extended into new spaces and facilities.

In accordance with the CMP and Utzon Design Principles, new elements should be tested on site with full size mock-ups or prototypes.

Further design resolution and detailing on these projects should be done in close consultation with the Opera House's heritage architect, Eminent Architects Panel and Conservation Council and approved by them. Design excellence and adherence to the Utzon Design Principles and the CMP should be paramount considerations.

Having considered all the potential impacts, both positive and negative, it is my recommendation that the issues raised in this HIS be noted and addressed, and the proposed Function Centre and Ballet Rehearsal Room projects be granted approval.



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21 September 2016