STC50 Masterplan

Heritage Impact Statement

Assessment report

Prepared for

Sydney Theatre Company

November 2016

Amended February 2017

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Issue 4

Executive Summary[1]

Objectives

This Heritage Impact Statement the report has been prepared for Sydney Theatre Company for submission to planning as part of the SSDA. The aim of this report is to review the proposed internal fitout and refurbishment works only and to produce a statement of heritage impact relating to heritage issues for the changes to the interiors of the existing building and proposed works for the Sydney Theatre Company STC 50 project.

This report should be read in conjunction with the drawings prepared by Hassell and Tonkin Zulaikha Greer who are the architects for the external works which are the subject of a separate application.

This report addresses Key Issue of the SEARS requirements for the STC, Heritage, for preparation of a Heritage Impact Assessment on the site.

Methods and Results

The method for the Heritage Impact Statement follows that set out in the "NSW Heritage Manual" Update August 2000 produced by the NSW Heritage Office. The method is outlined below:

The statement of heritage impact should identify what impact the proposed works will have on the significance of the item/site, what measures are proposed to mitigate negative impacts and why more sympathetic solutions are not viable. Recommendations are developed in order to maintain the heritage significance of the site.

Generally, the impact of the works is considered to be minimal. There are instances of significant impact however these are mitigated by following the Australia ICOMOS Burra Charter and TICCIH THE NIZHNY TAGIL CHARTER FOR THE INDUSTRIAL HERITAGE July 2003 providing best practice for items of industrial heritage.

Conclusions

The Concept and developed design for the STC50 and the resulting external works for WBAP is generally in accordance with the Tropman and Tropman and Graham Brookes CMPs as well acknowledges the directives in the Design 5 HIS prepared for the WBAP concept design.

The adaptive reuse of any structure by its nature will have significant impact upon the place. The impact on the relics here is, on occasions, significant in the large performance spaces especially, however the language for adaptive reuse of the structure has considered the least interventionist

[1] *Edited to a more concise precis*

methodology and there has been a striving throughout the precinct to develop the appropriate language in the detailing to allow interpretation of the original fabric and large scale volumes. We believe this has been achieved.

The Wharf 4/5 has been altered significantly in the past and while this adaptive reuse has been historically acclaimed, the new proposals have been designed to rectify some of the changes to the original design and reduce the impact of that occupation. Detailing has been devised which better expresses the original structure and surfaces.

The design for the STC50 Masterplan has been well considered and designed to provide for the current and foreseeable future demands of the STC tenancy whilst at the same time preserving the heritage and cultural significance of the place.

The WBAP represents the completion of the vision for a unique cultural precinct, described in the 1999 Master Plan for the Walsh Bay Redevelopment, and it is recommended there should be an Arts Precinct Conservation Management Plan prepared which recognises the new era and future uses.

Recommendations

The works planned for STC50 must be informed by the relevant controls and legislation and where issues arise these matters should be clearly supported by arguments based on the Australia ICOMOS Burra Charter as well as the recent ICOMOMS Charter for THE NIZHNY TAGIL CHARTER FOR THE INDUSTRIAL HERITAGE July 2003 providing best practice for items of industrial heritage.

This report has examined and reported on the information available as a resource for ongoing restoration of the Wharves 4/5. Throughout the documentation a number of policies and constraints have been incorporated and compiled demonstrating the importance of the Place and to ensure that any use and ongoing maintenance complies with the Burra Charter, the standards required under the Heritage Act 1977 and Aboriginal heritage legislation in NSW as amended pertaining to items of State Significance.

Revisions

This Report has been revised to acknowledge the submissions made by the Office of Environment and Heritage SSDA 7561.

All editing in this report has been identified in the endnotes attached[2].

[2] *Added references to changes*

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1. Objectives of Assessment

Note: this document may be reformatted and amended to include any additional assessment required as a result of statutory regulations, client reviews and/or technical design development.

1.1 Objectives

This Heritage Impact Statement the report has been prepared for Sydney theatre Company for STC50 project for submission to planning as part of the SSDA. The aim of this report is to review the internal fitout and refurbishment works and to produce a statement of heritage impact relating to heritage issues for the existing building and proposed works.

This report should be read in conjunction with the drawings prepared by Hassell.

This report addresses Key Issue 3 of the SEARS requirements for the STC, Heritage, for preparation of a Heritage Impact Assessment on the site.

1.1.1 Approvals for STC-50 and WBAP

On 21 May 2015, development consent (SSD 6069) was granted by a delegate of the Minister for Planning to a Stage 1 SSDA for the WBAP. The Stage 1 SSDA sought "in principle" approval for the WBAP but did not include the STC's facilities at Wharf 4/5. (Refer to SEARs for WBAP that were issued on 1 July, SSD 7689).

The development consent for the Stage 1 SSDA approved the following:

• The adaptive re-use of Pier 2/3 providing new arts facilities including performance venues for the Australian Chamber Orchestra, Bell Shakespeare and Australian Theatre for Young People;

• Retaining a large heritage commercial events/art space for Sydney Writers Festival, Biennale of Sydney and a wide range of commercial and artistic events;

• Refurbishment of the ground floor arts facilities of Wharf 4/5 and its associated shore sheds for Bangarra Dance Theatre, Sydney Dance Company, Sydney Philharmonia, Gondwana and Song Company;

• New commercial retail opportunities; and

• Creation of a major waterfront public square to become an innovative external platform for collaborative performances, festivals, public art, cafés, restaurants, commercial and community activities.

Condition A3 (a) of the Stage 1 Consent states that future stages of the concept proposal are to be the subject of future development applications. Condition A3 (b) requires that the determination of future applications for development of the WBAP are to be generally consistent with the terms of the development consent.

Along with the NSW Government's intention to create an enhanced arts and cultural precinct at Walsh Bay, the Sydney Theatre Company (STC) is intending to improve its facilities at Wharf 4/5. The project, known as STC50, is intended to create better theatre and rehearsal facilities as well as improved workspaces within their tenancy

The improvements are also focused on creating enhanced visitor experiences and improving STC's revenue earning capacity the works are within the STC tenancy area and any external works are the subject of the WBAP application.

In March 2016, the STC sought SEARs for the preparation of a SSDA for the proposed upgrade of its facilities at Wharf 4/5. The SEARs were issued by the Department of Planning and Environment on 15 April 2016.

The STC is an integral part of the WBAP and it is recognized that the upgrade of its facilities at Wharf 4/5 needs to be coordinated within the broader WBAP project. In particular, there is a need for a coordinated construction program to minimize impacts on neighbours and tenants and to maximise efficiencies in the delivery of both projects.

To assist in the coordination of both projects, the Stage 2 SSDA for the WBAP will be submitted seeking approval not only for the WBAP but also for the STC's proposed external alterations and additions to its facilities at Wharf 4/5. The internal changes proposed to the STC's facilities at Wharf 4/5 will, however, remain the subject of this separate SSDA.

1.2 Background

1.2.1 Past and Present Use

Following the collapse of the traditional shipping method and the rapid take up of containerization, the Walsh Bay precinct ceased its maritime use in 1970. For a decade the precinct was abandoned and left to become derelict. Wharf 4/5 was the spring point of the adaptive reuse of the derelict buildings of the Walsh Bay Precinct for performing arts in the late 1970s and 1980s. The Precinct since this time has been dedicated to cultural uses with Arts and Performing Arts in particular repurposing the precinct.

This adaptive reuse and reimaging of the precinct over the past 36 years has imbued an intangible cultural heritage significance to the place. As defined by UNESCO, this intangible cultural heritage use is as integral with these buildings and as important to the place as is the past industrial maritime

heritage. To reflect only on the past maritime use and to disregard the equally important intangible cultural heritage use is to misunderstand the way buildings adapt, grow and change and to completely ignore a huge portion of the place's history. Insisting only upon the capacity to return the buildings to their original maritime state and operation discounts the significance of the uses that have followed and which are set to continue into the future.

With the current STC lease established until the year 2058, this cultural use will surpass the maritime use of the site by 20 years, cementing this as the dominant use of the precinct and reinforcing both the built cultural heritage of the place and the intangible cultural heritage of arts and performance across theatrical performance of drama, dance and music.

The time line shows the period of each use.

- 1912-1970 Maritime uses
- 1970 -1980 casual use, vacancy and dereliction
- 1983 Vivian Fraser and the STC, SDC, ATYP and the Philharmonia choirs
- Current STC Arts users adds 43 year leases now established cultural occupation until 2058

1.2.2 Approved and Proposed Works

The SSDAs have endorsed the cultural uses and this DA is the internal design refurbishment of Wharf 4/5. In working through the Design Development and detailing, a better realisation of the scope has been achieved and now this iteration represents the resolution of the major aspects of the impact and interventions necessary to accommodate the functions.

In each case the impacts of design treatments have considered the policies of the endorsed CMPs and the recommendations by Design 5.

The challenge is "How to value the dichotomy of the performance spaces required for cultural purposes as dictated by the Master Plan, with the impact on heritage fabric volumes and interpretation of original uses" Tasman Storey October 2016.

The Sydney Theatre Company is an independent group who are tenants in Wharf 4/5 and are upgrading their large tenancy across the upper floors of Wharf 4/5.

These works are largely internal fitout works and can be evaluated by addressing the Graham Brookes CMP 2006 and by interpreting and interpolation of the initial restoration by Vivian Fraser architect across the Wharf 4/5 Cultural campus.

The exteriors of both buildings are the subject of another SSDA application and any changes to the exteriors are as a result of the requirements of the new (and redesigned in the case of STC) functions within the body of the built form.

In the case of the Wharf 4/5 works, that building has had extensive earlier intervention in 1983 and the works are largely upgrading to allow the company to move forward into the future with contemporary facilities

The Sydney Theatre company inhabits a special place in the cultural heritage of the mid last century. It is a robust and fiercely independent organization which has been a leading light in the development of theatre and performance taking Australia to internationally acknowledged standards and reputations of the highest levels.

This continued occupation of the iconic performance companies including the Sydney Dance Company and Bangarra has secured the Wharf 4/5 as the location for Sydney's and Australia's intangible performance heritage.

The changes to Wharf 4/5 can be seen then as a permanent and positive impact which has been the well spring of the reinvigoration of the whole Walsh Bay precinct. This is a counter to the argument of re-establishing the original uses and it can be reasonably argued that the 1983-6 changes are now as important as the original uses.

The ICOMOS Industrial Heritage charter notes that there will be inevitable permanent changes to industrial buildings with the advent of an adaptive reuse. In the case of the STC tenancy, there have already been permanent changes to the heritage fabric in the Vivian Fraser award winning adaptive reuse of the pier which in the grander picture has not had detrimental impact on the significance of the place. The current proposal is somewhat an extension of these earlier works and in others a reworking of the philosophy. The Charter is not supportive of conjectural reconstruction which imitates the original parts of the building as these will confuse the history and evolution of the building form.

The **proposed interventions do entail unavoidable changes**

> *Policy VI. Interventions should be reversible and have a minimal impact. Any unavoidable changes should be documented and significant elements that are removed should be recorded and stored safely. Many industrial processes confer a patina that is integral to the integrity and interest of the site.*

Policy VII. Reconstruction, or returning to a previous known state, should be considered an exceptional intervention and one which is only appropriate if it benefits the integrity of the whole site, or in the case of the destruction of a major site by violence.

Ref The ICOMOS Nizhny Tagil Charter For The Industrial Heritage July 2003

The **Vivian Fraser design of the Cultural use spaces** within Wharf 4/5 was in many instances robust and interventionist. What has set it apart is that the outcome revealed sensitivity to the bones of the structure and the "skin" of the Wharf has been retained as a ready reference to the original constructions and timber detailing. Many strong backs and steel trusses were removed to gain head room while the language adopted was to butt into columns rather than as in the case of both the WBAP by TZG the STC50 by Hassell which is to sit beside and away from the structure . The cotemporary approach has reduced the impact of new walls and is in line with the requirements of the Graham Brookes CMP the Design 5 advice for stage SSDA and Sears Report and the TTA CMP.

1.2.3 Industrial Heritage and Adaptive Reuse

The repurposing of industrial heritage buildings is promoted by ICOMOS and the TICCIH (The International Committee for the Conservation of the Industrial Heritage) internationally by way of The Nizhny Tagil Charter for the Industrial Heritage, July 2003, and their International publications *Industrial Heritage Re-tooled: The TICCIH guide to Industrial Heritage Conservation*, J. Douet (ed.), 2012.

Australian ICOMOS is part of the international ICOMOS and is bound by the various charters.

There is a requirement in the restoration and adaptive reuse process to ensure that the original fabric is restored and retained, and that the original industrial character of the building is maintained.

The ICOMOS Industrial Heritage Charter acknowledged two significant ideas, first that the works should be in the main reversible but secondly that some works are not reversible and this is the case in the large volumes required for performance spaces within the Piers. The Vivian Fraser design for the whole of Wharf 4/5 followed a language of light-weight intervention but in many instances fabric was taken away for either aesthetic or functional reasons. The impact of his intervention is barely noticeable.

The ICOMOS Industrial Heritage charter notes that there will be inevitable permanent changes to industrial buildings with the advent of any adaptive reuse. The Charter is not supportive of conjectural reconstruction which imitates the original parts of the building as these will confuse the history and evolution of the building form.

The ICOMOS industrial heritage charter acknowledged two significant ideas, first that the works should be in the main reversible but secondly that some works are not reversible and this the case in the large volumes required for performance spaces within the Walsh Bay Piers. The Vivian Fraser design for the whole of Wharf 4/5 followed a language of light weight intervention but in many instances fabric was taken away for either aesthetic or functional reasons. The impact of his intervention is barely noticeable. Refer ICOMOS The Nizhny Tagil Charter For The Industrial Heritage July 2003.

There is a dichotomy in assessing the impact on the intervention for theatrical performances spaces as in the one instance Wharf 4/5 this has already occurred in the other the whole of the work is newly inserted into an original building.

One is a renovation of the approved and nationally acclaimed adaptive reuses while the other seeks the same outcomes in a untouched heritage structure of State Significance.

In each of the CMPs both Tropman and Brookes have forseen that there will be by necessity an impact from the proposed uses for cultural repurposing. Croker in his report also acknowledges the result of these large scale interventions. Brookes chooses to ignore the fact that the impact has already occurred and some of his policies are redundant as a result.

The Tropman and Tropman report is relevant as while no proposal was suggested at the time of its production, the idea of a **cultural reuse was certainly thematic in its policies and commentary.**

Architectural responses to the need to identify the historic context in the new design have been considered using the most direct routes and identifying with an industrial aesthetic.

1.2 Author Identification

This report has been prepared by the following Tropman & Tropman Architects team members:

Tasman Storey	Design Principal, Architect, Heritage Conservation Consultant
	ARBNSW 3144
Michele Grande	"Storia e Conservazione dei Beni Architettonici ed Ambientali"
	Architecture + Conservation
Joanne Rogers	Project Manager (Heritage and Interpretation)
	BA (Text and Writing)

Unless otherwise stated, all images are by the authors and were taken during the course of this study.

1.3 Methodology

The method for the Heritage Impact Statement follows that set out in the "NSW Heritage Manual" Update August 2000 produced by the NSW Heritage Office. The method is outlined below:

Heritage Impact Statement

The statement of heritage impact should identify what impact the proposed works will have on the significance of the item/site, what measures are proposed to mitigate negative impacts and why more sympathetic solutions are not viable. Recommendations are developed in order to maintain the heritage significance of the site.

Further, the Aboriginal, Marine and land-based archaeology of the site are considered in this report.

2. Site and Project Descriptions

2.2 Study Area

The site comprises the interior of the First and Second Floor of Wharf 4/5 (Pier 4/5 and associated shore-sheds). The site has a street frontage to Hickson Road. The site is shown in Figures 3 and 4. It is part of the Walsh Bay area which is located adjacent to Sydney Harbour within the suburb of Dawes Point. Walsh Bay is strategically located to the north of Sydney's CBD in the vicinity of major tourist destinations including the Sydney Harbour Bridge, the historic areas of Millers Point and The Rocks, Circular Quay and the Sydney Opera House. The Barangaroo redevelopment precinct is located immediately to the south-west. The site is located within the City of Sydney Local Government Area.

Wharf 4/5 is legally described as Lot 65 in DP 1048377.

The land owner of the WBAP site is the Roads and Maritime Services (RMS) and is occupied under various lease arrangements with Arts NSW, Department of Justice, primarily for arts and cultural uses.

Walsh Bay comprises ten berths constructed between 1908 and 1922 for international and interstate shipping.

These are collectively known as the Walsh Bay Wharves. The Walsh Bay Wharves Precinct is listed as an item on the State Heritage Register. The Walsh Bay Wharves comprise the following:

• Pier One which contains the Sebel Pier One Sydney Hotel;

• Pier 2/3 is the last remaining undeveloped pier (has previously received approval for cultural uses, temporary arts events and some commercial events);

• Wharf 4/5 which is occupied by the STC, Australian Theatre for Youth Program (ATYP), Bangarra Dance Theatre and other arts organisations;

• Pier 6/7 which has been redeveloped for residential apartments and associated boat marina;

• Pier 8/9 which has been redeveloped for office uses; and,

• Shore Sheds aligning Hickson Road which contain a range of commercial activities, including restaurants, bars, shops and offices.

For the purposes of this report the *place*, as defined in the Burra Charter is to be known as the subject place, subject site or study area.

For the purposes of this study, the **local** area refers to the council area of City of Sydney. The **state** refers to the state of New South Wales and **national** refers to the country of Australia.

Figure 1: Map of the area. The subject site is approximately marked in red. Not to scale. Images provided by the client.

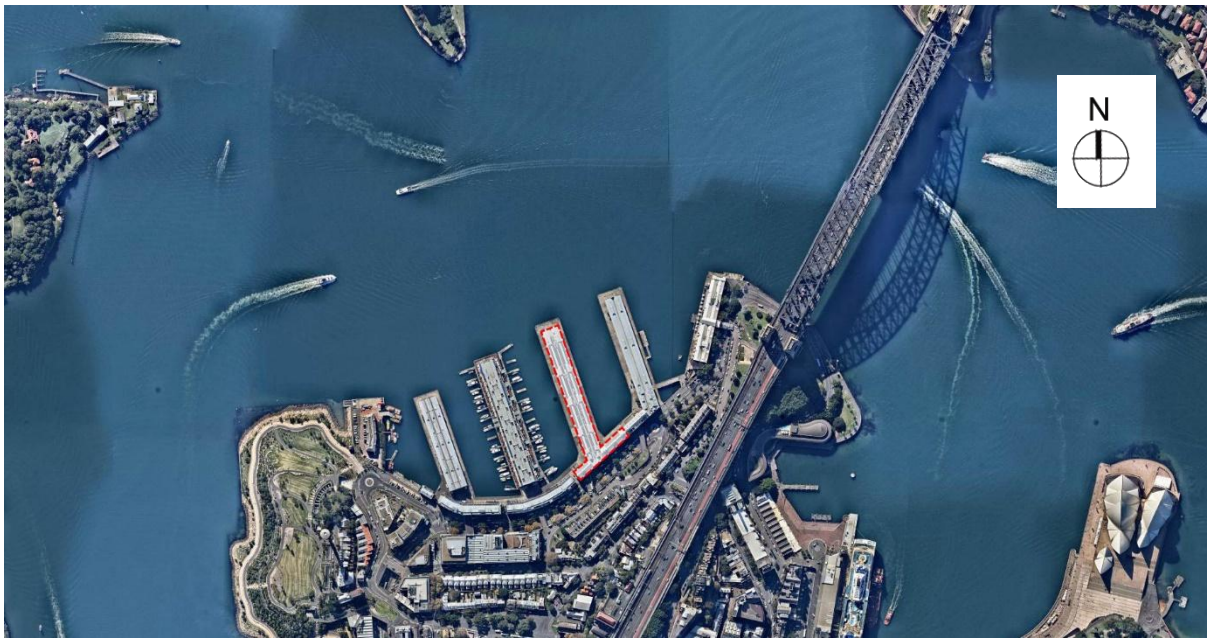

Figure 2: Aerial photograph of the area. The subject site is approximately marked in red. Not to scale. Images provided by the client.

2.3 The Project

The proposed internal upgrade of the Sydney Theatre Company's facilities at Wharf 4/5 Walsh Bay will comprise internal alterations and reconfiguration of spaces and uses as outlined below:

Ground level

- New box office / ticketing area at southern end of wharf and administration / staff areas

Mezzanine

- Additional offices at southern end of wharf

Level 1 (Main Floor)

- the co-location of Wharf 1 and 2 Theatres to create two distinct performance spaces that are flexible in seating configuration and use. The new theatres will comprise:
  - a new multi-format flexible studio space (Wharf 1 Theatre) with seating for 350 – 450 and additional height over the seating and stage areas for the rigging of technical equipment.
  - a new studio theatre space (Wharf 2 Theatre auditorium) with retractable or removable seat with a capacity of 150-200 seats in various configurations.
  - New public display space and formal meeting area to south of Wharf 2 Theatre mid wharf with an atrium over
- Upgrade to existing restaurant and bar area at northern end of wharf and terrace balcony including back of house areas
- Improved rehearsal and dressing room spaces and introduction of more flexible spaces including:
  - co-located rehearsal spaces with shared back of house area
  - provision for two set up floors at the southern end of the wharf with back of house area to allow transportation of sets to the theatres
- administration, costume and props areas within the shore sheds

Level 2 (mezzanine)

- Administration area and meeting rooms
- provision of a new multi-purpose function room with balcony with capacity for 120 persons at the northern end of the wharf overlooking the restaurant and the harbour

Level 3 (under roof)

- Lighting bridge and technical area

Other works

- The removal of the existing fire tunnel within the building and associated reconfiguration of the space into the new layout as above plus addition of new fire stairs
- Improvements to acoustics, amenities and back of house and plant areas / facilities,
- Relocation, reconfiguration and improvements to administration areas centrally within the wharf
- Upgrade of services and infrastructure; and
- New loading and access arrangements to improve movement arrangements between technical and production areas.

The proposal provides for an increase in theatre capacity from existing 550 persons to a maximum of 650 persons in the combined Wharf 1 and 2 theatres. It also provides for a new multi-purpose public/event space with combined capacity for 200 persons over and above the existing Theatre Bar capacity of 500 persons. Accommodation for administrative staff will also increase from existing to a maximum of 200.

3. Site analysis

3.1 History of the Site

The following history is consistent in all documents. The historical notes below were prepared by the historian, the late Dr Kenneth Cable, and demonstrates his unique insight into Australian Colonial and early 20th century history.

3.1.1 Walsh Bay Precinct

Source: This section has been based on the 'Walsh Bay Precinct Conservation Management Plan', 1998, prepared for Walsh Bay Finance, as revised by the late Dr Kenneth Cable.

'Walsh Bay' is the term applied to the complex of wharves, storage depots and road works constructed in the early twentieth century. Up to this stage, it was simply a part of the northern end of Millers Point, facing the main stream of Sydney Harbour.

Sydney was founded as both a convict settlement and a Pacific port. The use of its harbour facilities was crucial to its subsequent development. Since the large rocky peninsula between Sydney Cove and Darling Harbour was, from the outset, an integral element in the early settlement of Sydney, Millers Point became the site of maritime activity.

While the Circular Quay (Sydney Cove) area was soon in full use and large structures were built on the hill, the western and northern shores, which had long been utilised by the Aboriginal people for fishing purposes, were little used by the new settlers. Only in the 1820s did Cockle Bay (Darling Harbour) come into action for local shipping.

The shoreline from Dawes Point battery to the western extremity of Millers Point remained difficult of access and, compared with the peninsula generally, had a small population. Quarrying, extensive in the area, did help but the first wharf was only erected in the late 1820s. Gradually, wharfage was constructed, often by local landholders who built storehouses as well. As whaling and Pacific Ocean trade developed, and the volume of wool exports grew, enterprising merchants such as Captain Towns expanded the Point's wharfage.

The Gold Rushes and the development of the wool trade promoted the Walsh Bay area. By the late 1860s there were six large wharves along the harbour shore. The area generally increased in population while maintaining a balance between middle-class householders and working class families.

Such a balance could not long remain. From the 1870s, the growth of the wool trade and the general increase in the size of ships led to wharf reconstruction and the erection of further wool stores. The

new Central Wharf contained state of the art features and other finger wharves were improved. More varied stores were constructed and the road pattern was made more regular.

Commercial activity generated employment for the population of Millers Point. In the 1870s and 1880s there were still fine houses and terraces on the high ground, the churches and schools flourished (especially Fort Street, the centre of the State system) and the district was busy and active. But, already, population pressure and the demands of industry were limiting available space. People who could afford to were beginning to move to the new suburbs and there were ominous signs of overcrowding and health hazards in the district. The Depression of the 1890s and a series of bitter, unsuccessful waterfront strikes made matters worse.

The expansion of the Sydney Harbour frontage of Millers Point was both steady and, in engineering terms, scientific. Norman Selfe's experiments with projecting jetties were innovative for their time. But they were only a portion of the general expansion of Darling Harbour and its facilities. (Due to the technological innovation of Norman Selfe, large jetties on modern piles could accommodate the biggest available ships).

By the final decade of the nineteenth century Sydney, as Australia's major overseas maritime outlet, was becoming increasingly subject to structural pressures. It needed to undertake major changes.

In 1900, the bubonic plague appeared at Millers Point. The arrival of this ancient scourge from India had been anticipated. Carried by the fleas of rats, it was transported by shipping and so seaports were especially vulnerable.

The plague, amid great public excitement, prompted measures by the Government and the City Council to destroy the adjacent wharfage. There were large-scale resumptions of land and (despite Council protest) the creation of a Harbour Trust to carry out the work.

The plague did no more than give political urgency to a situation already ripe for change. The late nineteenth century revolution in ship construction was everywhere being met by massive port rebuilding projects. In this context, the whole of Sydney Harbours wharfage required reconstruction.

In Sydney, as elsewhere, there was a growing belief that the port city demanded a general overhaul. Not only wharves, but warehouses and stores, roads, railways and commercial facilities needed to be integrated and enlarged. The advent of electricity, concrete construction and the petrol engine widened the engineering horizon; the new emphasis on government action and finance gave the opportunity. Discussion in the 1890s gave way to activity in the period after Federation, when the State Government could attend to and spend money on domestic problems.

Three other matters became significant at the beginning of the century. It was generally accepted that an overhead rail and road bridge would span the Harbour from Dawes Point. There was, quite apart from the plague, an emphasis on 'slum clearance' and city health. And the State Government, in the interests of efficiency, had become accustomed to using statutory corporations to control such public facilities as water supply and railways.

The result was the wholesale resumption of Darling Harbour and Millers Point land, the eradication (gradually) of plague spots, the erection of new housing (amid conflicts with the Improvement Advisory Board) and the reconstruction of Sydney's wharves by the new Harbour Trust. The chairman of the Trust, R.R.P. Hickson, and the Engineer in Chief, H.D. Walsh, were men of vision and initiative.

For the Trust, housing and plague prevention, though important, were incidental to the great purpose of making Sydney a modern port. From 1901, the Trust, after a difficult beginning, undertook work from Woolloomooloo to Glebe. Eventually, it rebuilt most of Sydney's harbour facilities. It did so in conjunction with housing, transport and other authorities.

The Walsh Bay wharves (the name came into use in 1919) were among the last to be addressed. Several had been modernised late in the previous century and the remoteness of the site presented difficulties. Dalgety's wharf was refurbished first, new stores were built and, in 1909, major cliff excavation began. From 1910 work commenced on the new finger wharves and their Shore Shedss. Hickson Road, made very wide to allow for a possible rail link, connected Walsh Bay to Darling Harbour and Pyrmont Bridge. Completed in 1921, with a Pottinger Street realignment in the next year, the Walsh Bay complex, despite shortages in materials, marked the end of major reconstruction.

Walsh Bay was thus only one part of a complicated and very ambitious harbour side project. But it was the 'jewel in the crown', a highly integrated, minutely planned, comprehensive series of structures, 'state of the art' for their time. Its only drawback was its relative remoteness. On the other hand, it was one of the few wharfage areas with direct access to the Harbour mainstream.

The Walsh Bay wharves, though owned and controlled by the Sydney Harbour Trust (from 1935 the Maritime Services Board), were let out to commercial shippers. As such, they accommodated overseas liners; while catering also for the coasted on islands trade. In the 1920s, a boom in exports and imports gave a degree of prosperity. This was reversed in the 1930s but wartime conditions stretched Walsh Bay to the utmost. Yet the use of some of the storage space for Commonwealth Government purposes was a sign that the position of Walsh Bay was not wholly secure.

Resumptions and, in the 1920s, Harbour Bridge construction, kept the Millers Point residential population at a lower level than before. By the inter-war years, waterside workers and their families

formed the bulk of the inhabitants. While subject to great vagaries of employment, they were highly unionised and formed a coherent community. The Maritime Services Board remained the principal landlord, paying rates to the City Council.

The post-1945 years saw change in the shipping trade and decline for Walsh Bay. Technological innovations required new styles of wharf architecture with which Walsh Bay was ill equipped to cope. The coastal shipping, already in decline, was further reduced. By the 1960s, longshore wharfage was appearing at Darling Harbour and major changes were taking place at the north-west corner of Millers Point. The housing stock of the district, still under M.S.B. control, suffered deterioration while the population declined.

The decade of the 1970s proved to be the watershed between past and present. The crucial point was the decision of the M.S.B. that Walsh Bay could not be redeveloped as longshore wharves for container vessels. At the same time, 'the Rocks', earmarked for modern development, under the Sydney Cove Redevelopment Authority (1968) had its future changed, after much controversy and agitation, into a predominantly heritage area under SCRA direction. Gentrification began to take place elsewhere in Millers Point. The creation of the Darling Harbour Authority (1984) was an indication that a totally new role was being developed for the southern portion of that inlet. The M.S.B., in 1985, began to make over its housing stake at Millers Point to the Housing Commission. And, already, portions of the Walsh Bay wharves, no longer serving their purpose, were being used for other things and were the subject of earnest discussion about their future.

The long history of the plans and controversies about the future of Walsh Bay is given, in detail, in the massive documentation produced since the early 1980s. These, themselves, form an essential part of the history of Walsh Bay and must figure in its interpretation.

Figure 3: Construction of Wharf: Walsh Bay' c1911 *Source State Library of NSW Photo Archive.*

Figure 4: Eye view showing new wharfage scheme, Walsh Bay, Sydney' 1924 Source: National Library of Australia

3.1.2 Wharf Operation

One of major changes instituted by the SHT was to impose charges for loading and unloading at certain wharves. Goods were subject to outward and inward wharfage even if they were not using a wharf, dock, pier, landing stage, slip or platform but barged from vessels berthing at these landing sights. The added cost was necessary as wharves constructed according to international standards, equipped with hydraulic and electric cranes, electric lighting, variety of cargo handling equipment and large sturdy sheds with good access.

The jetty shed provided the place of tying up the ships and was also a work platform for loading and unloading cargo. It also provided temporary storage. The two level jetty shed allowed separation of incoming and outgoing cargo. Incoming cargo goods were off-loaded from the ships, into the lower level of the shed. Outgoing goods were delivered from the upper level of the shed into the ships along side. The travelling gantry was an essential element of this, being able to be moved to the appropriate upper level loading door, while the work platform they provided extended to the wharf edge. In many cases loading and unloading of the ship could be carried out simultaneously.

The large number of upper and lower level cargo doors along the jetty shed facades allowed loading cargo and gave flexibility in relation to the various sizes and layouts of the ships alongside. The continuous line between the Shore Sheds and the jetty shed allowed easy movement of load between the two areas. Vehicular access available into the upper floor of the jetty shed allowed direct delivery of outgoing load.

3.1.3 Wharf 4/5: 1922-1981

During the years 1922 -1928, the Maritime Services Board leased Wharf 4/5 to the Government Line of Steamers, a shipping company established by Prime Minister W.M. (Billy) Hughes in 1916, with 15 merchant ships purchased in London. The shipping line was established partly as a result of the difficulty in finding enough ships to transport Australian wheat during WW1. During the 1930s, the berth was an ‘open berth’ and was later used in the same decade as a departure point for soldiers, during the Second World War. Migrants arriving after the war were also processed at this berth.

Changing technology in the shipping industry saw the containerisation of cargo and the subsequent decline in handling of general cargo from the 1960s onwards. James Patrick & Co, Pty Ltd, Stevedores relocated their main office to the upper level of Wharf 4/5 in 1953. The remainder of the wharf continued to be used for general cargo until the mid 1970s, when the wharf became redundant as a port facility with an increase in inter and intra-state overland transportation of goods.

Port Botany was built in 1966 specifically to handle container shipping and the roll-on-roll-off shipping traffic. The wharves at Darling Harbour were remodeled to accommodate the changes and improvements in international shipping. These upgrades however did not occur in Walsh Bay. The Maritime Service Board made the crucial decision that Walsh Bay could not be developed as longshore wharves for container vessels.

The Walsh Bay wharves soon became redundant industrial shipping facilities. Furthermore the demand for the use of wharves as arrival terminals for passengers travelling via ship eventually also came to a halt as air travel became increasingly popular during the 1970s. One by one the wharves were closed and abandoned completely by 1981.

3.1.4 Post 1981 Development: Cultural Re-Use

The "Rocks" area, earmarked for modern development, under the Sydney Cove Redevelopment Authority (1968) changed, after much controversy and agitation, into a predominately heritage area under SCRA direction. The creation of the Darling Harbour Authority (1984) was an indication that a totally new role was being developed for the southern portion of that inlet. The Maritime Services Board (which replaced the Sydney Harbour Trust) in 1985 began to make over its housing stake at Millers Point to the Housing Commission.

With no further shipping use envisaged for the wharves, the MSB adopted a policy in 1981 of adapting the wharves to accommodate new uses for community groups. Neville Wran authorised his Chief-of-Staff, Gerry Gleeson, to arrange for the refurbishments of Wharf 4/5 for the use of the Sydney Theatre Company. In the same year staff from the Sydney Theatre Company began to squat on the second floor of Wharf 4/5 upon hearing that the company was going to move there. In 1981, the Museum of Fire occupied the ground floor of Wharf 4/5. Finally in 1984 and with a minimal budget, the Sydney Theatre Company secured Wharf 4/5 and were no longer "squatters" on the premises.

The architect, Vivian Fraser was chosen to convert Wharf 4/5 into a performing space and rehearsal space for the Sydney Theatre Company after his successful conversion of the Nimrod Theatre. An extensive refurbishment of the interior was undertaken with provision of space for theatres, offices, restaurant, cafe and rehearsal space. However the structure's exterior form and design were retained - and the building still reads as a commercial wharf. In 1985 Vivian Fraser was joint winner of the 1985 Sulman Award from the NSW Chapter of the Royal Australian Institute of Architects (RAIA) and the RAIA President's Prize for adaptive reuse of a heritage building.

Over the years a number of other arts organisations relocated to Wharf 4/5 as well as to the adjoining Shore Sheds. In 1986 the Sydney Dance Company moved into Level 1 of the Wharf after $1.6 million

worth of refurbishments to the space. In 1990 the Minister of Arts signed an 85-year lease with the Maritime Services Board, transforming Wharf 4/5 into an Arts Precinct. Additional arts organisations took up residence in the buildings including the Arts Council of New South Wales (currently Regional Arts, NSW), Sydney Philharmonia and the Australian Theatre for Young People.

In 1997, construction and developments totalling $3.127 million allowed other organisations to move in to the space, including the Bangarra Dance Theatre Company, Niki Nali Sound, Ausdance, Accessible Arts Inc and Carnivale. The various arts organisations that have taken residence in Wharf 4/5 perform both nationally and internationally and have played important roles in the development of the artistic careers of many Australian artists. The precinct has become an important venue in the development of arts and culture not only in Sydney but in the rest of the New South Wales.

3.1.5 Modifications

1923 - Installation of an automatic fire alarm system 1938 to 1940 - Wharf was remodelled to allow vessels being berthed and worked on either side of the jetty and to facilitate improved loading. This work required the lowering of the raised portion of the upper floor, raising the wharf deck of Pier 4 to bring it to the same level as Pier 5, widening the lower shed by 20 foot, providing a platform with 8 new steel gantries on the west side of the upper floor, and relegating the elevators, deadhouses, offices and sanitary accommodation to exterior or end locations.

Other work included the repair of 18 defective piles treated by a new method of cutting above silt level, fitting the new piles in with steel dogs, and covering of joists by a galvanised iron cylinder filled with a mixture of cement and bitumen, installation of eight new steel gantries at Pier 5, installation of six 15 cwt. bridge cranes on the upper floor shed, installation of one 5 ton electric travelling hoist, one 3 ton electric travelling hoist and one 3 ton bridge crane on the lower floor shed.

1947 - Alterations to shore and jetty shed to accommodate use by James Patrick & Co.

1953 - James Patrick & Co Pty Ltd employed Peter Mueller, Architect to draw up plans for alterations to the Marine Superintendent's Office to No 4, Walsh Bay in order to relocate their main office and provide accommodation for Mr R. Reed and Mr Lowe. Alterations included installation of an acoustic ceiling, construction of a partition wall, lined on one side with canite covered with ¼ polished maple plywood and padded with slag-wool, formation of curtain pocket and installation of ventilation blinds on western side, double glazing to windows on western side, removal of 'masgrise' lining and installation of 3 'Insulwool to walls, panel filled in over existing door and fan-light and new door opening inserted , 3 plate glass inserted in 3 pieces for windows.

1974 - General improvements to the buildings including improvements to plumbing, replacement of Shore Sheds roofs, installation of Ship's Water Service at Pier 5.

1982 - 1984 - Adaptation of Wharf 4/5 into an arts precinct. Architect Vivian Fraser was chosen after his successful conversion of the Nimrod Theatre. Work at this stage included modifications to conform to fire regulations, covering external weatherboard lining with wall drenches connected to sprinkler system, upward sprinkler system installed in Lower Deck, introduction of fire proof tunnel running length of building from restaurant, theatres and all departments. Tunnel has smoke extractors, emergency lighting and is guaranteed fire proof for at least two hours. Tunnel roof acts as a mezzanine gallery and viewing area into workshop, scenic art and rehearsal rooms. Some gantries and other fittings were retained and used as sculptures. Some interior timber walls have been painted or oiled. Exterior was painted blue and grey to reflect harbour location. Large glass panels and louvres were installed along the public walkway for ventilation and lighting. Two theatres were constructed - one to seat 320 and another with a seating capacity of 200.

1986/9 - Conversion and refurbishments of Deck Level, creating administrative, rehearsal and teaching facilities for the Sydney Dance Company. The Deck Level continued to be leased for stevedoring purposes until 1990.

1991- Ministry of the Arts took over lease and became responsible for Wharf 4/5 and its management.

1993/4- Conversion of space in the Shore Sheds to accommodate the Sydney Philharmonia Choir.

1995- Australian Theatre for Young People moved to the Shore Shed on the ground floor.

1996 -1997- Construction of new offices and performance facilities to accommodate five additional arts organisations, including: Bangarra Dance Company, NikkiNali Sound, Carnivale (1196-2005), Ausdance and Accessible Arts.

3.1.6 Persons associated with Walsh Bay

Source: This section has been based on the 'Walsh Bay Precinct Conservation Management Plan', 1998, prepared for Walsh Bay Finance, as revised by the late Dr Kenneth Cable.

This information may be expanded to describe other important characters associated with Walsh Bay.

HENRY DEANE WALSH (1853 - 1921)

Henry Deane Walsh was born and educated in Ireland. Walsh's early engineering experience was with the railways working for Ireland's Southern and Great Western Railway. Walsh arrived in NSW in 1877 and joined the Public Works Department in the following year. On the formation of the Sydney Harbour Trust in 1901 Walsh transferred to the new organisation as its Engineer-In-Chief. Walsh Island (Newcastle) and Walsh Bay (Port Jackson) are named after him. While it is generally given that the area between Millers Point and Dawes Point was named after Walsh after his death in 1922, the Sydney Harbour Trust's first reference to Walsh Bay is in the Annual Report for the year ending June 1919. Walsh had been ill at that time.

ROBERT TOWNS (1794-1873)

The longest serving and most prominent inhabitant of the Point – he lived in several of its finest houses – was Captain Robert Towns. His career characterised the fortunes of Millers Point, while his principal holdings were to be in the vicinity of the present Towns Place.

Robert Towns, born in Scotland, began his career as a trader- captain. It was only after some profitable voyages from Britain and in the South Pacific that he ceased to regard Australia as a port of call and came to see it as his headquarters. In this regard he was unusual; most merchant traders began in Sydney and then extended their horizon.

Towns settled in Sydney in 1843. It was not an easy time. The wool boom of the late 1830s had subsided, giving way to severe economic depression. Towns, with overseas resources, had the advantage of being able to buy property and hire labour cheaply. In 1844 he purchased Jones' wharf at the angle of Millers Point east and the present Walsh Bay. His South Sea interests gave him a diversified trade base; Towns was never dependent on the fluctuations of the wool market.

From his Millers Point house, Towns exercised strict control, based on unremitting attention, over a growing empire. He greatly extended his South Sea activities and traded with China and India. He owned whaling ships and was involved in schemes for immigration (including from Asia). He was involved in the Sydney banking system and the Chamber of Commerce and, from 1856 to 1861 and again from 1863 until his death, was a member of the Legislative Council. In 1855 he took Alexander Stuart (later Premier of the colony) as his partner in Robert Towns and Co.

Towns' ventures were not only concerned with shipping, trading and commerce. From 1860 he became a major landholder in Queensland, holding over a hundred runs. Land interests led to a project to grow cotton and, in turn, to import South Seas natives as labourers. Towns was never a slave-trader and supported government regulation of native immigration. His cotton venture a failure,

Towns, from the later 1860s, turned to wool in North Queensland; Townsville, the local port, was named after him. Towns and his partners also developed stations on the Gulf of Carpentaria, founding Burketown.

Towns moved from Millers Point to Cranbrook, Point Piper, in 1865. By this time has prosperity was waning but he continued to supervise his many interests until his death in 1873.

Towns was energetic, reliable, immensely hard-working and always prepared to branch out into new ventures. While his Queensland activities were remote from Sydney, he remained the individualist ship-owner and merchant at heart and by habit. With his death, his Millers Point property passed under corporate control.

Other persons associated with Walsh Bay requiring more research include Norman Selfe, William John Hickson, John Brown Watt, Thomas Allwright Dibbs, Alexander Berry, Edward Wollstonecraft, and George Wigram Allen.

3.1.7 Chronology

Source: this section has been arranged by historian the late Dr Kenneth Cable. It is based on the *'Walsh Bay Precinct Conservation Plan',* December 1998, prepared for Walsh Bay Finance. It also uses other sources and includes events which had some general bearing on the Towns Place Area. This is an updated chronology to the present day.

1788	European arrival
1791	Smallpox epidemic which decimated the Aboriginal population.
1797	First Government windmill established.
1810	St Philip's Anglican Church at Church Hill was consecrated.
1825	James Munn established a ship building yard at Millers Point.
1830s	First Crown Grants began to be issued. First educational facilities appeared with the construction of a parochial school attached to St Brigid's in Kent Street.
1831	Hydraulic equipment installed in some facilities.
1835	The first finger jetty, Parbury's wharf, was constructed. St Brigid's Roman Catholic Church in Kent Street was completed.
1839	Kent Street was progressively cut through.

1841	Opening of the Australian Gas Light Company.
1847	The cutting through Argyle Street was completed.
1848	Ferry Lane was mentioned in the sale notice of Hutchinson's Estate.
1850	Fort Street Model School for Girls and Boys was opened. Wells plan records four structures on the allotment.
1856	St Philip's Anglican Church at Church Hill was rebuilt.
1860	By this time finger jetties had appeared along the shoreline.
1890	The Great Maritime Strike.
1895	Survey of the time showed that the whole of the allotment had been redeveloped.
1900	The flea-borne outbreak of bubonic plague arrived in Sydney. Government resumption of the wharves area from the head of Darling Harbour to Circular Quay. The *Sydney Harbour Trust Act* was passed in October.
1910	Extension of the city tramway system into Millers Point.
1901-1910	Demolition of much of the older housing stock in the area.
1903	Longshore Wharves 1A and 1B at Darling Harbour opened.
1906-1908	Wharves 10/11 developed.
1909	Government's scheme for the redevelopment of the wharves at Walsh Bay begins with the construction of the low-level Hickson Road.
1910-1914	Wharf 1 and Wharves 8/9 developed.
1912	Wharf 2 at Darling Harbour opened.
1912-1922	Wharves 2/3 developed.
1913-1918	Wharves 6/7 developed.
1913-1922	Wharves 4/5 developed.
1913-1923	Construction of the deviation of Pottinger Street to connect Hickson Road with Windmill Street by an easy gradient.
1914-1923	Pottinger Street realigned.
1922	Sydney Harbour Trusts work at Walsh Bay ceased. The area of land at the corner of Windmill Street and Pottinger Street enclosed by the existing brick wall.

1932	Completion of the Sydney Harbour Bridge.
1936	The Sydney Harbour Trust replaced by the Maritime Services Board.
1945	Construction of former canteen building.
1955	Reconstruction of former Canteen Building. Hickson Road facade.
1958	Tram service ceased with the introduction of buses into the area.
1970	Dalgety's and Tyser's facilities were demolished by the Maritime Services Board. At this time Walsh Bay, was neither extensively redeveloped in the post second world war economic boom nor for port redevelopment.
	The Industrial Archaeology Committee of the National Trust commenced assessing and classifying individual wharves in Sydney Harbour. Walsh Bay Wharf 8/9 was the first to be classified and included in the National Trust Register
1977 1982-84	Wharf 1 ceased to service shipping. Adaptation of Wharf 4/5 into an Art Precinct with Vivian Fraser's project
1985	The National Trust Council listed the Walsh Bay wharves and Hickson Street Buildings. Mixed uses developed in the area with Pier 1 comprising mixed retail, restaurants and amusements and Piers 4/5 housing the Sydney Theatre Company and other cultural groups. Parbury's Bond No.1, was being adapted by the Maritime Services Board, to house repair facilities. The area was included in The Rocks Urban Conservation Area.
1989	The NSW Government prepared SREP 16 which was made in June 1989. Tenders were called for the redevelopment of Walsh Bay. This attempt failed and new tendering was called.
1995	The NSW Government, on behalf of the Australian public, the owner of the Walsh Bay redevelopment area offered the area to the public sector for redevelopment. An expression of interest was lodged in November, by Walsh Bay Properties Pty Ltd (now Walsh Bay Partnership)(WBP). In January the N.S.W government invited Phillipe Robert to review the options for development at Walsh Bay. Mr Robert's proposals were adopted by WBP and major shareholders and formed the

	basis of the October 1997 Master Plan development proposals.
1996	WBP was awarded a preferred proponent status in March and submitted a Master Plan Development Application (MPDA) in May. On 30th April the Heritage Council of NSW, and on 20th August the Director General of DUAP, gave approval to WBP's Master Plan application for a mix of conservation, restoration and new building for residential, commercial, cultural and retail uses.
1997	After review of the May 1996 MPDA scheme a revised proposal was submitted in draft form in December.
1999	Approval of Mirvac and Transfield's Walsh Bay Partnership master plan.
2002-03	Work begins at site in preparation for occupation by commercial tenants. Repairs to Pier 2/3 involving the removal of asbestos roof and re-roofing - repainting - fire upgrade (sprinkler and external stairs installed).
2003	Adaptive reuse of Pier 8/9 for commercial uses. Demolition of Pier 6/7 for construction of residential apartments.
2004	Commercial Shore Studios (Shore Sheds building) and base building works to Pier completed.
2013	Walsh Bay Art Precinct Master Plan SSDA - WBAP Final Business Case
2015	STC 50 Master Plan
2016	SEARS STC 50 Master Plan Completed & Final Business Case

3.2 Physical Evidence

3.2.1 Streetscape

The subject site currently owned by the New South Wales Government is part of the Walsh Bay Precinct, which is located on Sydney Harbour between Dawes Point and Millers Point. The entire Walsh Bay Precinct consists of a group of sympathetically designed port structures, constructed between 1906-1922 by the Sydney Harbour Trust. The complex includes a group of wharves with linking sheds, bond stores and warehouses. It also incorporates a design of lower (Hickson Road) and upper (Windmill and Lower Fort Streets) access roads with overpass bridges and stairs connecting the Millers Point and Walsh Bay areas and taking full advantage of the local steep topography. The entire Walsh Bay precinct constitutes a key visual element in the Sydney Harbour foreshore being generally characterised by a strong sense of unity, a strong industrial maritime scale, character and detail.

3.2.2 Site[3]

STC50 comprises the following:

- Wharf 4/5 which is occupied by the STC, Australian Theatre for Youth Program (ATYP), Bangarra Dance Theatre and other arts organisations;
- Shore Sheds aligning Hickson Road (Central-East-West) which contain a range of commercial activities, including restaurants, bars, shops and offices.

3.2.3 Buildings

The roof structure of the jetty shed is supported by timber trusses, purlins, posts and adjustable steel trusses. Louvered ventilation openings are distinct on the roof. Originally the roof sheeting was corrugated iron. The wharves horizontal forms are exaggerated by their low scale. Each is punctuated by oversized rolling doors along its entire length. There is no decorative embellishment to these structures. Doors were provided at both Upper and Lower Deck levels to permit working at both levels with gantries providing links with vessels.

On the eastern facade the timber roller doors on the second storey have been enclosed with glass panels and access to these areas are not possible from the exterior at this level. Typically more doors are provided at lower levels. In the 1985 conversion of the wharf for premises for the Sydney Theatre Company, other doors were incorporated into the design.

A combination of styles can be found including:

- Panelled windows with fixed glass panes, painted timber bars and rails
- Panelled windows with painted timber louvered sections above
- Glass louvers on an aluminum frame with fixed panels below
- Large fixed glazed panels at deck level

[3] *Revised in this addition references to Pier 2/3 removed*

Figure 5: Wharf 4/5 East elevation

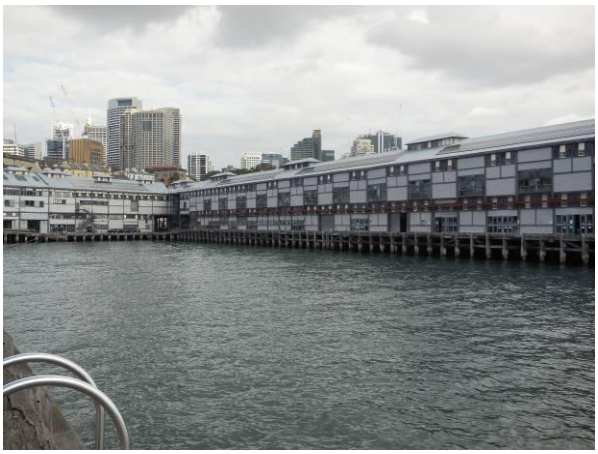

Figure 6: Wharf 4/5 East elevation

Figure 7: Wharf 4/5 West elevation

Figure 8: Wharf 4/5 North elevation

Figure 9: Wharf 4/5 Level 3

Figure 10: Wharf 4/5 Level 4

3.2.4 Shore Sheds

Shore Sheds are of similar construction to the wharf shed but typically irregularly shaped. They sit on solid fill retained by the precast concrete sea wall. The structures of the Shore Sheds are T shaped with the head of each of the four T buildings joined to form a continuous façade along the wide Walsh Bay service artery, Hickson Road. They are constructed of masonry and give little indication of extensive timber structures behind. The Federation style masonry facade onto Hickson Road is a dark colored brick with engaged brick piers and horizontal bands of sandstone which relieve the brickwork along the upper and lower edges of the window and door penetrations. Sandstone embellishments to the brick columns can be found at the upper levels of the building along the parapet wall. The main entrance at street level is typically emphasised with a strong base and a concrete structural Doric entrance column and lintel. The western facade of the Shore Sheds has a face brickwork facade with recessed brick arches on the ground and First Floors and vertical sandstone bands along the lower and upper sections of the parapet wall. Three sets of sash windows are located on the First storey.

Windows on the Shore Sheds are of varying styles and materials including:

- Double hung sash windows in brick facade of Shore Sheds
- Fixed glazed panels in brick facade facing Hickson Road
- Panelled windows with fixed glass panels, fronting water
- Louvers with fixed panels below
- Sliding sash windows
- Casement windows

Figure 11: Shore Sheds South elevation

Figure 12: Shore Sheds West elevation

Figure 13: Shore Sheds North elevation

Figure 14: Fire escapes in steel

Figure 15: Hickson Road looking North/East. Image by Google.

Figure 16: Hickson Road looking South/West. Image by Google.

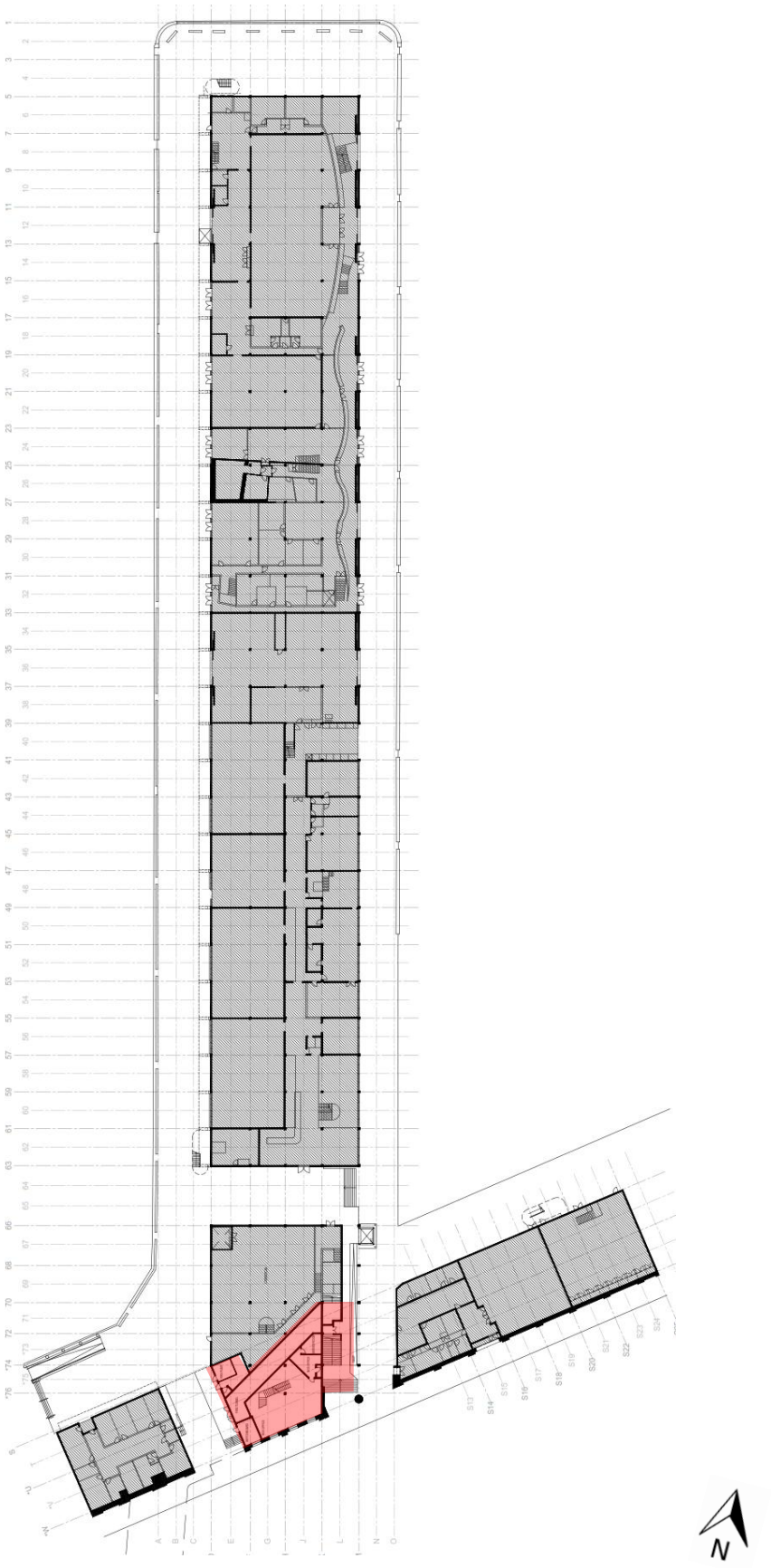

Figure 17: Existing Ground Floor Plan Wharf 4/5. Highlighted in red the subject area

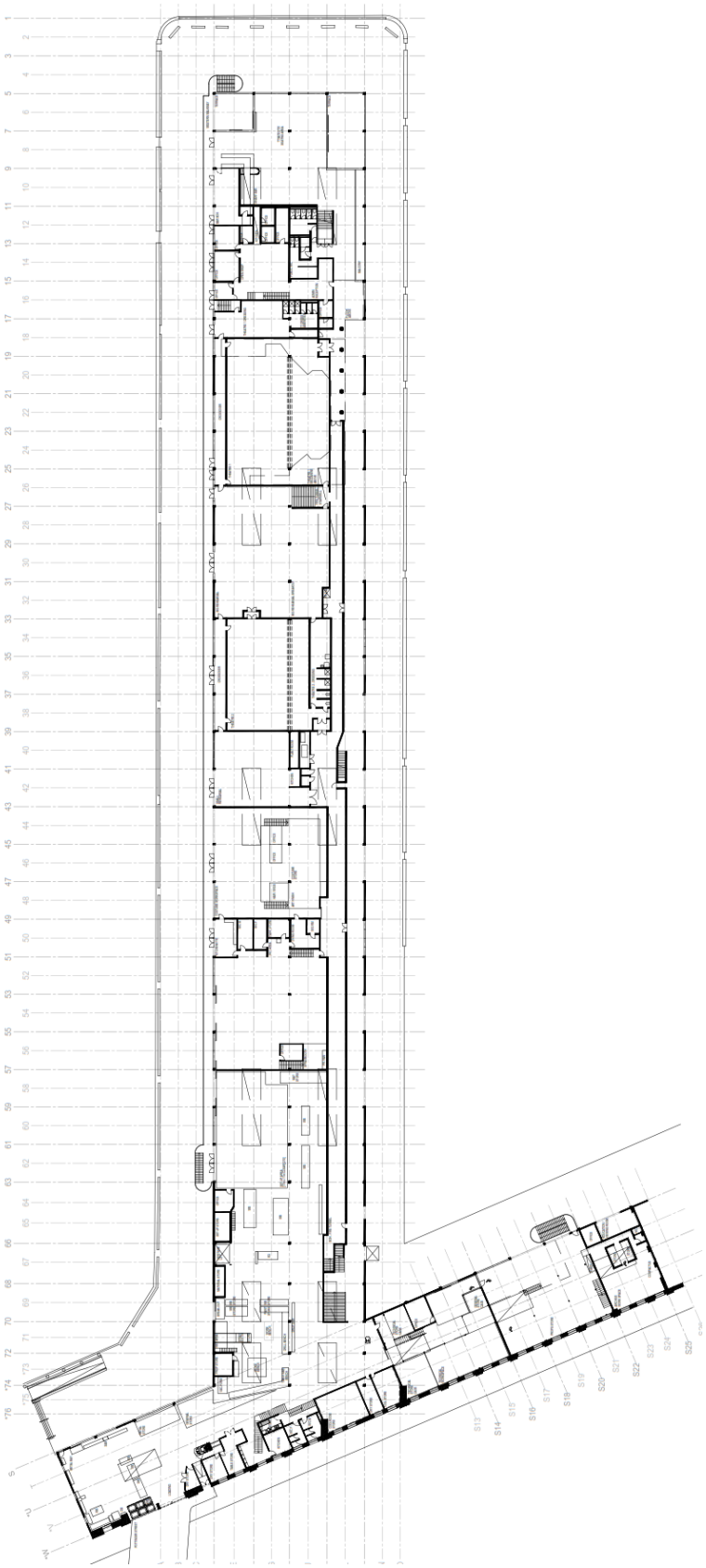

Figure 18: Existing Level 1 Plan Wharf 4/5.

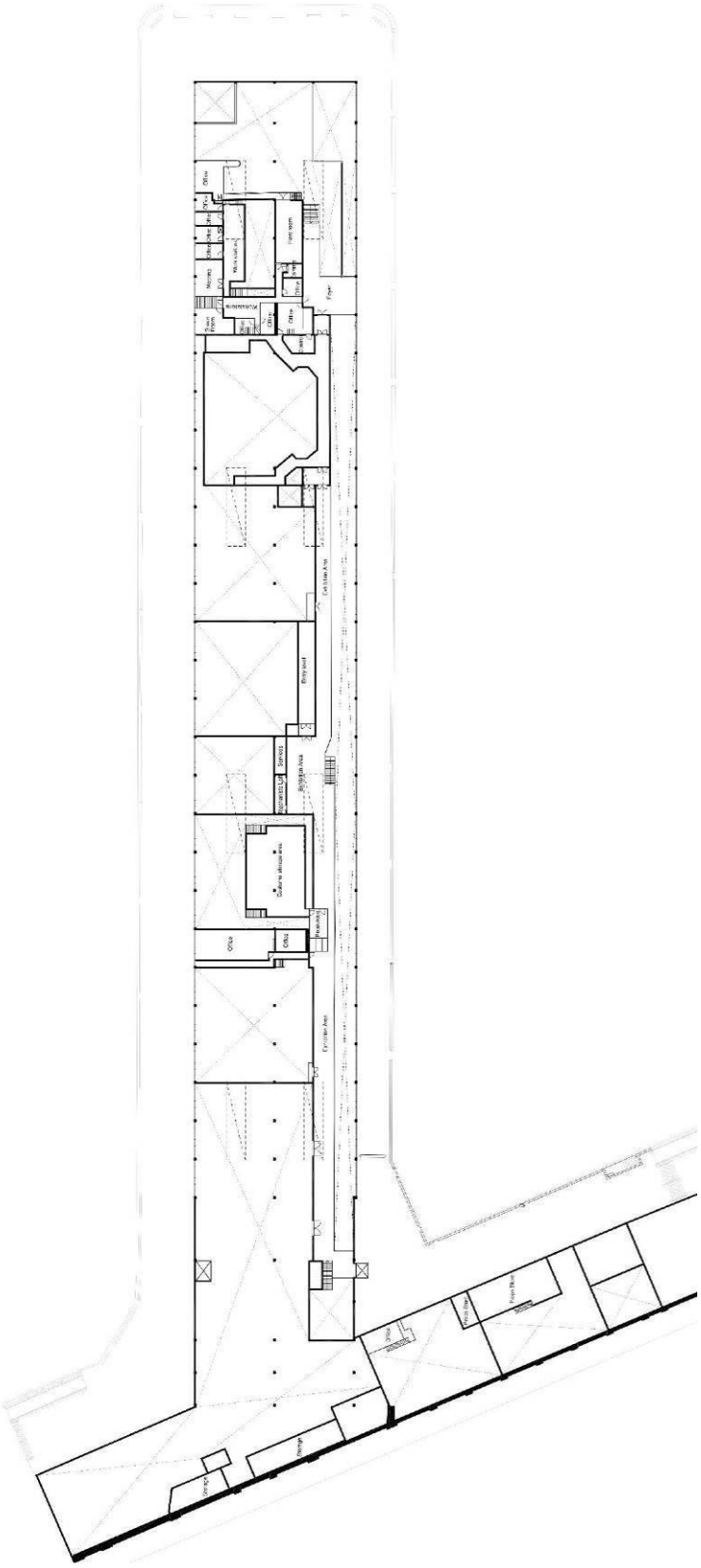

Figure 19: Existing Level 2 Plan Wharf 4/5.

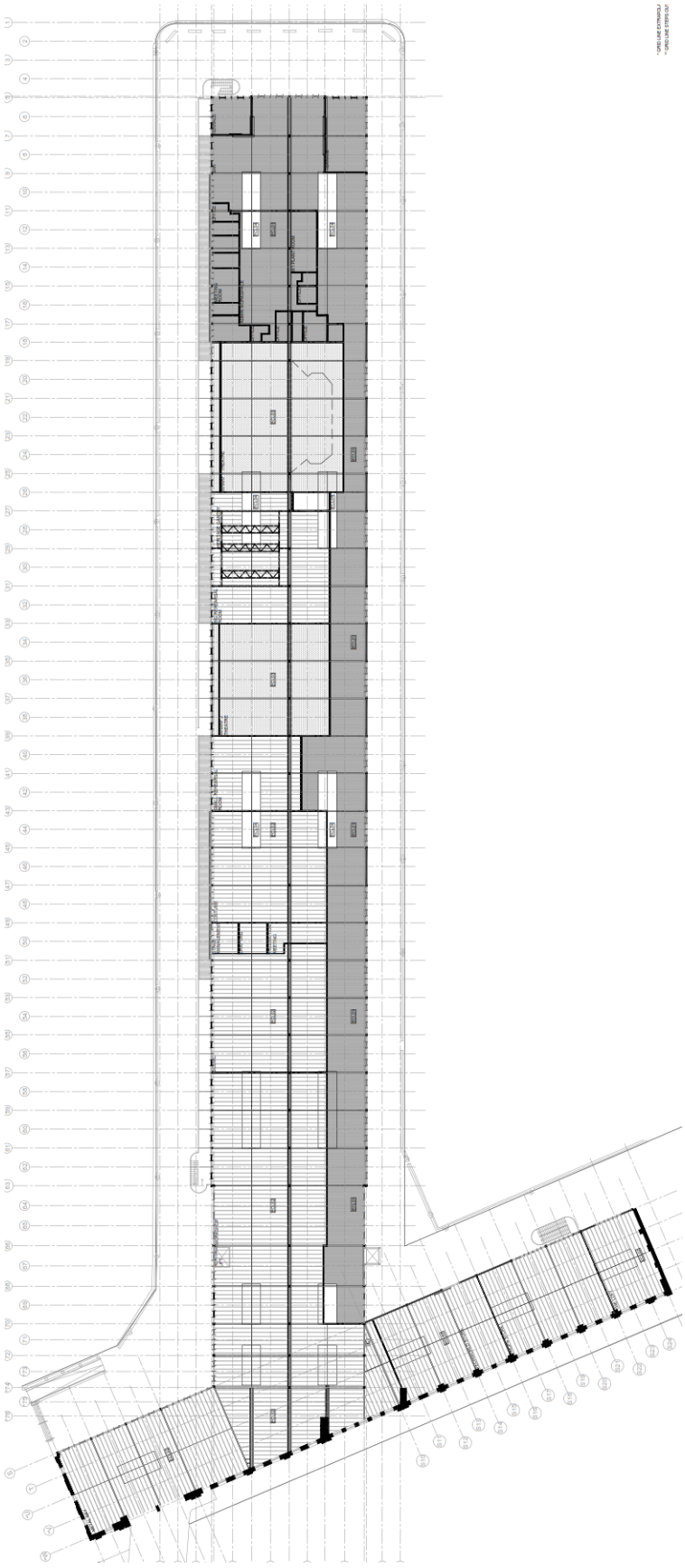

Figure 20: Existing Ceiling Plan Wharf 4/5.

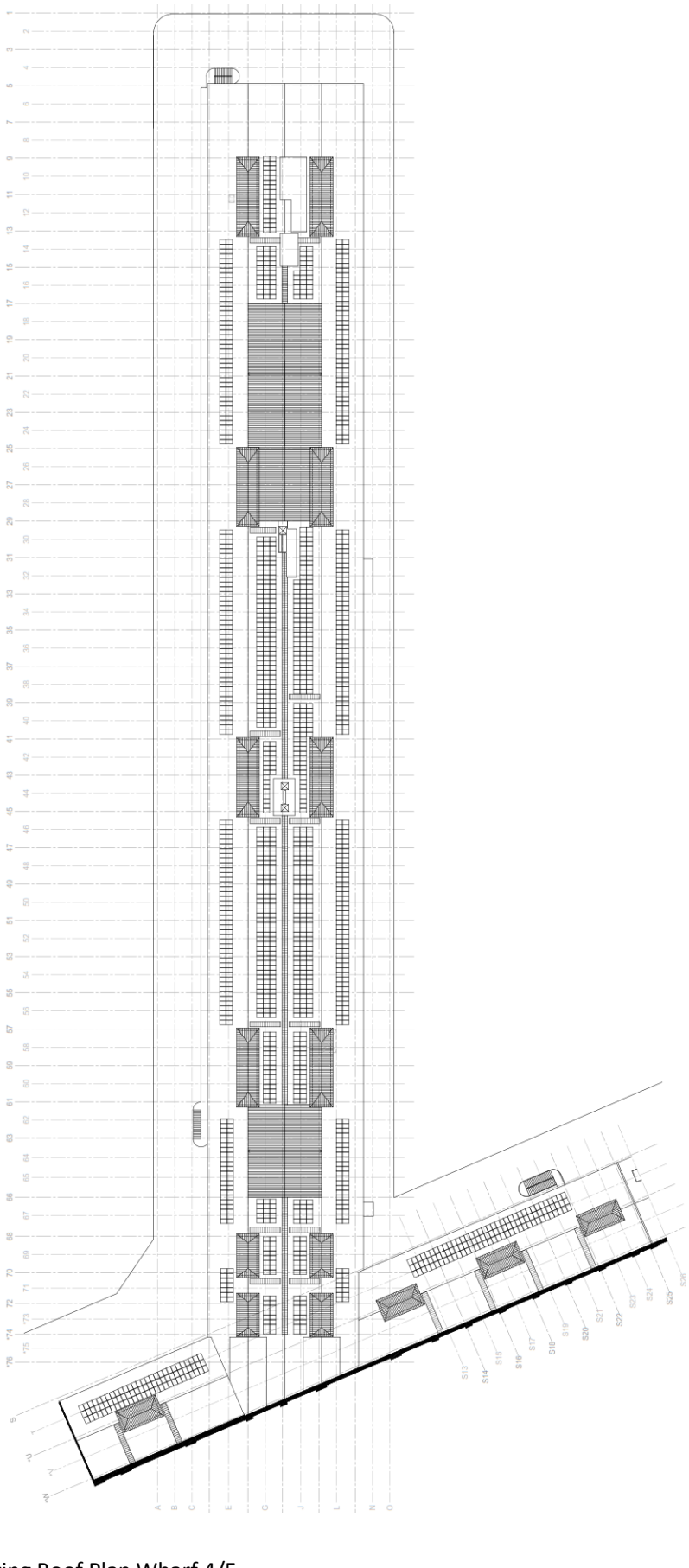

Figure 21: Existing Roof Plan Wharf 4/5.

4. Past, Present and Future

4.1 Introduction

This section addresses aspects of the Wharf 4/5 and STC50 use proposal.

For over 30 years The STC has enjoyed the existing State Heritage site at Wharf and Shore Sheds 4/5.

It is important to note that the STC is but one of the Arts Users in the building, albeit the major one. However the discreet use of the upper floors by the STC with the direct link via the lift and front stairs adds to the impression of sole ownership.

The workshops, storage and service areas are accessed via an original overhead bridge, formerly a part of the loading facilities for the wharf, and in that sense the use has changed little.

The existing STC is seen as a complete entity from the kerbside at Pottinger Street and Hickson Road.

The completeness and linear occupation has allowed patrons and the curious a unique view or cross section of the whole of the theatrical endeavour, and this too defines and compounds the idea of ownership and belonging, binding the STC with a cultural/heritage symbiotic relationship to Wharf 4/5 and the Shore Sheds.

The old uses of the wharf and loading facilities were replaced by the new to the extent that the STC has become identified and bound to the buildings in a historic and cultural sense, increasingly so, as the whole precinct moves rapidly to its intended use as the international cultural hub of the city to be known as the Walsh Bay Arts Precinct.

The ideas which drove the existing design logically placed the STC's practical functions and workshops closest to the street frontage along with the box office. The theatre functions were lined up in an order based on the logic of the day and this order was driven by two factors: the narrow linear foot print and the need for a practical fire egress solution which would gain approval from the Board of Fire Commissioners.

It was a less is more approach with an emphasis on function and respect for the original fabric of the building.

The Vivian Fraser design did however alter the spatial properties of the historic loading and unloading halls but in nearly every case the heritage fabric which is seen more than hints at the original purpose of the structure.

What is obvious is that as the STC now moves forward, the facility must be altered to accommodate new audiences and productions.

A number of issues need to be addressed in the existing design and layouts.

The long walk which is a feature of the Wharf Theatre unacceptably intersects all access points for set and people movement and this failing is documented elsewhere. The locations of the functions, theatres lobbies and rehearsal rooms were a pragmatic solution and these arrangements have solutions as shown in the Master Planning by Hassell and Charcoalblue, the theatre designers.

The box office and entry approaches have meant a long traverse to the theatre.

Importantly the set construction and workshop areas struggle to deliver along and under the fire tunnel.

Access and egress generally are an inhibiting factor in the daily life of the STC in Wharf 4/5.

The State Heritage listing curbs interventions which might destroy or remove significant heritage fabric but also bring about a better short term solution.

The short comings of the Vivian Fraser design are also seen in some of the solutions to the intervention and thesis can be corrected in a new approach.

4.2 The Basis of the Original Theatre in Wharf 4/5

Vivian Fraser – the original architect of the restoration and adaptive reuse of Wharf 4/5 – found many challenges and his conclusion was that this building type was going to "be extraordinarily difficult for conversion to a theatre".

In his interviews and reflections of the task before him, he has defined the two greatest challenges as site accessibility to the public for exits, and building construction problems in relation to fire regulations.

Without that matter solved the atmosphere and spatial possibilities were irrelevant, he says. He was not able to use the apron as an escape by the Fire Commissioners.

The Fire Tunnel the full length of the wharf was the solution to use of the wharf apron and after that, the fire separation and acoustic barrier walls were developed in lightweight materials, with the assistance and guidance of the Experimental Building Station, in an advanced development of lightweight fire rated construction.

The marriage of old and new was not easily achieved so when his work was described as a simple renovation, he says he was both insulted and honored as simplicity was one of his most strongly held architectural philosophies. The idea of a simple renovation, while well intended, did not convey the difficulty of his journey in archiving the result.

4.3 Arts NSW Involvement

Arts NSW & INSW have agreed a memorandum of understanding with regard to the division of STC works in the SSDA's approving STC 50 Masterplan. The external design will be prepared by Tonkin Zulika Greer the interior fitout will be designed by Hassell[4]. *Revised in this addition references to Pier 2/3 removed*

The design of the interior will dictate the functional design of egress points and will be coordinated with other tenants in Wharf 4/5.

In this option the whole of the workshop will be rearranged and connected directly to the theatres via a western corridor. This has an especially important heritage related outcome with the uses now set back generally from the outer skin. The bonus will be better thermal and sound insulation.

Stronger full cross links have been established in this master plan proposal, the purpose of which – besides linking vertical levels – allows a full three dimensional understanding of the original volumes and structures.

The STC 50 design has improved the theatre volumes in Pier 2/3 and consequently the performance possibilities by lifting the roof to be almost flush over some discreet areas. The design and support systems will need to be resolved by INSW consultants in conjunction with the STC 50 consultants. It is not a one size fits all process.

This methodology will be incorporated as a key element in the Wharf 4/5 proposal in two areas. The structural solution may include using similar robust timbers in a new truss system.

The Shore Sheds will be redesigned with better efficiency and circulation without any significant changes with the exception of one area of raised roof.

Each of the proposed changes improves the planning and usability of the whole of the STC Tenancy while in the main none have any more significant impact than the works at Wharf 2/3 or indeed the original design by Vivian Fraser.

[4] *Revised in this addition references to Pier 2/3 removed*

The concepts demonstrate an improved understanding of the wharf structure and build on the concepts of simplicity and expression of the robust structure espoused by Vivian Fraser.

4.4 Wharf Apron

Previous schemes have not used the wharf apron on the east side of the Wharf 4/5. Pier 2/3 has additional steel fire escapes which mimic the original design for Wharf 4/5 on the west. This will be developed with TZG Architects.[5]

4.5 Separating Structures

The Burra Charter is the key document used in designing and assessing restoration and intervention in historic buildings.

In 1979, the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance was adopted at a meeting of Australia ICOMOS (International Council on Monuments and Sites) at the historic mining town of Burra, South Australia. It was given the short title of The Burra Charter.

When the STC and the Wharf 4/5 project was at its inception, the Burra Charter was a guide document and now has become the official method of assessing restoration repairs and new works.

The proposed scheme in the STC50 Master Plan by Hassell and that in the Pier 2/3 design by Tonkin Zulaikha Greer, have generally acknowledged the precepts of the current 2013 Burra Charter, quoted below.

In this context, the redesigned theatres proposed follow the concepts of identifying new work and careful restoration of original fabric where appropriate. The ideas and new concepts provided are a positive heritage response.

The raising of the roof is a major structural intervention (a similar approach has been approved in principle in the stage 1 WBAP SSDA) as is the removal of internal columns so it is important that improved heritage outcomes are the general result of the reinvigorated STC occupation[6].

Changes to buildings which allow continued and expanded use ensure the continued maintenance and life as well as the preservation of that building.

The structural separation and exposing of the inner fabric is a positive result in the new master plan.

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[5] *Revised in this addition references to Pier 2/3 removed*

[6] *The report has been altered to reflect the similarity of the process in both structures to accommodate theatre functions*

"An important factor in the success of new work is the quality and sensitivity of the design response. New work should respect the context, strength, scale and character of the original, and should not overpower it.

The key to success is carefully considered design that respects and supports the significance of the place. Imitative solutions should generally be avoided: they can mislead the onlooker and may diminish the strength and visual integrity of the original.

Well-designed new work can have a positive role in the interpretation of a place.

The cultural significance of a place and its particular circumstances will determine any constraints on the design of new work.

If, for example, the issue is replacement of a removed building (producing a 'missing tooth') in a row of buildings that have a degree of uniformity, then the new work should closely follow the existing buildings in bulk, form, character, complexity of detail, set back, etc.

Detailing of joinery or masonry should be modified to indicate the new work.

There will be other places where there are less contextual constraints on the design of new work. These will be where there is a greater diversity in the setting, or where the siting, form and scale of the new work will not adversely impact on significance.

As Article 15.1 says: The amount of change to a place and its use should be guided by the cultural significance of the place and its appropriate interpretation."

From Burra Charter 2013.

The repurposing of industrial heritage buildings is promoted by ICOMOS and the TICCIH (The International Committee for the Conservation of the Industrial Heritage) internationally by way of The Nizhny Tagil Charter for the Industrial Heritage, July 2003, and their International publications *Industrial Heritage Re-tooled: The TICCIH guide to Industrial Heritage Conservation*, J. Douet (ed.), 2012.

Australian ICOMOMS is part of the international ICOMOS and is bound by the various charters.

There is a requirement in the restoration and adaptive reuse process to ensure that the original fabric is restored and retained, and that the original industrial character of the building is maintained.

The ICOMOS Industrial Heritage Charter acknowledged two significant ideas, first that the works should be in the main reversible but secondly that some works are not reversible and this is the case in

the large volumes required for performance spaces within the Piers. The Vivian Fraser design for the whole of Wharf 4/5 followed a language of light-weight intervention but in many instances fabric was taken away for either aesthetic or functional reasons. The impact of his intervention is barely noticeable.

There is a dichotomy in assessing the impact on the intervention for theatrical performances spaces. In the one instance, Wharf 4/5, this has already occurred; in the other, the whole of the work is new. In each of the CMPs, both Tropman and Brookes have foreseen that there will be, by necessity, an impact from the proposed uses for cultural repurposing. Croker in his report also acknowledges the result of these large scale interventions. Brookes chooses to ignore the fact that the impact has already occurred and some of his policies are redundant as a result.

The ICOMOS Industrial Heritage charter notes that there will be inevitable permanent changes to industrial buildings with the advent of any adaptive reuse. The Charter is not supportive of conjectural reconstruction which imitates the original parts of the building as these will confuse the history and evolution of the building form.

4.6 Burra Charter in Context

The principles of the Burra Charter understand that buildings do not remain static for their lifespan. Buildings that continue to be useful are buildings that adapt with the ebb and flow of their compatible uses. Significance is not retained just in bricks and mortar alone. There is so much to the significance of a place that is intangible – connections to people or groups of people, cultural uses and continuing uses of the place.

Article 15.4 of the ICOMOS Burra Charter 2013 states that:

"The contributions of all aspects of cultural significance of a place should be respected. If a place includes fabric, uses, associations or meanings of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance."

In this regard, the use of the site for over the past 30 years by the Sydney Theatre Company is of high cultural significance and just as important to the history of the place as its past maritime use.

Following the collapse of the traditional shipping method and the rapid take up of containerisation, the Walsh Bay precinct ceased its maritime use in 1970. For a decade the precinct was abandoned and left to become derelict. Wharf 4/5 was the spring point of the adaptive reuse of the derelict buildings

of the Walsh Bay Precinct for performing arts in the late 1970s and 1980s. The Precinct since this time has been dedicated to cultural uses with Arts and Performing Arts in particular repurposing the precinct.

This adaptive reuse and reimaging of the precinct over the past 36 years has imbued an intangible cultural heritage significance to the place. As defined by UNESCO, this intangible cultural heritage use is as integral with these buildings and as important to the place as is the past industrial maritime heritage. To reflect only on the past maritime use and to disregard the equally important intangible cultural heritage use is to misunderstand the way buildings adapt, grow and change and to completely ignore a huge portion of the place's history. Insisting only upon the capacity to return the buildings to their original maritime state and operation discounts the significance of the uses that have followed and which are set to continue into the future.

With the current leases established until the year 2059, this cultural use will surpass the maritime use of the site by 20 years, cementing this as the dominant use of the precinct and reinforcing both the built cultural heritage of the place and the intangible cultural heritage of arts and performance across theatrical performance of drama, dance and music.

The time line shows the period of each use.

- 1912-1970 Maritime uses
- 1970 -1980 casual use, vacancy and dereliction
- 1983 Vivian Fraser and the STC, SDC, ATYP and the Philharmonia choirs
- Current STC Arts users adds 43 year leases now established cultural occupation until 2059

4.7 Changing Uses and Context

When buildings no longer served their purpose, they were altered and added to, adapted to suit the requirements for the foreseeable future. If they did not adapt, they were left to rot – empty and lifeless – or demolished to make way for the new. They grow and change with the times or they get left behind.

The Walsh Bay area is a prime example of this. The area was used for maritime purposes from the 1830s with private wharves and bond stores built. Following the outbreak of the Bubonic plague at the end of the 19th Century and as the maritime industry grew at the turn of the 20th Century, old wharves, piers and Shore Sheds were demolished and rebuilt, bigger and better than before. Pier and Shore Sheds 4/5 were built in 1913-1922. Up on the surrounding hills the workers' houses continued to be built. The Walsh Bay Wharves, Millers Point and Dawes Point were a hub of activity, a symbiotic relationship. This use continued for over 60 years in the existing structure. From the mid-1960s and

into the 1970s, Port Botany was built to accommodate the change to container shipping. The wharves at Darling Harbour were modified. Those at Walsh Bay were not. The Walsh Bay wharves were used for off-loading passengers rather than cargo for a short period of time. Slowly but surely, each of the wharves were closed and then abandoned by 1981. For a time they lay dormant.

From 1985, Wharf 4/5 has been a cultural hub for Sydney dance and performing arts. This use has continued here for 30 years. The proposed alterations works will enable this cultural use to continue well into the future. The revitalization of Walsh Bay which began in 1998 has seen the area turn into a buzzing cultural, residential and commercial centre. The ongoing use of Wharf 4/5 for performing arts is a continuation of the site's evolution from its early maritime history to its ongoing use 3 decades strong as a performing arts space.

4.8 Principles of Adaptive Reuse

"Many heritage items can be altered or extended without unduly compromising their importance. Indeed, it is possible to enhance or reinforce their significance by an adaptive reuse that involves sympathetic alterations and additions. This is often necessary to ensure their survival. In general, the success or failure of alterations and additions in heritage terms is directly related to the degree to which the design acknowledges and retains the significance of the place."

From NSW Heritage Council Altering Heritage Assets.

"V. Continuing to adapt and use industrial buildings avoids wasting energy and contributes to sustainable development. Industrial heritage can have an important role in the economic regeneration of decayed or declining areas. The continuity that re-use implies may provide psychological stability for communities facing the sudden end a long-standing sources of employment."

From TICCIH The Nizhny Tagil Charter for the Industrial Heritage July 2003

The adaptive reuse of Wharf 4/5 by the STC, and in fact the adaptive reuse of the Walsh Bay precinct as a whole, has reinvigorated the entire site, creating a thriving cultural, commercial and residential centre.

4.9 Reimagining the use in a heritage context

The adaptive reuse of the Wharf and Shore Sheds 4/5 by the STC has now defined the uses of the spaces and transformed the original functions of the past and cemented the arts and cultural uses and the primary occupation.

The future lease of 45 years means that the occupation by the cultural institution of the STC will have exceeded the original functions by at least two decades.

This is an important philosophical shift in the understanding of the building.

The reassigning of the building's functions may be considered to alter the context of future changes.

The official recognition of the Wharf 4/5 and STC in particular, as an architectural and cultural icon, is now well established and an historic event. The original architect has been honoured by the highest awards.

Thus the context has altered when assessing the spaces and the functions and any alterations in the WBAP proposal must be assessed in that context not solely on the shipping trade and the loading and unloading of shipping in the early part of the 19th century.

Any heritage assessment should be made in the context of the current cultural uses, design and form. For Today that use represents a third of the building's life.

The new WBAP Master Plan and the STC50 project relates equally well to the original Wharf 4/5 design, as with the original commercial shipping history, and any heritage assessment must be made in relation to the current "historic" use of the wharf as a theatre complex.

The idea of intangible cultural heritage bears some resemblance to the Sydney Theatre Company as it has now developed into an Australian Cultural Icon and the new and original other tenants, ATYP, SDC and Bangarra.

The UNESCO ICOMOS Charter on Intangible Cultural Heritage states the following:

> ***"Article 2 – Definitions***
>
> *For the purposes of this Convention,*
>
> *1. The "intangible cultural heritage" means the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artifacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage.*
>
> *This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity.*
>
> *For the purposes of this Convention, consideration will be given solely to such intangible cultural heritage as is compatible with existing international human rights instruments, as well*

as with the requirements of mutual respect among communities, groups and individuals, and of sustainable development.

2. The "intangible cultural heritage", as defined in paragraph 1 above, is manifested inter alia in the following domains:

(a) oral traditions and expressions, including language as a vehicle of the intangible cultural heritage;
(b) performing arts;

(c) social practices, rituals and festive events;

(d) knowledge and practices concerning nature and the universe;

(e) traditional craftsmanship."

(The General Conference of the United Nations Educational, Scientific and Cultural Organization hereinafter referred to as UNESCO, meeting in Paris, from 29 September to 17 October 2003, at its 32nd session).

ICOMOS has recognised the way both tangible and intangible cultural heritage contributes to the fabric of civilization and humanity.

The Wharf and Shore Sheds 4/5 buildings are a tangible expression of the Sydney Theatre Company and the other arts users in general.

The transience of the theatrical performance as a concept fits within the idea of an intangible cultural heritage.

The STC archives, records and documents of performance to preserve them, however in the real performance the experience is transient.

Consideration must be given to the STC as an historically important organisation which has and continues to contribute to the cultural fabric of our society.

The Hassell

Master Plan has been undertaken with sensitivity to Vivian Fraser's pioneering work and his struggles with an "impossible" task of retrofitting a theatre complex into a narrow, long, timber jetty wharf. Fraser achieved an extraordinary result and did it with his enthusiastic client represented by Richard Wherrett.

This is a commendable model with which to move on to the next phase of the Wharf 4/5 development and evolution. Fraser loved the robust structure and seemingly cursed its intransigence to be modeled to fit his purposes. His struggles with achieving his simple solutions to his master work has been well documented. He went back to the drawing board and found a way to accommodate the new with the old within what was then, the burgeoning of the ICOMOS Burra Charter Philosophies being developed in Australia.

4.10 Adaptive Reuse

The adaptive reuse of 19th and early 20th century industrial buildings for cultural uses, with their large spans and pragmatic functional elements, has become an increasingly accepted technique for housing performance arts spaces and galleries.

These building lend themselves readily to new uses, insertions and adaption as old functions become redundant.

The Wharves and Shore Sheds at Walsh Bay fall into this genre and as such can be benchmarked against others both locally and internationally.

With the new uses comes the need for alteration and change to the fabric and original layouts.

While the Burra Charter requires the mantra for adaption should be to “do no harm”, the nature of the activities almost always requires some areas of significant alteration to the buildings’ historic fabric.

All such changes should be informed by a well a developed design philosophy for each situation rather than an accidental discovery process with individual resolution of the detail. Preplanning and a three-dimensional recognition of the interaction with new and original fabric is therefore essential.

Because of the workings of the performance spaces and theatres, their needs range from being intensely populated to the need for clear and uninterrupted spans with all functions requiring an overlay of acoustic isolation.

Under these circumstances and with the permanency of the new WBAP cultural uses confirmed, it must be recognised that not all changes will be readily reversible, just as the Vivian Fraser design was not. The design must therefore identify and have clarity as to what is, for the want of a better terminology, a *permanent change* and what is reversible.

The TICCIH Nizy Tagil Charter for the Industrial Heritage July 2003 states that:

“Continuing to adapt and use industrial buildings avoids wasting energy and contributes to sustainable development. Industrial heritage can have an important role in the economic regeneration of decayed

or declining areas. The continuity that re-use implies may provide psychological stability for communities facing the sudden end a long-standing sources of employment."

Walsh Bay in the 1970s with its maritime use declining became the haunt of the rebel artist squatter and this "heritage" was formally adopted and realised in the Wharf 4/5 creation by Vivian Frazer and others.

By his own admission Frazer's work was a struggle between complexity and simplicity. He has said that simple did not denote easy. His insertions of theatre spaces and workshops removed and changed many things but his hand always touched the fabric lightly. The building form in Wharf 4/5 is always recognisable and able to be interpreted.

The ensuing 30 years saw what can best be described as Sydney's intangible cultural heritage[7] grow within that extraordinary and ground breaking adaptive reuse. Each of the initial tenant companies has endured and Wharf 4/5 now is considered as *home* for the companies and the idea of reinstating the former use as a wharf is inconceivable. Insisting only upon the capacity to return the buildings to their original maritime state and operation discounts the significance of the uses that have followed and which are set to continue well into the future, surpassing the lifespan of the original maritime use of the site.

There is now a cultural and historic synergy between the physical heritage and the cultural icons of STC, ATYP, Bangarra and SDC. Pier 2/3 was identified as an extension of both these cultural streams.

When DUAP announced the approval of the Walsh Bay Precinct Master Plan it emphasised the correlation between the historic wharves around the water court and the creation of the cultural precinct reflected as a continuum of the Wharf 4/5 cultural uses.

The new Walsh Bay Arts Precinct can be considered as an extension and development of the concept of physical and intangible cultural heritage. Very important is the need to approach the design process and its complexity holistically with special emphasis on the insertion of services and acoustic treatment the implementation of which must be recognition of the architectural heritage. This holistic design philosophy should be singularly directed to allow the least interference with the built form, fabric and context and aid in the interpretation of the building in its historic context.

[7] *Traditional, contemporary and living at the same time: intangible cultural heritage does not only represent inherited traditions from the past but also contemporary rural and urban practices in which diverse cultural groups take part; http://www.unesco.org/culture/ich/doc/src/01851-EN.pdf*

5. Heritage Significance & Constraints

5.1 Statement of Significance

The following Statement of Significance is contained in the Graham Brooks CMP. This CMP has not been endorsed by the Heritage Branch but it is the only CMP prepared specifically for Wharf 4/5.

Extract from *CMP Wharf 4/5* by Graham Brooks and Associates:

> "Wharf 4/5 and its associated Shore Sheds have heritage significance for their architectural, historical, technological and visual values. The subject buildings are located within the Walsh Bay Wharves Precinct- that is equally significant in the history of maritime trade in New South Wales. The site has historic value for its ability to demonstrate advancements in commercial shipping facilities during the early twentieth century. The subject buildings were part of a greater wharf resumption and development program that took place throughout Port Jackson during the early 1900s by the Sydney Harbour Trust. Its conversion into a performing arts precinct during the mid-1980s was heralded as an important achievement in the adaptive reuse of industrial buildings. Site has links with H.D. Walsh, Robert Hickson, Vivian Fraser and various internationally and nationally renowned artists and arts organisations. Wharf 4/5 is an integral part of the Walsh Bay Wharves Precinct. It has a strong distinctive character, owing to the materials used, its building form and scale. It possesses landmark qualities and is easily visible from North Sydney, Millers Point, Observatory Hill and on the waters of Port Jackson. The building is a rare example of timber finger wharves constructed by the Sydney Harbour Trust during the early twentieth century. Although it has been converted into a performing arts precinct, this has not diminished the building's relationship with its industrial past. The conversion of the wharf demonstrates a sensitive reuse of original building fabric which respects the integrity of the structure."

5.2 Physical Constraints and Requirements Arising from the Statement of Significance

These are the constraints by Graham Brooks and Associates which must be addressed in the alterations to Wharf 4/5.

Extract from *CMP Wharf 4/5* by Graham Brooks and Associated:

- Wharf 4/5 and associated Shore Sheds should continue to operate as an integral component of the whole of the Walsh Bay Precinct.
- Wharf 4/5 is an integral part of the historic fabric of the area and should continue to relate both visually and functionally to the area.

- The primary significance of Wharf 4/5 as a former commercial industrial maritime wharf and warehouse facility should be respected in any future modifications to the building. As the reuse of the building is now part of its cultural significance, there is no requirement to return the building to its original spatial configuration.
- Building elements
  - External detailing of the buildings should be respected with the retention of original building material where possible. Where replacement of original material is required, matching materials should be sought.

  - Building elements of identified significance should continue to be conserved.

- Wharf 4/5 has been successfully adapted and reused as a performing arts space. Although it has been recognised as a centre for the performing arts, future uses of the site should not be limited to use as a venue for the performing arts. Other compatible uses could be considered in the future.
- Wharf 4/5 is a strong visual element on the foreshore of Sydney Harbour. The site is clearly visible from Observatory Hill, the Sydney Harbour Bridge, Hickson Road, McMahon's Point, North Sydney and Sydney Harbour.
- Aspect (east/west). The aspect of the building is east west which contributes to problems regarding extreme heat from the westerly sun.
- Location in close proximity to residential apartments in newly constructed Wharf 6/7 has contributed to issues of noise pollution from the Dance Rehearsal Studios on the western side of the Lower Deck Level. Recent complaints from residents in these apartments have been recently addressed by Art NSW which has insulated some sections of the rehearsal studios and modified the volume of sound speakers by computer controlling the volume through a central computer system.

5.3 Grading of Significance

It should be noted that the whole of the Wharf 4/5, is a heritage item of State Significance and should be treated with a high level of respect for its status and exceptional qualities.

Residing within it are some independent items and fabric which must be maintained.

The goods lift at Hickson Road Wharf 4/5 and the internal gantry crane in Wharf 4/5 are considered of high significance.

Trusses, columns and beams are also of high significance.

The form of the roof with its pitch and “lanterns” is of high significance.

The gantry can be relocated as it has been artificially stopped in one position yet previously had free reign to travel up and down internally and so its significance is not limited to its location as it has significance in any position.

The goods lift is proposed to be lowered and the space floored over while keeping the whole framing. This is also a reasonable outcome as the lift car travels vertically and any position on any floor can be considered as being “right”.

A number of columns are proposed to be removed and 3 reinstated.

Floors are proposed within the truss spaces. Each of these matters has precedence in Walsh Bay.

Wharf 4/5 (from *CMP Wharf 4/5* by Graham Brooks and Associates)

SITE ELEMENTS	GRADING OF SIGNIFICANCE
• Strong visual element on Sydney Harbour foreshore • Integral part of wharf complex and precinct and wider • historic fabric of the area • Views to and from Wharf 4/5	EXCEPTIONAL
• Strong distinctive character (building form, bulk, height and materials) of wharf, wharf shed and Shore Sheds, created by the logical use of heavy timber construction and the regular grid layout of piles, columns, beams and infill cladding. • The layout of the posts at 6m intervals below deck level and at Deck Level and at 12 m intervals at the Upper Level. • Original building fabric of which approximately 90% remains intact. Significant building fabric includes weatherboard paneling, roof trusses, face brickwork to Hickson Road facades of Shore Sheds, original windows and doors. • Internal spaces from the buildings former use as a commercial goods warehouse • Steel overhead bridge from Pottinger Street • Gantry crane on eastern facade • Timber staircase between Upper Deck and Lower Deck • Roof structure	HIGH

• Theatres and rehearsal rooms associated with the various dance and theatre companies. • Timber flooring	
• Internal partitions of office spaces. • Internal staircases between floor levels introduced during building conversion. • Introduced secondary ceilings • Profiled metal sheeting awnings along western elevation • Fire tunnel • Catwalk along western elevation • Lower Deck and Upper Deck mezzanines • New doors and windows along western and east elevations • New casement windows in Shore Sheds • Neon signage	LITTLE

5.4 Industrial Heritage Items

The following major industrial items and artefacts have been identified in the *'Walsh Bay Precinct Heritage Technology Conservation Management Plan', November 1999, by Tropman & Tropman Architects.*

Item No	Description
81	Overhead Travelling Gantries (3). This overhead travelling crane is one of the wharf fittings which demonstrates the size and level of activity of the shipping trade carried out at these wharves. They demonstrate how goods were moved within the pier sheds. The chassis of 3 cranes (OHTC) with the hoist removed. The cranes are located on a short section of track in the original location. They are the only remaining internal longitudinal travelling cranes on the Walsh Bay Piers. <u>Former uses</u> This overhead travelling crane performed normal crane operations for goods being loaded and moved onto and off trucks and carts.
	Goods lift. This lift is significant because it is one of the few remaining industrial technological items on this pier. It demonstrates the interaction and flow of people between the levels on

82	this pier. It is an early example of an electrically operated lift. Goods lift with a timber framed car. The lift has vertically opening timber doors. The electric motor is housed above the lift well on level 2. Former uses Electrically operated goods and passenger lift which operated between ground and the upper floor. It was used for moving goods and personnel between levels on this pier.
90	Gantry Rails (East). They are significant because they demonstrate the method of how goods were moved from ship to shore before containerisation came into place. Pair of steel rails for the gantry to move along the pier. One rail is wall mounted on brackets; the corresponding rail is mounted in the deck concrete apron. Former uses The gantries moved on two rails along the length of the apron, one rail near the outer edge of the apron, the other mounted at first floor level on the facade of the jetty shed. Their main purpose was as a loading platform for the first floor level but they were also originally fitted with lifting gear on their underside enabling them to be used to move cargo along the wharf apron.
91	Gantry Rails (West). They are significant because they demonstrate the method of how goods were moved from ship to shore before containerisation came into practice. Steel rails for the gantry to move along the pier. One rail is wall mounted on brackets, the corresponding rail is mounted in the deck concrete apron. Former uses The gantries moved on two rails along the length of the apron, one rail near the outer edge of the apron, the other mounted at first floor level on the facade of the jetty shed. Their main purpose was as a loading platform for the first floor level but they were also originally fitted with lifting gear on their underside enabling them to be used to move cargo along the wharf apron.
Pier 2/3	Movable Heritage Pier 2/3 Pier 2/3 contains a number of items of loose industrial heritage both mechanical and material. These have been variously assessed. These items are not considered of relevance to Pier 4/5. During the Walsh Bay redevelopment by the Walsh Bay Partnership 1996-2005 disparate items were aggregated in one area. Pier 4/5 was not a part of the Wash Bay redevelopment and no items of relevance were removed.[8]

[8] *The report has added matters regarding movable Industrial heritage Pier 2/3 was not in the Walsh Bay redevelopment and no materials were removed*

6. Design proposal

6.1 Background

The memorandum of understanding [MOU] between Arts NSW, Infrastructure NSW and Sydney Theatre Company has determined STC50 will comprise of two parts

This Heritage Impact Statement is only concerned with the interior fitout of STC 50 Part 2 below. Any information regarding external works is included to provide context and reasoning behind the external expression of the internal fitout which may be necessary to amend the built form beyond the tenancy.[9]

- Part 1 - STC50 External Fabric – the Wharf 4/5 external fabric including façade, roof and load bearing structure. This is not part of this SSDA but part of WBAP SSDA.
- Part 2 - STC50 Internal Fit-out – internal fit-out of the STC demised premises within Wharf 4/5.

The design work is to be undertaken by Tonkin Zulaikha Greer [TZG] and Hassell with part 1 and part 2 scope works to be undertaken respectively and in collaboration with each-other.

Works are defined as follows;

Part 1

- TZG design the external fabric modifications identified.
- TZG peer review design work, prepared by Hassell, of the Hickson Road Entrance for Sydney Theatre Company.
- TZG to prepare documentation in accordance with SEAR's and as per Schedule 1 of the Environmental Planning and Assessment Act 1979 for the Part 1 development application.

Part 2

- HASSELL are responsible for all internal fit-out works only and the Hickson Road STC entrance
- HASSELL review the design work of the STC external fabric and comment on the interior[10] effect
- HASSELL to prepare documentation in accordance with SEAR's and as per Schedule 1 of the Environmental Planning and Assessment Act 1979 for the Part 2 development application.

6.2 Project Overview

Since the repurposing of Wharf 4/5 (The Wharf) for STC more than 30 years ago, there has not been a significant refurbishment. Consequently the existing STC facilities are at the end of their useful life.

[9] *This report refers to impacts by the STC 50 internal fitout only*
[10] *Amended to reflect Hassall's and TZG's involvement and responsibilities*

The lack of proper acoustic treatment in theatre and rehearsal spaces is inadequate for contemporary theatre operations and the outdated approach to accessibility and workplace conditions do not meet modern day community expectations for public buildings. In summary the original fit out has not kept pace with the Company's changing operations over the past 30 years and accordingly is in need of significant change.

The key aims and objectives of the proposed STC internal fitout and refurbishment works are to meet STC's current operational needs and strategic goals and to future proof the company.

Ground level

- New box office / ticketing area at southern end of wharf and administration / staff areas

Mezzanine

- Additional offices at southern end of wharf

Level 1 (Main Floor)

- the co-location of Wharf 1 and 2 Theatres to create two distinct performance spaces that are flexible in seating configuration and use. The new theatres will comprise:
  - a new multi-format flexible studio space (Wharf 1 Theatre) with seating for 350 – 450 and additional height over the seating and stage areas for the rigging of technical equipment.
  - a new studio theatre space (Wharf 2 Theatre auditorium) with retractable or removable seat with a capacity of 150-200 seats in various configurations.
  - New public display space and formal meeting area to south of Wharf 2 Theatre mid wharf with an atrium over
- Upgrade to existing restaurant and bar area at northern end of wharf and terrace balcony including back of house areas
- Improved rehearsal and dressing room spaces and introduction of more flexible spaces including:
  - co-located rehearsal spaces with shared back of house area
  - provision for two set up floors at the southern end of the wharf with back of house area to allow transportation of sets to the theatres
- administration, costume and props areas within the shore sheds

Level 2 (mezzanine)

- Administration area and meeting rooms

- provision of a new multi-purpose function room with balcony with capacity for 120 persons at the northern end of the wharf overlooking the restaurant and the harbour

Level 3 (under roof)

- Lighting bridge and technical area

Other works

- The removal of the existing fire tunnel within the building and associated reconfiguration of the space into the new layout as above plus addition of new fire stairs
- Improvements to acoustics, amenities and back of house and plant areas / facilities,
- Relocation, reconfiguration and improvements to administration areas centrally within the wharf
- Upgrade of services and infrastructure; and
- New loading and access arrangements to improve movement arrangements between technical and production areas.

The proposal provides for an increase in theatre capacity from existing 550 persons to a maximum of 650 persons in the combined Wharf 1 and 2 theatres. It also provides for a new multi-purpose public/event space with combined capacity for 200 persons over and above the existing Theatre Bar capacity of 500 persons. Accommodation for administrative staff will also increase from existing to a maximum of 200.

6.3 Wharf 4/5 New Internal Fitout

The heritage Wharf is intrinsic to STC's identity. From the outset of the STC50 project, HASSELL has worked closely with Tropman and Tropman to develop an architectural approach that is sensitive to the heritage significance of Wharf 4/5.

The guiding principles of the Conservation Management Plan [CMP] and Burra Charter have formed the fundamental tenets and approach to the proposed works.

The spatial strategy and logical planning sequence has determined the volumteric layout and articulation of spaces, by treating the new volumes as contemporary insertions that float or suspend within the external envelope.

This approach seeks to demonstrate a sensitive response to the envelope, structure and rationalisation of building services and amenities, in order to minimise impact on the existing heritage fabric.

The essential drivers for the renewal of the STC are explained elsewhere; however the new layout presents heritage design opportunities and challenges just as did the original STC planning. The plan sets functions back from most walls and these aids in interpretation as well as protecting the external fabric. This could not be achieved in the original design. With the fire tunnel no longer necessary the vertical spaces can be made from wall to wall and to the underside of the ceiling. The introduction of the gantry cranes as interpreted access points allows a central fire egress which was not possible before.

The new layout gives a wider spectrum of performance capacity and audience size as well as allowing the flexibility of moveable seating arrangements. The plan allows for through spaces which, as mentioned before, give rise to improved interpretation. Interventions including the raised roof areas are as a result of the layout, redefined theatre and workshop, relocating the internal gantry crane and using the space above the original goods lift. Workplace safety will be improved as a result of a new layout and a better work flow will mean more efficient manufacture of sets.

On balance, the heritage fabric of the wharf and Shore Sheds is not unduly disadvantaged and is indeed improved somewhat and, in that sense, better heritage outcomes are achieved.

A clear distinction is proposed between the use and re-use of existing materials and the addition of new materials to articulate the new spatial insertions within the existing wharf. Where possible, timber from the removal of columns will be reused or reinterpreted and waste will be minimised.

The interplay between the existing facade and the proposed new materials - ethereal, translucent and layered, shall mediate light conditions and use light to enhance interior spaces inviting people to look out and up to engage with the exposed trusses, existing lanterns and views beyond.

6.4 Separating Structures

The Burra Charter is the key document used in designing and assessing restoration and intervention in historic buildings.

In 1979, the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance was adopted at a meeting of Australia ICOMOS (International Council on Monuments and Sites) at the historic mining town of Burra, South Australia.[1]It was given the short title of The Burra Charter.

When the STC and the Wharf 4/5 project was at its inception, the Burra Charter was a guide document and now has become the official method of assessing restoration repairs and new works.

The proposed scheme in the STC Master Plan by Hassell has generally acknowledged the precepts of the current 2013 Burra Charter, quoted below. In this context, the redesigned theatres proposed follow the concepts of identifying new work and careful restoration of original fabric where appropriate. The ideas and new concepts provided are a positive heritage response.

Key to the new Master Plan Proposals is the separation of the internal workings of the theatres by creating rooms within the original built form. This idea represents a breakthrough in the evolution of the STC occupation of the Pier. The western service corridor proposal allows a degree of permeability and solves the thermal and acoustic problems in one simple solution.

The heritage fabric is both revealed and protected and can be maintained – a major outcome in the building's preservation.

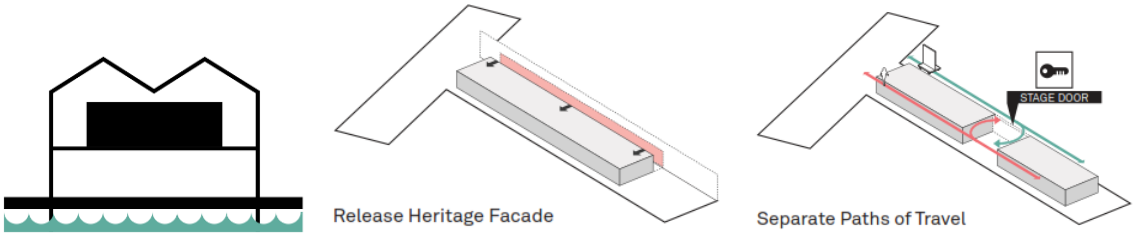

Figure 22: Schemes of the structure separation, by Hassell.

These successful and positive heritage outcomes can be seen as adding value to the future preservation of relics. The raising of the roof is a major structural intervention as is the removal of internal columns so it is important that improved heritage outcomes are the general result of the reinvigorated STC occupation. Changes to buildings which allow continued and expanded use ensure the continued maintenance and life as well as the preservation of that building. The structural separation and exposing of the inner fabric is a profoundly positive result in the new master plan.

An important factor in the success of new work is the quality and sensitivity of the design response. New work should respect the context, strength, scale and character of the original, and should not overpower it.

The key to success is carefully considered design that respects and supports the significance of the place. Imitative solutions should generally be avoided: they can mislead the onlooker and may diminish the strength and visual integrity of the original. Well-designed new work can have a positive role in the interpretation of a place. The cultural significance of a place and its particular circumstances will determine any constraints on the design of new work.

If, for example, the issue is replacement of a removed building (producing a 'missing tooth') in a row of buildings that have a degree of uniformity, then the new work should closely follow the existing buildings in bulk, form, character, complexity of detail, set back, etc. Detailing of joinery or masonry should be modified to indicate the new work.

There will be other places where there are less contextual constraints on the design of new work. These will be where there is a greater diversity in the setting, or where the setting form and scale of the new work will not adversely impact on significance.

As Article 15.1 says: The amount of change to a place and its use should be guided by the cultural significance of the place and its appropriate interpretation. [11]

6.5 Proposed Plans

The following plans detail the proposed works for the STC Masterplan.

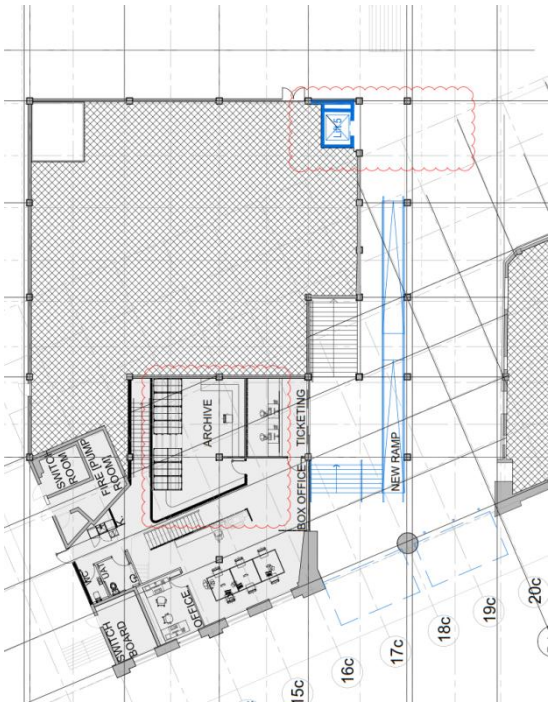

Figure 23: Ground Floor Proposed by Hassell.

[11] *Figures which are References to the external works by TZG for the WBAP SSDA Part 2 have been deleted and plans updated to the last design (Figures from 23 to 36).*

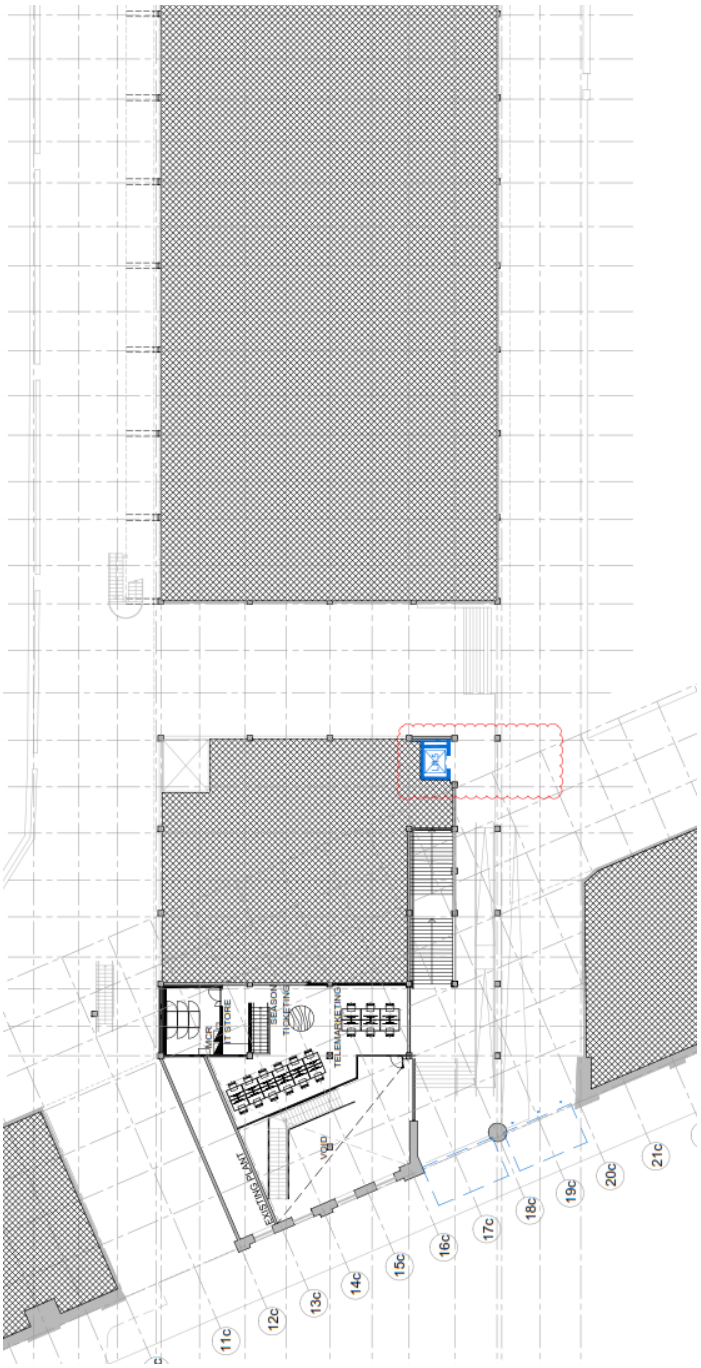

Figure 24: Mezzanine Floor Proposed by Hassell.

Figure 25: Level 1 Proposed by Hassell.

Figure 26: Level 2 Proposed by Hassell.

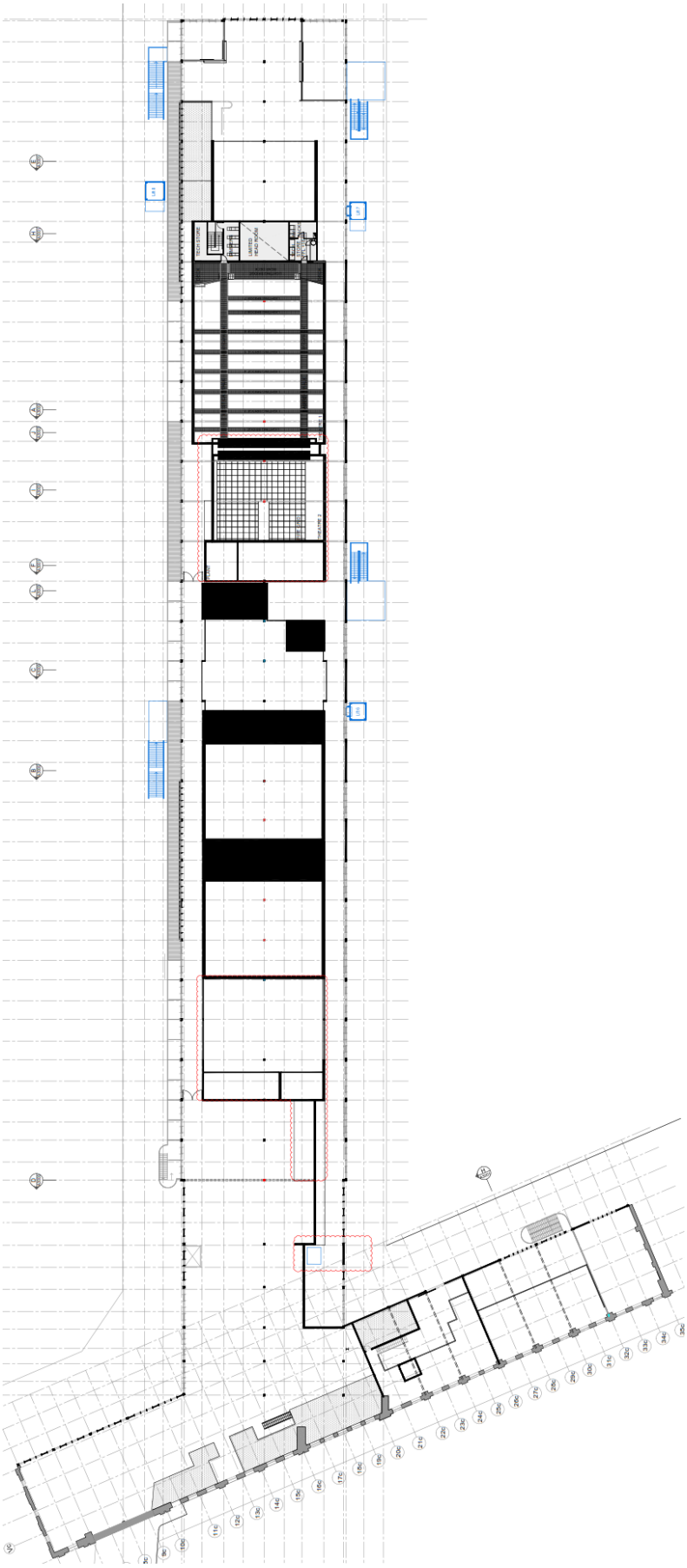

Figure 27: Level 3 Proposed by Hassell.

Figure 28-29: *Deleted.*

Figure 30: Proposed Level 1 Floor finishes. Highlighted in red existing Ironbark to remain exposed.

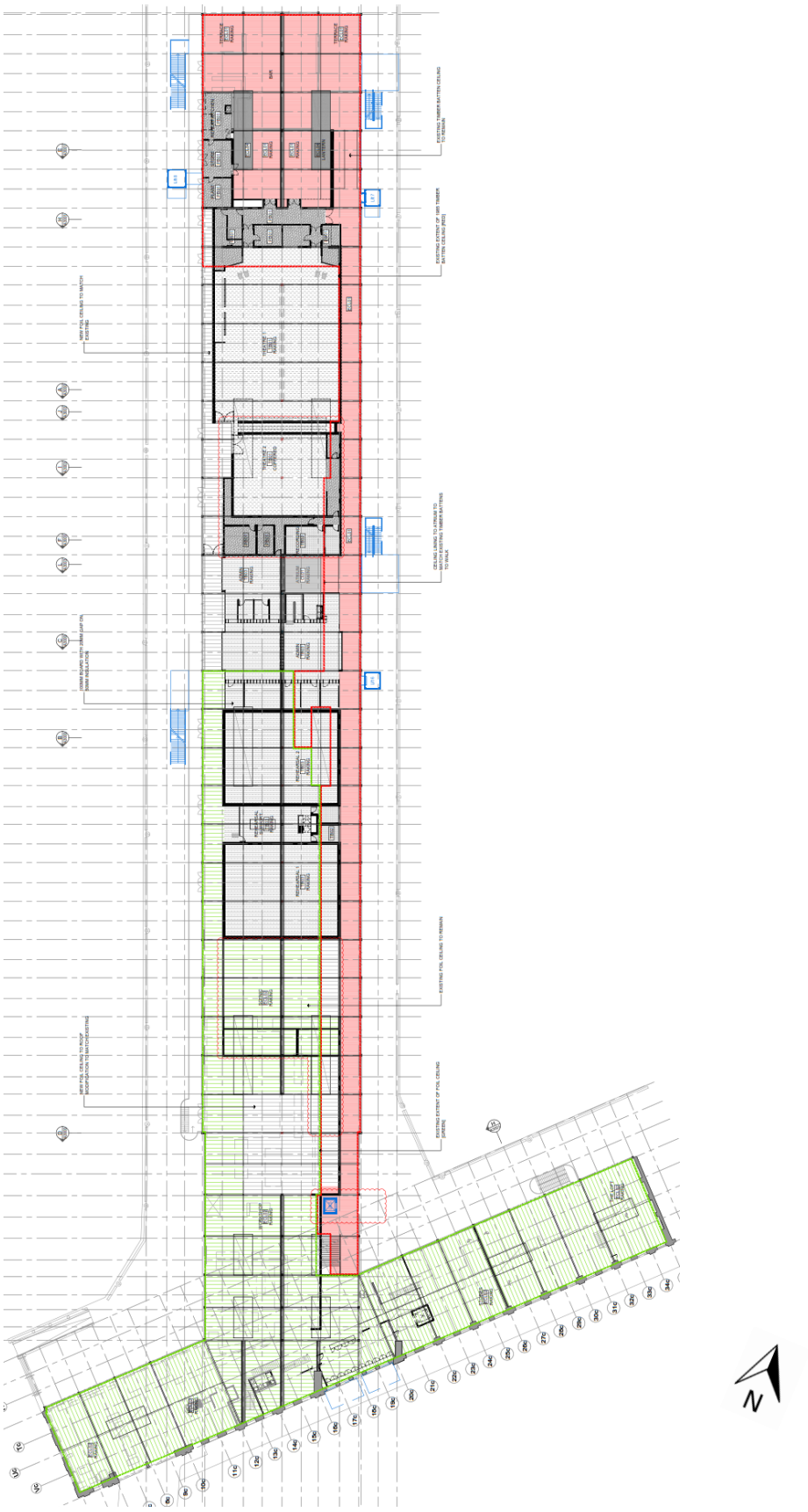

Figure 31: Proposed Level 2 Ceiling Plan. Highlighted in red the extent of foil ceiling retained and in red the extent of timber batten ceiling retained.

Figure 32: Original Ironbark floorboards

Figure 33: Original timber posts

Figure 34: Existing foil ceiling

Figure 35: Existing timber batten ceiling

6.6 Moveable Heritage Items[12]

The Walsh Bay Art Precinct Heritage Impact Statement by Design 5 identifies the need to interpret the movable industrial heritage which has been stored within Pier 2/3.

A report which has been prepared by Godden Mackay Logan, Walsh Bay Pier 2/3 Movable Heritage, Catalogue and Significance Assessment, December 2010, catalogues the items and makes an assessment on each one. A considerable number of tags is unfortunately lost today and the identification of some items could be difficult. In addition, it seems that some items are lost or have been relocated without documentation and new items added which are not in the list.

A following report by City Plan, Heritage Walsh Bay, Pier 2/3, Movable Heritage Use & Interpretation Plan, June 2011, re-identifies the need to prepare a special interpretation plan and suggest a design strategy. The movable heritage items do not relate to Pier 2/3 specifically but are a collection of various relics and equipment from a variety of locations throughout the Walsh Bay complex.

Whether or not there is scope for use of all items in the current design for Pier 2/3 is still to be determined. It can be argued that, as none of the items appear to immediately derive from Pier 2/3 or 4/5, that their interpretation at the site is not relevant.

The 1999 Tropman and Tropman Walsh Bay Redevelopment Area Interpretation Plan sets out the goals and direction of all interpretation within the precinct. It is a model to be followed in the preparation of an interpretation plan and an interpretation strategy for the stored moveable heritage items residing within the wharf.

Excerpt from Design 5 – Architects Final Heritage Impact Assessment 23 June 2014 pg68:

> *"Pier 2/3 currently houses a large quantity of moveable heritage on both the upper and lower levels and also on the aprons immediately outside. These items are predominantly recovered from other areas of Walsh Bay and other NSW Maritime sites that had been refurbished or redeveloped. The Walsh Bay Precinct is listed on the NSW State Heritage Register (SHR) and while elements of the collection are not individually listed, they form part of the SHR listing.*
>
> *A detailed report prepared by Godden Mackay Logan, titled, Walsh Bay Pier 2/3 Moveable Heritage – Catalogue and Significance Assessment, dated December 2010 (GML 2010) provides a brief catalogue and recommendations for these items. The collection includes a diverse range of items, primarily industrial artefacts, large assemblages of timber pieces,*

[12] *New paragraph inserted*

building components and other components. The GML 2010 report allocated each item a significance ranking and determined that five (5) were of Exceptional Significance, sixteen (16) of High significance, thirty-three (33) of Moderate significance and the remaining seventy (70) of Low significance. The collection also includes a shipping container that holds multiple boxes of accumulated artefacts taken mostly from the nearby Towns Place archaeological excavation. These items have been catalogued and information on the collection is detailed in a 2005 report prepared by Austral Archaeology, titled Archaeological Monitoring Programme at Towns Place. This collection consists of 5,884 fragments and weighed nearly 595kg (Austral Archaeology, 2005).

The Godden Mackay Logan report recommended that all items of Exceptional or High significance should be retained, reinstated and interpreted at Walsh Bay Pier 2/3. Items of Moderate significance should be retained and interpreted either at Walsh Bay or another location, unless there is justification for them being discarded, for example, in the case of there being multiple examples of one type. An example of an item of Low significance should be retained as part of the collection while the remainder can be put to further storage."

While it is possible that some fabric may have been removed and stored during the construction of the lift or derive from the Shore Shed adaptive reuse, no record exists to confirm that assumption.

Tropman and Tropman have addressed their report submitted in draft which includes all numbers and tags found on the items. Where two numbers are seen they relate in the first instance to the official Tropman Documents and then to the more recent report which does not identify items by photograph.

It should be noted that the quarter size container in Pier 2/3 contains the Pottinger Street and the Towns Place Dig collections. Both are well recorded, the Pottinger Street collection has been extensively documented by archaeologist, Robert Varmin. The documents are in the Mitchell Library.

The ownership of the movable items remains with RMS as Pier 2/3 was the undeveloped area chosen at the time by The Walsh Bay Partnership as a repository for all movable heritage across the Walsh Bay Redevelopment Precinct.

Tropman and Tropman suggest that it is not within the scope or intent of the original DA that the tenants of Pier 2/3 incorporate these items into any adaptive reuses.

This would be likely to create confusion unless a special Interpretation Plan was developed which allowed the curation[13] an exhibition of the whole of Walsh Bay.

A full report with a complete list and pictures are attached to this report as Appendix.

6.6.1 Interpretation

The SEARS (SSD 7689) dated 1 July 2016 and OEH Letter dated 23 June 2016 requires that the Heritage Impact Assessment "proposes opportunities to interpret the site's heritage significance and archaeology maritime and historical association".

A number of assessments and Interpretation Plans have been prepared on the Walsh Bay Precinct as a whole, as well as site specific plans, since 1999. An updated interpretation strategy prepared by Tropman & Tropman Architects is detailed in a different document *Interpretation Strategy for Movable Heritage Items Pier 2/3 Walsh Bay,* that includes the strategy for Pier 4/5 also.

[13] (**Curation** is the selection, preservation, maintenance, collection and archiving of assets. **Curation** establishes, maintains and adds value to repositories of data for present and future use. This is often accomplished by archivists, librarians, scientists, historians, and scholars.)

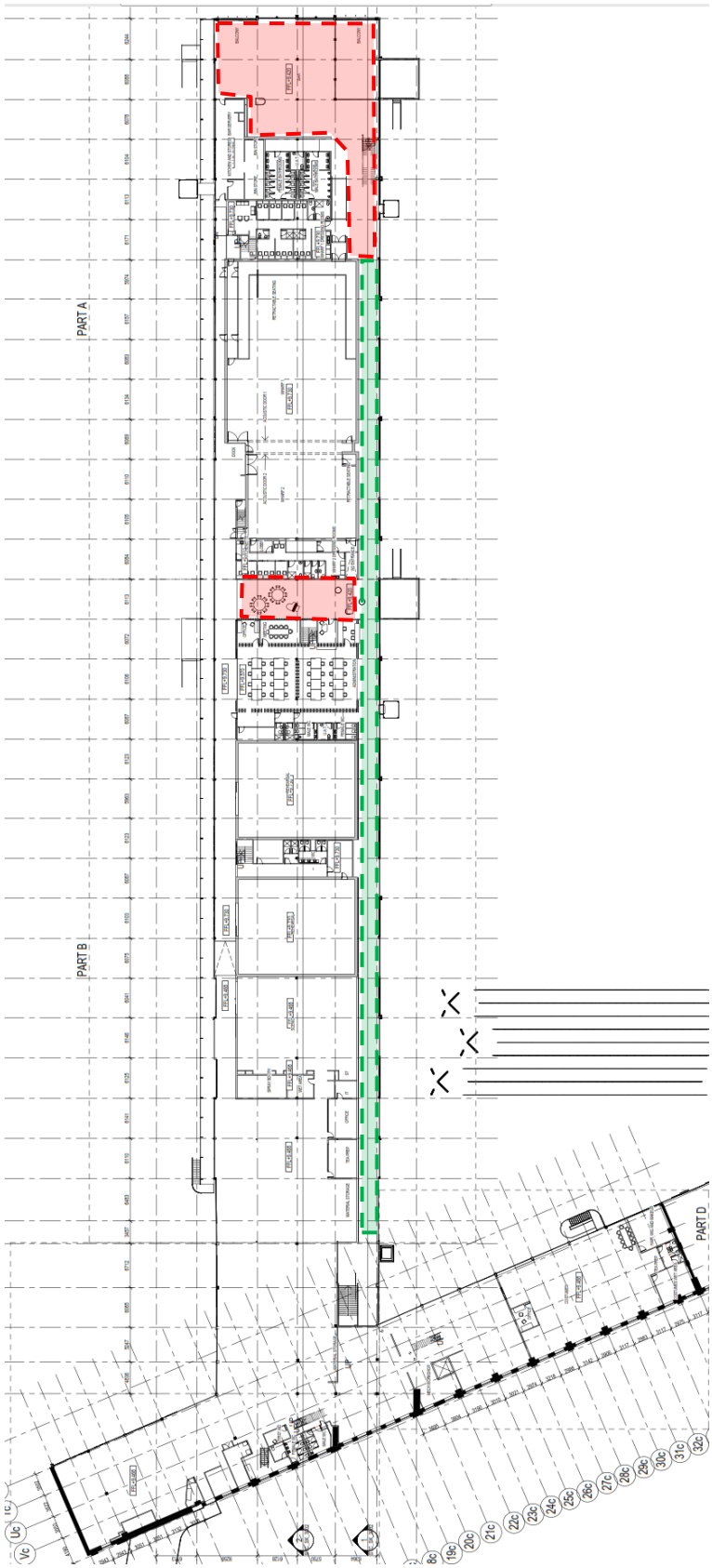

Figure 5: Pier 4/5 First Level. Highlighted in red suggested locations for interpretation static elements. Highlighted in green suggested locations for interpretation panels, text and historic photographs.

6.6 Roof Penetrations (Part of WBAP Application)

The impact of the changes described below has been addressed in the WBAP HIS revision[14].

The problems in incorporating a series of performance spaces within a long Wharf building were clearly articulated by Vivian Fraser in the first iteration of the STC's new home. It was never going to be easy and was indeed a daunting task. The STC tenancy is constrained not only by the width and length of the Wharf but also by the height. Roof works are evident across the Walsh Bay site however and a variety of additions and treatments have been approved in specific areas.

The STC theatre and workshops require additional height that cannot be facilitated by the current roof configuration. The proposed roof modifications will dramatically improve the quality of the internal spaces and operational efficiency. The roof modification facilitates improved sight lines in the Wharf 1 Theatre and allows for the technical zone for lighting, sound and rigging to sit above the heritage trusses.

They will also allow STC to build, finish and transport sets at full height for the Wharf 1 Theatre, Wharf 2 Theatre, Drama Theatre and Roslyn Packer Theatre. The gable ends of the roof modification over the workshop will be glazed to allow daylight and ventilation into the workshops.

The use of large timber trusses and a range of engineering techniques developed by skilled engineers familiar with the building will enable a floating roof just below the ridge line and unseen from the road or harbour at eye level and up to 12 metres approximately. This will allow better lighting systems to operate and accommodate additional patrons in a variety of arrangements. There will be an impact on the heritage values and this may be assessed as moderate. This is a key aspect of the scheme and will be supported as being essential to the ongoing function of the building.

As the early plans for the Walsh Bay Redevelopment Master Plan approval come to fruition with the funding of the new Arts Precinct, envisaged in the 1996 Development Approval for the Walsh Bay Redevelopment, these carefully considered roof changes are an important part of the success of the precinct into the future. The Master Plan shows the suitable locations and it is assumed that in detailed planning the new roofs will be detailed sensitively and in keeping with the significance of the buildings.

[14] Refer to the WBAP HIS for an assessment of impact this section has been deleted from this report.

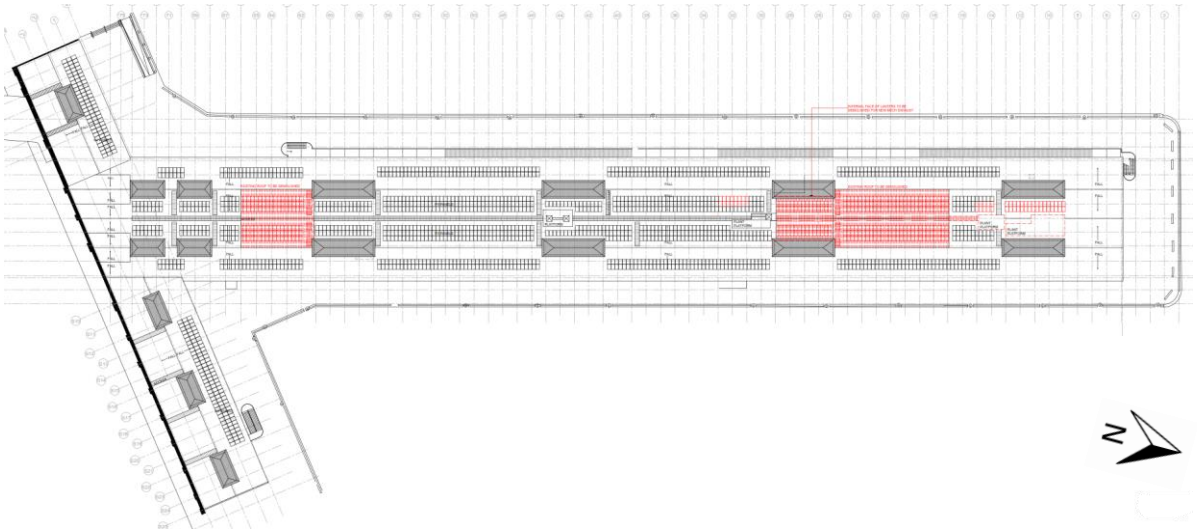

Figure 36: Roof plan. Highlighted in red the demolitions addressed in the WBAP HIS *Plans by Hassell.*[15]

Figure 37: Deleted

To service the new spaces, new plant equipment is required. The roof mounted mechanical equipment is currently contained in disparate locations along the length of the roof.

The new proposal consolidates and rationalises the mechanical equipment to the north of the Wharf in its existing valley location.

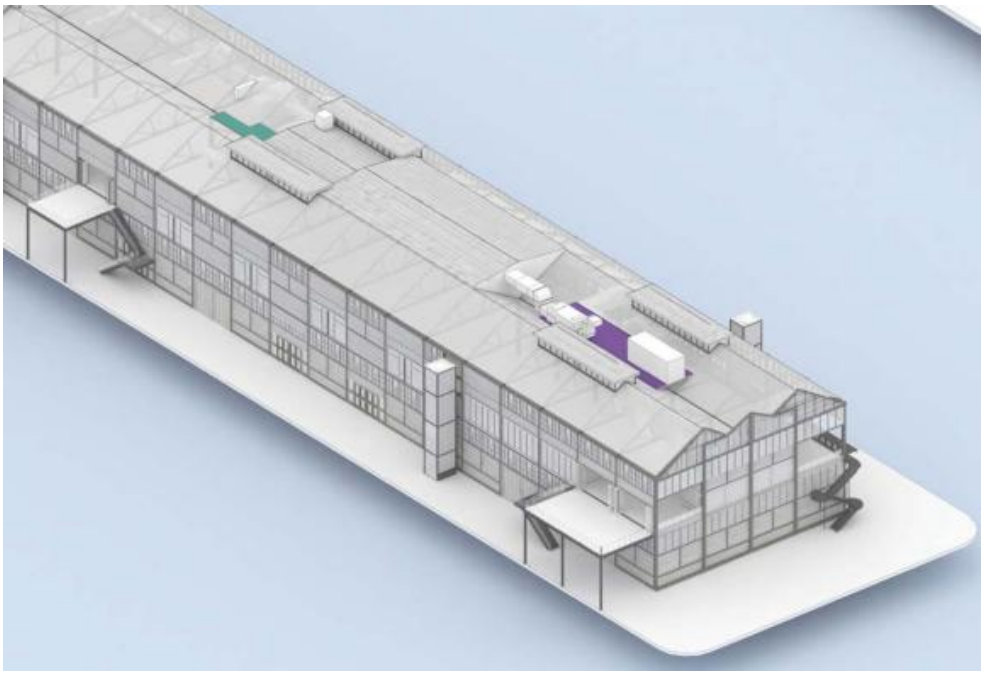

Figure 38: Piers 4/5 Roof services required for the STC 50 project. *Drawing from Hassell.*

[15] *Refer to the WBAP HIS for an assessment of impact this section has been deleted from this report.*

6.7 Entries [16]

All entries to STC have been designed with consideration for street presence, accessibility and wayfinding to function as beacons for STC. This creates an intuitive and logical approach from the Hickson Road entry to the end of the Wharf, and complements STC's intention to improve accessibility and visitor experience along the Wharf apron.

The existing external lift No.5 in Pier 4/5 is proposed to be relocated to further open up the entrance and enhance the vista of the historic wharves from Hickson Road.

Figure 39: Proposed Hickson Road entry to STC, 3D by Hassell.

The existing external lift is proposed to be removed. This operation will give more space and clarity to WBAP main entrance.

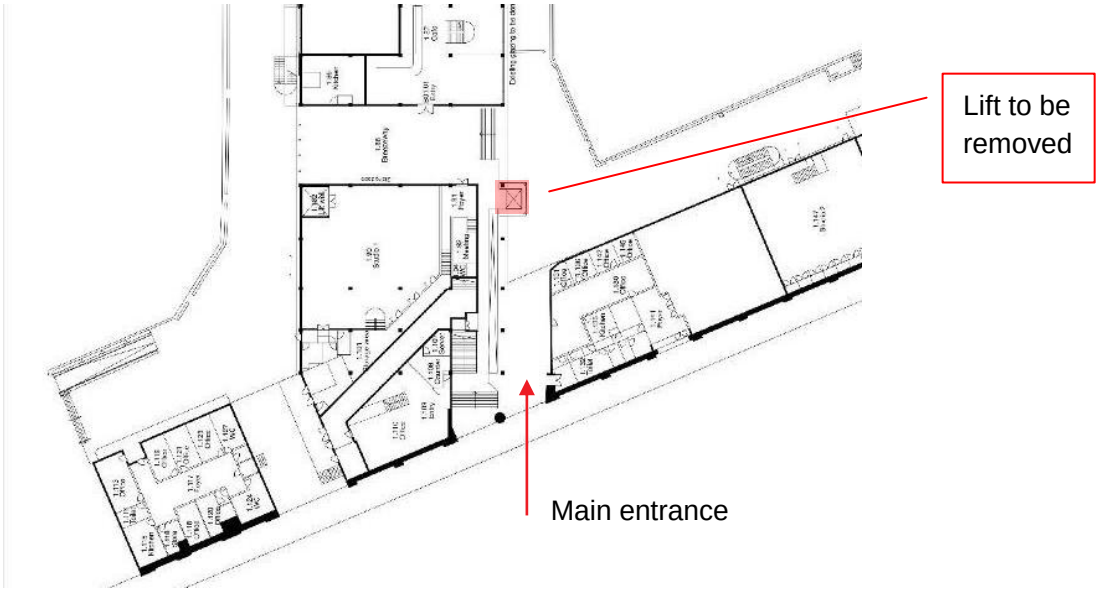

Figure 40: Plans showing the lift that will be relocated, Pier 4/5.

[16] *Amended paragraph as per current design*

6.8 Heritage Items

6.8.1 Gantry Cranes

The reconfiguration of the layout has highlighted the issue of the relocation of the 3 heritage gantry cranes installed in situ at Level 1, between bay 27 and 31.

These overhead travelling cranes are industrial heritage items which demonstrate the size and level of activity of the shipping trade carried out at these wharves. They demonstrate how goods were moved within and along the piers. They are assessed as Regional Significance.

They are currently located on a shortened cut section of track. The original tracks ran the length of the pier with the cranes moving along their lengt[illegible] ic heritage significance about the particular current locations of the cranes. Th[illegible] nly remaining internal travelling cranes on the Walsh Bay Piers.

Main entrance

These heritage items have been relocated in the Vivian Fraser design for the theatres and used as interpretive sculptures. Having been thus located, their position is not relevant to the heritage significance of the building, rather they have now become interesting curiosities. The CMP makes this point and requires the items to be in the same orientation. The new location is in accordance with the CMP.

The new proposal is to shift the 3 cranes to the south, in the large workshop area. They will keep the same actual configuration and relative position from the external walls.

Figure 40: Gantry cranes at Level 1. Photo by Hassell.

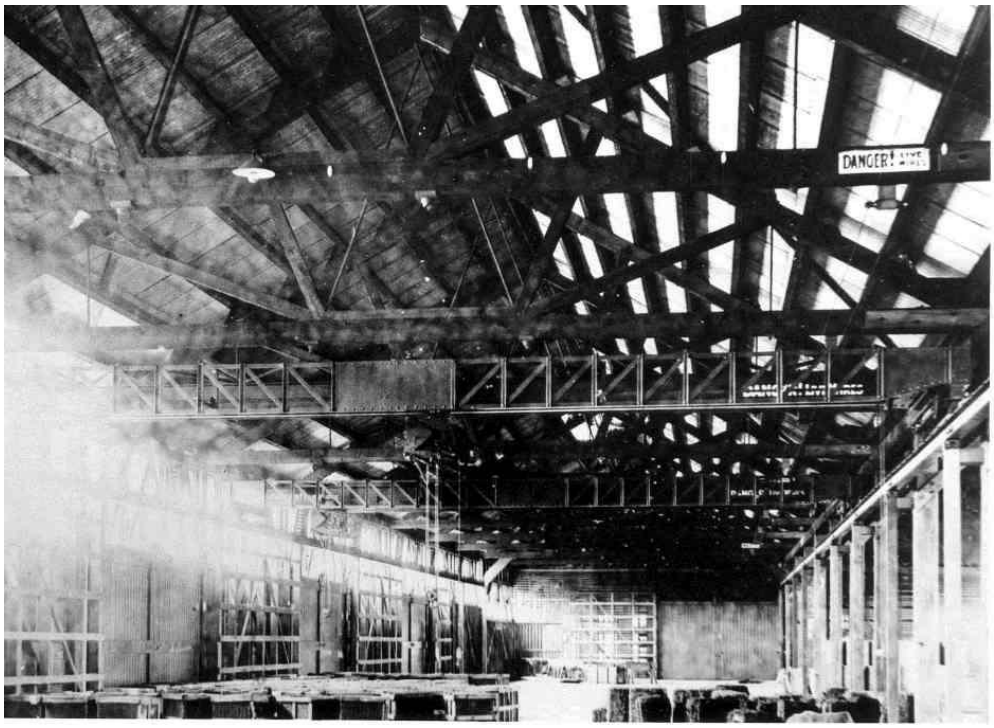

Photo E: Wharf interior, 1924 (compare this with photo H of the interior in 1984). Photo from Government Printing Office collection, State Library of NSW.

Photo H: Pier 4 interior when the STC production departments moved into the Wharf in 1984, before internal renovations. Compare this with photo E of the interior in 1924

Figure 41-42: Historic photographs showing the internal gantries.

6.8.2 Goods Lift

This lift is assessed as Regional Significant because it is one of the few remaining industrial technology items remaining on this pier. It is an early example of an electrically operated lift with a timber framed car and vertically opening timber doors. It operated between ground and upper floor for moving goods and personnel. No changes will be carried out to any existing and adjoining fabric.[17]

This lift is currently located between bay 66-67, it will be restored, lowered and kept in its original location at the ground level. The lift shaft/external structure will remain in its actual position on Level 1.

Figure 43: Good lift at Level 1. Photo by Hassell.

6.8.3 Timber Stairs

The internal timber staircase is located in the Shore Shed and connects the Ground Level to the current Level 1. It has been assessed as an element of High Significance in the Graham Brooks' CMP. It is currently hidden behind the partition walls of the office layout and is difficult to evaluate. The proposal design removes the partition walls that cage the item and exposes the staircase.

[17] *Amended in this report for clarification location plan shows the final ground floor position*

Figure 44-45: Timber Staircase located in the Shore Shed.

Figure 46: Wear of the pathway due to the walking turning direction on the top of the staircase Level 1

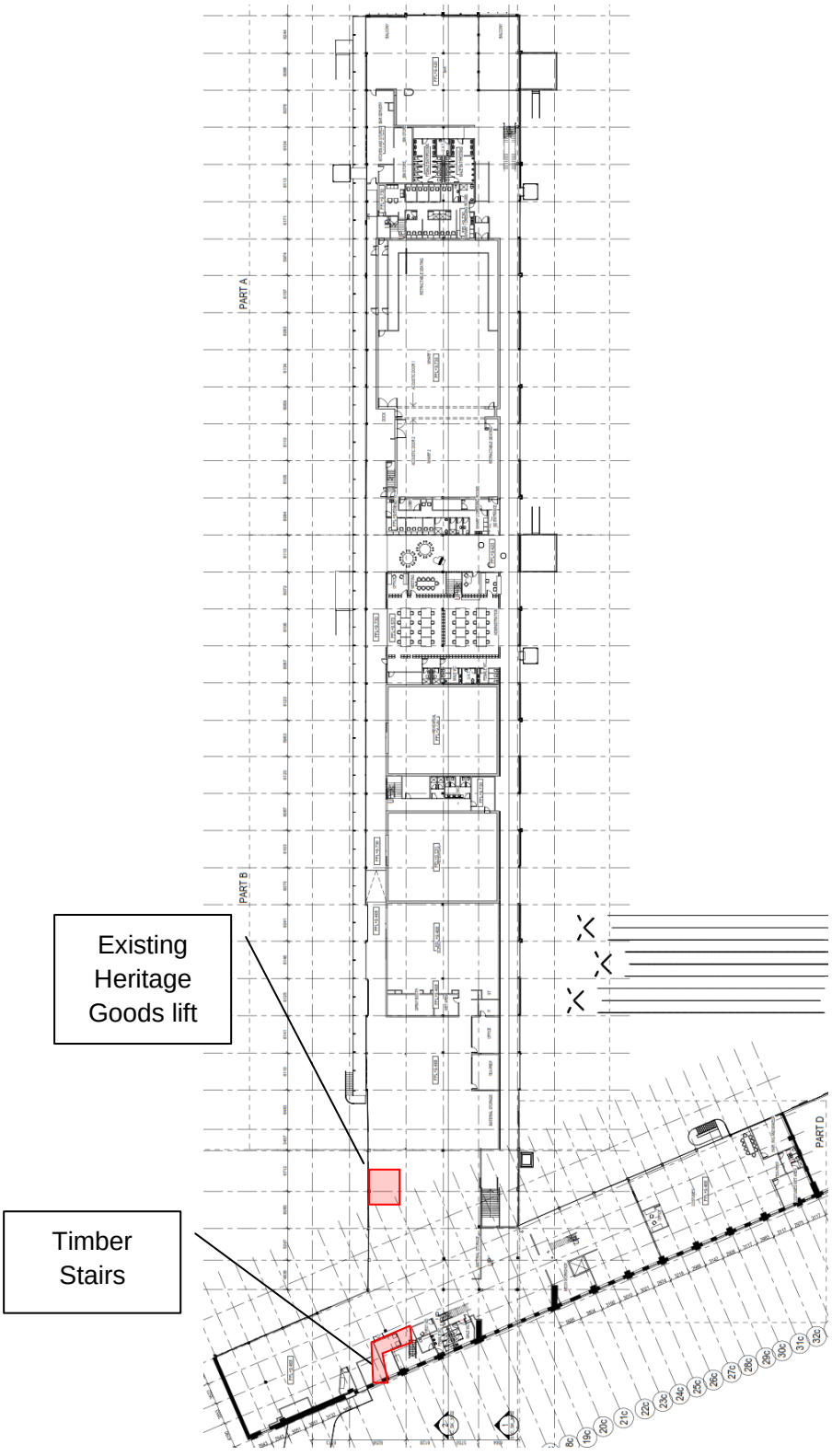

Figure 47: Level 1 Wharf 4/5. Plan by Hassell.[18]

[18] *Plans in figure 47-48 updated as per current design.*

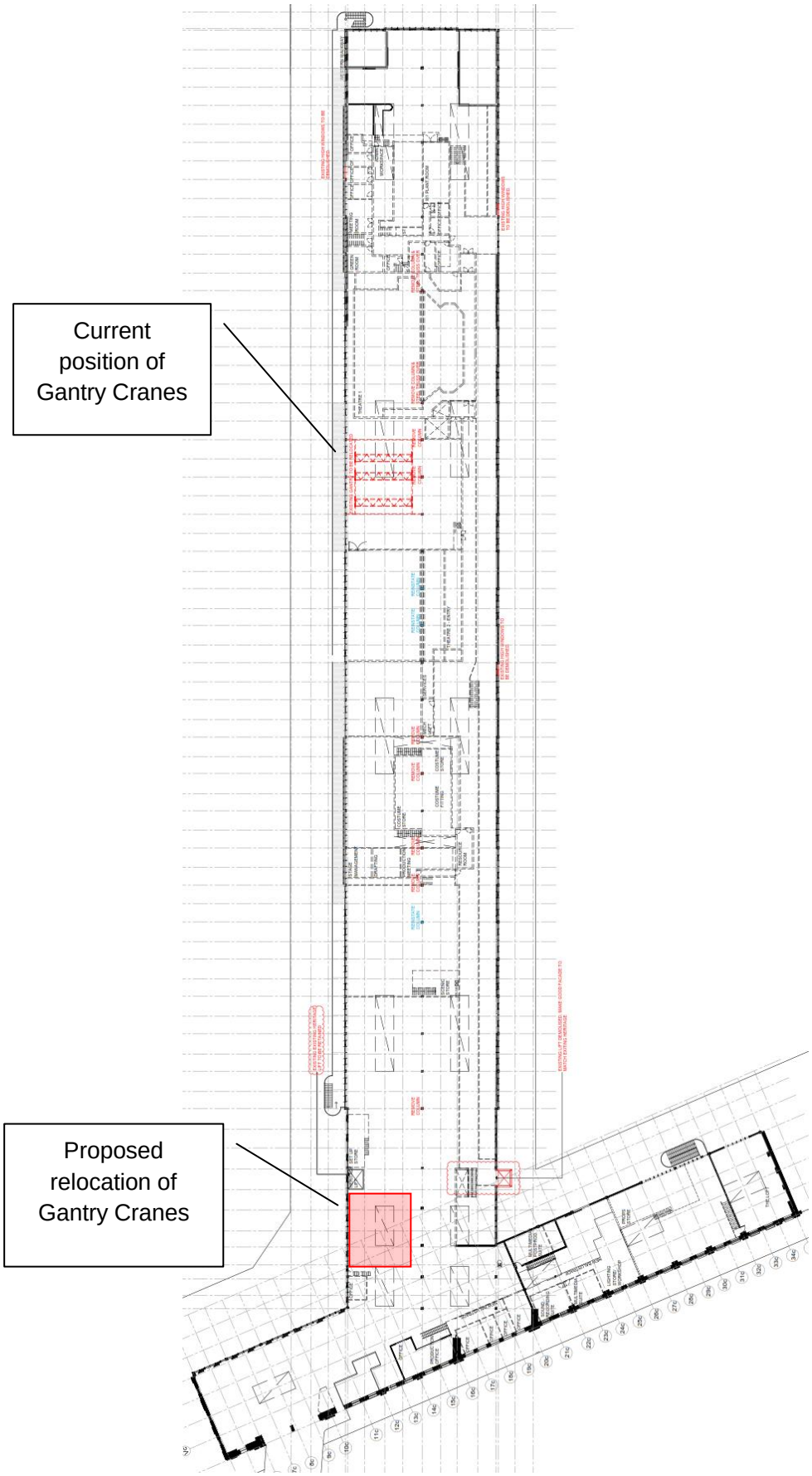

Figure 48: Level 2 Wharf 4/5. Plan by Hassell.

6.9 Mechanical Services

The Walsh Bay Arts Precinct suits a minimalist approach to mechanical services. Its prime location on the Sydney Harbour buffers the extremes of the ambient temperature for a significant portion of the year. In addition, the variety of spaces proposed will allow a range of temperatures that occupants will accept as comfortable to suit the use. The upper floors of wharf 4/5 which currently house the Sydney Theatre Company will be modified where necessary to improve the level of servicing currently afforded.

The proposed mechanical services strategy aims to add as much value and utility to the space as reasonably practical, without compromising the heritage or amenity of the space. It also seeks to minimise the environmental and economic impact of the building.

Mitigation [19]

Mechanical Services Design will require some intrusion into the internal spaces. Prior to construction Shop Drawing Standard documents are required which will accurately define the pathway and location of all equipment.

The Consultants drawing must make reference to the CMP and HIS and in the specifications prepared describe the mitigating measures which have been undertaken in the design process.

At Tendering Each Trade specialist must prepare a Heritage Works plan which acknowledges the CMP and HIS as working Documents

Contractors and installers will be required to undertake an induction held by an experienced heritage architect prior to commencing installations. This will include all tradesmen and labourers as well as the management team.

The head contractor must employ supervisors and a foreman who have had experience in heritage works.

6.9.1 Air-conditioning

Air conditioning will generally be employed in the auditorium, rehearsal spaces and the office areas. A large portion of the building will be naturally ventilated with supplementary heating but no active cooling system is proposed. Some of the air-conditioned areas will have mixed mode mechanical/natural ventilation.

[19] *Mitigation Measures added for Mechanical Services*

Within Wharf 4/5 a number of spaces have existing mechanical services systems that will generally be retained and/or enhanced as described below.

Where spaces are unconditioned, ventilation will be primarily natural through openings in the façade. There are a number of spaces that require ventilation where the reliance on natural ventilation is not suitable. These will be provided with extract only ventilation fans.

Theatre and auditoria will be served by dedicated air conditioning systems. These will be recessed and attenuated to the levels required by the acoustician. Air will be supplied at low level through raked seating and supplied from high level and extracted at high level. Due to the flexible seating arrangements the distribution at low level will be compromised. Due to similar acoustic constraints, the large rehearsal spaces will be air conditioned in a mixed mode. Air will be supplied at high level and extracted at high level.

This diversity strategy will allow the amount of plant space required on the roof to be minimised.

Where spaces such as the office and admin areas require air conditioning, fresh air will be introduced locally by a supply fan. When external conditions are favourable the spaces will be naturally ventilated and the air conditioning will be switched off. When it is too hot or cold outside to facilitate adequate human comfort, the façade openings will be closed and the air conditioning will be switched on to maintain comfortable internal conditions.

All mechanically ventilation areas including toilets, tearooms, cleaner's rooms, kitchens, plantrooms and storerooms will typically be ventilated in accordance with the current Australian standards.

The current façade openings will be retained to facilitate natural ventilation.

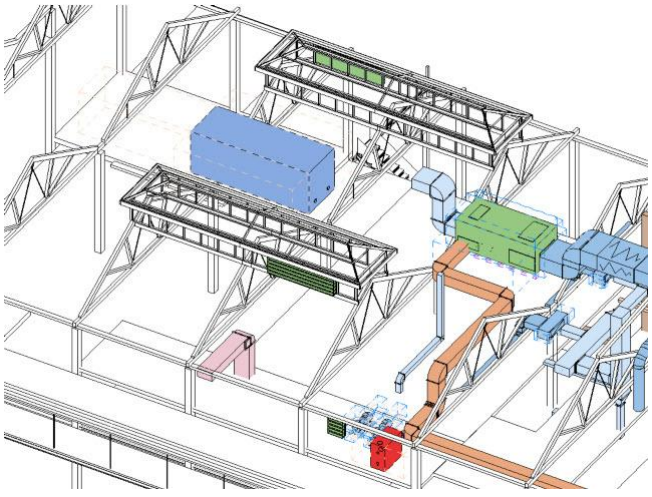

Figure 49: 3D showing central roof plan, by ARUP.[20]

[20] *New image inserted as per current design.*

Mitigation [21]

Air Conditioning Specific design will require some intrusion into the internal spaces. Prior to construction Shop Drawing Standard documents are required which will accurately define the pathway and location of all equipment.

Sea water cooling and load sharing may be adopted to mitigate the size of plant and equipment.

The Consultants drawing must make reference to the CMP and HIS and in the specifications prepared describe the mitigating measures which have been undertaken in the design process.

At Tendering Each Trade specialist must prepare a Heritage Works plan which acknowledges the CMP and HIS as working Documents

Contractors and installers will be required to undertake an induction held by an experienced heritage architect prior to commencing installations. This will include all tradesmen labourers as well as the management team.

The head contractor must employ supervisors and a foreman who have had experience in heritage works

6.9.2 Electrical

The Sydney Theatre Company is supplied from the local Ausgrid network. The existing incoming supply arrangements have been confirmed though site inspections and documentation received from Sydney Theatre Company.

The Ausgrid substations supporting the Sydney Theatre Company are located adjacent to the site on the south side of the Hickson Road. Incoming consumer mains reticulate though an underground network of conduits and cable pits from the supplying substation, beneath Hickson Road, and entry switchrooms from below.

The two existing Main Switchboard 1 &2 are located within the Wharf 4/5 Main Switchrooms, supplying the Shore Sheds (West) and Wharf 4/5.

Wharf 4/5 each has an existing MDF, which are located within the Main Switchrooms.

New lead-in cable routes will be provided for multiple service providers. Lead in conduits will go to the new Building Distributor Rooms situated in Wharf 4/5. Methods of reticulation need to be further

[21] *Mitigation Measures added for Air Conditioning Services*

developed in discussion with communication service provider with regards to complexities of trenching and water ingress, but existing service routing will be utilized where possible.

Fibre optic lead-in cables from communication services provider will be provided depending on agreement with the respective carriers.

Mitigation [22]

Electrical Design Services generally will require some intrusion into the internal spaces. Prior to construction Shop Drawing Standard documents are required which will accurately define the pathway and location of all equipment.

Theses will require consultation with the Theatre Consultant and all other services.

The Consultants drawing must make reference to the CMP and HIS and in the specifications prepared describe the mitigating measures which have been undertaken in the design process.

At Tendering Each Trade specialist must prepare a Heritage Works plan which acknowledges the CMP and HIS as working Documents

Contractors and installers will be required to undertake an induction held by an experienced heritage architect prior to commencing installations. This will include all tradesmen labourers as well as the management team.

The head contractor must employ supervisors and a foreman who have had experience in heritage works

6.9.3 Fire[23]

Wharf 4/5 has 30 years old existing services and will require fire upgrade and new fitouts. The building is required to comply with the fire resistance levels of Type A Construction in accordance with Specification C1.1 of the BCA. The premises are primarily a timber frame and clad building and unlikely to meet the requirements of this clause.

As part of an alternative solution, which may include an upgrade to sprinkler systems, mechanical exhaust, smoke baffles and smoke management systems, it is also required that Ambulances be able to enter the apron and access the perimeter of the building.

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[22] *Mitigation Measures added for Mechanical Services*

[23] *Amended in this report describing mitigation measures*

The floor of the STC tenancy will be fire separated from below to afford independent 1hr compartmentation (maximum size 2000 square metres)

Sprinkler pipe systems will provide fire protection to the fabric in most instances

The letter below and its attachments describe the manner in which the fire egress was solved prior to the BCA and fire engineered solutions being permitted.

The current Fire Engineered Design assesses the escape to the apron as being satisfactory and is a the scientific assessment of travel distances and time for escape. This provides better opportunities for internal spaces to be open and the industrial nature of the structure more clearly understood.

The Fire Systems have considered the Heritage Significance of the Building and fitout for the STC 50 Tenancy as a part of a holistic approach. The design complies with the CMP.

6.9.4 NSW Heritage Office Information Sheet 8.1 [24]

Each of the matters raised in the NSW Heritage Office Information Sheet 8.1 has been addressed through a Fire Engineered solution which protects the fabric and ensures life safety.

The Heritage Office advice regarding Fire Egress and Systems is quoted below:

The fire safety objectives of building regulations are firstly to ensure occupants are able to safely escape from the building.

Secondly, the building must be constructed in a manner which allows fire fighters to safely enter the building to attack the blaze.

The third objective of the regulations is to prevent the spread of fire from the burning building to adjacent properties.

Current regulations meet these objectives by requiring the following:

Access and Egress

The internal layout of a building must allow adequate means of escape from the building during an emergency. Staircases, ramps and passageways must be available and distributed in a manner to minimise travel distances to required exits. There are further specific requirements regarding the construction of exits. What is significant about my building?

Buildings and sites may be considered heritage items for a variety of reasons not immediately apparent to the general public. A building may have value due to its appearance and context in relation to others in the vicinity. It may be a rare example of a particular architectural style or may have been constructed in an unusual manner using special materials.

Historic significance could be attached to the building due to its builder, owner or past occupant being a noteworthy figure. A building may have scientific value if it is representative of a particularly rare style or of a quality which may contribute to further knowledge.

Social value can be established where a building or site has become a focus for community, spiritual or other cultural pursuits.

[24] *Added information on the Heritage Office NSW Fire and Heritage 8.1*

The fire safety objectives of building regulations are firstly to ensure occupants are able to safely escape from the building. Juniper Hall in Paddington has two stories plus an attic and basement connected by one stair.

The attic is used as a caretaker's residence.

A sprinkler system was carefully installed which allowed residential use while retaining the significant stair, doors, walls, floors and ceilings.

It is important that any fire safety upgrading takes the building's significance into consideration. In NSW buildings are listed on the State Heritage Register if they are assessed as being of state significance

Electrical Fire Safety Services

Installation of electrical services for fire safety often requires penetration of significant building fabric. These services include smoke detectors, alarms, emergency lighting and exit signs.

Detectors, alarms and emergency lighting Detectors, alarms and emergency lighting should be placed unobtrusively or camouflaged within elements of wall and ceiling patterns.

Smaller colour co-ordinated detectors and emergency lighting could be incorporated.

Where electrical cabling is required, its layout should ensure minimal impact on significant building fabric.

For example, concealment behind cornices and within floor and wall cavities should be pursued. This requires careful planning to ensure minimal cutting and drilling of the building fabric.

Exit Signs

Exit signs are by their very nature anything but unobtrusive. However, exit signs consistent with the décor of your building can be designed to minimise their visual impact by varying the casing, lettering style and colour. In extreme cases, use of approved photo luminescent exit signs and safety labels may be possible, avoiding the need for electrical cabling. All signs should be sensitively located and any cabling required should be installed so as to minimise disturbance.

Hydraulic Fire Safety Services

Provision of hydraulic fire services such as sprinkler systems, fire hose reels, hydrants and hand-held fire extinguishers can adversely affect heritage buildings. A philosophy of minimising visual impact and disturbance of significant building fabric should be pursued which may involve alternatives to hydraulic services. Rather than meeting prescriptive present-day fire regulations for each building element, an overall fire safety package is preferable.

Sprinkler Outlets

Sprinkler outlets (heads) should be installed to follow the geometric form of ornate ceilings. Flush mounted sprinkler heads are available in a range of colours which minimise the visual impact. Alternatively, wall mounted sprinkler heads could be installed. Careful planning of associated plumbing is required to minimise the disturbance of building fabric.

Pipework should be concealed within wall and floor cavities and installed in a manner which minimises the removal of existing ceiling and floor materials.

Fire Fighting Equipment

As with exit signs, hydraulic fire fighting equipment such as fire hose reels, hydrants and hand-held fire extinguishers must be sympathetically placed while remaining easily found in an emergency.

Provision for Escape Fire Emergency Exits

Occupants of a building must be provided with a safe path of travel to leave a building in case of fire. Current regulations require certain numbers of fire emergency exits and specify maximum distances to these exits dependent upon the building type, size and its use. Some older buildings exceed minimum travel distances to exits or may have fewer exits than required on each floor.

Further, doors and stairs of these exits may not comply with current standards.

Where an additional exit is required, its placement should be such that the significance of the building is not compromised. Any external fire escape should be designed in a manner which is sympathetic to the building.

The dimensions of exits and stairs can sometimes be inconsistent with the requirements of modern standards. A rational approach to acceptance or modification of the dimensions of doorways and stairs is required based on an assessment of the risk posed and the effect of such modification.

Hydraulic Fire Fighting Equipment

As with exit signs, hydraulic fire fighting equipment such as fire hose reels, hydrants and hand-held fire extinguishers must be sympathetically placed while remaining easily found in an emergency.

Doors

Doors leading to a fire exit should open out so that people can push their way through. If it is impractical to have an existing inward-opening door altered to swing in the direction of egress, then the use of a door holder could be considered.

This would permanently keep the door fully opened, removing the impediment to egress.

This should be considered for doors which do not perform a fire or smoke separation function.

Door Hardware

Door hardware including closers, latches, knobs and handles should be visually sympathetic to the existing interior. A range of heritage hardware is available which reproduces the style of many building periods. Where required, modern magnetic door holders, electrical door strike releases and security escape latches can be incorporated into the building's existing doors.

Other options

Provision of additional exits is invariably expensive and often detracts from the appearance of the building. Also, modification of existing doors and stairways which are required for escape from a building is often impractical.

Therefore, options such as the installation of a sprinkler system, detectors and alarms should be pursued as a trade-off for exit requirements.

Fire and Smoke Separation

Building materials must be fire resistant to reduce the chances of a fire igniting and to contain the spread of flames. Smoke generated by a fire must also be controlled to allow occupants of a building time to escape and fire fighting personnel access to extinguish the blaze.

Many traditional materials, structural elements and building features such as windows, doors, stairwells and lift shafts do not meet the requirements of contemporary fire safety standards. Careful consideration needs to be given to fire isolating a significant staircase.

Many traditional materials, structural elements and building features such as windows, doors, stairwells and lift shafts do not meet the requirements of contemporary fire safety standards.

Fire isolated compartments

Fire safety is often pursued by dividing a building into fire isolated compartments. This restricts a fire to an area of a building until it can be extinguished. To be effective, the walls, floors and ceiling need to contain flames and smoke within the compartment. They also must provide sufficient insulation to prevent excessive heat radiating outside of the compartment. High levels of radiant heat passing to the outside can make escape routes unusable and may ignite materials in the vicinity.

To be effective, protection of openings in a fire compartment is required. Sealing of gaps around doors, glass panels and pipework and cabling which penetrates walls and floors will prevent the escape of fire and smoke.

Intumescent materials can be used on existing building elements to seal these gaps. When subjected to the heat of the fire, these materials expand to fill any air void, effectively blocking the path of smoke and flames. Installation of partitions and doors of fire resisting glass may also be preferable where enclosure of a compartment is required.

This is particularly relevant where the alternative is to replace or enclose in solid construction a significant staircase or elevator.

To reduce the risk of fire, existing combustible materials such as curtains, carpets and upholstery can be impregnated with a fire retarding agent which provides resistance to ignition and spread of flame.

Various retarding agents are available in liquid form which protect fabrics without damage or discolouration. Hard surfaces can be similarly protected. Such protection of existing significant materials should be pursued wherever possible rather than replacing with incompatible fire resistant materials. In heritage buildings existing building materials and structure should be retained and incorporated into the fire compartment.

The Heritage Office has published on its website acceptable methods of upgrading the fire resistance of existing timber panelled doors and lath and plaster ceilings.

These methods should be pursued rather than installing incompatible fire doors and lining ornate ceilings and walls with fire resistant materials. Retention of lath and plaster ceilings is possible if upgraded to improve their fire resistance. Refer to the Heritage Office website for further details....

In heritage buildings existing building materials and structure should be retained and incorporated into the fire compartment.

For some building uses it will be impractical to achieve an acceptable level of safety without destroying the building fabric.

In such cases, it may be feasible to restrict the occupancy or type of use for the building.

This should be pursued rather than destroying the building fabric and losing the very reason the building was originally considered a heritage item.

Good Housekeeping

Owners are often tempted to use unoccupied rooms or floors as storage areas. If combustible materials are being stored, then a high risk fire source exists. Particular attention to flammable materials and those which produce toxic smoke and gases in fire is required. Cluttered hallways and stairs hamper occupant evacuation and these must be kept free of clutter. All required smoke and fire doors must be closed or closable in the event of fire. This makes illegal the common practice of disengaging door closers or fixing doors open with chocks or locking or blocking exits.

Evacuation Plans

The main objective of fire regulations is to ensure that the occupants are able to safely escape from the building. It is advisable to develop an evacuation plan and to train occupants of the building in fire emergency procedures. Formal plans exist in schools and larger buildings which may require regular fire drills and training in the use of fire hoses and hand held extinguishers. Further information on this important aspect of fire safety can be sought from your local fire brigade.

Be Prepared

The fire regulations are designed for the rare occurrence of fire in a building. Being prepared for that event may save lives!

6.9.5 Superseded Fire Engineering Design

The following extract shows the existing, original design philosophy which is now superseded by the current Fire Engineered Solutions

63 William Street East Sydney NSW 2010

Telephone (02) 9361 6025 Fax (02) 9361 0454
A.C.N. 086 285 556

VIVIAN FRASER + ASSOCIATES (NSW) PTY LTD ARCHITECTS

9th May 2000

Sydney Theatre Company
PO Box 777
MILLERS POINT NSW 2000

Attn John Bayley,

Notes on the fire safety principles in the building's design.

This accompanies a copy of an article from May 1996 in *Builder NSW,* which describes some of the technical answers to the problems of making this timber structure safe for its new public uses. As the article describes, there was general acceptance by the Authorities of the inherent fire resistant qualities of the timber structure, with the exception only of the external weatherboard cladding (which had to be protected with drenchers).

Given that start, our safety design brief from the Fire Brigade and the then Department of Theatres and Public Halls, was to fire isolate all of the working and unsafe sectors of the theatre from the public areas. We were also obliged to provide a 2hr fire tunnel for the building's length, with its exit out to the street.

The Company's Storage, Workshops, Plant Rooms, etc are separated from the Public Entrances and Walkways, Foyers, Theatres and Rehearsal Rooms etc with 2hr fire walls. The dividing walls between the Theatre and the Rehearsal Rooms, because of their acoustic requirements are also built as 2hr walls. Direct access into the Fire Tunnel is provided from each of these spaces.

Vivian Fraser

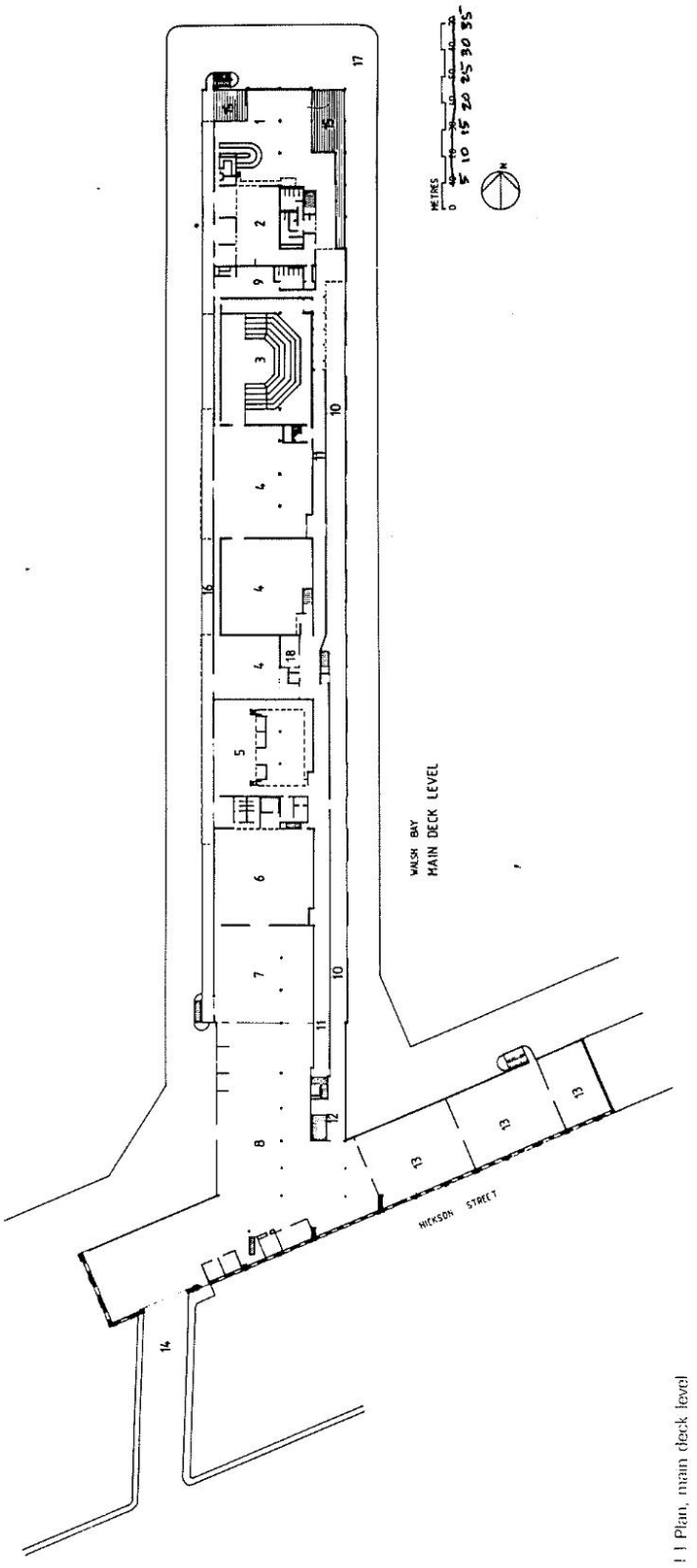
Site: The Walsh Bay area was developed in its present form after the bubonic plague outbreak in the Rocks area in 1900, when the existing haphazard development of that time was closed down and resumed under a government authority. The finger wharves were built between 1911 and 1922, with Wharf 4 and 5 being built in 1914. It was T shaped with the head of the T forming part of a shore building, which, with the other adjacent wharves, forms a continuous high brick facade to Hickson St. The long finger wharf extended over 200 m out into the harbour, and was of heavy timber construction with loading gantries down its length.

The timber wharves were classified by the National Trust of Australia (NSW) and were included in the Heritage Council Register of the National Estate.

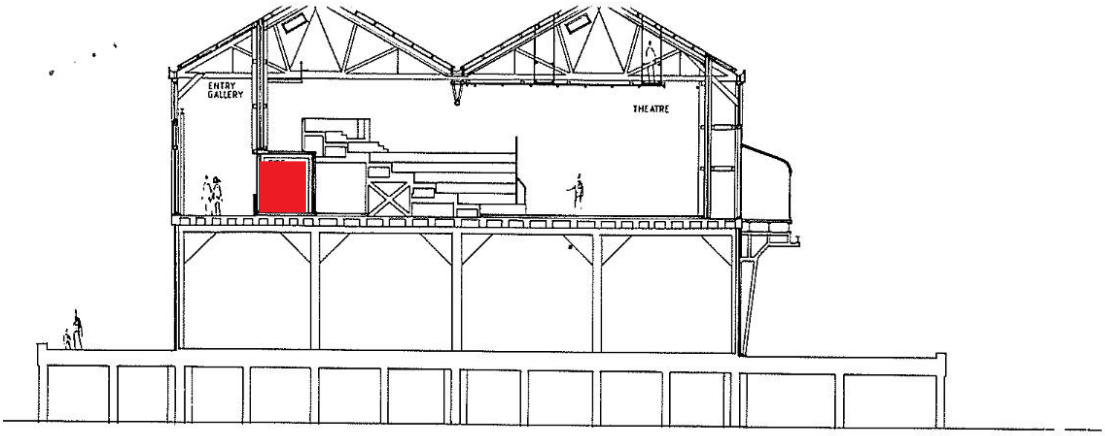
Design aims: The existing building and the magnificent harbour site provided strong influences on the design. There was no question during the design period that the new work could compete with either, and the approach was to insert the new work quietly into the old building form, bringing back the building facades to the old "doors open" appearance of the wharf in its original use. This opening up allowed the strength of the post and truss structure to be emphasised, and reduced the domination of the weatherboard. Inside, apart from serving the practical day to day working needs of the theatre company, the main task was to provide a sequence of spaces in the length of the building, which when glimpsed by members of the public in their walk from the street entrance would give a heightened sense of anticipation and excitement.

On the other hand, the old wharves could not be described as precious pieces of architecture, and the treatment of the facades, such as the cutting out at the ends of large verandahs, was handled in a robust way.

Building method: The existing sub-structure consisted of turpentine piles driven through mud and sand down to bedrock (at the wharf end down to 43 m below water level). The superstructure was a frame-work of heavy ironbark columns, beams and floor joists. Apart from general repairs to the old structure, the only structural changes involved the removal of internal columns where free floor space was essential—in the theatre, one



11 Plan, main deck level



SECTION

METRES 0 1 2 3 4 5

☐ Main deck and mezzanine access at entry end from Hickson Rd (opposite)
PHOTOGRAPHS: MAX DUPAIN

rehearsal room and the paint floor. In these spaces, two intermediate columns were removed and replaced with new steel trusses.

Construction of a public theatre in a 70 year timber structure 200 m out into the harbour meant that a number of acoustic and fire safety problems had to be overcome. The original structural ironbark framework was accepted by the authorities as having fire resistant qualities of at least 2 hour rating, so this meant that no special treatment was needed for the basic building, except for an external drenching system for the old weatherboard cladding.

Egress requirements were solved by designing a new 2 hour fire rated tunnel from the theatre at the end of the wharf to the street at deck level, and the top of this was used to provide a promenade from which glimpses of the interiors could be seen by patrons walking out to the theatre itself.

The working areas of the building had to be fire isolated from the public areas. The 1 and 2 hour fire rated walls presented problems, as the structural system had to be lightweight and the wall heights were extraordinary, and well beyond existing fire tested systems (one fire wall was 180 m long and up to 20 m high). A system was evolved with a core grid of Glulam laminated Brushbox post and beam frames, with conventional steel stud infill panels faced with Gyprock Fyrchek sheetings. These walls were braced on the public side with vertical full height Glulam blades connected to the core grid members. The theatre and rehearsal room were acoustically isolated with double walls of the same construction, with multi-layer lining of Fyrchek plasterboard.

This solution was obtained with the assistance of the Experimental Building Station in Sydney, and as a result allowed a wide range of uses to be considered for other adjoining Walsh Bay finger wharves—including other performing arts groups.

The building won the 1985 Sir John Sulman Award from the NSW Chapter of the Royal Australian Institute of Architects (jointly with Zachary's Restaurant, see pages 154-163 April 1986 issue), when the award Jury said:

". . . The theatre and public spaces are at the very end of the wharf and have dramatic views of the Sydney Harbour Bridge and the harbour.

"Designing with history is both a privilege and a burden.

"It requires a special state of mind—of absence of ego . . .

"In the Wharf, Viv Fraser has incorporated the theatres and other spaces in a modern way that enhances and reveals the architectural qualities of the older building.

"He is to be congratulated on walking a tightrope balancing cultural values, practical realities and personal perceptions and convictions.

"And the State Government is to be congratulated on this imaginative re-use of part of our heritage."

The building was also chosen for the 1985 RAIA President's Award from the National Jury recognising re-cycled buildings, when the Jury said:

". . . an excellent recycling project . . .

"The full range of facilities for the Sydney Theatre Company, including a major performance theatre and restaurant for the public, now function well, uncompromised by the finger shape of the host building.

"Patrons can enjoy all the pleasure of the maritime surroundings, and the wharf itself still stands modestly among its neighbours, unadulterated by its new sophisticated use.

"The challenge set by the length of the building to access and fire escape has been solved without fuss or complexity . . ."

Area of site: the building sits on a wharf structure 215 m long and 40 m wide overall, with a shore building 103 m long by 16 m wide at the street.

Number of floors: the project occupies the upper level of the two level wharf building, and within this upper level extensive mezzanine floors have been introduced.

Total area of building: 8 600 m² (Hickson Rd level 582 m²; main deck level 6 668 m²; mezzanines 1 350 m²).

Structure: lightweight construction within the existing ironbark structure.

External walls: the existing timber infill framing walls adjusted and adapted to the new use.

Roof: existing Oregon roof trusses and purlins with existing

☐ Plan, mezzanine

☐ Plan, lower deck

Mitigation [25]

Fire Services Design will require some intrusion into the internal spaces. Prior to construction Shop Drawing Standard documents are required which will accurately define the pathway and location of all equipment.

Fire Services as well as Fire rated materials and system coatings, must be designed with consideration to the existing fabric and must not unduly damage any fabric during installation.

The Consultants drawing must make reference to the CMP and HIS and in the specifications prepared describe the mitigating measures which have been undertaken in the design process.

At Tendering each Trade specialist must prepare a Heritage Works plan which acknowledges the CMP and HIS as working Documents

Contractors and installers will be required to undertake an induction held by an experienced heritage architect prior to commencing installations. This will include all tradesmen labourers as well as the management team.

The head contractor must employ supervisors and a foreman who have had experience in heritage works.

The Heritage Office Fire and Heritage Information Sheet 8.1 has been used as a guide in the design of the Fire Systems and access and egress

6.9.6 Structure

Pier 2/3, Wharf 4/5 and associated shore sheds were built in the early 1900s as an operational cargo wharf and storage shed. Over time the building usage has changed and they are now predominately used or proposed to be used as cultural venues for theatrical and dance groups, commercial, restaurants, and public cultural events.

The existing substructure consists of turpentine piles driven through the seabed down to bedrock. The existing superstructure is a framework of heavy ironbark columns, beams, and floor joists, all sheltered by existing oregon roof truss frames and purlins.

Both substructure and superstructure have been subjected to a number of structural maintenance and upgrading programs over their lifetime. Apart from general repairs to the old structure, other structure changes involved the removal of internal columns with new steel transfer framing, new steel

[25] *Mitigation Measures added for Fire Services*

framed stairs and lift shafts, new steel and timber framed mezzanines floors, roof plant platforms, and addition of an external apron slab all round.

The proposed upgrade and alterations involve removal of additional internal columns, replacement of some columns previously removed, additional stairs, lifts and mezzanine floors throughout, raised roof profile in parts, and some additional roof plant platforms.

The underlying structural design intent is to treat the existing structure and heritage fabric with a high priority and to minimise the structural impact whilst expressing the existing structure where possible. Different structural approaches and systems have been considered, with the least invasive adopted. It is to be clarified that changes to the roof and external structure in not part of this SSDA, but it is part of WBAP SSDA.

With the proposed upgrade and alterations it is inevitable that loading on the existing structure would increase. At locations where existing structural members become overloaded, where possible the existing structure is utilised by strengthening with steel plates and members in a manner acknowledging their heritage, rather than removing and replacing with new.

For the proposed performance and theatre type building use and increased number of occupants, a number of acoustic and fire safety related design aspects require upgrading. Similar to the structural alterations and strengthening, a number of approaches and systems were considered. Where achievable, the existing timber structure was reviewed and deemed adequate to provide the required insulation and protection. For existing structural elements that require fire protection, intumescent paint[26] is specified for its minimalist impact on the existing form.

The structural design of the Walsh Bay Arts Precinct and STC50 alterations acknowledges the history and heritage aspects of the existing structure and environment in which it is located. Structural solutions will be considered and adopted based on the most minimalist impact on the existing structure and heritage fabric. Existing structure will be sensitively re-used where possible, and all new structure will be detailed to compliment and express the existing.

Reference :discussion paper of TAYLOR THOMSON WHITTING (NSW) PTY LTD structural consultants

[26] *Intumescent coating is a layer of protective substance which works by chemical reaction generated by heat, resulting in swelling and formation of an insulating layer on the surface, with or without release of water.*

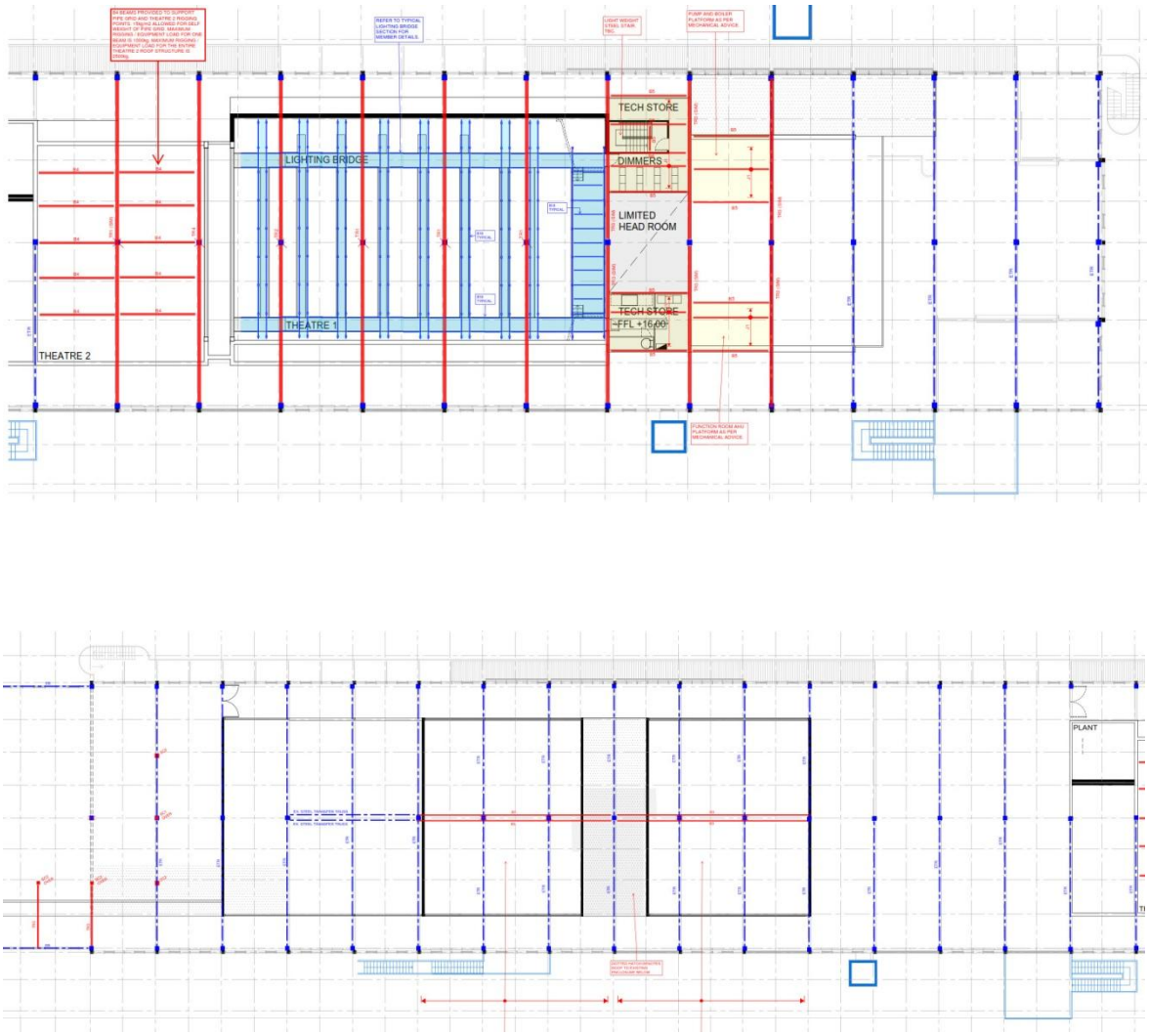


Figure 50-51: Structural metal beams scheme under roof, by TTW.[27]

6.9.7 Acoustic

Sydney Theatre Company aim to provide a level of acoustic performance suitable for a theatre of STC standing within the constraints of its location with appreciation of the nature of being a timber building on The Wharf.

The acoustic design of the redevelopment of STC must acknowledge the existing conditions of the building. [28]

As a result of all these conditions, the building structure and envelope require some upgrades in order to create new theatre and rehearsal spaces that are free from noise disturbance and that contribute minimally to the surrounding ambient noise conditions.

[27] *New plans inserted as per current design.*
[28] *Removed the words "and the general sitting."*

The floors of the theatres and rehearsal rooms are planned as resiliently supported concrete screeds, exclusive of the timber floor above. The impact noise associated with workshop activity could be mitigated through the use of a resilient layer under the floor battens of the new timber floor.

A new, suspended, acoustic isolation ceiling is therefore precluded. However, upgrades to the existing roof fabric will be required to add additional mass to the build-up. It is noted that the existing theatre roof build-up provides sufficient damping to limit rain noise impact, which will need to be considered in any proposed replacement.

The inner walls of the theatres and rehearsal spaces will be constructed on the resiliently supported slabs.

The room acoustics of the theatre spaces are intended to specifically support the clarity and intelligibility of the spoken word. The theatre spaces will require some sound-absorbing finishes to control excess reverberation.

Additional sound absorbing finishes will be used to control activity noise in circulation spaces, such as sound and light lobbies and in the dock between the theatre spaces. Similarly, Rehearsal Rooms, Open Office areas, and the proposed Function Room will each have requirements for the integration of sound absorbing finishes.

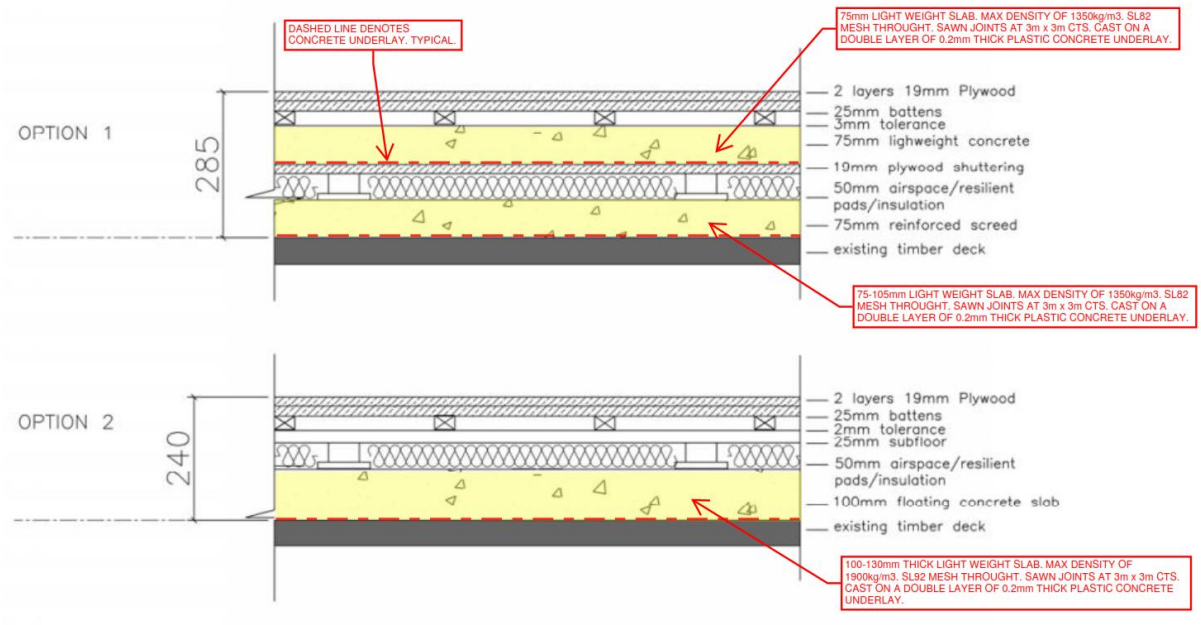


Figure 52: Typical detail of acoustic floor. Sketch provided by TTW showing the separation from the old structure and removable floor treatments.

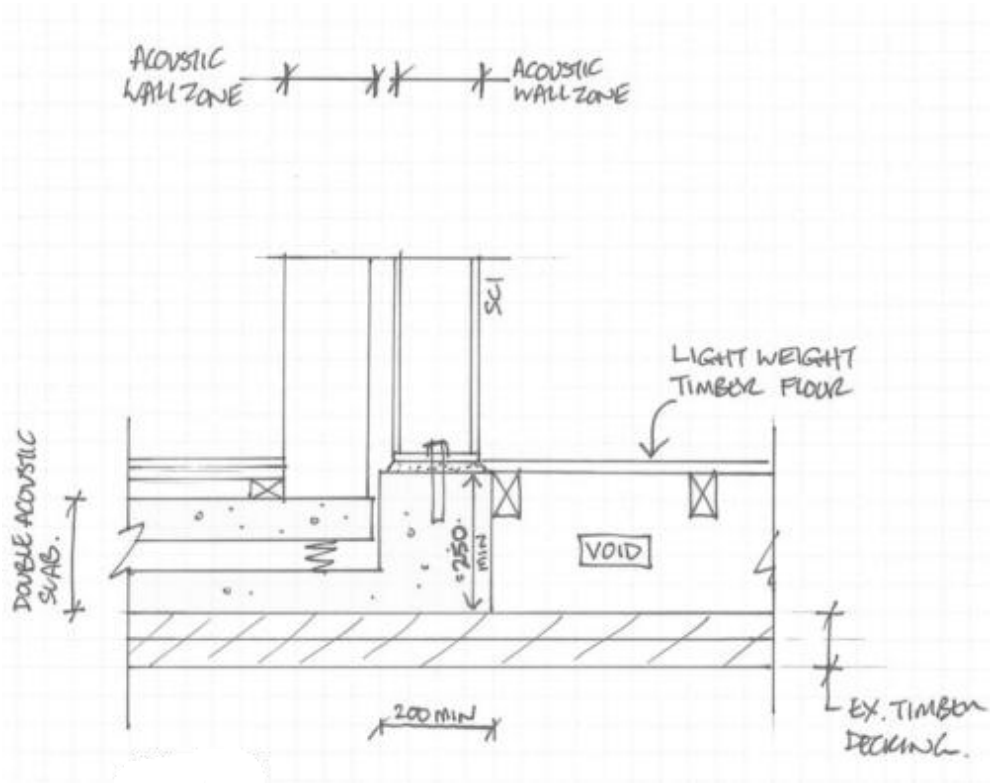


Figure 53: Typical detail of acoustic wall and floor connection. Sketch provided by TTW.

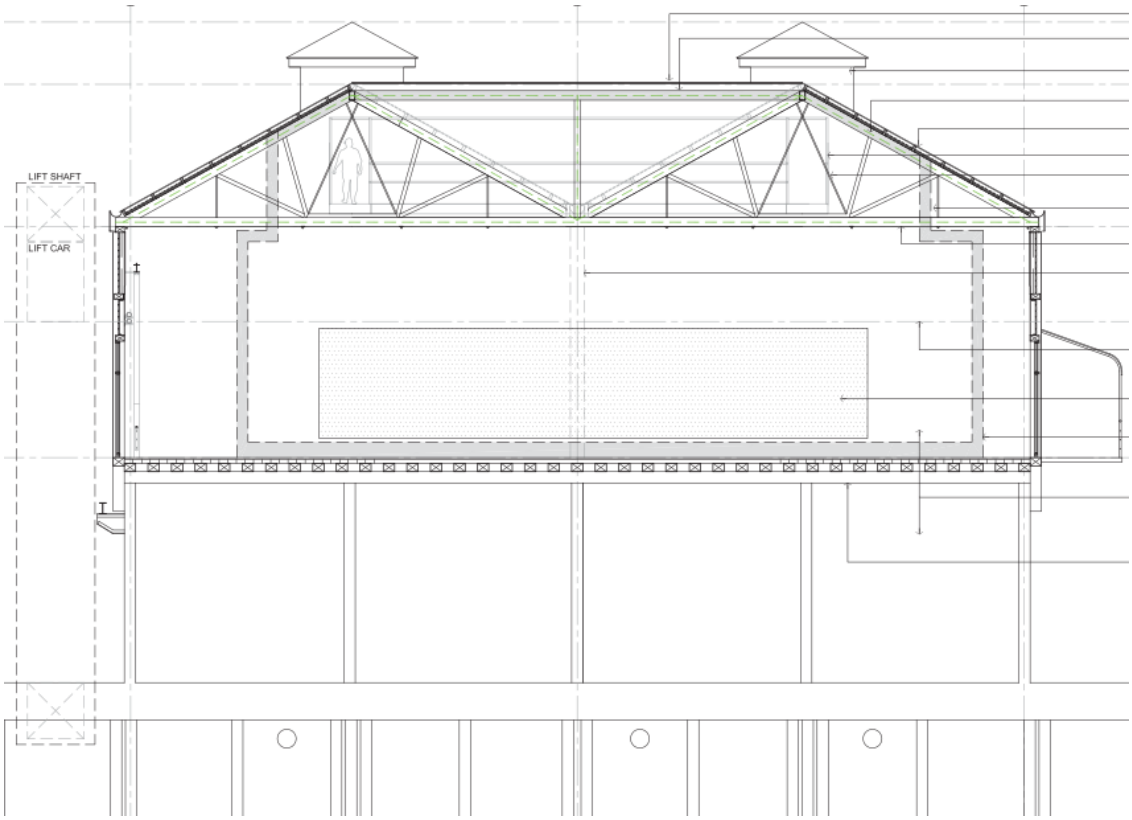


Figure 54: Proposed internal "boxed space" to control acoustic issues.

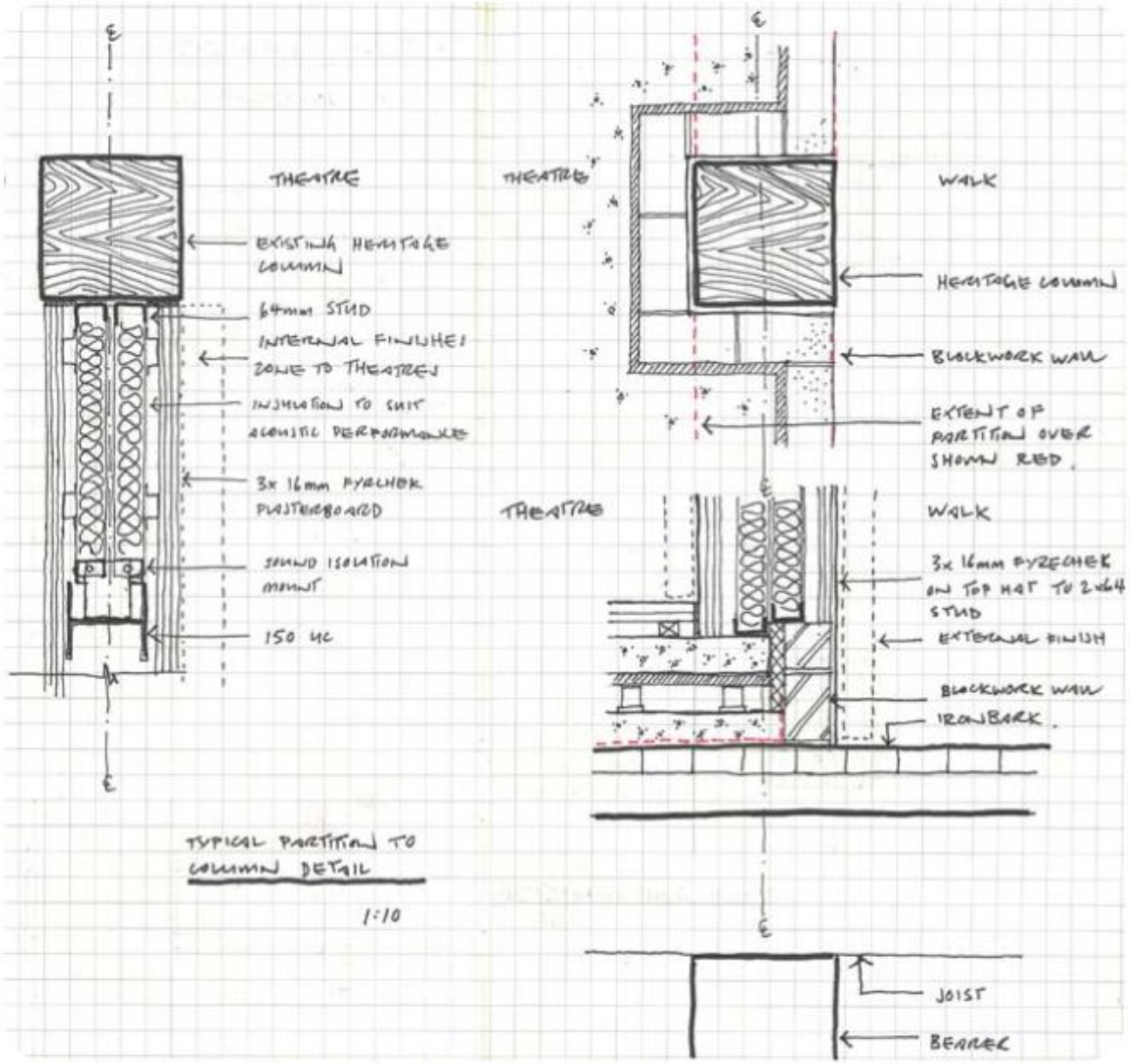


Figure 55: Typical detail of acoustic wall. Sketch provided by Hassell showing separation from the old structure and removable wall treatments

6.10 Storage and Removal Methodology[29]

A Conservation Management Action Plan has been developed and added as a separate document to this HIS.

[29] *New paragraph refers to the Conservation Management Action Plan that accompanies this HIS.*

7. Regulatory context and compliance

7.1 Planning Context

The following legislation and environmental planning instruments will apply to the proposed development:

- Environmental Planning and Assessment Act 1979 ("EP&A Act")
- Heritage Act 1977
- State Environmental Planning Policy (State and Regional Development) 2011 ("State and Regional Development SEPP")
- State Regional Environmental Plan No 16 – Walsh Bay ("Walsh Bay REP")
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 ("Sydney Harbour Catchment REP")
- State Environmental Planning Policy No 55 – Remediation of Land ("SEPP 55")
- Walsh Bay Master Plan 1996

7.1.1 Sydney Regional Environmental Plan No.16 – Walsh Bay

In reviewing the proposed design it is important to understand the planning context and the SREP 16 illustrates the intent of this zone. It is a special area which has a number of key controls and planning objectives.

The SREP16 set of objectives are those which will be used primarily to assess any application and the following are of specific relevance.

The proposed design conforms to the aims and objectives quoted in part below.

"(a) to allow an appropriate range of uses to encourage the adaptive re-use of existing structures while not required for commercial port uses,

(b) to identify and protect the heritage significance of the area by establishing a conservation zone and providing appropriate controls for adaptive re-use, demolition and alteration,

(c) to ensure that development is compatible with the scale and character of existing built structures in the area,

And further

(b) to ensure that development is consistent with the heritage significance, the scale, the built form and the materials of existing structures in the zone and adjoining areas,

(c) to ensure that development is compatible with and does to detract from the financial, commercial and retail functions of the existing city central business district and the Sydney Cove Redevelopment."

The STC is the original adaptive reuse in the Conservation Zone and was in existence at the inception and gazetting of this SREP16. It represents the foundation concepts for the SREP16 and as such the continued use and functions are compatible with the objectives.

The STC therefore represents the model use for the precinct. The changes proposed in the STC Master Plan remain consistent with the objects described in the SREP 16 2009 in its historic context as a planning instrument and in any revised form.

As well, the use of the apron as a public access and the design of new lifts and stairs in compatible materials are also appropriate.

Internal interventions as proposed follow the precedent established by Vivian Fraser's first designs and represent the development and evolution not only of the STC but the maturing and internationalisation of Australian Theatre in general.

7.1.2 The Walsh Bay Planning Objectives Sydney Regional Environmental Plan No.16 – Walsh Bay – Rev 2

Aims, objectives etc

This plan aims:

(a) to allow an appropriate range of uses to encourage the adaptive re-use of existing structures while not required for commercial port uses,

(b) to identify and protect the heritage significance of the area by establishing a conservation zone and providing appropriate controls for adaptive re-use, demolition and alteration,

(c) to ensure that development is compatible with the scale and character of existing built structures in the area,

(d) to control the use of the waterways between the wharves to ensure that any activities associated with any development are compatible with the commercial shipping and navigational requirements in Sydney Harbour,

(e) to identify a consent authority for development approvals,

(f) to identify matters to be considered when determining development applications,

(g) to ensure the provision of public access to the waterfront, including the wharves, and

(h) to ensure that development:

(i) provides appropriate parking facilities and traffic management which minimises impact on the amenity of the area, adjoining residential areas and the Sydney Cove Redevelopment Area,

(ii) does not adversely affect the arterial road network in the City of Sydney,

(iii) preserves views to and from Sydney Harbour,

(iv) is compatible with the adjacent existing residential community, and

(v) provides a public transport system which can be integrated with the existing public transport services in the City of Sydney.

7.1.3 Zone 1 Walsh Bay Conservation Zone

The objectives of this zone are:

(a) to allow an appropriate range of uses to encourage the adaptive re-use of existing structures while not required for commercial port uses,

(b) to ensure that development is consistent with the heritage significance, the scale, the built form and the materials of existing structures in the zone and adjoining areas,

(c) to ensure that development is compatible with and does to detract from the financial, commercial and retail functions of the existing city central business district and the Sydney Cove Redevelopment Area, and

(d) to ensure that development is compatible with and does not adversely impact on the residential amenity and function of the adjoining areas.

Without development consent Nil.

Only with development consent any purpose other than a purpose included in item 2 or 4.

Prohibited Bus depots, bus stations, car repair stations, gas holders, generating works, helipads, heliports, industries (other than home industries and light industries), institutions, junk yards, liquid fuel depots, marinas, mines, roadside stalls, road transport terminals, sawmills.

7.2 Compliance with Conservation Management Policies

The following table sets out the compliance of the design proposal with the relevant policies contained in the *Wharf 4/5 Conservation Management Plans* prepared by Graham Brooks and Associated - 2007

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comments by** **Hassell - Charcoalblue - Tropman Architects**
7.3 Retention and Re-use of Historic Building		
7.3.1 Wharf 4/5 as part of the Walsh Bay cultural precinct should be retained and conserved as part of any future redevelopment on the site.	Complies	The proposal retains and expands the existing role of Wharf 4/5 as a cultural precinct to include it in the Walsh Bay Arts Precinct, which includes Pier 2/3 and the associated Shore Sheds. The proposal involves alterations to the Sydney Theatre Company (STC) tenancy within the upper shed of Wharf 4/5.
7.3.2 Future changes to fabric, form and associated structural elements should respect its visual significance and architectural integrity and respond accordingly.	Complies	This is part of the scope proposal. Internal changes proposed to STC involve a predominantly new fitout.
7.3.3 Landmark position as a strong visual element on the foreshores of Sydney Harbour should be maintained.	Complies	No change expected in this SSDA.

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7.3.4 Conservation of Wharf 4/5 wharf, Shore Shedss and wharf structure should be in the form of compatible new uses for the buildings, uses that respect and utilise the current scale, form and configuration of the building, with minimal external changes to the structure.	Complies	No change of use is proposed. The 1998 DA approvals for Walsh Bay and the approval of stage 1 consolidates the use of these relics as cultural facilities. These require some extensive changes to the volumes. The works proposed are to provide better amenity for the existing tenants, all of whom are key to the success of Sydney's cultural scene. STC50 requires more extensive alteration to accommodate upgraded theatres. A new mezzanine level is proposed to provide more office space.
7.4 Principles for Re-use of building		
7.4.1 During preparation of future uses for the buildings, care should be taken to respect the scale and character of the existing interior spaces, external openings and general character of each building.	Complies	This is part of the proposal. Works associated with STC involve a new arrangement of the existing layout. **Hassell's comment:** The proposed works sensitively conserve and reveal a greater heritage volume, not only for public appreciation but also to enhance the heritage value and narrative of Wharf 4/5. Large workshop spaces are maintained, along with the Theatre Bar at the End of the Wharf and a new mid Wharf Atrium that allows the scale and volume of the original building to be perceived and appreciated. **Charcoalblue's comment:** The theatres have been designed as boxes inside the outer fabric of the buildings and do not touch the external fabric or affect the external openings. The new volumes enhance the visitor and user experience by further revealing the wharf structure and character on both the east and west internal circulation routes. **ARUP's comments:** The services systems are integrated into the building to minimise impact on existing structure. Services are distributed to respect the existing trusses and where possible reticulate in a manner so that they do not hide the structure. Existing penetrations and windows are used wherever possible and new roof penetrations only provided where existing cannot be used, locations not visible from the perimeter of the building are favoured

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		through out.
7.4.2 New uses that are selected for any particular internal space should adopt the principle of "loose fit" whereby the functional and spatial requirements of each use are tailored to suit the available space, in contrast to an approach that alters the building to suit the requirements of the new use.	Complies	The current condition of the building with large scale theatres, workshops areas and rehearsal rooms have negated this notion. This statement was written 30 years after the existing works were undertaken so in that sense the author has chosen to ignore the reality that the repurposing of Wharf 4/5 was accepted as being an appropriate methodology for sustaining the heritage building and ensuring it remains as a viable and useful object. **Hassell's comment:** The existing linear occupation of the Wharf is maintained in the current proposal. This sequence of manufacture - assemble - finish - rehearse - perform - celebrate' creates a logical approach to spatial planning which enables STC to continue to holistically deliver theatre 'all under one roof. Wherever possible, the internal planning is cognisant of the envelope and works within its limitations. In situation where enhancements are required, such as in the theatre and workshop spaces, the Wharf building remains a resilient structure that can readily accommodate these enhancements. **Charcoalblue's comment:** The functional and spatial requirements of the theatres have been dictated by the principles set down by the Architects and Heritage Consultants and wherever possible the theatre boxes are designed to fit around and be subservient to the existing fabric. Where the functional needs of the STC tenancy require alteration to the fabric, e.g. roof valley modification and column removal, these have been treated sensitively and respect given to overall aims of the CMP. **ARUP's comments:** The driving goal has been to overlay the services into the existing structure and envelope without the need to alter the existing.
7.4.3 Installation of any new enclosures within the larger internal volumes of Wharf 4/5 should recognise the tradition that such enclosures are clearly expressed as new, self contained elements.	Complies	The proposal has clearly expressed self contained volumes and the STC50 project has been guided by this philosophy. **Hassell's comment:** The planning of new spaces as clearly identifiable and separate from the heritage fabric has been a driving principle from the outset of masterplanning. Wherever possible, new spaces pull away from the heritage shell. This is of mutual benefit to the internal program and heritage, allowing the shell to remain unaltered and the internal spaces to be appropriately detailed to perform thermally and acoustically. Inevitably,

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		these insertions will need to connect to the existing structure to transfer loads efficiently. Where junctions with existing roofs and columns are required, these have been carefully considered to preserve the original context of the heritage structure. **Charcoalblue's comment:** The planning of these new theatres as clearly identifiable volumes and self-contained elements has been a driving force from the beginning of the design process and is demonstrated by their clear definition as boxes within the external shell. Careful consideration of the details required where structure, floors and walls meet the existing building will reinforce this guiding rule.
7.4.4 Location and visual presentation of new services within the building should generally remain subservient and respectful to the scale, dignity and presentation of the existing building.	Complies	New services will remain subservient and respectful to the scale, dignity and presentation of the existing building. **Hassell's comment:** The western back of house [B01-1] path of travel is both an operational and services corridor. Services are reticulated along its length, and from there distributed to key internal areas. The consolidation of services reticulation to BOH areas is a planning strategy that allows the public Walk to remain as free from services as possible. This enables a heightened experience of the original heritage fabric along the full length of the Walk. **Charcoalblue's comment:** The strategy for new services integration has been to develop a services corridor along the western back of house path of travel for linear distribution and within the theatres where large volumes of air are required to be supplied and extracted a system of carefully considered ductwork will be designed around the main structure and set out on grids dictated by the existing roof trusses.
7.5 Retention of Visual Curtilage around Building		
7.5.1 The open spaces around Wharf 4/5 should be retained so that the wharf's relationship with the other buildings in the precinct can be identified.	---	This is not part of the scope.

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7.5.2 The design and siting of new works and additions should be sited in such a way that the visual relationship of Wharf 4/5 to the other buildings is not impaired.	---	This is not part of the scope.
7.5.3 Adaptive reuse which respects the integrity of the structure of the building and its curtilage should continue to maintained.	---	This is not part of the scope.
7.6 Retention of Significant Spaces		
7.6.1 There should be no major and permanent partitions introduced on the Upper Deck of Wharf 4/5 that would diminish the building's interpretation as a former commercial goods warehouse.	Capable of complying	The 1983 prize winning and celebrated works have already modified and partitioned the space. This current proposal maintains large areas un-partitioned to comply with this policy. Rehearsal rooms, the theatre and the commercial area maintain the original large space with high ceilings. There is no introduction of permanent partitions. The new space acts as a self contained box detached from the external walls by corridors that 'express the heritage shell to let the envelop breathe'. **Hassell's comment:** The introduction of a western back of house path of travel pulls key internal spaces away from the heritage facade, exposing the heritage volume along the length of both the eastern and western facades. This approach to spatial planning allows for the theatre and rehearsal spaces to exist separate from the heritage fabric and to be appropriately acoustically and thermally treated without the requirement to upgrade the heritage shell. It also provides new levels of appreciation of the currently inaccessible heritage envelope for both visitors and STC staff. In addition, the new mid wharf atrium exposes the full width of heritage volume in the east-west direction, to coincide with a major pedestrian access point. **Charcoalblue's comment:** The installation of the new partitions that form the theatres will be set out within the central zone of the original warehouse, set inward of the external timber wharf walls, thereby naturally creating the east and west circulation routes and enhancing the experience of walking the length of the wharf. The clearly expressed and retained structure and floors and walls will preserve the interpretation of the former uses of the

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		building.
7.6.2 There should be no new or permanent development on the wharf apron.	---	It is not part of the scope. The external development is part of WBAP project and it refers to another SSDA. **Hassell's comment:** While the new stairs, lifts and gantries are under the scope of the Walsh Bay Arts Precinct, they are critical to STC operationally and for accessibility and egress. The new entries are a contemporary interpretation of the heritage gantries that at one point would have moved along the length of the Wharf to facilitate upper level access. The new lifts enable STC to accommodate patrons and staff of varying abilities, and are DDA requirement. They will follow the visual precedent set by the Vivian Fraser refurbishment.
7.7 Conservation of Significant Fabric		
7.7.1 Roof structure Where repairs to the buildings are required, the roof framing including significant roof trusses should be retained where possible.	---	This is not part of the scope. The external development is part of WBAP project and it refers to another SSDA. **Hassell's comment:** The significant heritage asset that the Wharf structure represents has been carefully balanced against the requirements of a reinvigorated STC. The original structure is retained in full, wherever possible. However, the current height restriction that the existing trusses represent is an operational limitation to STC that restricts its ability to continue to meet its world class aspirations. STC manufactures and asssembles sets for the Ros Packer Theatre and Opera House Drama Theatre, which requires the ability to assemble sets at full height (8m). This cannot be accommodated with the current roof structure. Through careful planning, the partial alteration of two roof trusses is required in only one internal location. The portion of truss in the public Walk is retained in situ to maintain the full heritage experience and rhythm along the Walk. Where the roof structure is required to support additional load, the existing timber trusses will be strengthened by flat plate of PFC steel structure on either side, bolted through, in keeping with the precedent set elsewhere in Wharf 4/5 and in other Wharf buildings in the Walsh Bay redevelopment. **Charcoalblue's comment:** The proposed theatres do not alter or remove the existing roof trusses. Where the functional loading requirements of the STC theatre operation require strengthening of the timber, carefully detailed steel PFC channels are proposed in keeping with the spirit of the traditional existing structural details.

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7.7.2 Roof structure Replacement of corrugated roof panels should match existing corrugated roofing material.	---	This is not part of the scope. The external development is part of WBAP project and it refers to another SSDA. **Hassell's comment:** While this forms part of the Walsh Bay Arts Precinct Scope, the STC technical zone above the Theatres permits a fall of five degrees so that the original roof profile can be matched in the cladding to the roof modification.
7.7.3 Walls - Weatherboard Panelling All identified significant fabric of Wharf 4/5 should continue to undergo regular maintenance. Replacement of weatherboard panelling should match existing panelling. Painted finishes should match existing cladding.	---	This is not part of the scope. The external development is part of WBAP project and it refers to another SSDA.
7.7.4 Walls - Face Brickwork Retain significant unpainted face brickwork on the Hickson Road facades of the Shore Shedss.	Complies	No change is expected.
7.7.5 Flooring Original timber flooring should be retained in any future use or modifications to the building.	Complies	The original timber flooring is retained. The concrete will be removed from the fire tunnel to reveal the original timber. **Hassell's comment:** The original ironbark flooring is a heritage feature of the building. The current proposal will retain the ironbark flooring in full, and where it cannot be exposed, it will be protected and preserved. The current proposal reveals more of the ironbark flooring, including key public areas and the new atrium at the mid Wharf entry. Where programmatic requirements necessitate a different floor type, such as wet areas, forklift trafficable floor or areas with an acoustic floor build up, the ironbark will be retained and protected prior to the new floor structure being installed.
7.7.6 Wharf Sub-structure Replacement of timber wharf piles should continue	---	This is not part of the scope. The external development is part of WBAP project and it refers to another SSDA.

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to be part of the cyclical maintenance program arranged in 3 year terms. A detailed pile and structural survey should be undertaken at the commencement of each term to plan the next term of pile and timber replacement due to termite damage and rot above water and teredo damage and erosion below water level.		
7.7.7 Timber Joinery Retain significant timber joinery, including original windows and doors and original internal timber staircase.	Capable of Complying	Significant original timber joinery and the timber staircase are retained. Windows, doors and external elements are part of another SSDA. **Hassell's comment:** The heritage stair in the STC box office is being retained as a feature of the original building. Facade alterations have been confined to areas of low heritage significance wherever possible, such as to the areas of introduced glazing, however minor alterations to the Northern facade are required to facilitate the internal program. This will follow the rhythm and precedent of the existing facade. The facade modifications fall under the scope of the Walsh Bay Arts Precinct Redevelopment.
7.7.8 Building Services Existing functional fire protection, emergency and electrical lighting should be maintained as part of the regular maintenance program.	Complies	This is part of the scope proposal. Building services are being maintained or upgraded as per the advice of STC's BCA, Fire and Services consultants. **ARUP's comments:** Where practicable the existing fire sprinklers and lighting systems will be retained and incorporated into the new development.
7.7.9 Wheelchair Access The installation of a wheelchair access lift to the STC Wharf Theatres and Restaurant should respect significant fabric and internal layout of the building. It should be located along the public access to the STC and serve both the main level of the STC and	---	This is not part of the scope. The external development is part of WBAP project and it refers to another SSDA. Note that an existent lift is present along the public access to the STC. **Hassell's comment:** New lifts are proposed at Mid Wharf and End of Wharf locations to facilitate access to both Level 1 and 2. The lifts fall under the scope of the Walsh Bay Arts Precinct Redevelopment, and will be treated as contemporary insertions that follow the precedent of the existing Vivian Fraser lift, but pull away from the heritage facade to minimise impact to the heritage fabric, gutter and crane rail.

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the mezzanine to provide access to all public areas of the STC. It should be designed and treated as a new element, but one that respects the tradition of externally mounted services infrastructure.		
7.7.10 Air Conditioning The provision of air conditioning units for the Wharf Theatres at roof level should be situated so as to minimise the visual impact from recognised viewpoints such as between the major roof ventilator structures. A visual impact assessment should form part of any proposed works involving the installation of services to the exterior of the building.	Complies	The existing roof contains plant and exhausts at disparate locations along its length. New air conditioning is proposed to update the mechanical systems utilised in the building and to rationalise and consolidate the associated equipment. This involves packaged units, similar to existing and plant-rooms within the new roof modification with consolidated plant platforms located in the northern valley. **Hassell's comment:** The roof as existing contains plant and exhausts at disparate locations along its length. The new proposal sees the mechanical equipment consolidated and rationalised to the north of the Wharf in its existing valley location, where it is visually screened by the Theatre roof modification and lanterns. **ARUP's comments:** The refurbishment of the wharf provides an opportunity to consolidate the roof mounted air conditioning equipment into a single considered location rather than many disjoint locations. The consolidation will look to lower the plant as much as possible and centre on the valley to minimise impact.
7.7.11 Environmental Efficiency Proposals to upgrade the environmental efficiency of the services infrastructure should take into account a "whole of building" approach and be considered for their physical or visual impact on the spatial and architectural integrity of the buildings in their own right and as components of Walsh Bay as a whole.	Complies	The roof currently houses a large solar array and STC have a large rainwater reuse tank located under the wharf. A whole of building approach has been adopted for service upgrades which extends across the Walsh Bay Arts Precinct. **Hassell's comment:** All consultants view the STC50 project holistcally, and as part of the broader Walsh Bay Arts Precinct. Coordination has been undertaken between consultants of the WBAP and the STC50 project to identify opportunities for efficiencies. **ARUP's comments:** The provision of new services systems for heating and cooling affords an opportunity to introduce variable speed drives and high efficiency equipment to lower the building environmental impact.
7.8 Conservation of Equipment and Machinery		

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7.8.1 The Goods Lift within Wharf 4/5 should be retained and an adaptive reuse strategy created.	Complies	The goods lift is retained. As it passes between two different tenancies - a commercial tenancy and STC50- it is not possible to use it in the current adaptive reuse. It will however be retained insitu so that it could be used in the future.
7.8.2 Gantry rails on the eastern and western facades should be retained.	---	This is not part of the scope. The external development is part of WBAP project and it refers to another SSDA..
7.9 Principles for Design of new elements		
7.9.1 New or repaired elements should generally adopt the visual characteristics of the surrounding context in order to minimise visual interruption to the original context.	---	This is not part of the scope. The external development is part of WBAP project and it refers to another SSDA.
7.10 Interpretation		
7.10.1 The current and future re-use of the buildings should include a strong program of interpretation to ensure that the heritage characteristics and layered significance of the place are communicated to visitors.	Complies	A strong program of interpretation is present on the site and will be continued in the new works.
7.10.2 An oral history program should be implemented, participants should include individuals who have been involved in the conversion and maintenance of the wharf and the Shore Sheds. Rees McKay, Government Architect, who has been responsible for the care and maintenance of Wharf 4/5 through the Department	---	This is not part of the scope. Arts NSW currently lease the site from RMS. No known oral history program has been implemented to date, however, is encouraged in the future.

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of Commerce is an invaluable source of information regarding the history and use of the site.		
7.11 Appropriate Conservation Skills and Experience		
7.11.1 Appropriate professional and trade skills should be sourced and employed during the implementation of conservation works and in the design and installation of future uses within the buildings.	Complies	Appropriate professional and trade skills will be sourced and employed to undertake the works.
7.12 Signage		
7.12.1 Signage on Heritage Items should be: (i) consistent in design to the architectural form of the building to which it is attached; (ii) of a high standard of materials, construction and graphics; (iii) appropriately located on the Heritage Item and of a Compatible design and style with appropriate lettering.	Complies	New internal signage will be consistent in design with the currently adopted strategy and with the architectural form of the building to which it is attached.
7.13 On-going Maintenance Regime		
7.13.1 The current maintenance program should be continued and updated as required.	Complies	The current maintenance program is ongoing. This has recently been reviewed on behalf of Arts NSW by Tropman & Tropman.

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7.13.2 Funding should be made available on a cyclical basis for the replacement of wharf piles as part of the regular maintenance program.	Complies	Arts NSW have allocated funds for replacement of wharf piles on a cyclical basis as part of their regular maintenance program.

8. Heritage Impact Assessment

8.1 Impact of the Design Proposal

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
8.1.1 GENERAL			
Demolition/construction of separation walls	The new layout creates a more organised and fluid space. These works are in effect a relocation of the insertions and where possible an improvement based on recent experience which more readily revel the original structure and fabric. See below	We consider there to be nil/minimal negative effect. The Walsh Bay precinct as a whole has undergone massive rejuvenation works over the past 15-20 years. Wharf 4/5 itself underwent major adaptive reuse in 1985. These works respect the heritage significance of the place and will not detrimentally impact upon this significance.	All original and early fabric must be appropriately protected during construction and subsequently maintained.
BOH access exposes the western facade	The western service corridor proposal improves the understanding of the industrial character by revealing the external skin which also allows a degree of permeability and solves the thermal and acoustic problems in one simple solution. The heritage fabric is both revealed and	We consider there to be nil/minimal negative effect.	Minimise fixings where possible.

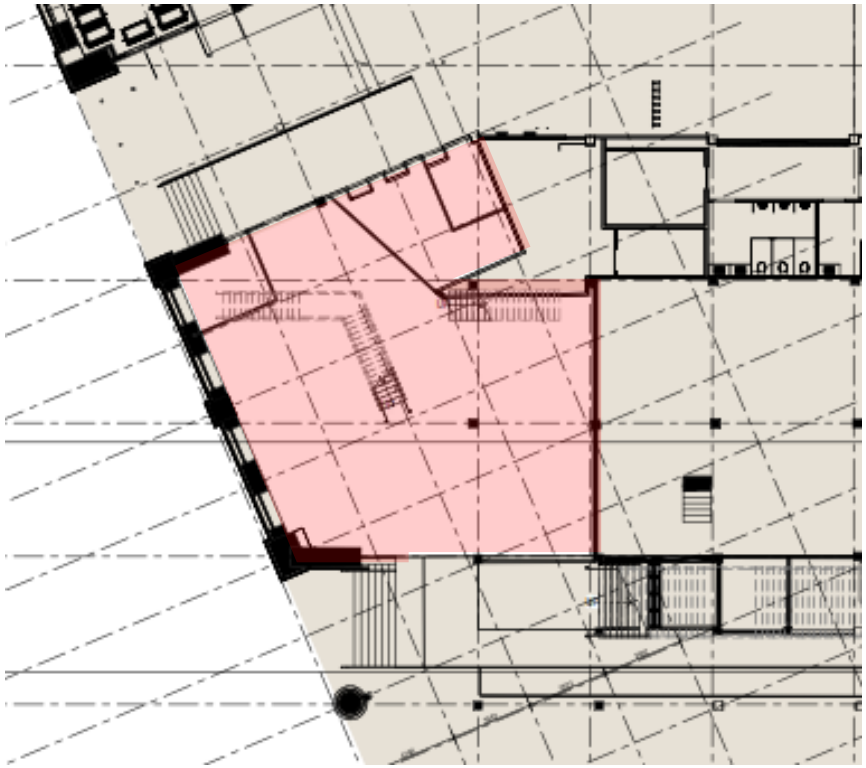
DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
	protected and can be maintained – a major outcome in the building's preservation.		
Removal of 9 timber columns	This is required to obtain completely open areas in the theatres and rehearsal rooms. Three of the columns are proposed to be reinstated in other areas which were removed in the earlier works and lost .	This will cause some loss of original elements however the impact is considered to be minimal as reinstatement will occur in other areas.	The removed columns must be securely stored as 3 of them will be reinstated in different areas. The holes in the floors should be outlined with a similar type of floorboards but should not be made to mimic the existing in terms of age and patina in order to allow the clear interpretation of the removed column locations. The new patches should be appropriate and clearly interpreted as new reparations.
Reinstatement of 3 of the removed timber columns (as above)	This will reinstate the original structure and recreate the visual partition of the space. The columns removed from other areas will be adapted.	We consider there to be nil/minimal negative effect.	Ensure removed columns are appropriately tagged and stored for reinstatement, in accordance with the Policies
New flooring	The new flooring will be laid down on top of the existing Ironbark floorboards to protect the heritage fabric in areas requiring acoustic treatments or heavy traffic: - In the rehearsal rooms and theatres this	We consider there to be nil/minimal negative effect.	Minimise fixings where possible.

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
	is a requirement for soundproofing. - In the western corridor and in the shore sheds is a requirement to protect the timber floor from vehicles. There is no loss of original fabric and this operation is reversible.		
Restoring of Ironbark floorboards	The level 1 public access way along the eastern side the building exposes the original heritage significant rough sawn floorboards. Only cleaning, repairing and oiling is part of the scope.	We consider there to be nil/minimal negative effect.	In areas where the gaps between the floorboards exceed 5mm or there are raised edges that exceed 3mm in height then the floorboards shall be repaired to ensure a more even surface for OHS and equitable access requirements.
GROUND LEVEL			
New box office / ticketing area at southern end of wharf and administration / staff areas	This improves the function and flow of the tenancy.	We consider there to be nil/minimal negative effect.	Any works must allow for the maximum retention of heritage fabric.
MEZZANINE LEVEL			
Additional offices at southern end of wharf	Insertion of a mezzanine level is a well considered design approach to achieve maximum useable space without detracting from the large volume of the pier.	We consider there to be nil/minimal negative effect.	Locate all new fixings into non significant fabric where possible.

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
LEVEL 1 & LEVEL 2			
Co-location of Wharf 1 and 2 Theatres to create two distinct performance spaces	The creation of 2 large theatres allows better access and egress through and along the pier as well as improving the visual interpretation of the volume of space.	The removal of heritage timber columns and steel trusses over will have some impact. However we believe this is an acceptable compromise for the reinvigorated use of the space.	Carefully dismantle the structures and salvage and reuse fabric on site. The design must be the most appropriate for the foreseeable future demands of the building.
Upgrade to existing kitchen at northern end of wharf with goods lift	This is a positive outcome in achieving a better use of the space and upgrade the kitchen to a current quality and safety standards.	We consider there to be nil/minimal negative effect.	Locate all new fixing into non significant fabric where possible.
Improved rehearsal and dressing room spaces with shared support spaces and the introduction of more flexible spaces	This provides for the current and foreseeable future demands of the building.	We consider there to be nil/minimal negative effect.	
Separate back of house circulation to allow efficient and safe transportation of sets to rehearsal and theatres	This creates a safe corridor not open to public for heavy vehicle circulation. New flooring will protect the heritage timber floorboards.	We consider there to be nil/minimal negative effect.	Locate all new fixing into non significant fabric where possible.
Removal of the existing fire tunnel within the building and	The demolition of the fire tunnel is a removal of the 1985 works that were a	We consider there to be	All original and early fabric must be appropriately protected during construction and subsequently

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
associated reconfiguration of the space into the new layout as above plus addition of new fire stairs	severe design constraint on the site, using up unnecessary space that could be better utilised by the tenancy. The concrete floor in the entire tunnel covering the heritage timber floor will be removed. The walkway floor remains for the public use in his original status.	nil/minimal negative effect.	maintained.
Upgrade of services and infrastructures	This is a positive outcome in achieving improved comfort and compliance with BCA regulations.	We consider there to be nil/minimal negative effect.	Wherever possible place all new services in areas of lower significance. Carefully dismantle the structures and salvage and reuse fabric on site.
Restoring of Heritage Items: - Timber lift - Overhead metal travelling gantries (3) - Timber stairs	This is a positive outcome in achieving overall conservation goals by restoring existing heritage items. The relocation of the lift and cranes along the same plane is appropriate as their significance is not retained in just one location.	We consider there to be nil/minimal negative effect.	All original and early fabric must be appropriately protected during construction and subsequently maintained.

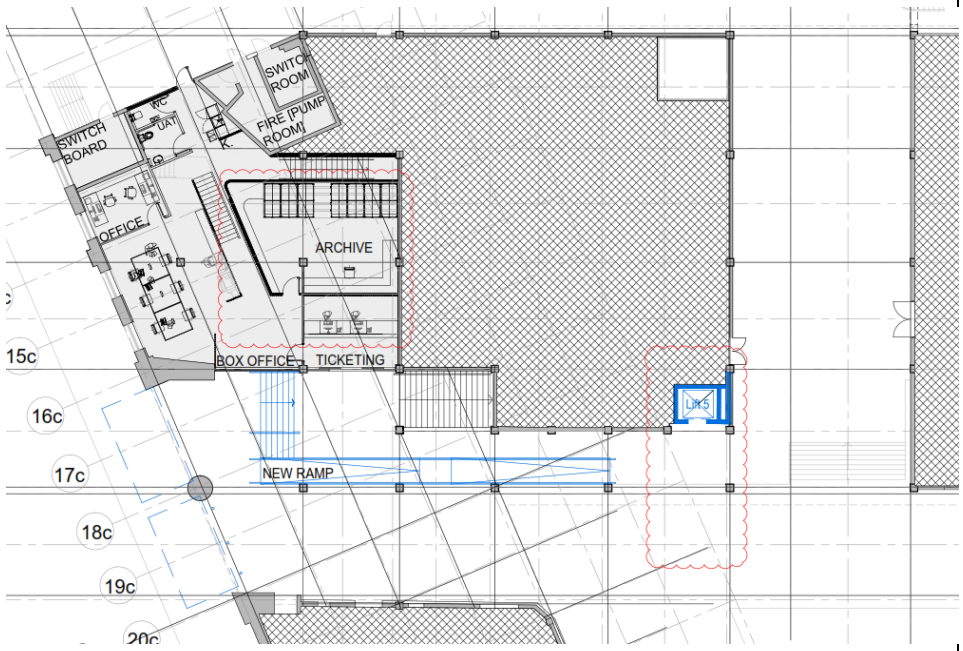
8.2 Detailed Heritage Impact by Area[30]

Ground Level Box ticketing, Offices and Utilities. 	WORK DESCRIPTION: New offices layout and lift relocation POSITIVE EFFECTS: The new office layout gains a better use of the space and reveals the Heritage timber staircase that currently is completely hidden. The Apron will be more open NEGATIVE EFFECTS: We consider there to be nil/minimal negative effect.   Existing Offices

[30] *Plans updated as per current design*

Ground Level

Entry



WORK DESCRIPTION:

Modification of existing stairs and removal of existing external lift.[31]

POSITIVE EFFECTS:

Improvement of site identification, point of entry and more space gained.

NEGATIVE EFFECTS:

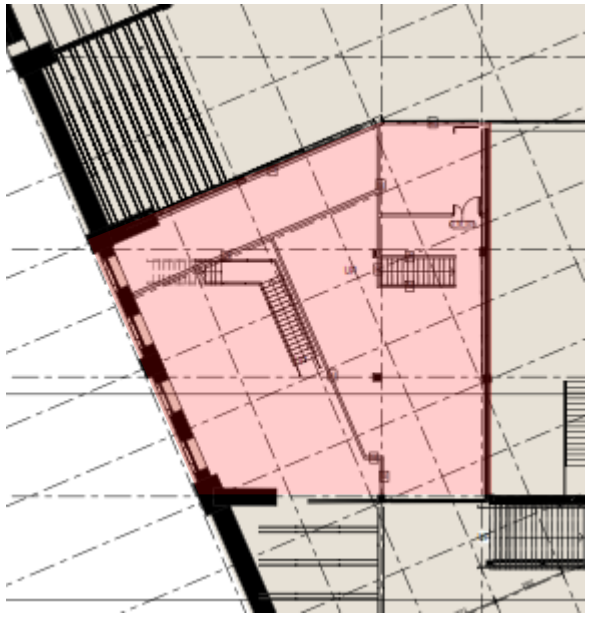
We consider there to be nil/minimal negative effect.

Existing external stairs

[31] *The lift has been removed from the apron*

Mezzanine

Stairs



WORK DESCRIPTION:

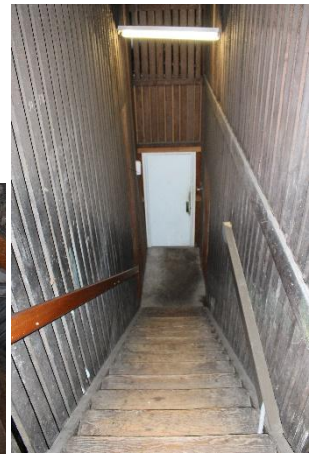
New mezzanine floor level.

POSITIVE EFFECTS:

The new mezzanine level improves the area available for offices.The double height void reveals the Heritage timber staircase that at present is completely hidden.

NEGATIVE EFFECTS:

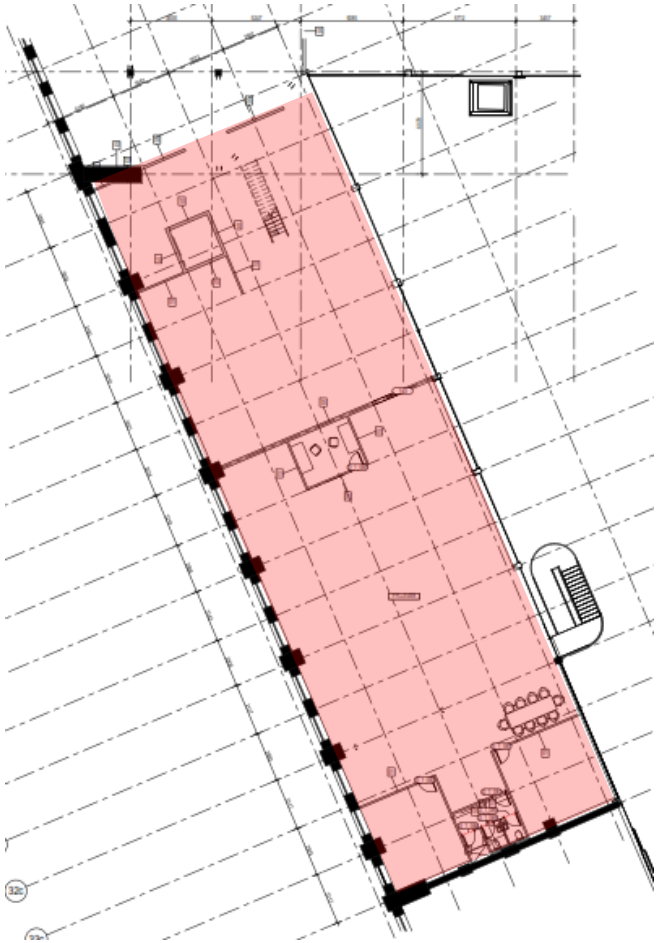
We consider there to be nil/minimal negative effect.



Detail of existing patina on floorboards and existing Heritage timber stair

Level 1

Costumes, Wardrobe and Workshop



WORK DESCRIPTION:

New arrangement and layout for a better use of the space.

POSITIVE EFFECTS:

The new layout will improve the use of the space.

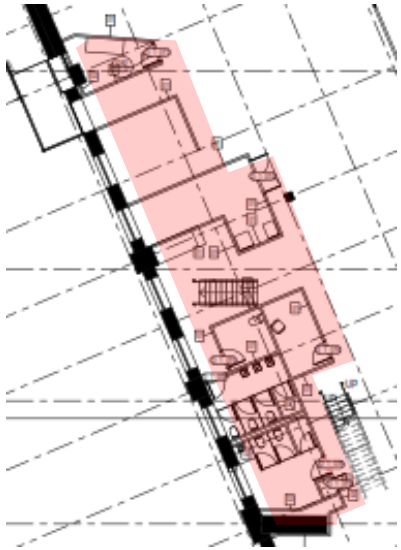
NEGATIVE EFFECTS:

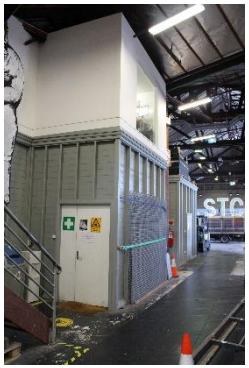
No major changes are proposed.

We consider there to be nil/minimal negative effect.

Level 1

WC and Utilities





Existing structure

WORK DESCRIPTION:

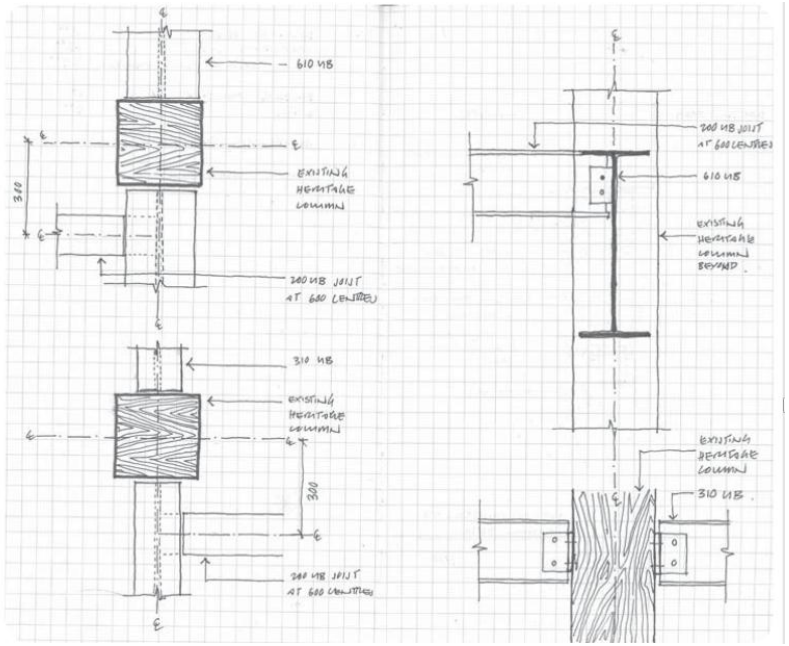
Fit out of existing WC.

POSITIVE EFFECTS:

Improvement WC quality and upgrade to current compliance.

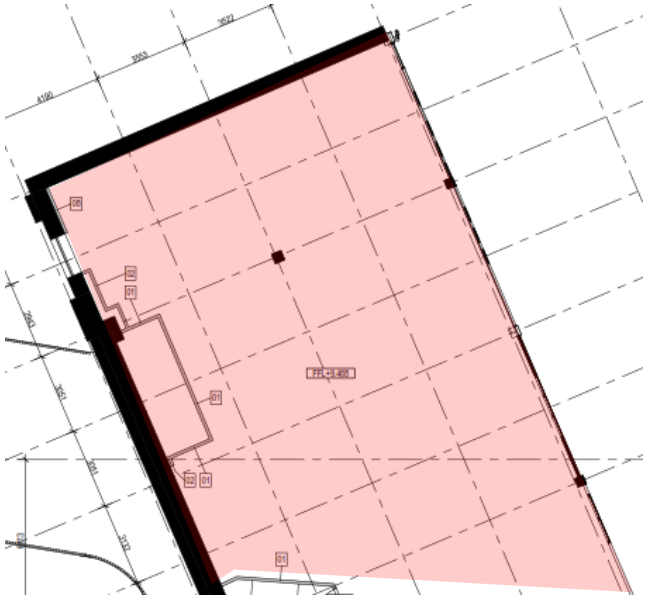
NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



Level 1

Store and Loading



Existing loading area

WORK DESCRIPTION:

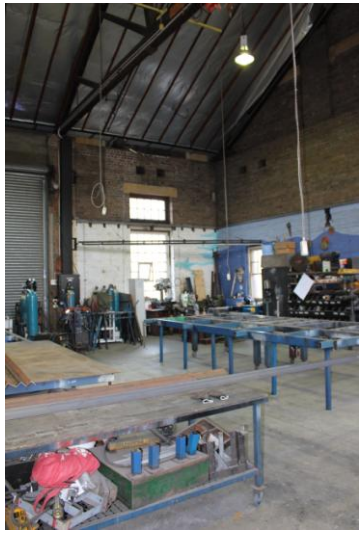
Fit out of loading area. No changes in the structure.

POSITIVE EFFECTS:

Improvement of safety.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

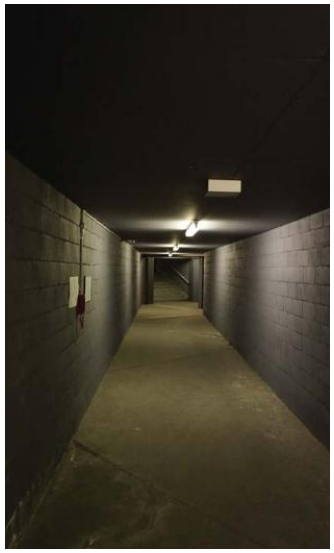


Existing loading area

Level 1

Walkway

Existing walkway



Existing fire tunnel

WORK DESCRIPTION:

Demolition of fire tunnel.

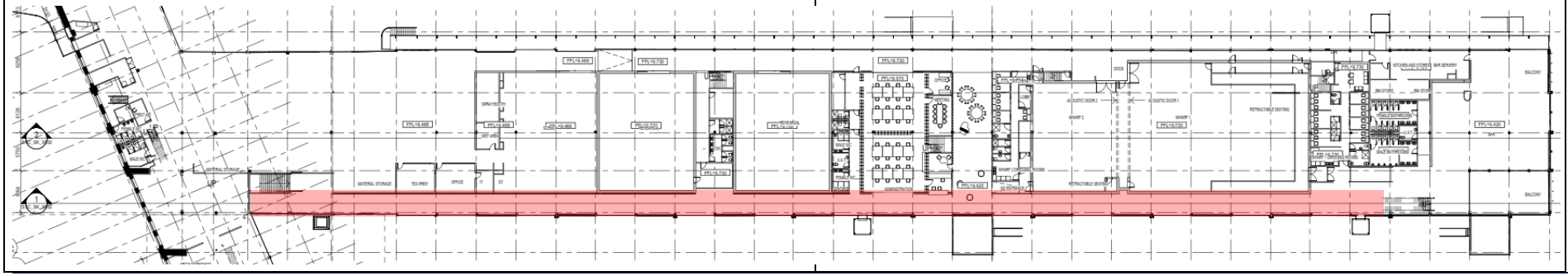
POSITIVE EFFECTS:

The demolition of the fire tunnel reinstates the lost space.

The walkway remains for the public use.

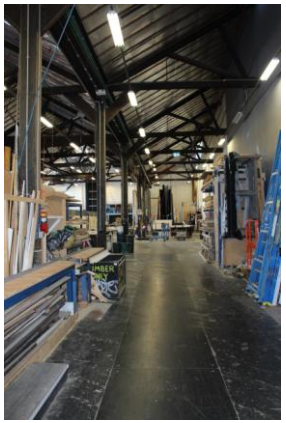
NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

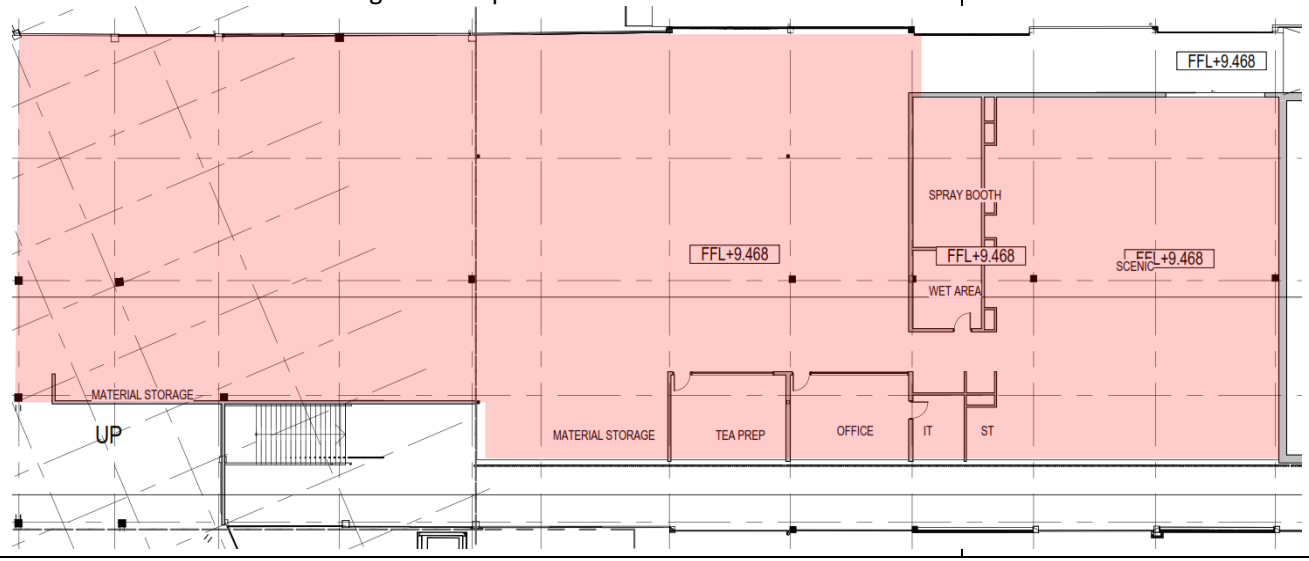


Level 1

Workshop, Store and Utilities



Existing Workshop area



WORK DESCRIPTION:

Fit out of workshop areas.

POSITIVE EFFECTS:

New layout for utility areas and improvement of safety.

The large raw space remains as it is.

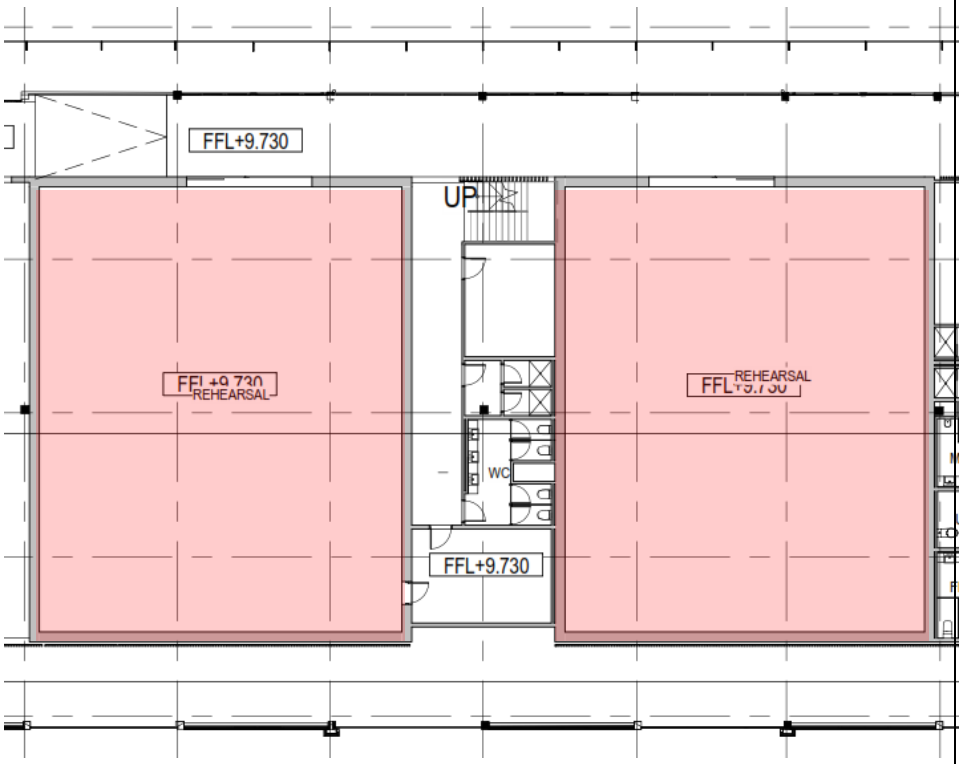
Re-positioning of one timber post.

NEGATIVE EFFECTS:

Removal of one timber post mitigated by reuse.

Level 1

Rehearsal Rooms



WORK DESCRIPTION:

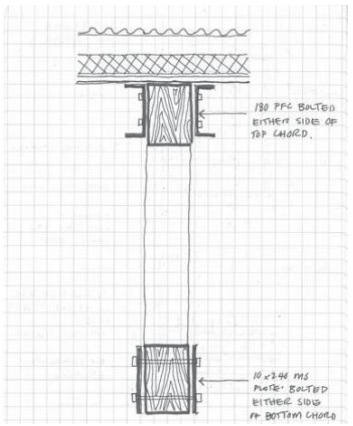
Creation of two Rehearsal rooms

POSITIVE EFFECTS:

The demolition of partition walls reinstates two large raw spaces.

NEGATIVE EFFECTS:

Removal of four timber posts. Mitigated by improved functionality. Impact is minor.



Typical truss strengthening.

Sketch provided by Hassell

Level 1

Offices and WC

WORK DESCRIPTION:

New layout for offices.

POSITIVE EFFECTS:

The offices area is set-back from the Heritage facade, as an internal independent box. This reduces alteration of Heritage fabric and creates a public corridor to appreciate the Heritage fabric as the walls and floor are kept untouched.

Two timber post removed during the previous operation are re-introduced.

The atrium area in the middle is open to public with timber floorboard exposed.

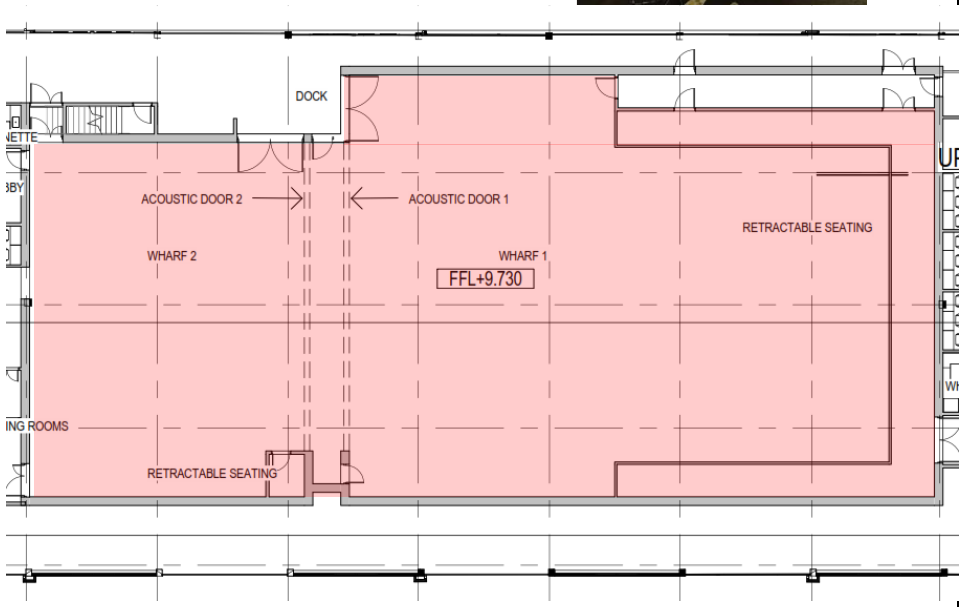
NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

Level 1

Theatre 1 & 2

Existing theatre



WORK DESCRIPTION:

Fit out of existing theatre and creation of a second smaller one.

POSITIVE EFFECTS:

The installation of the new partitions that form the theatres will be set out within the central zone of the original warehouse, set inward of the external timber wharf walls, thereby naturally creating the east and west circulation routes and enhancing the experience of walking the length of the wharf. The clearly expressed and retained structure and floors and walls will preserve the interpretation of the former uses of the building.

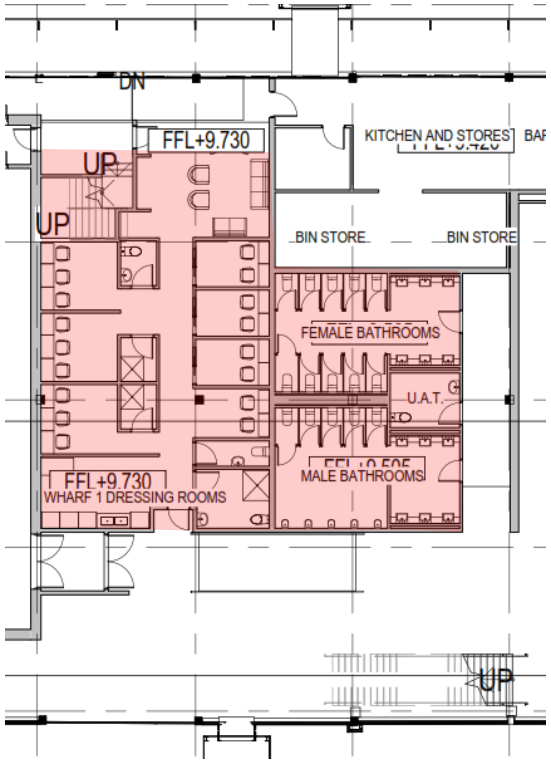
Comment by Charcoalblue

NEGATIVE EFFECTS:

Removal of four timber posts and steel truss over. Mitigated by improved functionality. Impact is minor.

Level 1

Dressing Rooms and WC



WORK DESCRIPTION:

The substantial refurbishment to the Wharf requires an increase of amenities, for both the public and staff, to satisfy not only the BCA but also the visitor's experience.

Public facilities are located at the Mid Wharf and End of Wharf locations to coincide with new arrival points, Theatres and public spaces.

POSITIVE EFFECTS:

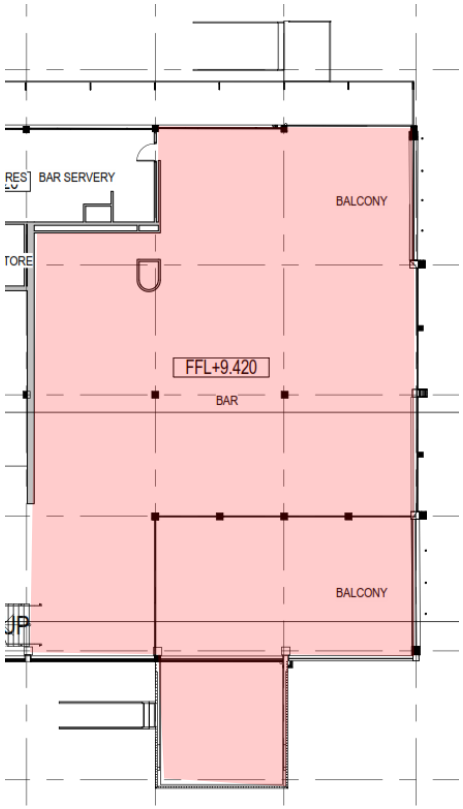
The increased provision and better distribution of bathroom facilities, including an increased provision of Universally Accessible Bathrooms, represents an enhanced solution for the Wharf.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

Level 1

Open Space



WORK DESCRIPTION:

Fit out bar area.

POSITIVE EFFECTS:

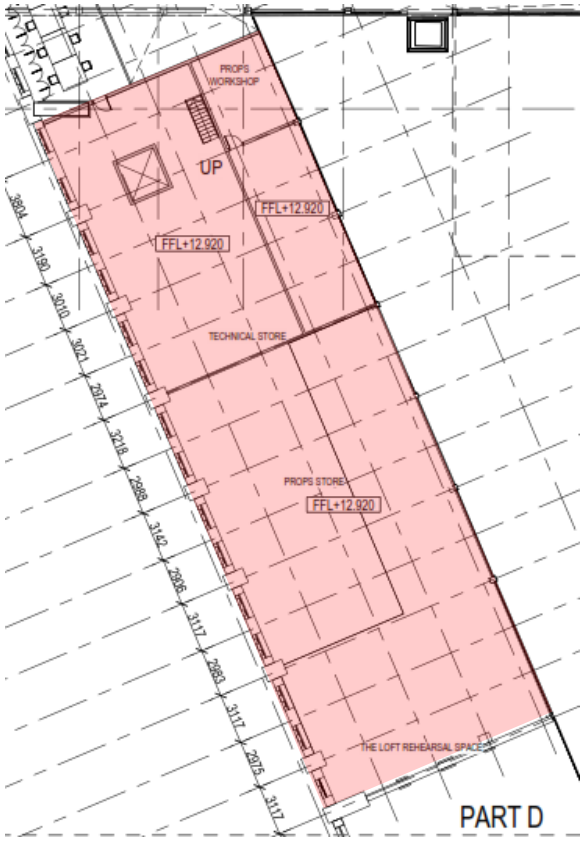
The new spatial strategy and logical planning sequence allows for the appreciation of an increased heritage volume that is naturally ventilated and expressed along the eastern and western facade. It also opens the full width of the wharf both at mid-wharf and The Theatre Bar at the End of the wharf. This also enables the newly configured spaces to be thermally and acoustically treated in a manner appropriate to their program without compromising the heritage envelope.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

Level 2

Store



WORK DESCRIPTION:

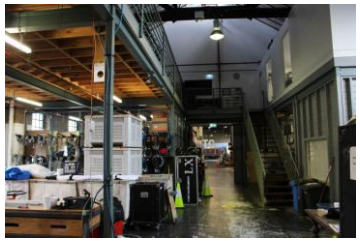
Small changes in the layout.

POSITIVE EFFECTS:

The space remains open.

NEGATIVE EFFECTS:

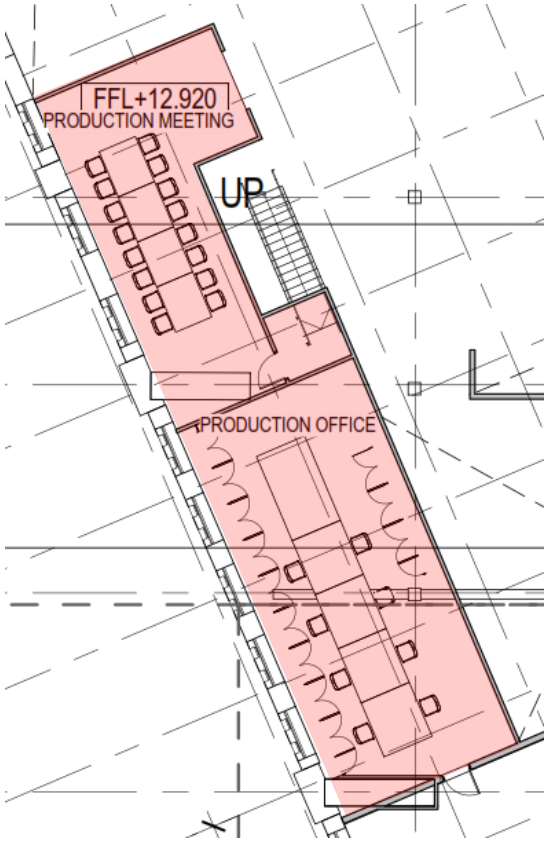
We consider there to be nil/minimal negative effect.



Existent store area

Level 2

Production Offices



WORK DESCRIPTION:

New layout of offices area.

POSITIVE EFFECTS:

The existing small offices and partitions are removed to create two larger areas.

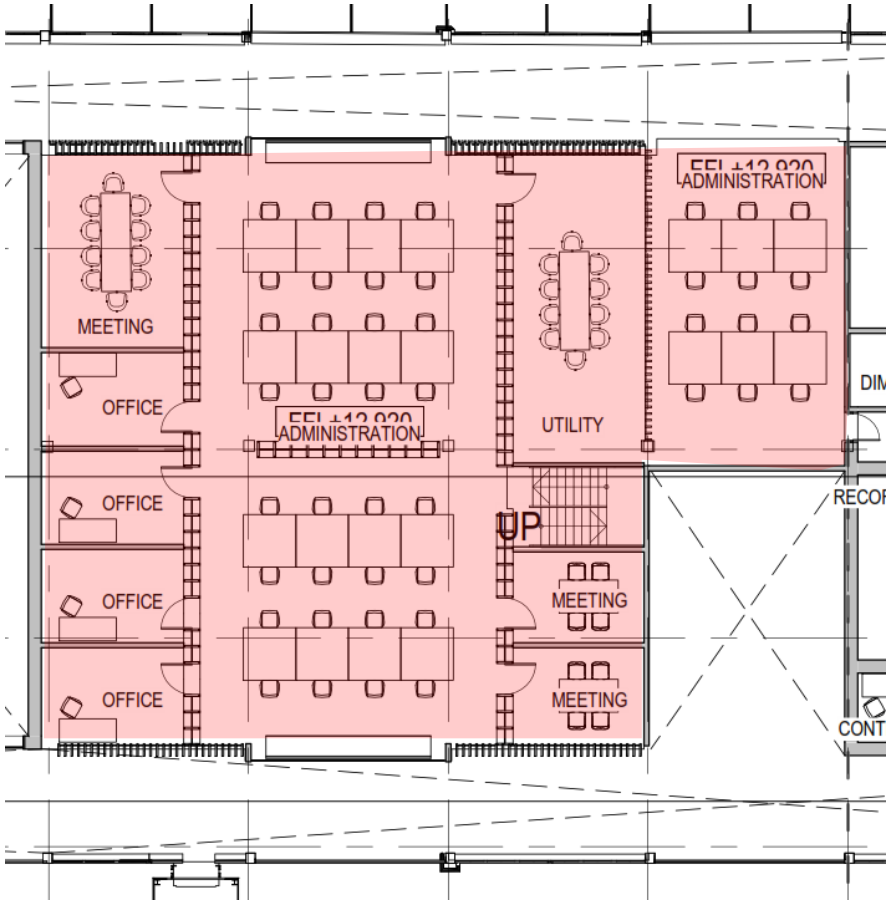
NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

Existing mezzanine

Level 2

Administration



WORK DESCRIPTION:

New layout for administration area.

POSITIVE EFFECTS:

The new insertions need to connect back to the existing structure in a carefully considered manner. Following the precedent that exists in Wharf 4/5 and elsewhere in Walsh Bay, new structure will be readily identifiable as distinct from the heritage fabric. A sensitive approach to detailing will enable the effective transfer of loads, preserve the heritage interpretation of the original elements, and provide a high quality built outcome that enhances the overall character of the project.

Two timber posts removed during last intervention are re-introduced.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

8.3 Conclusions of Impact

8.3.1 **Architectural responses to the need to identify the historic context in the new design** have been considered using the most direct routes and identifying with an industrial aesthetic.

8.3.2 Deleted.

8.3.3 Deleted.

8.3.4 Deleted.

8.3.5 Deleted.[32]

8.3.6 **Fire rating** Where required by law the structural members have been fire rated in accordance with the code and life safety requirements this may in some instances conceal certain members or be at variance with the Historic Aesthetic. In all cases alternatives have been explored with the final proposal considered to be the most appropriate outcome to comply with all requirements.

8.3.7 **The Structural solutions** and removal of heritage fabric have been prepared in a similar manner as described in the Design 5 report.

8.3.8 **The large scale spans** in the wharf building is treated similarly and there is a unity in the structural solutions. The impact is acknowledged by Croker as being significant to the Exceptional heritage fabric but necessary to achieve the outcomes.

8.3.9 **The large performance spaces** have been reviewed for alternative solutions and the structures have been kept and strengthened rather than removed or replaced. In each large space while the impact is of significance the outcomes comply with the policies in that the form and nature of the building is not lost**.**

8.3.10 **No heritage material will leave the site** and all parts will be dismantled carefully and used in interpretive displays or reused as structural elements **where in the case of Wharf 4/5 STC repositioned back where structure was removed**

8.3.11 **Architectural responses to the need to identify the historic context in the new design** have been considered using the most direct routes and identifying with an industrial aesthetic.

[32] *Revised in this addition references to Pier 2/3.*

8.3.12 Deleted.[33]

8.3.13 **The planning of the interior fitouts** is consistent in both Piers where the exterior walls are kept generally clear of the performance or functional spaces

8.3.14 **Tropman and Tropman** as heritage consultants have observed and advised on the techniques which are to be adopted which will ensure that heritage fabric is not lost or obscured and where there has been no alternative but to remove heritage fabric chiefly to allow the approved performance spaces to be adequately designed, the least intrusive technique have been used at TTA instigation. The design teams have in the main acted in accordance with the policies in the endorsed CMPS and the Design 5 report recommendations.

[33] *Revised in this addition references to Pier 2/3.*

9. Conclusions and Recommendations

The works planned for STC50 must be informed by the relevant controls and legislation and where issues arise these matters should be clearly supported by arguments based on the Australia ICOMOS Burra Charter as well as the recent ICOMOMS Charter for THE NIZHNY TAGIL CHARTER FOR THE INDUSTRIAL HERITAGE July 2003 providing best practice for items of industrial heritage.

This report has examined and reported on the information available as a resource for ongoing restoration of the Wharves 4/5. Throughout the documentation a number of policies and constraints have been incorporated and compiled demonstrating the importance of the Place and to ensure that any use and ongoing maintenance complies with the Burra Charter, the standards required under the Heritage Act 1977 and Aboriginal heritage legislation in NSW as amended pertaining to items of State Significance.

The Wharf structure includes a large scale theatre which requires alterations to the roof line as well as services interventions and matters of acoustics and fire egress. There should be a consistency in treatments for all areas within the precinct derived from a well-considered design philosophy which acknowledges the constraints of building within a state significant site.

The various approvals have instructed the way in which the historical, Aboriginal and archaeological research and impacts are to be assessed.

The Concept and developed design for the STC50 and WBAP is generally in accordance with the Tropman and Tropman and Graham Brookes CMPs as well acknowledges the directives in the Design 5 HIS for the external fabric.

The adaptive reuse of any structure by its nature will have significant impact upon the place. The impact on the relics here is, on occasions, significant in the large performance spaces especially, however the language for adaptive reuse of the structure has considered the least interventionist methodology and there has been a striving throughout the precinct to develop the appropriate language in the detailing to allow interpretation of the original fabric and large scale volumes. We believe this has been achieved.

The Wharf 4/5 and shore shed have been altered significantly in the past and while this adaptive reuse has been historically acclaimed, the new proposals have been designed to rectify some of the changes to the original design and reduce the impact of that occupation. Detailing has been devised which better expresses the original structure and surfaces.

The Vivian Fraser “light touch” however has proved to be an excellent basis to take on methodologies for alternative solutions which have the least impact on the buildings.

The current Arts and Cultural uses are profoundly significant as a continuum of the intangible cultural heritage of the place which was in fact the well spring of the saving of the relic and its repurposing into the current cultural icon.

The continued sustainability is reliant on the adaptive reuse while the uses themselves very adequately fulfil two visions for the precinct: the 1998 Masterplan approval for the eastern half of the site to become a heritage **preservation** area and cultural facility, and the 2014 Walsh Bay Arts Precinct vision now approved in principal which seeks to further develop a world class cultural centre in the heart of Sydney.

This project is considered to suitably address the Heritage Impacts as the requirements of both the SSDA conditions and the SEARS requirements for Stage 2 Heritage response.

The design for the STC50 Masterplan has been well considered and designed to provide for the current and foreseeable future demands of the STC tenancy whilst at the same time preserving the heritage and cultural significance of the place.

The WBAP represents the completion of the vision for a unique cultural precinct, described in the 1999 Master Plan for the Walsh Bay Redevelopment, and it is recommended there should be an Arts Precinct Conservation Management Plan prepared which recognises the new era and future uses.

10. References

- *Walsh Bay Masterplan, APT Peddle Thorp, May 1996*
- *Walsh Bay Precinct CMP, Clive Lucas and Partners, December 1998*
- *Wharf 4/5 Walsh Bay CMP, Graham Brooks and Associates, March 2007*
- *Walsh Bay Arts Precinct HIS, Design 5 Architects, June 2014*
- *Heritage Technology CMP Walsh Bay Precinct, Tropman Architects, May 1999*
- *Heritage Asset Condition Assessment External & Internal Fabric & Heritage Technology Pier 4/5, Tropman Architects, June 2015*
- *Archaeological Assessment Wharves 6/7 & 8/9 Walsh Bay, Wendy Thorp, 1997*
- *Appendix A - Phase M Infrastructure Heritage Impact Assessment, Services Walsh Bay HIS, Tropman Architects 1998*
- *Appendix E - Archaeological Assessment of areas associated with the development of Pottinger Street and adjacent areas, Underground Services Walsh Bay HIS, Tropman Architects 1998*
- *Re-development of Pier 2/3 Walsh Bay: Maritime Archaeological Inspection of copper sheathed piles, Draft February 2002*
- *STC50 Heritage Report for Sydney Theatre Company, Tropman Architects, February 2016*
- *Walsh Bay Redevelopment, Maritime Archaeological Assessment of Wharves 6/7 & 8/9, Coroneos, September 1997*
- *Walsh Bay Precinct Conservation Plan - Archaeological Assessment, Clive Lucas and Partners, August 1997*
- *Heritage Study of 19th and Early 20th Century Trading Wharves in Sydney Harbour, National Trust of Australia, October 1989*
- *Various original drawings held by Tropman & Tropman*
- *Archival reports held by Tropman & Tropman*
- *The Mitchell Library collection*
- *The Heritage Branch Archive*
- *Sydney University Library*
- *The National Trust NSW Library and Archive*
- Australia ICOMOS 2000, *Australia ICOMOS Charter for the Conservation of Cultural Significance (The Burra Charter) and Guidelines to the Burra Charter: Cultural Significance, Conservation Policy, and Undertaking Studies and Reports*, Australia ICOMOS, ACT.
- *Converted Industrial Buildings: Where past and present live in formal unity*, Tamara Rogic, 2009
- *The Nizhny Tagil Charter for the Industrial Heritage,* TICCIH, July 2003
- Heritage Office 2001, *Assessing Heritage Significance*, Heritage Office, Sydney.
- Heritage Office, *Statements of Heritage Impact Guideline*, Heritage Office, Sydney

11. Endnotes

[1] *Edited to a more concise precis*
[2] *Added references to changes*
[3] *Revised in this addition references to Pier 2/3 removed*
[4] *Revised in this addition references to Pier 2/3 removed*
[5] *Revised in this addition references to Pier 2/3 removed*
[6] *The report has been altered to reflect the similarity of the process in both structures to accommodate theatre functions*
[7] *Traditional, contemporary and living at the same time: intangible cultural heritage does not only represent inherited traditions from the past but also contemporary rural and urban practices in which diverse cultural groups take part; http://www.unesco.org/culture/ich/doc/src/01851-EN.pdf*

[8] *The report has added matters regarding movable Industrial heritage Pier 2/3 was not in the Walsh Bay redevelopment and no materials were removed*
[9] *This report refers to impacts by the STC 50 internal fitout only*
[10] *Amended to reflect Hassall's and TZG's involvement and responsibilities*
[11] *Figures which are References to the external works by TZG for the WBAP SSDA Part 2 have been deleted and plans updated to the last design (Figures from 23 to 36).*
[12] *New paragraph inserted*
[13] (**Curation** is the selection, preservation, maintenance, collection and archiving of assets. **Curation** establishes, maintains and adds value to repositories of data for present and future use. This is often accomplished by archivists, librarians, scientists, historians, and scholars.)

[14] *Refer to the WBAP HIS for an assessment of impact this section has been deleted from this report.*
[15] *Refer to the WBAP HIS for an assessment of impact this section has been deleted from this report.*
[16] *Amended paragraph as per current design*
[17] *Amended in this report for clarification location plan shows the final ground floor position*
[18] *Plans in figure 47-48 updated as per current design.*
[19] *Mitigation Measures added for Mechanical Services*
[20] *New image inserted as per current design.*
[21] *Mitigation Measures added for Air Conditioning Services*
[22] *Mitigation Measures added for Mechanical Services*
[23] *Amended in this report describing mitigation measures*
[24] *Added information on the Heritage Office NSW Fire and Heritage 8.1*
[25] *Mitigation Measures added for Fire Services*
[26] *Intumescent coating is a layer of protective substance which works by chemical reaction generated by heat, resulting in swelling and formation of an insulating layer on the surface, with or without release of water.*
[27] *New plans inserted as per current design.*
[28] *Removed the words "and the general sitting."*
[29] *New paragraph refers to the Conservation Management Action Plan that accompanies this HIS.*
[30] *Plans updated as per current design*
[31] *The lift has been removed from the apron*
[32] *Revised in this addition references to Pier 2/3.*
[33] *Revised in this addition references to Pier 2/3.*

Appendix A

Policy

Item Name

Overhead Travelling Gantries (3)

Item Reference 81

Overall Significance Regional

Executive Policy Summary

These items are of regional significance and have been conserved. They are managed by others.

Statement of Significance

This overhead travelling crane is one of the wharf fittings which demonstrate the size and level of activity of the shipping trade carried out at these wharves. They demonstrate how goods were moved within the pier sheds.

Item Conservation Management Type

Type 3

Conservation Policy Statement

Managed by others.

Schedule of Sites

6 Pier 4/5

Level

Level 1

Approved Building Proposal

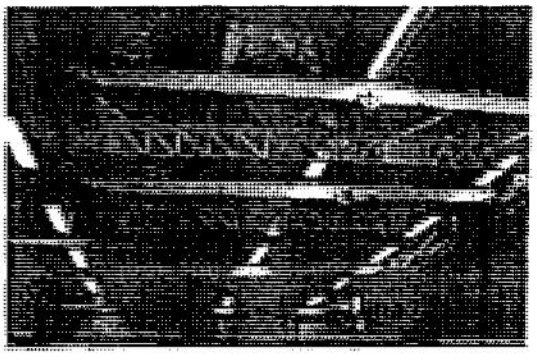
Outside development area. Building to be retained

Item Proposal

Retain in situ

Action Policy

Managed by others



O.H.M. Consultant 1999

Current Ownership

Owned by NSW Government

Reference

O.H.M. Consultants

Date printed: 22/6/99

Assessment

Item Name

Overhead Travelling Gantries (3)

Item Reference: 81

Overall Significance: Regional

Statement of Significance

This overhead travelling crane is one of the wharf fittings which demonstrate the size and level of activity of the shipping trade carried out at these wharves. They demonstrate how goods were moved within the pier sheds.

Description

The chassis of 3 cranes (OHTC) with the hoist removed. The cranes are located on a short section of track in their original location.

History

The cranes were constructed as part of the building refit of Pier 4/5 in 1938-39.

Function and Operation

This overhead travelling crane performed normal crane operations for goods being loaded and moved onto and off trucks and carts.

Rarity

They are the only remaining internal longitudinal travelling cranes on the Walsh Bay Piers.

Associated Items

Individual	☐
Assemblage	☐
Collection	☒
System	☐
Operational Group	☐

State Themes

People	☐
Technology	☒
Industry	☒
Utilities	☐
Transport	☐
Movable	☐
Industrial Relic	☒
Events	☐

Date printed: 22/6/99

Action

Item Name

Overhead Travelling Gantries (3)

Item Reference 81

Schedule of Sites 6 Pier 4/5

Condition

Excellent

Schedule of Works

Clean & repaint previously painted surfaces

Conservation Issues

N/A

Interpretation Action

* To be included in site tour
* To be included in Inventory
* Oral history item

Treatment

Item Name

Overhead Travelling Gantries (3)

Item Reference 81

Overall Significance Regional

Condition

Excellent

Schedule of Sites

6 Pier 4/5

Level

Level 1

Policies

Managed by others

Cost

Managed by others

Schedule of Works

Clean & repaint previously painted surfaces

Treatment Proposal

Treatment Record Number & Date

Date printed: 22/6/99

Policy

Item Name

Goods Lift

Item Reference 82

Overall Significance Regional

Executive Policy Summary

This items are of regional significance and have been conserved in situ. They are managed by others.

Statement of Significance

This lift is significant because it is one of the few remaining industrial technological items remaining on this pier. It demonstrates the interaction and flow of people between the levels on this pier. It is a an early example of an electrically operated lift.

Item Conservation Management Type

Type 3

Conservation Policy Statement

Managed by others.

Schedule of Sites

6 Pier 4/5

Level

Level G - 2

Approved Building Proposal

Outside development area. Building to be retained

Item Proposal

Retain in situ

Action Policy

Managed by others

O.H.M. Consultant 1999

Current Ownership

Owned by NSW Government

Reference

O.H.M. Consultants

Date printed: 22/6/99

Assessment

Item Name

Goods Lift

Item Reference 82

Overall Significance Regional

Statement of Significance

This lift is significant because it is one of the few remaining industrial technological items remaining on this pier. It demonstrates the interaction and flow of people between the levels on this pier. It is a an early example of an electrically operated lift.

Description

Goods lift with a timber framed car. The lift has vertically opening timber doors. The electric motor is housed above the lift well on level 2.

History

The lift was installed after a major upgrade of the wharf building in the 1920's.

Function and Operation

Electrically operated goods and passenger lift which operated between ground and the upper floor. It was used for moving goods and personnel between levels on this pier.

Rarity

Last remaining lift in Pier 4/5

Associated Items

Individual	☒
Assemblage	☐
Collection	☐
System	☐
Operational Group	☐

State Themes

People	☐
Technology	☒
Industry	☒
Utilities	☐
Transport	☐
Movable	☐
Industrial Relic	☒
Events	☐

Date printed: 22/6/99

Action

Item Name

Goods Lift

Item Reference 82

Schedule of Sites 6 Pier 4/5

Condition

Excellent

Schedule of Works

Check for termites & fumigate if required
Dry clean timber
Inspect & repair as necessary the mountings for the motor

Conservation Issues

N/A

Interpretation Action

* Oral history item
* Non public area.
* To be fully recorded.

Treatment

Item Name

Goods Lift

Item Reference 82

Overall Significance Regional

Condition

Excellent

Schedule of Sites

6 Pier 4/5

Level

Level G - 2

Policies

Managed by others

Cost

Managed by others

Schedule of Works

Check for termites & fumigate if required

Dry clean timber

Inspect & repair as necessary the mountings for the motor

Treatment Proposal

Treatment Record Number & Date

Date printed: 22/6/99

Appendix B

THE BURRA CHARTER

The Australia ICOMOS Charter for Places of Cultural Significance 2013

AUSTRALIA ICOMOS
International Council on Monuments and Sites

Australia ICOMOS Incorporated
International Council on Monuments and Sites

ICOMOS

ICOMOS (International Council on Monuments and Sites) is a non-governmental professional organisation formed in 1965, with headquarters in Paris. ICOMOS is primarily concerned with the philosophy, terminology, methodology and techniques of cultural heritage conservation. It is closely linked to UNESCO, particularly in its role under the World Heritage Convention 1972 as UNESCO's principal adviser on cultural matters related to World Heritage. The 11,000 members of ICOMOS include architects, town planners, demographers, archaeologists, geographers, historians, conservators, anthropologists, scientists, engineers and heritage administrators. Members in the 103 countries belonging to ICOMOS are formed into National Committees and participate in a range of conservation projects, research work, intercultural exchanges and cooperative activities. ICOMOS also has 27 International Scientific Committees that focus on particular aspects of the conservation field. ICOMOS members meet triennially in a General Assembly.

Australia ICOMOS

The Australian National Committee of ICOMOS (Australia ICOMOS) was formed in 1976. It elects an Executive Committee of 15 members, which is responsible for carrying out national programs and participating in decisions of ICOMOS as an international organisation. It provides expert advice as required by ICOMOS, especially in its relationship with the World Heritage Committee. Australia ICOMOS acts as a national and international link between public authorities, institutions and individuals involved in the study and conservation of all places of cultural significance. Australia ICOMOS members participate in a range of conservation activities including site visits, training, conferences and meetings.

Revision of the Burra Charter

The Burra Charter was first adopted in 1979 at the historic South Australian mining town of Burra. Minor revisions were made in 1981 and 1988, with more substantial changes in 1999.

Following a review this version was adopted by Australia ICOMOS in October 2013.

The review process included replacement of the 1988 Guidelines to the Burra Charter with Practice Notes which are available at: australia.icomos.org

Australia ICOMOS documents are periodically reviewed and we welcome any comments.

Citing the Burra Charter

The full reference is *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013*. Initial textual references should be in the form of the *Australia ICOMOS Burra Charter, 2013* and later references in the short form (*Burra Charter*).

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The Burra Charter

(The Australia ICOMOS Charter for Places of Cultural Significance, 2013)

Preamble

Considering the International Charter for the Conservation and Restoration of Monuments and Sites (Venice 1964), and the Resolutions of the 5th General Assembly of the International Council on Monuments and Sites (ICOMOS) (Moscow 1978), the Burra Charter was adopted by Australia ICOMOS (the Australian National Committee of ICOMOS) on 19 August 1979 at Burra, South Australia. Revisions were adopted on 23 February 1981, 23 April 1988, 26 November 1999 and 31 October 2013.

The Burra Charter provides guidance for the conservation and management of places of cultural significance (cultural heritage places), and is based on the knowledge and experience of Australia ICOMOS members.

Conservation is an integral part of the management of places of cultural significance and is an ongoing responsibility.

Who is the Charter for?

The Charter sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, including owners, managers and custodians.

Using the Charter

The Charter should be read as a whole. Many articles are interdependent.

The Charter consists of:

- Definitions Article 1
- Conservation Principles Articles 2–13
- Conservation Processes Articles 14–25
- Conservation Practices Articles 26–34
- The Burra Charter Process flow chart.

The key concepts are included in the Conservation Principles section and these are further developed in the Conservation Processes and Conservation Practice sections. The flow chart explains the Burra Charter Process (Article 6) and is an integral part of the Charter. Explanatory Notes also form part of the Charter.

The Charter is self-contained, but aspects of its use and application are further explained, in a series of Australia ICOMOS Practice Notes, in *The Illustrated Burra Charter*, and in other guiding documents available from the Australia ICOMOS web site: australia.icomos.org.

What places does the Charter apply to?

The Charter can be applied to all types of places of cultural significance including natural, Indigenous and historic places with cultural values.

The standards of other organisations may also be relevant. These include the *Australian Natural Heritage Charter*, *Ask First: a guide to respecting Indigenous heritage places and values* and *Significance 2.0: a guide to assessing the significance of collections*.

National and international charters and other doctrine may be relevant. See australia.icomos.org.

Why conserve?

Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records, that are important expressions of Australian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the Australian landscape. They are irreplaceable and precious.

These places of cultural significance must be conserved for present and future generations in accordance with the principle of inter-generational equity.

The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained.

Articles

Explanatory Notes

Article 1. Definitions

For the purposes of this Charter:

1.1 *Place* means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.

Place has a broad scope and includes natural and cultural features. Place can be large or small: for example, a memorial, a tree, an individual building or group of buildings, the location of an historical event, an urban area or town, a cultural landscape, a garden, an industrial plant, a shipwreck, a site with in situ remains, a stone arrangement, a road or travel route, a community meeting place, a site with spiritual or religious connections.

1.2 *Cultural significance* means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Cultural significance is embodied in the *place* itself, its *fabric*, *setting*, *use*, *associations*, *meanings*, records, *related places* and *related objects*.

Places may have a range of values for different individuals or groups.

The term cultural significance is synonymous with cultural heritage significance and cultural heritage value.

Cultural significance may change over time and with use.

Understanding of cultural significance may change as a result of new information.

1.3 *Fabric* means all the physical material of the *place* including elements, fixtures, contents and objects.

Fabric includes building interiors and sub-surface remains, as well as excavated material.

Natural elements of a place may also constitute fabric. For example the rocks that signify a Dreaming place.

Fabric may define spaces and views and these may be part of the significance of the place.

1.4 *Conservation* means all the processes of looking after a *place* so as to retain its *cultural significance*.

See also Article 14.

1.5 *Maintenance* means the continuous protective care of a *place*, and its *setting*.

Maintenance is to be distinguished from repair which involves *restoration* or *reconstruction*.

Examples of protective care include:

- maintenance — regular inspection and cleaning of a place, e.g. mowing and pruning in a garden;
- repair involving restoration — returning dislodged or relocated fabric to its original location e.g. loose roof gutters on a building or displaced rocks in a stone bora ring;
- repair involving reconstruction — replacing decayed fabric with new fabric

1.6 *Preservation* means maintaining a *place* in its existing state and retarding deterioration.

It is recognised that all places and their elements change over time at varying rates.

1.7 *Restoration* means returning a *place* to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.

1.8 *Reconstruction* means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material.

New material may include recycled material salvaged from other places. This should not be to the detriment of any place of cultural significance.

1.9 *Adaptation* means changing a *place* to suit the existing *use* or a proposed use.

1.10 *Use* means the functions of a *place*, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.

Use includes for example cultural practices commonly associated with Indigenous peoples such as ceremonies, hunting and fishing, and fulfillment of traditional obligations. Exercising a right of access may be a use.

Articles	Explanatory Notes
1.11 *Compatible use* means a *use* which respects the *cultural significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance.	
1.12 *Setting* means the immediate and extended environment of a *place* that is part of or contributes to its *cultural significance* and distinctive character.	Setting may include: structures, spaces, land, water and sky; the visual setting including views to and from the place, and along a cultural route; and other sensory aspects of the setting such as smells and sounds. Setting may also include historical and contemporary relationships, such as use and activities, social and spiritual practices, and relationships with other places, both tangible and intangible.
1.13 *Related place* means a *place* that contributes to the *cultural significance* of another place.	
1.14 *Related object* means an object that contributes to the *cultural significance* of a *place* but is not at the place.	Objects at a place are encompassed by the definition of place, and may or may not contribute to its cultural significance.
1.15 *Associations* mean the connections that exist between people and a *place*.	Associations may include social or spiritual values and cultural responsibilities for a place.
1.16 *Meanings* denote what a *place* signifies, indicates, evokes or expresses to people.	Meanings generally relate to intangible dimensions such as symbolic qualities and memories.
1.17 *Interpretation* means all the ways of presenting the *cultural significance* of a *place*.	Interpretation may be a combination of the treatment of the fabric (e.g. maintenance, restoration, reconstruction); the use of and activities at the place; and the use of introduced explanatory material.

Conservation Principles

Article 2. Conservation and management

2.1 *Places* of *cultural significance* should be conserved.

2.2 The aim of *conservation* is to retain the *cultural significance* of a *place*.

2.3 *Conservation* is an integral part of good management of *places* of *cultural significance*.

2.4 *Places* of *cultural significance* should be safeguarded and not put at risk or left in a vulnerable state.

Article 3. Cautious approach

3.1 *Conservation* is based on a respect for the existing *fabric*, *use*, *associations* and *meanings*. It requires a cautious approach of changing as much as necessary but as little as possible.

The traces of additions, alterations and earlier treatments to the fabric of a place are evidence of its history and uses which may be part of its significance. Conservation action should assist and not impede their understanding.

3.2 Changes to a *place* should not distort the physical or other evidence it provides, nor be based on conjecture.

Article 4. Knowledge, skills and techniques

4.1 *Conservation* should make use of all the knowledge, skills and disciplines which can contribute to the study and care of the *place*.

Articles

4.2 Traditional techniques and materials are preferred for the *conservation* of significant *fabric*. In some circumstances modern techniques and materials which offer substantial conservation benefits may be appropriate.

Explanatory Notes

The use of modern materials and techniques must be supported by firm scientific evidence or by a body of experience.

Article 5. Values

5.1 *Conservation* of a *place* should identify and take into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others.

Conservation of places with natural significance is explained in the Australian Natural Heritage Charter. This Charter defines natural significance to mean the importance of ecosystems, biodiversity and geodiversity for their existence value or for present or future generations, in terms of their scientific, social, aesthetic and life-support value.

In some cultures, natural and cultural values are indivisible.

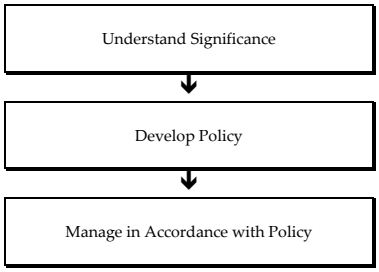
5.2 Relative degrees of *cultural significance* may lead to different *conservation* actions at a place.

A cautious approach is needed, as understanding of cultural significance may change. This article should not be used to justify actions which do not retain cultural significance.

Article 6. Burra Charter Process

6.1 The *cultural significance* of a *place* and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. Understanding cultural significance comes first, then development of policy and finally management of the place in accordance with the policy. This is the Burra Charter Process.

The Burra Charter Process, or sequence of investigations, decisions and actions, is illustrated below and in more detail in the accompanying flow chart which forms part of the Charter.



6.2 Policy for managing a *place* must be based on an understanding of its *cultural significance*.

6.3 Policy development should also include consideration of other factors affecting the future of a *place* such as the owner's needs, resources, external constraints and its physical condition.

6.4 In developing an effective policy, different ways to retain *cultural significance* and address other factors may need to be explored.

Options considered may include a range of uses and changes (e.g. adaptation) to a place.

6.5 Changes in circumstances, or new information or perspectives, may require reiteration of part or all of the Burra Charter Process.

Article 7. Use

7.1 Where the *use* of a *place* is of *cultural significance* it should be retained.

7.2 A *place* should have a *compatible use*.

The policy should identify a use or combination of uses or constraints on uses that retain the cultural significance of the place. New use of a place should involve minimal change to significant fabric and use; should respect associations and meanings; and where appropriate should provide for continuation of activities and practices which contribute to the cultural significance of the place.

Article 8. Setting

Conservation requires the retention of an appropriate *setting*. This includes retention of the visual and sensory setting, as well as the retention of spiritual and other cultural relationships that contribute to the *cultural significance* of the *place*.

New construction, demolition, intrusions or other changes which would adversely affect the setting or relationships are not appropriate.

Setting is explained in Article 1.12.

Article 9. Location

9.1 The physical location of a *place* is part of its *cultural significance*. A building, work or other element of a place should remain in its historical location. Relocation is generally unacceptable unless this is the sole practical means of ensuring its survival.

9.2 Some buildings, works or other elements of *places* were designed to be readily removable or already have a history of relocation. Provided such buildings, works or other elements do not have significant links with their present location, removal may be appropriate.

9.3 If any building, work or other element is moved, it should be moved to an appropriate location and given an appropriate *use*. Such action should not be to the detriment of any *place* of *cultural significance*.

Article 10. Contents

Contents, fixtures and objects which contribute to the *cultural significance* of a *place* should be retained at that place. Their removal is unacceptable unless it is: the sole means of ensuring their security and *preservation*; on a temporary basis for treatment or exhibition; for cultural reasons; for health and safety; or to protect the place. Such contents, fixtures and objects should be returned where circumstances permit and it is culturally appropriate.

For example, the repatriation (returning) of an object or element to a place may be important to Indigenous cultures, and may be essential to the retention of its cultural significance.

Article 28 covers the circumstances where significant fabric might be disturbed, for example, during archaeological excavation.

Article 33 deals with significant fabric that has been removed from a place.

Article 11. Related places and objects

The contribution which *related places* and *related objects* make to the *cultural significance* of the *place* should be retained.

Article 12. Participation

Conservation, interpretation and management of a *place* should provide for the participation of people for whom the place has significant *associations* and *meanings*, or who have social, spiritual or other cultural responsibilities for the place.

Article 13. Co-existence of cultural values

Co-existence of cultural values should always be recognised, respected and encouraged. This is especially important in cases where they conflict.

For some places, conflicting cultural values may affect policy development and management decisions. In Article 13, the term cultural values refers to those beliefs which are important to a cultural group, including but not limited to political, religious, spiritual and moral beliefs. This is broader than values associated with cultural significance.

Conservation Processes

Article 14. Conservation processes

Conservation may, according to circumstance, include the processes of: retention or reintroduction of a *use*; retention of *associations* and *meanings*; *maintenance, preservation*, *restoration*, *reconstruction, adaptation* and *interpretation*; and will commonly include a combination of more than one of these. Conservation may also include retention of the contribution that *related places* and *related objects* make to the *cultural significance* of a *place*.

Conservation normally seeks to slow deterioration unless the significance of the place dictates otherwise. There may be circumstances where no action is required to achieve conservation.

Article 15. Change

15.1 Change may be necessary to retain *cultural significance*, but is undesirable where it reduces cultural significance. The amount of change to a *place* and its *use* should be guided by the *cultural significance* of the place and its appropriate *interpretation*.

When change is being considered, including for a temporary use, a range of options should be explored to seek the option which minimises any reduction to its cultural significance.

It may be appropriate to change a place where this reflects a change in cultural meanings or practices at the place, but the significance of the place should always be respected.

15.2 Changes which reduce *cultural significance* should be reversible, and be reversed when circumstances permit.

Reversible changes should be considered temporary. Non-reversible change should only be used as a last resort and should not prevent future conservation action.

15.3 Demolition of significant *fabric* of a *place* is generally not acceptable. However, in some cases minor demolition may be appropriate as part of *conservation*. Removed significant fabric should be reinstated when circumstances permit.

15.4 The contributions of all aspects of *cultural significance* of a *place* should be respected. If a place includes *fabric*, *uses*, *associations* or *meanings* of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance.

Article 16. Maintenance

Maintenance is fundamental to *conservation.* Maintenance should be undertaken where *fabric* is of *cultural significance* and its maintenance is necessary to retain that *cultural significance*.

Maintaining a place may be important to the fulfilment of traditional laws and customs in some Indigenous communities and other cultural groups.

Article 17. Preservation

Preservation is appropriate where the existing *fabric* or its condition constitutes evidence of *cultural significance,* or where insufficient evidence is available to allow other *conservation* processes to be carried out.

Preservation protects fabric without obscuring evidence of its construction and use. The process should always be applied:

- where the evidence of the fabric is of such significance that it should not be altered; or
- where insufficient investigation has been carried out to permit policy decisions to be taken in accord with Articles 26 to 28.

New work (e.g. stabilisation) may be carried out in association with preservation when its purpose is the physical protection of the fabric and when it is consistent with Article 22.

Articles

Explanatory Notes

Article 18. Restoration and reconstruction

Restoration and *reconstruction* should reveal culturally significant aspects of the *place*.

Article 19. Restoration

Restoration is appropriate only if there is sufficient evidence of an earlier state of the *fabric*.

Article 20. Reconstruction

20.1 *Reconstruction* is appropriate only where a *place* is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the *fabric*. In some cases, reconstruction may also be appropriate as part of a *use* or practice that retains the *cultural significance* of the place.

Places with social or spiritual value may warrant reconstruction, even though very little may remain (e.g. only building footings or tree stumps following fire, flood or storm). The requirement for sufficient evidence to reproduce an earlier state still applies.

20.2 *Reconstruction* should be identifiable on close inspection or through additional *interpretation*.

Article 21. Adaptation

21.1 *Adaptation* is acceptable only where the adaptation has minimal impact on the *cultural significance* of the *place*.

Adaptation may involve additions to the place, the introduction of new services, or a new use, or changes to safeguard the place. Adaptation of a place for a new use is often referred to as 'adaptive re-use' and should be consistent with Article 7.2.

21.2 *Adaptation* should involve minimal change to significant *fabric*, achieved only after considering alternatives.

Article 22. New work

22.1 New work such as additions or other changes to the *place* may be acceptable where it respects and does not distort or obscure the *cultural significance* of the place, or detract from its *interpretation* and appreciation.

New work should respect the significance of a place through consideration of its siting, bulk, form, scale, character, colour, texture and material. Imitation should generally be avoided.

22.2 New work should be readily identifiable as such, but must respect and have minimal impact on the *cultural significance* of the *place*.

New work should be consistent with Articles 3, 5, 8, 15, 21 and 22.1.

Article 23. Retaining or reintroducing use

Retaining, modifying or reintroducing a significant *use* may be appropriate and preferred forms of *conservation*.

These may require changes to significant fabric but they should be minimised. In some cases, continuing a significant use, activity or practice may involve substantial new work.

Article 24. Retaining associations and meanings

24.1 Significant *associations* between people and a *place* should be respected, retained and not obscured. Opportunities for the *interpretation*, commemoration and celebration of these associations should be investigated and implemented.

For many places associations will be linked to aspects of use, including activities and practices.

Some associations and meanings may not be apparent and will require research.

24.2 Significant *meanings*, including spiritual values, of a *place* should be respected. Opportunities for the continuation or revival of these meanings should be investigated and implemented.

Article 25. Interpretation

The *cultural significance* of many *places* is not readily apparent, and should be explained by *interpretation*. Interpretation should enhance understanding and engagement, and be culturally appropriate.

In some circumstances any form of interpretation may be culturally inappropriate.

Conservation Practice

Article 26. Applying the Burra Charter Process

26.1 Work on a *place* should be preceded by studies to understand the place which should include analysis of physical, documentary, oral and other evidence, drawing on appropriate knowledge, skills and disciplines.

The results of studies should be kept up to date, regularly reviewed and revised as necessary.

26.2 Written statements of *cultural significance* and policy for the *place* should be prepared, justified and accompanied by supporting evidence. The statements of significance and policy should be incorporated into a management plan for the place.

Policy should address all relevant issues, e.g. use, interpretation, management and change.

A management plan is a useful document for recording the Burra Charter Process, i.e. the steps in planning for and managing a place of cultural significance (Article 6.1 and flow chart). Such plans are often called conservation management plans and sometimes have other names.

The management plan may deal with other matters related to the management of the place.

26.3 Groups and individuals with *associations* with the *place* as well as those involved in its management should be provided with opportunities to contribute to and participate in identifying and understanding the *cultural significance* of the place. Where appropriate they should also have opportunities to participate in its *conservation* and management.

26.4 Statements of *cultural significance* and policy for the *place* should be periodically reviewed, and actions and their consequences monitored to ensure continuing appropriateness and effectiveness.

Monitor actions taken in case there are also unintended consequences.

Article 27. Managing change

27.1 The impact of proposed changes, including incremental changes, on the *cultural significance* of a *place* should be assessed with reference to the statement of significance and the policy for managing the place. It may be necessary to modify proposed changes to better retain cultural significance.

27.2 Existing *fabric, use, associations* and *meanings* should be adequately recorded before and after any changes are made to the *place*.

Article 28. Disturbance of fabric

28.1 Disturbance of significant *fabric* for study, or to obtain evidence, should be minimised. Study of a *place* by any disturbance of the fabric, including archaeological excavation, should only be undertaken to provide data essential for decisions on the *conservation* of the place, or to obtain important evidence about to be lost or made inaccessible.

Articles

28.2 Investigation of a *place* which requires disturbance of the *fabric*, apart from that necessary to make decisions, may be appropriate provided that it is consistent with the policy for the place. Such investigation should be based on important research questions which have potential to substantially add to knowledge, which cannot be answered in other ways and which minimises disturbance of significant fabric.

Article 29. Responsibility

The organisations and individuals responsible for management and decisions should be named and specific responsibility taken for each decision.

Article 30. Direction, supervision and implementation

Competent direction and supervision should be maintained at all stages, and any changes should be implemented by people with appropriate knowledge and skills.

Article 31. Keeping a log

New evidence may come to light while implementing policy or a plan for a *place*. Other factors may arise and require new decisions. A log of new evidence and additional decisions should be kept.

Article 32. Records

32.1 The records associated with the *conservation* of a *place* should be placed in a permanent archive and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

32.2 Records about the history of a *place* should be protected and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

Article 33. Removed fabric

Significant *fabric* which has been removed from a *place* including contents, fixtures and objects, should be catalogued, and protected in accordance with its *cultural significance*.

Where possible and culturally appropriate, removed significant fabric including contents, fixtures and objects, should be kept at the place.

Article 34. Resources

Adequate resources should be provided for *conservation*.

Words in italics are defined in Article 1.

Explanatory Notes

New decisions should respect and have minimal impact on the cultural significance of the place.

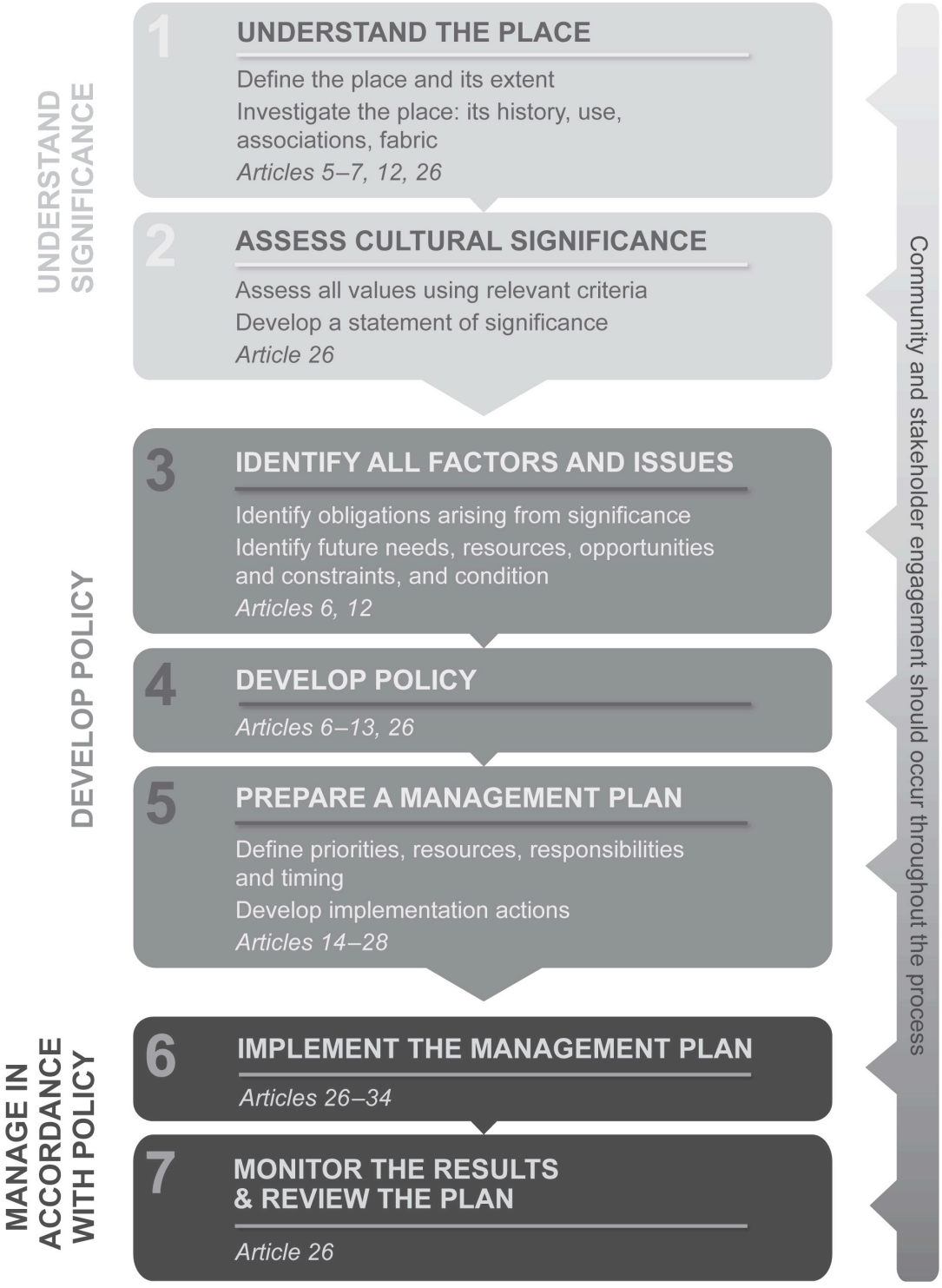
The best conservation often involves the least work and can be inexpensive.

The Burra Charter Process

Steps in planning for and managing a place of cultural significance

The Burra Charter should be read as a whole.

Key articles relevant to each step are shown in the boxes. Article 6 summarises the Burra Charter Process.



Appendix C

The Nizhny Tagil Charter for the Industrial Heritage

The International Committee for the Conservation of the Industrial Heritage (TICCIH)

17 July, 2003

TICCIH is the world organisation representing industrial heritage and is special adviser to ICOMOS on industrial heritage. The text of this charter was passed by the assembled delegates at the triennial National Assembly of TICCIH held in Moscow on 17 July, 2003.

Preamble

The earliest periods of human history are defined by the archaeological evidence for fundamental changes in the ways in which people made objects, and the importance of conserving and studying the evidence of these changes is universally accepted.

From the Middle Ages, innovations in Europe in the use of energy and in trade and commerce led to a change towards the end of the 18th century just as profound as that between the Neolithic and Bronze Ages, with developments in the social, technical and economic circumstances of manufacturing sufficiently rapid and profound to be called a revolution. The Industrial Revolution was the beginning of a historical phenomenon that has affected an ever-greater part of the human population, as well as all the other forms of life on our planet, and that continues to the present day.

The material evidence of these profound changes is of universal human value, and the importance of the study and conservation of this evidence must be recognised.

The delegates assembled for the 2003 TICCIH Congress in Russia wish therefore to assert that the buildings and structures built for industrial activities, the processes and tools used within them and the towns and landscapes in which they are located, along with all their other tangible and intangible manifestations, are of fundamental importance. They should be studied, their history should be taught, their meaning and significance should be probed and made clear for everyone, and the most significant and characteristic examples should be identified, protected and maintained, in accordance with the spirit of the Venice Charter[1], for the use and benefit of today and of the future.

[1] The ICOMOS 'Venice Charter for the Conservation and Restoration of Monuments and Sites', 1964.

1. Definition of industrial heritage

Industrial heritage consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills and factories, mines and sites for processing and refining, warehouses and stores, places where energy is generated, transmitted and used, transport and all its infrastructure, as well as places used for social activities related to industry such as housing, religious worship or education.

Industrial archaeology is an interdisciplinary method of studying all the evidence, material and immaterial, of documents, artefacts, stratigraphy and structures, human settlements and natural and urban landscapes[2], created for or by industrial processes. It makes use of those methods of investigation that are most suitable to increase understanding of the industrial past and present.

The *historical period* of principal interest extends forward from the beginning of the Industrial Revolution in the second half of the eighteenth century up to and including the present day, while also examining its earlier pre-industrial and proto-industrial roots. In addition it draws on the study of work and working techniques encompassed by the history of technology.

2. Values of industrial heritage

i. The industrial heritage is the evidence of activities which had and continue to have profound historical consequences. The motives for protecting the industrial heritage are based on the universal value of this evidence, rather than on the singularity of unique sites.

ii. The industrial heritage is of social value as part of the record of the lives of ordinary men and women, and as such it provides an important sense of identity. It is of technological and scientific value in the history of manufacturing, engineering, construction, and it may have considerable aesthetic value for the quality of its architecture, design or planning.

iii. These values are intrinsic to the site itself, its fabric, components, machinery and setting, in the industrial landscape, in written documentation, and also in the intangible records of industry contained in human memories and customs.

iv. Rarity, in terms of the survival of particular processes, site typologies or landscapes, adds particular value and should be carefully assessed. Early or pioneering examples are of especial value.

[2] For convenience, 'sites' will be taken to mean landscapes, complexes, buildings, structures and machines unless these terms are used in a more specific way.

3. The importance of identification, recording and research

i. Every territory should identify, record and protect the industrial remains that it wants to preserve for future generations.

ii. Surveys of areas and of different industrial typologies should identify the extent of the industrial heritage. Using this information, inventories should be created of all the sites that have been identified. They should be devised to be easily searchable and should be freely accessible to the public. Computerisation and on-line access are valuable objectives.

iii. Recording is a fundamental part of the study of industrial heritage. A full record of the physical features and condition of a site should be made and placed in a public archive before any interventions are made. Much information can be gained if recording is carried out before a process or site has ceased operation. Records should include descriptions, drawings, photographs and video film of moving objects, with references to supporting documentation. Peoples' memories are a unique and irreplaceable resource which should also be recorded when they are available.

iv. Archaeological investigation of historic industrial sites is a fundamental technique for their study. It should be carried out to the same high standards as that of sites from other historical or cultural periods.

v. Programmes of historical research are needed to support policies for the protection of the industrial heritage. Because of the interdependency of many industrial activities, international studies can help identify sites and types of sites of world importance.

vi. The criteria for assessing industrial buildings should be defined and published so as to achieve general public acceptance of rational and consistent standards. On the basis of appropriate research, these criteria should be used to identify the most important surviving landscapes, settlements, sites, typologies, buildings, structures, machines and processes.

vii. Those sites and structures that are identified as important should be protected by legal measures that are sufficiently strong to ensure the conservation of their significance. The World Heritage List of UNESCO should give due recognition to the tremendous impact that industrialisation has had on human culture.

viii. The value of significant sites should be defined and guidelines for future interventions established. Any legal, administrative and financial measures that are necessary to maintain their value should be put in place.

ix. Sites that are at risk should be identified so that appropriate measures can be taken to reduce that risk and facilitate suitable schemes for repairing or re-using them.

x. International co-operation is a particularly appropriate approach to the conservation of the industrial heritage through co-ordinated initiatives and sharing resources. Compatible criteria should be developed to compile international inventories and databases.

4. Legal protection

I. The industrial heritage should be seen as an integral part of the cultural heritage in general. Nevertheless, its legal protection should take into account the special nature of the industrial heritage. It should be capable of protecting plant and machinery, below-ground elements, standing structures, complexes and ensembles of buildings, and industrial landscapes. Areas of industrial waste should be considered for their potential archaeological as well as ecological value.

II. Programmes for the conservation of the industrial heritage should be integrated into policies for economic development and into regional and national planning.

III. The most important sites should be fully protected and no interventions allowed that compromise their historical integrity or the authenticity of their fabric. Sympathetic adaptation and re-use may be an appropriate and a cost-effective way of ensuring the survival of industrial buildings, and should be encouraged by appropriate legal controls, technical advice, tax incentives and grants.

IV. Industrial communities which are threatened by rapid structural change should be supported by central and local government authorities. Potential threats to the industrial heritage from such changes should be anticipated and plans prepared to avoid the need for emergency actions.

V. Procedures should be established for responding quickly to the closure of important industrial sites to prevent the removal or destruction of significant elements. The competent authorities should have statutory powers to intervene when necessary to protect important threatened sites.

VI. Government should have specialist advisory bodies that can give independent advice on questions relating to the protection and conservation of industrial heritage, and their opinions should be sought on all important cases.

VII. Every effort should be made to ensure the consultation and participation of local communities in the protection and conservation of their local industrial heritage.

VIII. Associations and societies of volunteers have an important role in identifying sites, promoting public participation in industrial conservation and disseminating information and research, and as such are indispensable actors in the theatre of industrial heritage.

5. Maintenance and conservation

I. Conservation of the industrial heritage depends on preserving functional integrity, and interventions to an industrial site should therefore aim to maintain this as far as possible. The value and authenticity of an industrial site may be greatly reduced if machinery or components are removed, or if subsidiary elements which form part of a whole site are destroyed.

II. The conservation of industrial sites requires a thorough knowledge of the purpose or purposes to which they were put, and of the various industrial processes which may have taken place there. These may have changed over time, but all former uses should be examined and assessed.

III. Preservation *in situ* should always be given priority consideration. Dismantling and relocating a building or structure are only acceptable when the destruction of the site is required by overwhelming economic or social needs.

IV. The adaptation of an industrial site to a new use to ensure its conservation is usually acceptable except in the case of sites of especial historical significance. New uses should respect the significant material and maintain original patterns of circulation and activity, and should be compatible as much as possible with the original or principal use. An area that interprets the former use is recommended.

V. Continuing to adapt and use industrial buildings avoids wasting energy and contributes to sustainable development. Industrial heritage can have an important role in the economic regeneration of decayed or declining areas. The continuity that re-use implies may provide psychological stability for communities facing the sudden end a long-standing sources of employment.

VI. Interventions should be reversible and have a minimal impact. Any unavoidable changes should be documented and significant elements that are removed should be recorded and stored safely. Many industrial processes confer a patina that is integral to the integrity and interest of the site.

VII. Reconstruction, or returning to a previous known state, should be considered an exceptional intervention and one which is only appropriate if

it benefits the integrity of the whole site, or in the case of the destruction of a major site by violence.

VIII. The human skills involved in many old or obsolete industrial processes are a critically important resource whose loss may be irreplaceable. They need to be carefully recorded and transmitted to younger generations.

IX. Preservation of documentary records, company archives, building plans, as well as sample specimens of industrial products should be encouraged.

6. Education and training

I. Specialist professional training in the methodological, theoretical and historical aspects of industrial heritage should be taught at technical and university levels.

II. Specific educational material about the industrial past and its heritage should be produced by and for students at primary and secondary level.

7. Presentation and interpretation

I. Public interest and affection for the industrial heritage and appreciation of its values are the surest ways to conserve it. Public authorities should actively explain the meaning and value of industrial sites through publications, exhibitions, television, the Internet and other media, by providing sustainable access to important sites and by promoting tourism in industrial areas.

II. Specialist industrial and technical museums and conserved industrial sites are both important means of protecting and interpreting the industrial heritage.

III. Regional and international routes of industrial heritage can highlight the continual transfer of industrial technology and the large-scale movement of people that can be caused by it.

Eusebi Casanelles
President TICCIH

Eugene Logunov
TICCIH XII International Congress

Nizhny Tagil, 2003

Appendix D

Assessing Significance for Historical Archaeological Sites and 'Relics'

HERITAGE BRANCH
Department of Planning

Heritage Council of New South Wales

NSW GOVERNMENT | Planning

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1.0 BACKGROUND

The purpose of the NSW *Heritage Act 1977* (as amended) is to conserve the environmental heritage of the State. *Environmental heritage* is broadly defined under Section 4 of the *Heritage Act* as consisting of the following items:

> *'those places, buildings, works,* ***relics,*** *moveable objects, and precincts, of State or local heritage significance.'*

Amendments to the *Heritage Act* made in 2009 have changed the definition of an archaeological *'relic'* under the Act. A relic is now an archaeological deposit, resource or feature that has *heritage significance* at a local or State level. The definition is no longer based on age.

This significance based approach to identifying 'relics' is consistent with the way other heritage items such as buildings, works, precincts or landscapes are identified and managed in NSW.

This guideline gives advice about how to assess the heritage significance of known and potential archaeological resources, features or deposits and determine whether they are 'relics' as defined by the Act. The key issue is whether a deposit, artefact, object or material evidence that survives from the past is significant. If it is significant, it will need to be managed under the 'relics' provisions of the *Heritage Act*.

An archaeological site is an area which contains one or more archaeological 'relics'.

1.1 WHAT IS HERITAGE SIGNIFICANCE?

In NSW the process of finding out whether an item is important is called **assessing significance**. Archaeological sites, which contain 'relics' as defined in the NSW *Heritage Act*, are managed like any other significant item of environmental heritage. They should be treated in the same way with the same level of consideration and assessment process as any other surviving physical evidence of the past such as buildings, works, precincts, landscapes or other places and items with potential or known heritage value.

In NSW the heritage system comprises three steps:

- investigate significance
- assess significance
- manage significance.

The *NSW Heritage Manual*, 1996, discusses the NSW heritage management system and provides guidelines for each part of the process.

Apart from NSW State guidelines, the nationally recognised Australia ICOMOS Charter for the Conservation of Places of Significance (*The Burra Charter*) also defines 'cultural significance' as meaning:

> '*aesthetic, historic, scientific and social value for past, present and future generations.'*

Significance is thus an expression of the cultural value afforded a place, site or item.

Understanding what is meant by value in a heritage sense is fundamental, since any society will only make an effort to conserve things it values. In terms of built heritage, what we have inherited from the past is usually places that have been continuously cared for. Conversely, many archaeological sites will comprise places which, for whatever reason, have not been cared for until the relatively recent period.

Our society considers that many places and items we have inherited from the past have heritage significance because they embody, demonstrate, represent or are tangible expressions of values society recognises and supports. Our future heritage will be what we keep from our inheritance to pass on to the following generations.

2.0 WHY IS HERITAGE SIGNIFICANCE IMPORTANT FOR ARCHAEOLOGY?

The main aim in assessing significance is to produce a succinct statement of significance, which summarises the heritage values of a place, site or item. The statement will then become the basis for management choices that will affect the item's future.

The main aim of an archaeological significance assessment is to identify whether an archaeological resource, deposit, site or feature is of cultural value – a 'relic'. The assessment will result in a succinct statement of heritage significance that summarises the values of the place, site, resource, deposit or feature.

For archaeological sites that have been assessed as containing 'relics' understanding the significant values is critical, because these sites are a non-renewable resource. Like other environmental resources, they must be managed for both the present and the future. The identified values of the site or 'relics' (the *heritage significance*) will help determine which management options are most appropriate.

The Heritage Council's *Historical Archaeological Sites: Investigation and Conservation Guidelines,* 1993, ('To Dig or Not To Dig', page 30) note the following in regard to the conservation of historical archaeological sites:

…with any site of high archaeological potential, excavation is inevitably one of the conservation policy options. Other factors are relevant to considerations of when, or if, excavation should be carried out. These include:

• whether the information likely to be obtained may be obtained by other non-interventionist means;

• whether the site has such significance that excavation may be an inappropriate option, at least for present generations. Where the cultural significance is symbolic, aesthetic or associated with sensitive environmental qualities, excavation is likely to be both uninformative and damaging. For such archaeological sites, a conservation policy directing preservation with minimum disturbance may be needed, with excavation explicitly excluded;

• whether other comparable sites have been excavated already, so that there is good reason to retain the site in question for the future;

• conversely, a site may possess archaeological remains assessed as being of such significance that it is better retained for investigation when more resources and expertise are available.

The 1993 Guidelines also note that acceptable reasons to excavate an archaeological site may include:

• that information of value will otherwise be irrevocably lost through unavoidable action, whether for conservation or other reasons. Excavations in these circumstances may be termed rescue excavations;

• that excavation is required to provide information essential for the conservation of the site — perhaps by locating features of the site that cannot be ascertained by other means, or by confirming that significant remains have survived. Decisions concerning the information sought should be made in consultation with appropriately qualified practitioners; or

• that a strong case in academic and scientific terms is made out for immediate excavation of a selected site. This requires justification by a sound research design.

The 1993 Guidelines should be referred to for further information.

3.0 HOW TO ASSESS HERITAGE SIGNIFICANCE

3.1 NSW Heritage Criteria

The NSW Heritage Council has adopted specific criteria for heritage assessment, related to the NSW *Heritage Act* 1977 (as amended). The criteria upon which current significance assessment is based are as follows:

- Criterion (a) an item is important in the course, or pattern, of NSW's cultural or natural history (or the local area);
- Criterion (b) 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 (or the local area);
- Criterion (c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area);
- Criterion (d) an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons (or the local area);
- Criterion (e) an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the local area);
- Criterion (f) an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the local area); and
- Criterion (g) an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or cultural or natural environments (or the local area).

Amendments made in 2009 require the Minister to approve the criteria used by the Heritage Council to make decisions regarding State heritage significance.

3.2 Ranking of Significance

Overall assessments of heritage significance can be complemented and justified by descriptive ranking of the individual elements of a place. As noted in the prior Heritage Office and Heritage Council publication *Assessing Heritage Significance* (2001):

> *'Different components of a place may make a different relative contribution to its heritage value. Loss of integrity or condition may diminish significance. In some cases it may be useful to specify the relative contribution of an item or its components…'*

A descriptive ranking system may be most effectively used to add emphasis to specific heritage significance criteria that have been identified. For example, an item may be of exceptional historical significance or be of intrusive aesthetic value.

A ranking or grading system as a succinct way of considering the relative value of individual elements derives from the work of JS Kerr (*The Conservation Plan,* 2000). Kerr notes that a tabulated hierarchical assessment may be convenient and can assist with the development of management policies for complex places when they are subject to change and flexibility is needed in future management.

The guidelines for *Assessing Heritage Significance* provide the following table:

Grading	Justification	Status
Exceptional	Rare or outstanding item of local or State significance. High degree of intactness. Item can be interpreted relatively easily.	Fulfils criteria for local or State listing
High	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.	Fulfils criteria for local or State listing.
Moderate	Altered or modified elements. Elements with little heritage value but which contribute to the overall significance of the item.	Fulfils criteria for local or State listing.
Little	Alterations detract from significance. Difficult to interpret.	Does not fulfill criteria for local or State listing.
Intrusive	Damaging to the item's heritage significance,	Does not fulfill criteria for. local or State listing

Element grading systems were developed primarily for built and landscape heritage and do not translate easily to assessing archaeological resources. For example, sites of archaeological significance may have high degrees of deposit intactness and research potential but not much original fabric and they usually contain the remains multiple phases of occupation at a site. They can rarely be easily interpreted without further work. Many will need detailed historical research, followed by careful excavation and analysis to identify and express their stories.

A specific grading or ranking is yet to be developed for historical archaeological resources, but those above may assist with providing a useful context and structure for grading heritage values for complex sites or places.

Misunderstanding of the suggested use of these kinds of ranking to assess the individual *elements* of a *place* as a contribution to its heritage value has led to the inaccurate but widespread use of invented terms such as high-Local or low-State significance. One explanation for the use of such terms is confusion between the terminology for the overall assessment levels (State and local) and the above kind of tabulated grading system for elements of individual places.

Another explanation may be that prior to the amendment of the Heritage Act in 1998 a three tiered heritage classification system existed in NSW:

- Local;
- Regional; and
- State.

This three tired system was used extensively in the Heritage Studies conducted in most Local Government Areas throughout NSW, as well as in conservation management plans, heritage impact assessment documents and planning instruments – Local Environmental Plans and Regional Environmental Plans.

It is likely that in some instances practitioners are expressing a view through the assessment process that there are some items or places which may be of significance to a community broader than a local government area, but that these items may not reach the State heritage significance threshold.

Nevertheless, terms such as high, medium or low significance or High-State and Low-Local significance are inaccurate and reflect an inappropriate use of the previously published guidelines issued following the 1998 amendments to the Heritage Act, 1977. Use of these kinds of terms effectively creates six potential levels of heritage assessment, when only two levels exist in the NSW system as administered under the Heritage Act.

When the *Heritage Act* was amended in 1998, although there had previously been a three tiered heritage management system, a decision was made not to include a definition of "regional" heritage significance in the Act, and to delete it as a distinct classification. Apart from the overall goal of simplifying the heritage management system, another factor in the decision to delete "regional" significance was the absence of an appropriate body at a regional level to manage those heritage items.

Terms such as High Medium or Low significance should not be used. Correct assessment should identify State or local significance for an item.

3.3 Levels Of Significance

A two tiered heritage assessment system was introduced in 1998 amendments to the NSW *Heritage Act* with the creation of the State Heritage Register. Section 4 of the Act defines ***'environmental heritage'*** to mean those places, buildings, works, relics, moveable objects, and precincts, of State or local heritage significance. An **'area'** is usually taken to mean a Local Government Area.

Two levels of significance exist in the NSW heritage management system:

Local **State**

'State heritage significance', in relation to a place, building, work, relic, moveable object or precinct, means significance to the State in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item. (Section 4A)

'local heritage significance', in relation to a place, building, work, relic, moveable object or precinct, means significance to an area in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item. (Section 4A).

The Act goes on to note that if an item is primarily of State heritage significance it can also be of local heritage significance; an item that is primarily of local heritage significance however, may not necessarily be of State heritage significance.

4.0 HERITAGE SIGNIFICANCE AND ARCHAEOLOGY

4.1 The 'Relics' Provisions and Historical Archaeology

Archaeological *'relics'* are one type of environmental heritage which is protected under the NSW *Heritage Act*. The Act defines the different types of heritage items, namely: places, buildings, works, relics, moveable objects, and precincts of State or local heritage significance. The Heritage Act then provides different measures for the protection and management of the different types of environmental heritage. The applicable regulatory regime is affected by the type of item in question.

Division 9, Part 6 of the NSW *Heritage Act* (Sections 138-146) comprises the 'relics' provisions.
Interim Heritage Orders are made under S24.

The entire *Heritage Act* protects heritage, but historical archaeological remains are additionally protected from being moved or excavated through the operation of the 'relics' provisions. These protect unidentified 'relics' which may form part of the State's environmental heritage, but which have not been listed on the State Heritage Register or protected by an Interim Heritage Order. An archaeological site is an area of land which is the location of one or more archaeological 'relics'.

4.1.1 What is a Relic?

Section 4(1) of the *Heritage Act* (as amended 2009) defines 'relic' as follows:

relic *means any deposit, artefact, object or material evidence that:*

(a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and

(b) is of State or local heritage significance.

4.1.2 Protection of Archaeological Sites and Relics

Division 9 of the Heritage Act is titled 'Protection of certain relics' and S139 also refers to an 'Excavation permit [being] required in certain cases' to 'disturb or excavate land'. Such permits are issued under Sections 140 and 141 of the Act, or under Sections 60 and 63 of the Act, in cases where 'relics' are situated within sites or places listed on the State Heritage Register.

The use of *'certain'* allows the Heritage Council to exercise its discretion in these matters, which has been done through policy development over many years and supported by periodic amendments to the *Heritage Act.* Policies such as the *'Excavation Director's Assessment Criteria'* have existed in various forms since at least 1981.

Permits are issued in accordance with Heritage Council policies which ensure that disturbance of sites and 'relics' occurs in accordance with appropriate professional assessment, standards and procedures.

Section 139 prohibits the excavating or disturbing of land leading to a relic being discovered, exposed, moved, damaged or destroyed. To excavate and disturb land in the context of the NSW Heritage Act is associated with the activity of digging or unearthing. The new definition also indicates that the 'relic' being exposed or disturbed is considered significant (or has the potential to be significant) at the time of its excavation, removal or destruction.

Relevant case law and the general principles of statutory interpretation strongly indicate that a 'relic' is properly regarded as an object or chattel.
A relic can, in some circumstances, become part of the land and be regarded as a fixture (a chattel that becomes permanently affixed to land).

In practice, an important historical archaeological site will be likely to contain a range of different elements as vestiges and remnants of the past. Such sites will include 'relics' of significance in the form of deposits, artefacts, objects and usually also other material evidence from demolished buildings, works or former structures which provide evidence of prior occupations but may not be 'relics'. The value of the site and the elements within it must be assessed, documented and recognised so that correct future management choices are made.

Before a site is excavated, the 'relics' within it are retained within the ground. This might lead to outcomes such as conservation in-situ with interpretation, or archaeological excavation. After a site is excavated, 'relics' from it may form an in-situ display or an artefact collection which requires ongoing storage, curation and management.

In addition to those sites which contain obvious archaeological 'relics', there may also be other places or items, for example standing buildings, to which archaeological techniques can be applied to yield new evidence with meaningful results for the understanding of the history and occupation of the place. These are not covered in this part of the *Heritage Act* but may be protected under the Part 3A State Heritage Register provisions of the Act.

4.2 Traditional View of Archaeological Significance

Archaeological significance has long been accepted as linked directly to archaeological (or scientific) research potential:

> *A site or resource is said to be scientifically significant when its further study may be expected to help answer questions. That is scientific significance is defined as research potential*
> (Bickford and Sullivan, 1984 pp 23–24)

This is a concept initially developed in the United States for cultural resource management that was extended by Bickford and Sullivan in the Australian situation and redefined as the following questions which can be used as a guide for assessing the research potential of an archaeological site within a relative framework:

1. ***Can the site contribute knowledge that no other resource can?***

2. ***Can the site contribute knowledge that no other site can?***

3. ***Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?***

The emphasis in these three questions is on the need for archaeological research to add to the knowledge of the past in an important way, rather that merely duplicating known information or information that might be more readily available from other sources such as documentary records or oral history.

As a result archaeological significance has usually been addressed in terms of Criterion (e) of the NSW Heritage assessment criteria (see below), that is *'the potential to yield information…'.*

The Heritage Council *Archaeological Assessment Guidelines* comment:

> *'the key test that must be applied in understanding the scientific research values of a known or potential archaeological site is the question of whether further studies of the physical evidence may reasonably be expected to help answer research questions'*
> (Archaeological Assessment Guidelines 1996:26).

To do this effectively it is desirable that more research frameworks for archaeology are developed with relevant questions devised and the ability of specific areas or sites of archaeological potential to address those questions assessed. Research frameworks will usually relate to an overall region, area, or subject of research interest; some examples exist in Archaeological Management Plans.

Even a specific site investigation will also usually require an archaeological research design to ensure that the archaeological investigation is problem-oriented and focussed on research needs and outcomes.

4.3 A broader approach to Archaeological significance

Whilst the 'research potential' of an archaeological site and its component *'relics'* is clearly a key assessment criterion, a research only approach may limit the consideration of an archaeological site's other heritage values. This has not always been recognised in current professional archaeological practice, however, recent changes to the *Heritage Act* (Section 33(3) (a)) make it imperative that more than one criterion is considered when assessing the heritage significance of a site or relic.

Archaeological significance may be linked to other significance categories especially where sites were created as a result of a specific historic event or decision, or when sites have been the actual location of particular incidents, events or occupancies.

Other relevant factors may be comparative values related to the intactness and rarity of individual items. The rarity of individual site types is an important factor, which should inform management decisions.

Intactness

Intactness refers to the physical condition of an item. It is particularly relevant to archaeological sites in the sense of 'undisturbed' sites or areas which may be expected to yield well-provenanced archaeological deposits, amenable to investigation and interpretation. An archaeological site or other heritage place may also need to retain sufficient integrity that it is able to convey its significance to people in the present. This could derive from factors unrelated to 'research potential' such as location, setting, design, materials, workmanship, association.

Lifeways

It may also be appropriate to consider the significance of a site in terms of its 'ability to demonstrate' a way of life, taste, function, custom or process of particular interest (Kerr, 2000:8). Both above-ground and sub-surface archaeological features can demonstrate such information. This aspect of significance may be realised in its simplest form by identifying or otherwise interpreting the site of an historical event, or a vanished or obscured structure. The Heritage Council has published separate guidelines about the Interpretation of significant heritage items and places (NSW Heritage Office, 2005).

The Challenge of Potential

Archaeological sites may be more difficult to assess than above ground heritage items because at least the initial assessment of heritage values will be reliant on predicted rather than known attributes. The fact that highly significant 'relics' and other components of an archaeological site are below-ground and therefore invisible may pose a challenge to accurate assessment. The experience and knowledge of individual practitioners may be a key factor influencing the correctness of the predicted significance. This could include knowledge about how to research the history of the site through collation of information from documents, maps and plans; how to assess the degree of disturbance and

whether the value of the site for research will have been impaired; how to evaluate the site in comparison with other similar sites (at local, State or National levels); how to regard the importance of particular site uses or particular technology associated with sites occupied for industrial purposes.

Changes in Significance

Archaeological sites may also experience a change in the nature of the values or predicted significance that they hold, before and after the completion of large scale excavations or other investigations. The anticipated nature of the site, its relics and deposits, may be confirmed following archaeological testing or salvage excavation. Conversely, the process of investigation might itself change both the predicted significance and the actual significance of some elements of the archaeological resource.

This would be the case for a site where subsequent phases of development were found to have disturbed the earlier archaeology less than was predicted by the initial assessment. The site or parts of the site are found to be more intact and yield significant early deposits or other evidence. The opposite could also occur, whereby a site predicted to contain significant evidence was found to have been destroyed or removed by historically undocumented activities.

While in most cases archaeological 'relics' will maintain their significance after excavation as a research collection, or in some cases be discovered to be more significant, poor excavation and analysis may lessen that significance or remove it altogether. This would be the case for a site completely excavated and therefore lost for future research, but never written up due to inaccurate fieldwork or poor record-keeping or where information is lost because the collection is poorly curated. In some instances finance has also been lost for a project, making it difficult to complete full analysis and publication of the results.

As noted in discussion of the ranking of individual site elements in Section 3.2 above, it should also be recognised that not all elements of a site are necessarily equal. For example an artefact assemblage recovered from a site may not be as significant as the site from which it came; or it may be more significant, or it could be equally significant but for other reasons or values.

Multiple Heritage Values

Some archaeological sites will also have other heritage values which require careful handling to ensure they do not come into conflict. An example might be an historic cemetery, which may have archaeological research significance which would be best realised by excavation, but also has a high social value and significance to descendants of the dead who want their burial site left untouched.

There may be additional groups, apart from specific descendants or family, who for specific religious and theological reasons or from a more general respect for the dead, do not want historic cemeteries disturbed. Thus, the values identified by professional practitioners and researchers may not always align with those of particular 'communities of interest'. Such sites require a sensitive approach and full consultation with affected parties.

Relevant prior Heritage Council publications are: *Cemeteries: Guidelines for their Care and Conservation,* 1992; and *Skeletal Remains,* 1998.

Consent Conditions

With the above factors in mind Heritage Council consent conditions for approved archaeology permits now reflect a broader approach to understanding and managing an archaeological site. As a result, permits usually require both the original research design and the assessed significance of the excavated site and its 'relics' to be revisited during preparation of the final report on the project. This will ensure that any changes in the original site assessment will be recorded and that the findings from the work can contribute to an ongoing process of building knowledge about particular site types, preservation conditions in specific areas and other future management information.

4.4 NSW Heritage Criteria for Assessing Significance related to Archaeological Sites and Relics

Archaeological Research Potential (current NSW Heritage Criterion E).

Archaeological research potential is the ability of archaeological evidence, through analysis and interpretation, to provide information about a site that could not be derived from any other source and which contributes to the archaeological significance of that site and its 'relics'.

The integrity of the site, the state of preservation of archaeological material and deposits will also be relevant.

- To which contexts (historical, archaeological and research-based) is it anticipated that the site will yield important information?
- Is the site likely to contain the mixed remains of several occupations and eras, or is it expected that the site has the remains of a single occupation or a short time-period?
- Is the site rare or representative in terms of the extent, nature, integrity and preservation of the deposits (if known)?
- Are there a large number of similar sites?
- Is this type of site already well-documented in the historical record?
- Has this site type already been previously investigated with results available?
- Is the excavation of this site likely to enhance or duplicate the data set?

Associations with individuals, events or groups of historical importance (NSW Heritage Criteria A, B & D).

Archaeological remains may have particular associations with individuals, groups and events which may transform mundane places or objects into significant items through the association with important historical occurrences.

- Does the archaeological site link to any NSW Historic Themes? Will the site contain 'relics' and remains which may illustrate a significant pattern in State or local history?
- Is the site widely recognised?
- Does the site have symbolic value?
- Is there a community of interest (past or present) which identifies with, and values the specific site?
- Is the site likely to provide material expression of a particular event or cultural identity?
- Is the site associated with an important person? (the role of the person in State or local history must be demonstrated/known)
- What is the strength of association between the person and the site?
- Did the person live or work at the site? During the phase of their career for which they are most recognised? Is that likely to be evident in the archaeology /physical evidence of the site?
- Did a significant event or discovery take place at the site? Is that evident/or likely to be evident in the archaeology/physical evidence of the site?

Aesthetic or technical significance (NSW Heritage Criterion C).

Whilst the technical value of archaeology is usually considered as 'research potential' aesthetic values are not usually considered to be relevant to archaeological sites. This is often because until a site has been excavated, its actual features and attributes may remain unknown. It is also because aesthetic is often interpreted to mean attractive, as opposed to the broader sense of sensory perception or 'feeling' as expressed in the *Burra Charter.*

Nevertheless, archaeological excavations which reveal highly intact and legible remains in the form of aesthetically attractive artefacts, aged and worn fabric and remnant structures, may allow both professionals and the community to connect with the past through tangible physical evidence.

- Does the site/is the site likely to have aesthetic value?
- Does the site/is the site likely to embody distinctive characteristics?
- Does the site/is the site likely to embody a distinctive architectural or engineering style or pattern/layout?
- Does the site demonstrate a technology which is the first or last of its kind?
- Does the site demonstrate a range of, or change in, technology?

Ability to demonstrate the past through archaeological remains (NSW Heritage Criteria A, C, F & G).

Archaeological remains have an ability to demonstrate how a site was used, what processes occurred, how work was undertaken and the scale of an industrial practice or other historic occupation. They can demonstrate the principal characteristics of a place or process that may be rare or common.

A site may best demonstrate these aspects at the time of excavation. It may also be possible to explain the nature of the site and demonstrate past practices via public interpretation either before, during, or after excavation.

- Does the site contain well-preserved or rare examples of technologies or occupations which are typical of particular historic periods or eras of particular significance?
- Was it a long-term or short-term use?
- Does the site demonstrate a short period of occupation and therefore represents only a limited phase of the operations of a site or technology or site? Or does the site reflect occupation over a long period?
- Does the site demonstrate continuity or change?
- Are the remains at the site highly intact, legible and readily able to be interpreted?

4.4.1 How to use the above Criteria and Questions

The above questions are not intended to form a prescription or a checklist requiring completion for every archaeological assessment. Use of the Bickford and Sullivan questions will provide basic but essential information. The above questions framed around the current NSW Heritage Criteria build upon that essential information to allow consideration of how an individual archaeological site or 'relic' may be assessed in its own right and also compared with other sites.

Whilst the questions form a guide and not a checklist, it is likely that an individual site which is found to contribute answers to more than one question under each criterion would then be assessed as being significant. There may be additional questions, not included in those above, which are relevant to specific sites and particular occupations.

A key issue will be the level at which the site is found to be significant. As with all other places and items, the NSW Heritage Criteria refer to relative importance – either to the whole of NSW or to the local area. Relevant factors are likely to always include intactness and rarity. Other factors may be the likely scope or scale of an applicable Research Design and whether the information likely to be obtained would help understanding of the history, character or other attributes of the local area, the State or even the Nation.

For example, a site from 1790s Parramatta will be likely to contain evidence relevant to the nature of the town at that time (history, occupation, town planning). The same site also contains information about that era which, due to the historic settlement of NSW and Australia, was only ever created in a few places – Sydney, Parramatta, the Hawkesbury (Windsor) and Norfolk Island. The same site may contain information which relates to an even broader context, namely British colonies around the world which were established in the late 18th or early 19th century. The site will probably be of State significance.

Conversely a site established in 1870s Parramatta may also contain some archaeological evidence, however, there is a greater likelihood that a larger number of similar sites will exist, including some where archaeological deposits and 'relics' are found in association with still extant buildings. Beyond Parramatta itself, there will be many more sites established in urban Sydney in the same period. Apart from being more abundant, such sites are also likely to yield a greater amount of duplicate or redundant information due to the existence of a wider range of historic sources (directories, newspapers, trade catalogues, photographs, etc). Nevertheless there could be good reason to excavate the site, due to a particular local occupation or other factors which may make the site of Local significance. Relevant factors would need to be elaborated in the archaeological assessment.

5.0 OTHER ASPECTS RELATING TO ARCHAEOLOGY UNDER THE NSW HERITAGE ACT

5.1 Artefacts

Consent conditions on archaeology permits and professional historical archaeological practice under the NSW *Heritage Act* has meant that over some 30 years a large number of archaeological collections have been recovered, each requiring long-term storage and curation. Adequate resources and structures for the management of these collections have been more problematic to establish and maintain.

Heritage Council policy development in this area is ongoing and not yet finalised. However, this section provides preliminary guidance about matters relevant to the broader context of significance assessment for sites and 'relics'.

In the context of significance assessment, it is essential that artefact collections are subject to a process similar to that applied to the other elements of an archaeological site. The assessed value of the objects recovered, whether future research value, rarity, association, ability to demonstrate or others as expressed in the NSW heritage criteria, must be considered and assessed after the results of the excavation are known and the artefacts have been catalogued and analysed. Related aspects for assessing significance may include the condition, representativeness, diversity, or complexity of the archaeological collection.

Archaeological Collections

Apart from excavated artefacts, an archaeological collection might also include soil samples, photographs, maps, research notes, project field notes or recording sheets, excavation or trench reports and other information pertinent to the excavation. The overall description of the project and its findings will be encapsulated in a final report. It is usually the final report which will be sent to the State consent authority. The wider availability of the internet means that some consultancy firms make their final reports available on-line or by sale.

Whilst for an archaeologist cataloguing and analysis for a final report may be often considered the final step in processing excavation materials, it needs to be realised that these processes may also prepare the collections for future uses.

It has often been argued that retention of all archaeological collections is necessary, because these will open avenues of inquiry for new approaches to old research problems by allowing old collections to be revisited. It has also been recognised, however, that relatively few collections have been utilised in this way, except for academic projects. Many archaeologists seemingly prefer to excavate new material.

Other factors likely to influence this include:

- when consultants or academics are seeking comparative or new material it may be desirable to undertake independent research on new and different sites;
- where archaeological sites are affected by future projects, the statutory requirements often make it imperative that such sites are investigated before or as part of redevelopment;
- artefacts may be stored in ways which make them difficult to access or use, often through limited time or funding in a commercial situation, poor curatorial practice, ad hoc solutions and inadequate documentation;
- although consent conditions for prior approvals may require collections to be retained, locating and accessing them after the redevelopment of the site can be problematic;
- whilst the value of unique and rare objects will always be recognised, some collections managers or building managers – especially if they are not archaeologists – may see bulk archaeological collections as tedious to work with, expensive to process, and requiring valuable storage space.

Curation Crisis

A recognised and ongoing 'curation crisis' means it has been difficult to find sufficient resources to manage the collections which have progressively accumulated as a consequence of the issuing of permits under the Heritage Act.

It is necessary to always consider and preferably to demonstrate, the values and uses of archaeological collections after excavation. Uses might include outreach such as interpretation and other education or promotion. In recent years some Heritage Council consents have been issued for excavated artefact collections where following analysis and final reports, the artefact collection has been divided into three categories: Display, Study and Discard. On this basis disposal of part of the artefact collection has been permitted for some sites in Port Macquarie.

It may also be the case that there are relative values between collections and in effect, this may influence the allocation of future resources for example: funding for conservation, storage, exhibition, or future research. Conversely, it accords with standard heritage conservation practice that not all objects or collections will necessarily be kept following completion of recording. De-accession or disposal of less significant items may occur. Consideration of these aspects is likely to require specialist assessment and reporting.

A single collection will probably contain objects of different value, for example, particularly unusual or rare artefacts; artefacts with unique provenance; artefacts of particular type or materials. These different attributes will then influence decisions such as specialist conservation input during or after excavation and also future outcomes such as display. As with decisions about interpretation of the in-situ physical fabric of an archaeological site after excavation, these further assessments may require specialist documents for example an Interpretation Plan or an artefact curation and management plan (refer to Section 4.3 above).

5.2 Maritime Archaeology

With an extensive coastline and large inland river systems, NSW has a considerable maritime heritage resource in addition to its land-based archaeology. Some 1800 historic shipwrecks have been identified in the State and associated remains of ports, shipyards, coastal defences and other maritime infrastructure sites, add to the historic record from the past.

Specific provisions for historic shipwrecks were included in amendments to the *Heritage Act* in 2001 (Part 3C). Section 51 refers to shipwreck permits, which are issued under S140.

Shipwrecks off the NSW coast (outside State waters) are subject to the *Commonwealth Historic Shipwrecks Act 1976.*

As for land archaeology a permit needs to be sought from the Heritage Council of New South Wales to disturb an historic shipwreck or its associated artefacts ('relics'). In addition, shipwrecks over 75 years of age are automatically protected as heritage items and entered onto a register of historic shipwrecks. Under the *Heritage Act* all shipwrecks within NSW that took place more than 75 years ago are protected. It is also possible to extend this protection to important shipwrecks less than 75 years old through an order by the Minister published in the NSW *Government Gazette.* Outstanding wrecks may also be listed on the State Heritage Register. Three such wrecks are currently listed, the 'Dunbar', the PS 'Rodney' and the M24 Japanese Midget Submarine.

The assessment criteria used derives from that used for other heritage items and usually relates the importance of the wreck to:

- historical development (Australia or NSW);
- historic association (person or event of historical significance);
- research potential of the wreck site and/or its 'relics';
- representative value;
- and others, for example Naval wrecks (not deliberately scrapped) and
- wrecks with outstanding recreational or educational interest.

The 75 year blanket protection for wreck sites and their 'relics' has been seen as positive given that there remain relatively few *declared historic shipwrecks* and significance assessment will still be required if the site becomes threatened by maritime development, inappropriate uses such as treasure hunting, or other potentially negative activities. As with land archaeology permits, historic shipwreck permits will be assessed on the accompanying Research Design, work methods and personnel.

Maritime archaeology is a specialist sub-discipline of archaeology and a series of specific guidelines and policies have been prepared. The State government also holds delegation to administer Commonwealth legislation in this area.

For projects requiring a maritime archaeology component contact should be usually be made with the Maritime archaeologists in the Heritage Branch to discuss specific requirements.

6.0 WHERE ARE THE IMPORTANT SITES LIKELY TO BE FOUND?

6.1 Overview of NSW Historic Settlement Pattern

Aboriginal 'objects' are managed under the NSW *National Parks and Wildlife Act 1974.* Archaeological work is managed under Section 87 (excavation permits) and Section 91(Consent to Destroy).

The greater Sydney region, known as the County of Cumberland, was first settled by Europeans (British) in 1788 with population centres at Sydney Cove, Parramatta, Hawkesbury (Windsor), Toongabbie and Castle Hill. Before this time the area had been occupied by Aboriginal peoples for tens of thousands of years. Traces of Aboriginal settlement are plentiful around Sydney, but such sites and objects are not managed under the 'relics' provisions of the Heritage Act, unless they are found within archaeological contexts in historic sites.

At first expansion beyond the Cumberland Plain was constrained by the difficulty of crossing the Blue Mountains, the Hawkesbury River and other natural barriers. By 1821 land had been granted throughout large tracts of the County of Cumberland with population clusters forming on rivers and roads. Industries sprang up to process raw materials close to farming districts, mineral deposits, and timber country.

As settlement spread beyond the Cumberland Plain the first arrivals were usually stock farmers and the labour force, mainly convict, until the end of transportation in the 1840s. From 1825 to 1829 the government tried to limit the spread of settlement beyond a specified 19 counties but this policy was a failure.

Settlement continued to spread along rivers and stock routes, spurred by the gold rush of the 1850s and the construction of railways from the 1860s. Towns which had grown up spontaneously and generated shops and hotels were consolidated by official facilities such as courthouses, railway stations and post offices.

The late 19th and early 20th century saw an increase in urban expansion which has affected the nature and survival of the archaeological resource, particularly in urban areas. Urban expansion required not only new subdivisions but also redevelopment of earlier sites. Redevelopment of old town centres may lead to locally significant sites overlying State significant early sites. Investigation of the State significant archaeology may require demolition of (non-significant) standing buildings and excavation of locally significant archaeology to enable access to the earlier deposits. These aspects should be considered in management strategies developed during the archaeological assessment.

Later 19th and early 20th century sites usually have fewer artefacts associated with specific occupations due to the introduction of municipal garbage collection or other off-site garbage disposal. The advent of reticulated town water and sewerage services means that on-site services (wells, cisterns, cess-pits) become redundant. This may lead to specific instances of particular artefact-rich deposits within the fill of such structures during a particular period or episode.

6.2 Which places are likely to be important?

The historic settlement pattern dictates that the early centres of rural and urban development in NSW will be the places where most early archaeological sites will be found unless they have been removed by subsequent development. Towns established in the 1790s on the Cumberland Plain were Sydney, Parramatta and Windsor (the Green Hills settlement). Other early grants were made at Prospect Hill and along the Hawkesbury River near South Creek.

In 1810 Governor Macquarie directed the establishment of new towns away from flood liable land. These were Windsor, Richmond, Pitt Town, Castlereagh and Wilberforce. Other Macquarie-era towns include Liverpool, Campbelltown, Appin and Bathurst which was established in 1815. Most early towns had an associated agricultural hinterland where significant archaeological resources often survive on extant pastoral properties taken up by early squatters. For places such as Wollongong early occupation commenced on rural properties in 1815 with first surveys for land alienation from 1816. Wollongong town was late to develop as Kiama was initially envisaged as a more likely regional centre.

Settlements continued to be specifically established for the management of convicts, for example Newcastle (penal settlement 1804-1822) and Port Macquarie (1821-1840). Convict settlements were usually expected to engage in industrial production such as coal-mining, timber getting and lumberyards, lime burning and other production helpful in the establishment of settlement.

In the 1820s Governors Brisbane and Darling further organised town planning by directing the use of rectangular grids with standard half acre allotments and wide streets. This produced the characteristic country town plan familiar throughout 1830s NSW towns such as Maitland, Mudgee, Braidwood, Berrima, Marulan, Bungonia, Wollongong, Kiama, Carcoar, Queanbeyan, Yass, Murrurundi and Albury. It was also applied to re-planned towns such as Port Macquarie, Goulburn (moved from North Goulburn) and Bathurst. In the 1840s new towns such as Rylstone, Orange, Wellington, Armidale, Casino, Grafton, Cooma, Gundagai, Wagga Wagga, Deniliquin and Dubbo became established.

The development of road networks saw numerous inns provided along main transport routes to the north, south and west of Sydney throughout the Hunter region, Southern Highlands and Central West.

The early Colonial period also saw towns established by private enterprise. Examples include Boydtown, Morpeth and Carrington. Boydtown was founded specifically for the exploitative industry of shore-based whaling. NSW towns whether private or public, were all founded after the commencement of the industrial revolution and during the development of competitive world capitalism. From its base at Carrington the Australian Agricultural Company spread out to vast estates on the Liverpool Plains. Later private towns included Kempsey (1830s) and Jamberoo (1840s).

Prior to the development of railways individual industrial enterprises included flour milling, brick making, tanneries, sawpits and mills, breweries and similar industries based upon the processing of available raw materials. Specific

mineral deposits were also exploited from time to time (an example being the iron ore near Mittagong) and this escalated with the coming of rail links. Rail links also meant that the ability to import, transport and use new or current technology was enhanced. Industries could also relocate to better sources of raw material or better ports. A surviving industrial site dated to pre-1860, especially if it has become an archaeological site, will be more likely to demonstrate the use of redundant technologies than a site which has remained in use with the introduction of updated technology later in time. In some particular instances towns were created specifically for the purpose of an industrial enterprise. Examples include oil-shale mining towns such as Joadja or Hartley Vale and many other mining towns. When the industry ceased, towns became abandoned and several are now largely archaeological sites.

Following the cessation of convict transportation in 1840, after 1850 NSW obtained self-government (1856) and also discovered gold (1851). The discovery of gold caused substantial dislocation with many unplanned townships arising on alluvial fields throughout the Central West, New England and Riverina regions. Gold towns include Hill End, Sofala, Tuena, Crookwell, Araluen, Forbes, Grenfell and Barraba. Gold was followed by other mining booms for tin, copper, silver, arsenic, lead and zinc during the late nineteenth century.

Increasing organisation of towns and cities in the 1870s and 1880s led to the development of municipal services such as garbage collection, water and sewage. As already noted, these services usually limit the amount and nature of surviving archaeology.

Thus, it is important to be aware of, and to consider the historic context in which any given archaeological site was initially created. Knowledge of the historical geography and settlement pattern of NSW will assist in placing a particular archaeological site or 'relic' into a broader analytical framework. As indicated in prior sections of this guideline, it is not only historic criteria or questions which should be considered in assessing significance for an historical archaeological site, but historical aspects such as themes, era, and period of use will provide essential information.

7.0 References

Allen Consulting Group, 2006, 'Valuing the Priceless: The Value of Historic Heritage in Australia', Research Report 2, prepared for the Heritage Chairs and Officials of Australia and New Zealand, November,

Bickford, A and S Sullivan 1984, 'Assessing the Research Significance of Historic Sites', in Sullivan S and S Bowdler (eds), *Site Surveys and Significance Assessment in Australian Archaeology* (Proceedings of the 1981 Springwood Conference on Australian Prehistory), Department of Prehistory, Research School of Pacific Studies, The Australian National University, Canberra pp 23–24.

Hardesty, D & Little, B, 2000, *Assessing Site Significance: A Guide for Archaeologists and Historians,* Altamira Press.

Henderson, G., 2001, 'Significance assessment or blanket protection?' *The International Journal of Nautical Archaeology* 30.1:34.

Heritage Council of Victoria & Heritage Victoria, 2008, *Guidelines for Conducting Historical Archaeological Site Surveys.*

Moyer, Teresa, S., 2006, *Archeological Collections and the Public: Using Resources for the Public Benefit , NPS Archaeology Program Technical Brief No.19,* Published by the DOI Departmental Consulting Archeologist/NPS Archeology Program, National Park Service, Washington, DC.

NSW Department of Planning/Heritage Council of NSW, 1993, *Historical Archaeological Sites: Investigation and Conservation Guidelines.*

NSW Department of Planning/Heritage Council of NSW, 1992, *Cemeteries: Guidelines for their Care and Conservation.*

Heritage Branch, NSW Department of Planning, information regarding legislation, and publications on website: www.heritage.nsw.gov.au

Heritage Branch, NSW Department of Planning, State Heritage Databases, on web, accessible at www.heritage.nsw.gov.au

Heritage Office, 2008, Levels of Heritage Significance, Heritage Office, Department of Planning.

NSW Heritage Office, 1996, *NSW Heritage Manual,* NSW Heritage Office, Department of Urban Affairs & Planning

NSW Heritage Office, 1996, *Regional Histories of NSW,* NSW Heritage Office, Department of Urban Affairs & Planning

NSW Heritage Office, 1998, *Skeletal Remains.*

NSW Heritage Office. 2001, *Assessing Significance: a NSW Heritage Manual Update.*

NSW Heritage Office, 2005, *Interpreting Heritage Places and Items, Guidelines*

Schacht, Ilka, 2008, 'Determining Research Significance In Archaeological Collections from Historic Sites', unpublished PhD Thesis, Deakin University.

Staniforth, M. 2002, 'Assessing the significance of 20th century underwater cultural heritage'. ICOMOS Conference proceedings. In *20th Century Heritage: Our Recent Cultural Legacy* edited by David S. Jones. The University of Adelaide and The ICOMOS Secretariat. Adelaide. 145-149.

Sydney Water, 2009, 'Veteran Hall Conservation Management Plan, Archaeological Site, Prospect', unpublished report based on a study conducted by Archaeology and Heritage Pty Ltd.

APPENDIX:

EXAMPLES OF ASSESSMENT AND MANAGEMENT – STATE AND LOCAL ARCHAEOLOGICAL SITES

State Significant Site – former Parramatta Hospital now the Parramatta Justice Precinct

The former Parramatta Hospital site (SHR No. 828) was initially identified in the Section 170 Register prepared by the NSW Department of Health in 1992 and subsequently included on the State Heritage Register in 1999.

The State Heritage Register (SHR) listing includes the archaeological remains of the Colonial Hospital (SHR No. 828) and Brislington and landscape (SHR No. 59, included 2 April, 1999, formerly a PCO made in 1983).

The Colonial Hospital archaeological sitewas also included in the Parramatta Historical Archaeological Landscape Management Study (PHALMS) Archaeological Management Unit 2868. PHALMS recognised that the site contained archaeological resources of National and possibly International heritage significance. The PHALMS statement of significance and the study's recommendation that the resources be retained *in situ* and interpreted to the public were adopted by the Heritage Council in October 2000.

The historical archaeological remains anticipated at this site for some time, were confirmed by early archaeological work in 1994 by Edward Higginbotham (for the new Blood Bank building) and by a brief testing program by MacLaren North in 2001. In 2003 a Conservation Management Plan prepared by DPWS Heritage Design Services recommended that if the hospital site was subject to redevelopment that future open space areas should be planned to coincide with the probable areas of archaeological remains. That CMP was endorsed by the Heritage Council in May 2003.

In 2003, the assessed significance of the Hospital site was:

The Parramatta Hospital site and associated grounds is historically significant at a national level because it is the oldest continuously occupied site for public health in Australia.

There are a number of buildings which possess aesthetic and historical significance, including Brislington House, the Sulman and Power Building, Kearny House and Jeffrey House. These buildings demonstrate the changing needs of medical facilities and attitudes towards health care for over 100 years.

The Parramatta Hospital site has important historic views of the Parramatta River. The hospital site was selected by Governor Phillip as part of his plan for the township. He envisaged the river as playing an important role in water transport. The design of the buildings made use of fresh air and ventilation, and emphasised their spatial relationship to the water (an important element in convalescing) and aesthetic relationship with the Parramatta River. The landscape on the banks of the river was left undeveloped, and has formed an important green zone for the hospital site and the Kings School opposite. It also has significant spatial relationship to the street boundaries of Marsden and George Streets.

The Parramatta Hospital site has the potential to contain archaeological evidence of the 1818 Convict Hospital and several buildings added to it later in

the nineteenth century, as well as evidence dating back to the first hospital of 1790 and evidence of Aboriginal occupation and use of the site.

Further archaeological testing was undertaken in 2003 to determine the extent and condition of the remains of the main Colonial Hospital building. Testing by AHMS Pty Ltd confirmed that the footprint of the main Colonial Hospital Building existed below the Sulman and Power Cottage Hospital and that the areas of the footprint exposed were in good condition.

An archaeological excavation was undertaken in 2004 within the vacant land at the corner of George and O'Connell Streets to investigate the site for the new Children's Courts. Remains of the Emu Brewery and domestic housing were investigated and recorded by Casey & Lowe.

In 2004 a Masterplan was prepared for the site by the Department of Commerce. The positioning of the major envelopes in the proposed Masterplan created an open area in the centre of the site which anticipated *in situ* retention of the likely archaeological resource and its interpretation and/or presentation in an 'archaeology courtyard' created between the proposed new buildings (Trial Courts and Justice Offices) and the existing Jeffery House.

After demolition of a number of buildings on the site, including the Sulman and Power Hospital, Kearney House and others, an Excavation Permit was sought in relation to the archaeology of the hospital site, including all areas to be affected by the redevelopment of the site for the new Parramatta Justice Precinct. It was agreed that the remains of the Colonial Hospital would be exposed and recorded. State significant pre-1850 remains and sections of the original landform adjoining the river were proposed to be retained *in situ*. Additional remains anticipated to be present within the site such as outbuildings, wells, cesspits and other elements were to be investigated and recorded. Subject to the Section 60 approval, and after completion of the archaeological investigations and recording, some remains were likely to be removed in areas to be occupied by new buildings.

As part of the S60 Excavation Permit application in 2005 (application 2005/S60/027) Casey & Lowe prepared a revised statement of significance:

'5.2 Statement of Significance for the Known and Potential Archaeological Remains

The Parramatta Hospital Site contains the known remains of the Third Hospital (1818-1848) built as part of Parramatta's Colonial Convict Hospital. These substantial structural remains represent the surviving evidence of the 1818 hospital designed by Watts and built under direction from Governor Macquarie. These remains are one of a group of contemporary structures Watts designed along similar lines and based on existing military practices. These buildings are: The Military Hospital, Observatory Hill; 'Rum' Hospital, Macquarie Street; Lancer Barracks, Parramatta. Part or all of these buildings survive.

The Convict Hospital was part of Governor Macquarie's building programme to provide housing and shelter for convicts, as well as a means to manage their interaction with free society. These buildings include the Convict Barracks, Hyde Park; the Female Factory, Parramatta; the Female Orphan School, Rydalmere

as well as many other government buildings. Such practices were criticised by Commissioner Bigge as being too expensive and unsuitable for a penal colony. The Third Hospital building operated for many years as an important medical facility, initially for convicts and later for residents of Parramatta. Its construction and later use represents a shifting from a colonial society that had to absorb the outcast convicts of British society to a new order, under self-government that rejected the transportation of convicts and demanded its discontinuation. New South Wales no longer wished to bear the stain of being a penal colony.

The other potential remains of the First and Second Hospitals (1789-1818) represent a rare archaeological resource relating to convict accommodation, the early settlement of Parramatta, the provision of convict health services which were an essential component of the survival of the penal settlement itself. The success of the early colony was dependent on the growing of crops for self sufficiency and the convict labour force at Parramatta was an integral component of the clearing of ground, planting and harvesting of crops. The hospital was therefore an important part of the system which Governor Phillip established as the basis for survival in the early days of the penal colony. It was also one of the few places where convicts were provided with 'accommodation' other than the convict huts along George and Macquarie Streets.

The exposure, retention and interpretation of the remains of the three convict hospitals provides an opportunity for exploring and linking to the physical remnants of Parramatta's colonial landscape. These remains are a rare and seemingly well-preserved element of the early colonial landscape of Parramatta, which has the potential to make part of the early story readable in the current urban landscape. It also has the potential to connect to other, surrounding elements of that landscape, including Parramatta River, remnants of Governor Macquarie's town plan (ie. the layout of main streets), Government House and Domain, and the Barracks at the eastern end of the town.

The remains of the convict huts on Lots 98 and 99 represent aspects of early convict and free life in Parramatta which is an ever diminishing resource. In relation to the hospital they present different aspects of how convicts were managed during the early colony. The analysis and interpretation of the known and potential archaeological structures, deposits, artefacts and eco-facts at this site may assist with addressing a range of substantive research questions relating to Parramatta convict hospitals and health care for convicts, the nature of convict and free life in colonial Parramatta and the evolving landscape of colonial Parramatta from Aboriginal, to convict and then a free society.

(Casey & Lowe Pty Ltd, 'Excavation Permit Application Parramatta Hospital Site, Marsden Street, Parramatta' (including Archaeological Strategy) for Department of Commerce, March 2005, Section 5.2, page 59-60).

Extensive archaeological investigation, including large scale open area excavations occurred at this site in separate stages in 2005 and 2006.

The extensive archaeological works undertaken at the hospital site revealed intact deposits, legible structural remains and other significant evidence from the convict era. Major archaeological elements and structures dating from before 1850 were conserved in the 'Heritage Courtyard' area. These included footings of the second hospital (1792) and remains of a 1790s convict hut on the

Marsden Street frontage. This area also contained artefacts connected with early bone-button manufacturing. Much of the footprint of the third Colonial Hospital (1818) survived, along with evidence of the 1818 Surgeon's Residence and the Kitchen wing. Associated early evidence including a two-phase privy system (1818 and 1840) a well and a cistern also survived.

Design of the architecture and landscape of the new 'Heritage Courtyard' was then developed to include two pavilion buildings within the courtyard to interpret and partially expose the archaeological remains of the third Colonial Hospital (1818-1848). Hard landscaping was used to define the extent of the hospital curtilage, the location of other hospital buildings and other evidence of early convict settlement. Soft landscaping was used to provide shade and amenity for users and also (through choice of species) to reinforce the history of the site. The 'Heritage Courtyard' was also designed to include interpretation in the form of plaques, photographic images, signage, artefact displays and other devices, not least architectonic representations of the former buildings in the form of new lightweight pavilion structures.

In 2008 the Australian Institute of Architects recognised the Precinct with an Award in the Heritage Category given to the Parramatta Justice Precinct - Courtyard Pavilions by Bates Smart Pty Ltd. The citation noted:

This public courtyard celebrates the historic significance of the former Parramatta Colonial Hospital and interprets its history to a broad audience, through landscape, archaeology and built elements. The site provides a series of interpretative themes and stories expressed in the courtyard and through a variety of media including planting, paving, graphics, the reconstruction of boundary walls and two pavilion buildings. While much of the archaeology is capped with a protective slab, including the second hospital and convict hut, the third Colonial Hospital and kitchen (1818-1844) is interpreted in two pavilions. The location and size of these pavilions represent the earlier buildings and offer a place to house exhibits, interpretation panels and in-situ relics. Notwithstanding some teething problems with environmental control for the in-situ relics, the site presents a significant educational experience in buildings of architectural quality. The jury was impressed by the realisation of contemporary design in an historic context, a combination that is rarely so well executed.
(AIA, www.architecture.com.au/i-cms?page=11388).

A number of reports for the Parramatta Hospital work have been prepared by Casey & Lowe and those note the need to revisit the 2005 Research Design in the light of the findings from the excavations, not only to assess predictions against actual evidence, but also because new questions have been generated by the project. See reports on line at: www.caseyandlowe.com.au.

It is also possible to reassess the statements of significance prepared for the site. Some significance remains largely unaltered; because not all the site was excavated so it still retains future archaeological research value within the deposits remaining on site. Other aspects of significance may be considered to have been enhanced by the purpose-built interpretation on the site, which explains the history, location, layout, uses and archaeology of the site to visitors.

State Significant Site – Veteran Hall, Prospect

"Veteran Hall" was the property owned and occupied by the explorer, William Lawson between 1810 and 1850. William Lawson, a key figure in Australian history, died at Veteran Hall in 1850, and was buried at nearby St. Bartholomew's Church. The main homestead was erected in about 1821 and either replaced or was an enlargement of Lawson's first house, which was built on the same land holding around 1810. It was a large, single-storey building in typical Colonial Georgian style, Veteran Hall was approximately 65 squares in size, which expanded to a size of approximately 110 squares including verandahs. The property was resumed during the 1880's for the construction of the Prospect Reservoir, and the building became the residence and local office of the Water Board's Engineer-In-Charge of Headworks from 1888 until 1912, when the position was moved to Potts Hill. The homestead was then leased with the surrounding paddocks to the Commonwealth military authorities until 1915 as a remount depot. The building then became vacant and was demolished in 1929.

The Veteran Hall archaeological site is included on the State Heritage Register as item No. 1351. The SHR Statement of Significance is as follows:

The Veteran Hall archaeological remains are associated with the explorer and statesman, William Lawson, who built the first substantial house on the site. The remains can potentially provide insights into settlement in the area and 19th century pastoralism, due to their intactness. The site has the potential to yield information about the second occupants of the site, the Metropolitan Water Supply Board, who occupied the site during the early phases of the Upper Nepean Scheme until the early years of the 20th century, when the Military took it over. The remains make a positive contribution to the landscape and relate harmoniously to the visual catchment of the Prospect Reservoir curtilage.

The site is also listed in Sydney Water's S170 Heritage Register. Because of its early establishment date, visible archaeological remains, and rich written and pictorial history to support their interpretation, Veteran Hall is regarded as possibly the most significant historical archaeological site under Sydney Water's care. A Conservation Management Plan (CMP) was prepared for the site by Sydney Water in 2009 (see Bibliography).

The CMP prepared more detailed statements of significance for the site and noted that no change in the use of the site was currently anticipated. The site is currently within open space surrounding Prospect Reservoir. The CMP provides a Conservation Policy including tabulated grading of significance for different elements. The Conservation Policy also gives recommendations for:

- physical action necessary for the retention or recovery of the significance of the site
- uses which are both compatible and achievable and constraints on use
- public access and interpretation
- security
- controls on future development

Policies note that any intervention may require more detailed archaeological assessment and submission of relevant applications under the Heritage Act.

Locally Significant Site – 50 to 52 O'Connell Street, Parramatta

This site was identified in the Parramatta Historical Archaeological Landscape Management Study (PHALMS) as Archaeological Management Unit 3124. PHALMS identified the site as having local heritage significance. The Statement of Significance for AMU 3124 was:

This AMU has moderate archaeological research potential.
This area was used for agricultural purposes during the early years of the settlement, prior to the spread of the settlement to the north side of the river in the early 1800s. This area developed as mainly residential during the mid-to-late-nineteenth century and has remained predominantly residential. The physical archaeological evidence within this area may include structural features, intact subfloor deposits, open deposits and scatter, ecological samples and individual artefacts which have potential to yield information relating to major historic themes including Agriculture, Cultural Sites, Housing, Land Tenure and Township.
The archaeological resource of this AMU is likely to be largely intact, but subject to minor disturbance in some areas.
This AMU is of Local significance (PHALMS 2001).

Development consent was determined by Parramatta City Council for this site in 2001 except for the area of 52 O'Connell Street. In 2003 a development was proposed for a commercial building with basement car parking. An archaeological assessment identified potential archaeological remains associated with a brick cottage dating from 1831 located at 50 O'Connell Street and a house erected by 1887 located at 52 O'Connell Street. Remains associated with the late-nineteenth century bakery and two outdoor toilets associated with cottages fronting Grose Street would be left undisturbed.

A S140 permit was issued with consent conditions requiring that if the 1831 remains were found to be highly intact that adequate mitigation strategies including the potential for in situ retention would need to be considered. Archaeological investigation of the 1831 house site and the late 19th century baker's oven was undertaken prior to the new development. In addition to structural evidence, and artefacts associated with occupation deposits, the archaeological work also found evidence of early 19th century agriculture.

The results of the archaeological work, some artefacts and new small-scale bronze sculptural elements provide on site interpretation. The archaeology of the standing buildings, including the use of the baker's ovens and evidence of a brick stable floor are now interpreted within the new development. The development has also taken its new identity from the history of the site being named 'Baker's Mews'.

(also see: Edward Higginbotham, 2003, 'Historical and Archaeological Assessment of Proposed development, 50, 50A and 52 O'Connell Street and 6-12 Grose Street, North Parramatta, NSW', Unpublished report).

Appendix E

NSW GOVERNMENT | Planning & Environment

Ms Nicola Gibson
Director
MG Planning
Suite 1.4 135 Victoria Road
Drummoyne NSW 2047

Our ref: SSD 7561

Dear Ms Gibson

Modified SEARs for Refurbishment of Wharf Theatre at Wharf 4/5, Walsh Bay (SSD 7561)

The Secretary's environmental assessment requirements (SEARs) for the above project were issued on 15 April 2016 and amended on 4 July 2016. On 20 July and 10 August 2016 you emailed the Department requesting removal of the "Plans and Documents" section's requirement for an Aboriginal and historical archaeological impact assessment and air quality assessment as these do not reflect the current scope of work and the SEARs themselves.

Consequently, the Department has modified the SEARs for SSD 7561 so to remove the reference to an Aboriginal and historical archaeological impact assessment and air quality assessment.

I have attached a copy of the amended SEARs for the preparation of an Environmental Impact Statement (EIS) for the refurbishment of internal areas of the Wharf Theatre at Wharf 4/5, Walsh Bay. Please note that the Secretary may alter these requirements at any time.

If you do not lodge a development application (DA) and EIS for the development within 2 years, you must consult further with the Secretary in relation to the preparation of the EIS.

If you have any questions, please contact Alexander Scott, on (02) 9228 2096 or via email at alexander.scott@planning.nsw.gov.au

Yours sincerely

11/8/16

Ben Lusher
Director
Key Sites Assessments
as delegate for the Secretary

Secretary's Environmental Assessment Requirements

Section 78A(8A) of the *Environmental Planning and Assessment Act 1979*
Schedule 2 of the Environmental Planning and Assessment Regulation 2000

Application Number	SSD 7561
Proposal Name	Refurbishment of internal areas of the Wharf Theatre at Wharf 4/5, Walsh Bay
Location	Wharf 4/5 Hickson Road, Walsh Bay
Applicant	Sydney Theatre Company
Date of Issue	15 April 2016
Date of Modification	4 July 2016
Date of Modification	11 August 2016
General Requirements	The Environmental Impact Statement (EIS) must address the *Environmental Planning and Assessment Act 1979* and meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 the *Environmental Planning and Assessment Regulation 2000*. Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development. Where relevant, the assessment of the key issues below, and any other significant issues identified in the assessment, must include: • adequate baseline data; • consideration of potential cumulative impacts due to other development in the vicinity; and • measures to avoid, minimise, and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment. The EIS must be accompanied by a report from a qualified quantity surveyor providing: • a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the *Environmental Planning and Assessment Regulation 2000*) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; • an estimate of the jobs that will be created by the development during the construction and operational phases of the development; and • certification that the information provided is accurate at the date of preparation.
Key issues	The EIS must address the following specific matters: **1. Relevant EPIs, Policies and Guidelines** The EIS shall address the relevant planning provisions applying to the site, including permissibility and the provisions of all plans and polices including:

	• *Environmental Planning and Assessment Act 1979;* • *State Environmental Planning Policy (State and Regional Development) 2011;* • *State Environmental Planning Policy No 55 - Remediation of Land;* • *Sydney Regional Environmental Plan No 16 - Walsh Bay* • *Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005;* and • *Sydney Local Environmental Plan 2012.* Address the relevant planning provisions, goals and strategic planning objectives in the following: • *NSW State Priorities;* • *A Plan for Growing Sydney;* • *NSW Long Term Transport Master Plan;* • *Guide to Traffic Generating Development (RMS);* • *NSW Planning Guidelines for Walking and Cycling;* • *Sustainable Sydney 2030;* • *Sydney Development Control Plan 2012;* • *Planning Guidelines for Walking & Cycling;* • *Sydney City Centre Access Strategy;* • *Sydney's Cycling Future;* and • *Sydney's Walking Future.* **2. Built form and Urban Design** The EIS shall: • address design quality with consideration of the site layout, connectivity, primary elements, gateways, materials and colours. **3. Heritage** The EIS shall include a Heritage Impact Assessment that: • describes the heritage significance of all heritage items on the site (including external, internal and moveable heritage features) and those surrounding the site; • describes the potential impact of the proposal (including the adaptive reuse, fit out, operation and Building Code of Australia compliance) on the heritage significance of Pier 4/5, measures to mitigate any impacts and reasons when a more sympathetic solution is not viable; • considers the structural impact of proposed works on the building; • considers consistency with the endorsed Conservation Management Plan for the building, addressing the proposed adaptive reuse and measures to minimise impacts on the buildings, including moveable heritage items; and • proposes opportunities to interpret the site's heritage significance, and archaeology and historical association. **4. Noise and Vibration** The EIS shall include a noise and vibration assessment prepared by a suitably qualified acoustic consultant that: • assesses construction noise and vibration impacts, consistent with the *Interim Construction Noise Guideline* (Department of

	Environment, Climate Change and Water 2009), and *Assessing Vibration: a technical guideline* (Department of Environment and Conservation 2006). This assessment must consider cumulative noise and vibration impacts in the event of concurrent construction associated with other works within the Walsh Bay precinct, where relevant information is available; • assesses operational noise from the use of the theatre and related activities, and any food and drink premises within the building in accordance with the *NSW Industrial Noise Policy* (Environment Protection Authority, 2000); • assesses any operational vibration from the use of the premises in accordance with *Assessing Vibration: a technical guideline* (Department of Environment and Conservation 2006). This must include impacts on other tenants within Wharf 4/5 and other Walsh Bay wharves, and external receivers; and • discusses available mitigation and management measures. The noise and vibration assessment must consider impacts on other tenants within Wharf 4/5 and the Walsh Bay precinct, and noise receivers external to the precinct. **5. Traffic, Parking and Access** The EIS shall include a Traffic Impact Assessment (TIA) relating to construction and operational impacts that includes: *Construction* • details of construction vehicle routes, peak hour and daily truck movements, hours of operation, access arrangements and traffic control measures for all demolition / construction activities; • assessment of impacts of construction vehicles on traffic and transport performance at key intersections and on public transport operations; • assessment of impacts on harbour vessel movements; • details of access arrangements to and from the site for workers, emergency vehicles and service vehicles; • assessment of construction road safety at key intersections and locations subject to pedestrian / vehicle / bicycle conflicts; • details of any required temporary cycling and pedestrian access during construction; and • available mitigation and management measures; *Operation* • details of the current and estimated future daily and peak hour vehicle, public transport, pedestrian and bicycle movements from the site and within the immediately surrounding road network; • an assessment of the impact of the proposal on existing traffic and transport performance and safety at key intersections in the area, and likely impact of the proposal on bus operations (stops, routes and parking) and taxi parking in the surrounding streets; • details of the existing and any proposed vehicle, bicycle, motorcycle, taxi, bus and coach parking, and justification of proposed parking against relevant guidelines/standards and Australian Standards;

	• details of service vehicle movements and site access arrangements (including types of vehicles and likely access times); • details of proposed loading docks and service arrangements; • proposals to encourage employees and guests to make sustainable travel choices, such as walking, cycling, public transport and car sharing; and • assessment of impacts. **6. Construction Management** The EIS shall assess construction related impacts (in addition to the noise and vibration and traffic and transport impact requirements detailed above) including: • details of the quantities and classification of waste and wastewater generated on site and its storage, treatment and transportation; • an assessment of other potential impacts of the construction on surrounding buildings and the public domain, including air quality and odour impacts, dust emissions, stormwater runoff, groundwater seepage, and soil pollution; and • available mitigation and management measures. **7. Fire Safety** The EIS shall include a Fire Engineering Report that details alternative fire engineering solutions as a result of the proposed removal of the existing fire tunnel **8. Ecologically Sustainable Development (ESD)** Identify how the development will incorporate ESD principles in the design, construction and ongoing operation phases of the development, and include innovative and best practice proposals for environmental building performance.
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular, you must consult with: • City of Sydney Council; • Heritage Council of NSW; • EPA; • Transport for NSW CBD Coordination Office; • Roads and Maritime Services; • Fire and Rescue NSW; and • Local Aboriginal Land Council and stakeholders, if relevant. The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.
Further consultation after 2 years	If you do not lodge a development application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS.

References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified.
Plans and Documents	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include the following: • Site survey plan drawn at an appropriate scale; • Locality/context plan drawn, including significant local features such as heritage items; • Detailed plans, sections and elevations including all temporary and permanent structures at A3 illustrating; • Heritage impact statement; • Conservation management plans; • Access impact statement; • ESD report; • Building Code of Australia statement; • Fire engineering report; • Consultation summary report; • Noise impact assessment; • Signage strategy, including commercial signage / building name signage (if proposed); • Traffic and transport impact assessment; • Construction impacts and management plan, including a construction noise and vibration management plan, construction waste management plan and cumulative impact of construction activities on other nearby sites; • Utilities and services statement; and • Schedule of materials and finishes.

Appendix F

STC50 Masterplan

Conservation Management Action Plan

February 2017

REF: 1522:CMAP

Issue 01

Conservation Management Action Plan Summary

No.	Title	Status
01	Demolition methodology	**Included**
02	Salvage and storage of timber cladding and joinery during demolition	**Included**
03	Salvage and storage of structural timber during demolition	**Included**
04	Salvage and storage of metalwork during demolition	**Included**
05	Salvage and reuse of industrial technology	**Included**
06	Salvage and storage of timber piles	**Included**
07	Repair of wharf superstructure including structural timbers, metalwork, cladding and roof excluding brickwork	**Included**
08	Repairs to masonry walls including bridge abutments	**Included**
--	Disposal Record Sheet	**Included**

ACTION PLAN 1

STC50 Masterplan
Conservation Action Plan

Heritage Consultant: Tropman and Tropman Architects
55 Lower Fort Street, Sydney NSW 2000

Phase:	:	2
Description	:	STC50 Masterplan
Action Plan	:	**1**
Title	:	**DEMOLITION AND METHODOLOGY**
Revision No	:	1
Date of Revision	:	February 2017

INTRODUCTION

This Action Plan has been prepared and appended to the Conservation Management Plan and the Heritage Impact Assessment for STC50 project, to outline the actions necessary to fulfil its policies and recommendations.

APPLICABILITY

This Action Plan applies to the areas of the project STC50 and has regard for adjacent areas.
This Action Plan also covers any subsequent areas that may require all or part demolition.

OBJECTIVES

This Action Plan is intended to:

- Protect from damage & stabilise where necessary adjacent retained elements on adjoining sites.
- Maximise the amount of significant fabric conserved and retained in-situ.
- Stipulate the methods by which appropriate removal will best be achieved. Also to ensure the recording, labelling, storage, and conservation of any fabric which may be revealed during demolition.
- Maximise salvage of any heritage items and technology.
- Protect archaeological information and artefacts.

REPORT STRUCTURE

The report is broken down into the principal elements and fabric. Also listed are specific areas or items to be demolished, and the proposed demolition procedure.

GENERIC METHODOLOGY

Demolition refers to items that are being removed permanently from the site.

Work which includes care and protection of fabric and review of methods and approach is to be carried out to the satisfaction of and with approval and/or as instructed by the Heritage Conservation Architect (HCA) and the Design Architect (DA).

STRATEGY

1. Demolition is to be completed in a manner which will minimise damage to retained material on this site and adjacent sites
2. Hickson Road façade needs particular attention with regard to stabilising through the duration of the works.
3. The method of demolition is to be prepared in conjunction with the proposed demolisher and submitted to the HCA prior to demolition.
4. Where parts of adjoining structures become exposed during the works, and are subject to weather damage, these parts are to be suitably protected for the duration of the works.
5. Adjoining structures and fabric are to be retained in-situ and are to be fully protected at all times during the works.
6. Stripping of lead-based paint for environmental reasons is permitted.
7. In the completed works all external elements are to be suitably protected from the weather and other damage in ways consistent with their original appearance and normal building practice.
8. During the refurbishment process, all elements salvaged are to be handled and treated to prevent any further mechanical, water, termite or fungal damage.
9. All material is to be salvaged in accordance with this action plan.
10. Structural and architectural elements are to be disconnected, handled and recovered in a manner suitable for their reuse in the project.
11. Where existing fabric is to be used as a working platform it must be suitably protected throughout the works

BUILDING ELEMENTS

NO.	ELEMENT	LOCATION OF ELEMENT	ACTION
01	Historical Recording	All areas; all conditions	Record with photographs & drawings before and during demolition. Create approved archival system to facilitate labelling of demolished parts.
02	Hazardous materials	All areas, refer to Hazardous Materials Survey and relevant Scope of Works report all conditions	Remove all hazardous materials in the manner described in the Hazardous Materials Survey and prior to the commencement of demolition Discard appropriately.
03	Structure	Posts, Roof & Floor Framing, Structural Steel, Floorboards, Masonry	Retain all structurally sound members. Where elements lack structural integrity they are to be rectified for the duration of the works, with the aim of retaining as much existing fabric as possible. Structural experts should be consulted. Ensure that Hickson Road Façade & all other structural and retained elements are fully supported and protected throughout the works.
04	Sheet Roofing and Roof Lanterns	All conditions	Discard sheeting where necessary and replace with similar. See Action Plan 4 for salvage & storage guidelines, & Action Plans 16 & 17 for repair guidelines. Discard asbestos roofing as per the Hazardous materials survey.
05	Industrial Heritage Technology Items	All conditions	See Action Plans 5, 5A, 5B, 5C
06	Amenities blocks	All conditions	After recording by HCA, demolish and remove from site in easily manageable sections with care ensuring no damage to heritage fabric.
07	Asphalt to decking	All conditions	Remove carefully ensuring planking, boarding and adjacent items remain intact; conserve all floor openings such as hatches
08	Cladding and Joinery	All conditions	Retain all items as per guidelines in Action Plan 2 - Salvage and storage of timber cladding and joinery during demolition and Action Plan15 – Repair of cladding & joinery
09	Metalwork	All areas	Retain all items as per guidelines in Action Plan 4 – Salvage and storage of metalwork during demolition and Action Plan 16 – Repair of metalwork

Received and Checked by:
Signature: ……
Company: **Tropman & Tropman Architects**
Date: ……

ACTION PLAN 2

STC50 Masterplan
Conservation Action Plan

Heritage Consultant: Tropman and Tropman Architects
55 Lower Fort Street, Sydney NSW 2000

Phase:	:	2
Description	:	STC50 Masterplan
Action Plan	:	**2**
Title	:	**SALVAGE AND STORAGE OF TIMBER CLADDING AND JOINERY DURING DEMOLITION**
Revision No	:	1
Date of Revision	:	February 2017

INTRODUCTION

This Action Plan has been prepared and appended to the Conservation Management Plan and the Heritage Impact Assessment for STC50 project, to outline the actions necessary to fulfil its policies and recommendations.

APPLICABILITY

This Action Plan applies to timber cladding and joinery elements to the areas of the project STC50 that require salvage as a result of rectification and proposed development interventions.

OBJECTIVES

This Action Plan is intended to:

- Maximise the amount of significant timber conserved and retained in situ.
- Protect adjacent retained elements from damage.
- Facilitate, where appropriate, the documenting, labelling, removal, storage, conservation, and re-installation of significant fabric.
- Stipulate the methods by which appropriate documenting, labelling, removal, storage, and conservation of the fabric will best be achieved.
- Maximise recycling of salvaged heritage materials.
- Protect archaeological information and artefacts.

REPORT STRUCTURE

The timber cladding and joinery is tabulated in terms of its principal elements. These have been grouped according to the nature of actions required to salvage and store them.

INVESTIGATION OF EXISTING FABRIC

Where the extent of damage may not be immediately obvious (such as termite damage), the elements in question should be thoroughly investigated by an appropriate testing method, prior to the scheduling of work. A summary of damaged, unsound or missing heritage fabric is to be carried out prior to removal from site.

GENERIC METHODOLOGY

Work which includes care and protection of fabric, review of methods and approach, is to be carried out to the satisfaction of and with approval and/or as instructed by the Heritage Conservation Architect (HCA) and the Design Architect (DA).

All removed and / or relocated fabric is to be minimal and is to be identified and carefully salvaged for reuse, storage or removal as instructed by and to the satisfaction and approval of the HCA and the DA.

Conserve all early signage and identification as approved and directed by the HCA and DA.

STRATEGY

PROTECTION OF ADJOINING FABRIC

- Where parts of adjoining structures are exposed during the works and are subject to weather or other damage, these parts are to be suitably protected at all times during the works.
- In the completed works, all external elements are to be protected from the weather and other damage in ways consistent with their original appearance and normal building practice.

SALVAGED ITEMS

1. All sound material is to be salvaged in accordance with the action plan.
2. All elements salvaged are to be handled and treated during the process with care, to prevent any further mechanical, water, termite or fungal damage.
3. Stripping of lead based paint for environmental reasons is permitted.
4. Salvage is to be completed in a manner to minimise damage to salvaged material.
5. The methods of salvage are to be prepared in conjunction with the proposed demolisher and submitted prior to commencement of the works.
6. Assemblies and architectural elements are to be disconnected, handled and recovered in whole elements.
7. Where the existing fabric is to be reused in situ or in another location and is to be used as a working platform, the fabric is to be protected during the works.

DOCUMENTATION

1. Items must have a Treatment Proposal, in accordance with the Conservation Management Plan, prepared before removal and storage can take place.
2. If items are to be stored off site the storage facility must be approved by the HCA.
3. Items or parts of items identified for storage must be fully documented before removal and the information entered into the CMS (Conservation Management System).
4. All items are to be labelled with the following information:
    - the number of the item
    - the name of the item
    - the site of origin
    - the location within the site of origin
    - the date of removal

STORAGE

The place of storage must be inspected by the HCA prior to transportation of items. Optimum storage conditions must be guaranteed for items in storage:

- The areas must be under cover and offer dry conditions and not be kept in direct sunlight.
- All items should be covered with cover sheets that allow free movement of air.
- Pest controls should be in place.
- All items should be supported off the floor.
- Paper and textile items require specialist storage facilities.
- Items are to be stored for their own safety and care.
- Appropriate security measures must be provided for all storage areas used for the storage of items identified in the CMS.
- A regular inspection of each item should take place with the conditions entered into the CMS database and the Item Tracking List.

TRANSPORTATION

1. Transportation to storage facilities is to be completed in a manner which will minimise damage to salvaged material.
2. The HCA is to be notified of the method and day of transportation.
3. All items are to be suitably packaged and protected for transportation.
4. Items should not be considered for removal before approval is gained from the HCA.

BUILDING ELEMENTS

NO.	ELEMENT	CONDITION/LOCATION OF ELEMENT	ACTION
01	Historical Recording	All areas; all conditions	Record with photographs and drawings before and during salvage or removal
02	Hazardous materials	All areas, refer to Hazardous Materials Survey; all conditions	Remove all the hazardous materials in the manner described in the Hazardous Materials Survey and prior to commencement of demolition. Ensure all heritage fabric remains intact.
03	Weatherboards, skirtings, fascias, sills, thresholds, moldings, floorboards, stairs, balustrades, cabinets, screens, shelves, bargeboards	All areas in sound condition	Retain in situ wherever possible
		Some of the element (to be determined on site) has termite, fungal or mechanical damage	Repair in situ where possible (see Action Plan 15), or if off site repairs are necessary, complete documentation, label, remove Re-install in original location.
		Most of the element (to be determined on site) has termite, fungal or mechanical damage	Reconstruct where suitable. Discard, or conserve for patching other items (see Action Plan 15).
04	Window and Door frames including: jambs, sills, heads, transoms, mullions,	Sound	Retain in-situ wherever possible. Where removal is imperative: label, store, and re-install.
		Some of the element (to be determined on site) has termite, fungal or mechanical damage	Restore in situ where possible. Where removal is imperative for repairs (see Action Plan 15), label, store and re-install.
		Most of the element (to be determined on site) has termite, fungal or mechanical damage	Reconstruct where suitable. Discard or conserve (including glass) for patching other items. For repairs see Action Plan 15
05	Door, Window & joinery hardware, eg: steel tracks and guides, wheels, hasps, stays, stoppers, counterweights, locks, handles, straps	Sound	Keep hardware attached to door wherever possible. Items fixed to other fabric to be retained in-situ where possible. Apply rust prevention measures. Label door hardware to correspond to its door of origin. Where removal is necessary label, store and re-install .
		Unsound or unrepairable – where unique or rare example of its type	Salvage label & store, remove to and rust treat. Prepare for interpretation. Use as template for re-construction of new components
		Unsound or unrepairable – where common	Discard
06	Components of Heritage Technology Items	All conditions	Refer Heritage Technology Action Plans 5, 5A, 5B and 5C

Received and Checked By: ……
Signature: …… Date:……
Company: **Tropman & Tropman Architects**

ACTION PLAN 3

Walsh Bay Art Precinct
Conservation Action Plan

Heritage Consultant: Tropman and Tropman Architects
55 Lower Fort Street, Sydney NSW 2000

Phase:	:	2
Description	:	STC50 Masterplan
Action Plan	:	**3**
Title	:	**SALVAGE AND STORAGE OF STRUCTURAL TIMBER DURING DEMOLITION**
Revision No	:	1
Date of Revision	:	February 2017

INTRODUCTION

This Action Plan has been prepared and appended to the Conservation Management Plan and the Heritage Impact Assessment for STC50 project, to outline the actions necessary to fulfil its policies and recommendations.

APPLICABILITY

This Action Plan applies to all areas of the project STC50 and has regard for adjacent areas.
This Action Plan also covers any subsequent areas that may require all or part demolition.

OBJECTIVES

This Action Plan is intended to:

- Maximise the amount of significant timber conserved and retained in situ.
- Protect adjacent retained elements from damage.
- Facilitate, where appropriate, the documenting, labelling, removal, storage, conservation, and re-installation of significant fabric.
- Stipulate the methods by which appropriate documenting, labelling, removal, storage, and conservation of the fabric will best be achieved.
- Maximise recycling of salvaged heritage materials.
- Protect archaeological information and artefacts.

REPORT STRUCTURE

The structural timber is tabulated in terms of its principal elements. These have been grouped according to the nature of actions required to salvage and store them.

INVESTIGATION OF EXISTING FABRIC

Where the extent of damage may not be immediately obvious (such as termite damage), the elements in question should be thoroughly investigated by an appropriate testing method, prior to the scheduling of work. A summary of damaged, unsound or missing heritage fabric is to be carried out prior to removal from site.

GENERIC METHODOLOGY

Work which includes care and protection of fabric, a review of methods and approach, is to be carried out to the satisfaction of and with approval and/or as instructed by the Heritage Conservation Architect (HCA) and the Design Architect (DA).

All removed and / or relocated fabric is to be minimal and is to be identified and carefully salvaged for reuse, storage or removal as instructed by and to the satisfaction and approval of the HCA and the DA.

Conserve all early signage and identification as approved and directed by the HCA and DA.

STRATEGY

PROTECTION OF ADJOINING FABRIC

- Where parts of adjoining structures are exposed during the works and are subject to weather or other damage, these parts are to be suitably protected at all times during the works.
- In the completed works, all external elements are to be protected from the weather and other damage in ways consistent with their original appearance and normal building practice.

SALVAGED ITEMS

1. All sound material is to be salvaged in accordance with the action plan.
2. All elements salvaged are to be handled and treated during the process with care, to prevent any further mechanical, water, termite or fungal damage.
3. Stripping of lead based paint for environmental reasons is permitted.
4. Salvage is to be completed in a manner to minimise damage to salvaged material.
5. The methods of salvage are to be prepared in conjunction with the proposed demolisher and submitted prior to commencement of the works.
6. Assemblies and architectural elements are to be disconnected, handled and recovered in whole elements.
7. Where the existing fabric is to be reused in situ or in another location and is to be used as a working platform, the fabric is to be protected during the works.

DOCUMENTATION

1. Items must have a Treatment Proposal, in accordance with the Conservation Management Plan, prepared before removal and storage can take place.
2. If items are to be stored off site the storage facility must be approved by the HCA
3. Items or parts of items identified for storage must be fully documented before removal and the information entered into the CMS (Conservation Management System).
4. All items are to be labelled with the following information:
    - the number of the item
    - the name of the item
    - the site of origin
    - the location within the site of origin
    - the date of removal

STORAGE

The place of storage must be inspected by the HCA prior to transportation of items. Optimum storage conditions must be guaranteed for items in storage:

- The areas must be under cover and offer dry conditions and not be kept in direct sunlight.
- All items should be covered with cover sheets that allow free movement of air.
- Pest controls should be in place.
- All items should be supported off the floor.
- Paper and textile items require specialist storage facilities.
- Items are to be stored for their own safety and care.
- Appropriate security measures must be provided for all storage areas used for the storage of items identified in the CMS.
- A regular inspection of each item should take place with the conditions entered into the CMS database and the Item Tracking List.

TRANSPORTATION

1. Transportation to storage facilities is to be completed in a manner which will minimise damage to salvaged material.
2. The HCA is to be notified of the method and day of transportation.
3. All items are to be suitably packaged and protected for transportation
4. Items should not be considered for removal before approval is gained from the HCA.

BUILDING ELEMENTS

NO.	ELEMENT	CONDITION / LOCATION OF ELEMENT	ACTION
01	Historical Recording	All areas; all conditions	Record with photographs and drawings before and during salvage or removal
02	Posts, beams, trusses, floor framing, roof framing, wall framing, bracing & blocking.	All areas in sound condition	Retain in situ or reuse where adaptive works require removal.
		Some of the element (to be determined on site) has termite, fungal or mechanical damage and deemed unsound	Stabilise, patch and restore in situ where possible, or off site where necessary & re-install. Aim to maximise retained fabric
		Most of the element (to be determined on site) has termite, fungal or mechanical damage	Reconstruct where suitable. Either conserve for interpretation or patching of other items, or discard.
		Unsound or unrepairable where unique or rare example of its type	Salvage label & store. Prepare for interpretation. Use as template for re-construction of new components
		Unsound or unrepairable – where common	Discard

Received and Checked By ……
Signature: ……
Company: **Tropman & Tropman Architects**
Date: ……

ACTION PLAN 4

STC50 Masterplan
Conservation Action Plan

Heritage Consultant: Tropman and Tropman Architects
55 Lower Fort Street, Sydney NSW 2000

Phase:	:	2
Description	:	STC50 Masterplan
Action Plan	:	**4**
Title	:	**SALVAGE AND STORAGE OF METALWORK DURING DEMOLITION**
Revision No	:	1
Date of Revision	:	February 2017

INTRODUCTION

This Action Plan has been prepared and appended to the Conservation Management Plan and the Heritage Impact Assessment for STC50 project, to outline the actions necessary to fulfil its policies and recommendations.

APPLICABILITY

This Action Plan applies to all areas of the project STC50 and has regard for adjacent areas.
This Action Plan also covers any subsequent areas that may require all or part demolition.

OBJECTIVES

This Action Plan is intended to:
- Maximise the amount of significant metal conserved and retained in situ.
- Protect adjacent retained elements from damage.
- Facilitate, where appropriate, the documenting, labelling, removal, storage, conservation, and re-installation of significant fabric.
- Stipulate the methods by which appropriate documenting, labelling, removal, storage, and conservation of the fabric will best be achieved.
- Maximise recycling of salvaged heritage materials.
- Protect archaeological information and artefacts.

REPORT STRUCTURE

The structural metal is tabulated in terms of its principal elements. These have been grouped according to the nature of actions required to salvage and store them.

INVESTIGATION OF EXISTING FABRIC

Where the extent of damage may not be immediately obvious, the elements in question should be thoroughly investigated by an appropriate testing method, prior to the scheduling of work. A summary of damaged, unsound or missing heritage fabric is to be carried out prior to removal from site.

GENERIC METHODOLOGY

Work which includes care and protection of fabric and review of methods and approach is to be carried out to the satisfaction of and with approval and/or as instructed by the Heritage Conservation Architect (HCA) and the Design Architect (DA).

All removed and / or relocated fabric is to be minimal and is to be identified and carefully salvaged for reuse, storage or removal as instructed by and to the satisfaction and approval of the HCA and the DA.

Conserve all early signage and identification as approved and directed by the HCA and DA.

STRATEGY

PROTECTION OF ADJOINING FABRIC

- Where parts of adjoining structures are exposed during the works and are subject to weather or other damage, these parts are to be suitably protected at all times during the works.
- In the completed works, all external elements are to be protected from the weather and other damage in ways consistent with their original appearance and normal building practice.

SALVAGED ITEMS

1. All sound material is to be salvaged in accordance with the action plan.
2. All elements salvaged are to be handled and treated during the process with care, to prevent any further mechanical, water, termite or fungal damage.
3. Stripping of lead based paint for environmental reasons is permitted.
4. Salvage is to be completed in a manner to minimise damage to salvaged material.
5. The methods of salvage are to be prepared in conjunction with the proposed demolisher and submitted prior to commencement of the works.
6. Assemblies and architectural elements are to be disconnected, handled and recovered in whole elements.
7. Where the existing fabric is to be reused in situ or in another location and is to be used as a working platform, the fabric is to be protected during the works.

DOCUMENTATION

1. Items must have a Treatment Proposal, in accordance with the Conservation Management Plan, prepared before removal and storage can take place.
2. If items are to be stored off site the storage facility must be approved by the HCA.
3. Items or parts of items identified for storage must be fully documented before removal and the information entered into the CMS (Conservation Management System).
4. All items are to be labelled with the following information:
    - the number of the item
    - the name of the item
    - the site of origin
    - the location within the site of origin
    - the date of removal

STORAGE

The place of storage must be inspected by the HCA prior to transportation of items. Optimum storage conditions must be guaranteed for items in storage:

- The areas must be under cover and offer dry conditions and not be kept in direct sunlight.
- All items should be covered with cover sheets that allow free movement of air.
- Pest controls should be in place.
- All items should be supported off the floor.
- Paper and textile items require specialist storage facilities.
- Items are to be stored for their own safety and care.
- Appropriate security measures must be provided for all storage areas used for the storage of items identified in the CMS.
- A regular inspection of each item should take place with the conditions entered into the CMS database and the Item Tracking List.

TRANSPORTATION

1. Transportation to storage facilities is to be completed in a manner which will minimise damage to salvaged material.
2. The HCA is to be notified of the method and day of transportation.
3. All items are to be suitably packaged and protected for transportation.
4. Items should not be considered for removal before approval is gained from the HCA.

BUILDING ELEMENTS

NO.	ELEMENT	CONDITION/LOCATION OF ELEMENT	ACTION
01	Historical Recording	All areas; all conditions	Record with photographs and drawings before and during demolition
02	Industrial Archaeology		Refer to Action Plans 5, 5A, 5B, 5C
03	Ironmongery: including iron spikes, straps, non structural fixings, ladders, staples, chains, hooks, eyes, bolts	All conditions	If substrate is to be retained, and is sound, retain in-situ. If substrate is unsound & to be replaced, refix item to new substrate. Keep several good examples of each item for future interpretation and for fabrication of new similar elements.
04	Structural Ironmongery: gussets, brackets, bracing, tension rods, trusses, cables, stiffeners, beams & columns, ladders	All conditions	Retain in-situ if sound. To be incorporated into the new design proposal. Rectify any unsound material subtly. Make every attempt to retain items in a structural capacity. Only remove where necessary for repair or adaptation of structure for use.
		All salvaged elements and components with surface rust damage	Retain in-situ where possible. Remove where necessary, rectify & reinstall.
		Insufficient strength to suit the same purpose but a unique or rare example of its type within the precinct	Retain in-situ and rectify to enable structural capability. If structural capability is not possible salvage label and retain on site for interpretive purposes, treat for rust.
		Insufficient strength but a commonly found example of its type and with no potential use, interpretive or decorative function	Discard
07	Corrugated Metal Cladding	Sound and original	Rust treat, reshape and repaint where possible. Where roof cladding allow for new cladding system retain samples for interpretation.
		Damaged	Discard or Remove for repair where possible, as per Action Plan 16 & 17, and reinstate.
09	Gutters, box gutters, rainwater sumps and brackets, downpipes	All conditions	Retain in-situ or remove for repair as per Action Plan 16 & 17 Salvage label and store representative samples of each profile type to facilitate fabrication of new elements to match. Discard all other elements not being repaired.

Received and Checked By: …….
Signature: …….
Company: **Tropman & Tropman Architects**
Date: …….

ACTION PLAN 5

STC50 Masterplan
Conservation Action Plan

Heritage Consultant: Tropman and Tropman Architects
55 Lower Fort Street, Sydney NSW 2000

Phase	:	2
Description	:	Heritage Technology, STC50 Masterplan
Action Plan	:	**5**
Title	:	**SALVAGE AND REUSE OF INDUSTRIAL TECHNOLOGY**
Revision No	:	1
Date of revision	:	February 2017

INTRODUCTION

This Action Plan has been prepared and appended to the Conservation Management Plan and the Heritage Impact Assessment for STC50 project, to outline the actions necessary to fulfil its policies and recommendations.

APPLICABILITY

This plan applies to all items of the project STC50, including those that may as yet be undiscovered and/or are to be removed.

OBJECTIVES

This Action Plan is intended to:

- Maximise the amount of significant fabric conserved.
- Protect adjacent retained in-situ elements from damage.
- Facilitate, where appropriate, the labelling, removal, storage, conservation and re-installation of specific elements of significant fabric.
- Maximise recycling of salvaged heritage materials.
- Protect archaeological information and artefacts.

REPORT STRUCTURE

The Industrial Heritage Technology items need to be tabulated using item descriptions and numbers. The actions required will be listed next to each individual item.

GENERIC METHODOLOGY

Work which includes care and protection of fabric and review of methods and approach is to be carried out to the satisfaction of and with approval and/or as instructed by the Heritage Conservation Architect (HCA) and the Design Architect (DA).

All removed and / or relocated fabric is to be minimal and is to be identified and carefully salvaged for reuse, storage or removal as instructed by and to the satisfaction and approval of the HCA and the DA.

Conserve all early signage and identification as approved and directed by the HCA and DA.

STRATEGY

PROTECTION OF ADJOINING FABRIC

- Where parts of adjoining structures are exposed during the works and are subject to weather or other damage, these parts are to be suitably protected at all times during the works.
- In the completed works, all external elements are to be protected from the weather and other damage in ways consistent with their original appearance and normal building practice.

SALVAGED ITEMS

1. All material deemed significant either in the CMP or by the HCA is to be salvaged in accordance with the action plan.
2. All elements salvaged are to be handled and treated during the process with care, to prevent any further mechanical, water, termite or fungal damage.
3. Stripping of lead based paint for environmental reasons is permitted.
4. Salvage is to be completed in a manner to minimise damage to salvaged material.
5. The methods of salvage are to be prepared in conjunction with the proposed demolisher and submitted prior to commencement of the works.
6. Assemblies and architectural elements are to be disconnected, handled and recovered in whole elements.
7. Where the existing fabric is to be reused in situ or in another location and is to be used as a working platform, the fabric is to be protected during the works.

DOCUMENTATION

1. Items must have a Treatment Proposal, in accordance with the Conservation Management Plan, prepared before removal and storage can take place.
2. If items are to be stored off site the storage facility must be approved by the HCA.
3. Items or parts of items identified for storage must be fully documented before removal and the information entered into the CMS (Conservation Management System).
4. All items are to be labelled with the following information:
    - the number of the item
    - the name of the item
    - the site of origin
    - the location within the site of origin
    - the date of removal

STORAGE

The place of storage must be inspected by the HCA prior to transportation of items. Optimum storage conditions must be guaranteed for items in storage:

- The areas must be under cover and offer dry conditions and not be kept in direct sunlight.
- All items should be covered with cover sheets that allow free movement of air.
- Pest controls should be in place.
- All items should be supported off the floor.
- Paper and textile items require specialist storage facilities.
- Items are to be stored for their own safety and care.
- Appropriate security measures must be provided for all storage areas used for the storage of items identified in the CMS.
- A regular inspection of each item should take place with the conditions entered into the CMS database and the Item Tracking List.

TRANSPORTATION

1. Transportation to storage facilities is to be completed in a manner which will minimise damage to salvaged material.
2. The HCA is to be notified of the method and day of transportation.
3. All items are to be suitably packaged and protected for transportation.
4. Items should not be considered for removal before approval is gained from the HCA.

Sub Action Plans Include:

5A Conservation of Industrial Fabric
5B Conservation Storage of Industrial Fabric
5C Permanent Removal of Industrial Fabric

The following major industrial items and artefacts have been identified in the *'Walsh Bay Precinct Heritage Technology Conservation Management Plan', November 1999, by Tropman & Tropman Architects.*

Item No.	Item Name	Site	Building Proposal	Item Proposal	Action Plan Referral	Schedule of Works & Action	Executive Summary
81	Overhead Travelling Gantries (3)	Pier 4/5	Restored and adaptively reused.	Retain in the Pier 4/5 and adapt	5A 5C	Repair and/ or replace defective metalwork. Adapt track rails to the new location size. Treat with corrosion inhibitor if necessary. Paint if necessary.	This item is of local significance and is to be conserved and adapted into the new building format.
82	Good Lift	Pier 4/5	Restored and adaptively reused.	Retain in situ and adapt	5A 5C	Check for termites & fumigate if required. Repair and/ or replace defective timberwork and metalwork. Dry clean timber.	This item is of local significance and is to be conserved and adapted into the new building format.
90	Gantry Rails (East)	Pier 4/5	Restored and adaptively reused.	Retain in situ and adapt	5A 5C	Check for termites & fumigate if required. Repair and/ or replace defective timberwork and metalwork. Treat with corrosion inhibitor. Inspect and replace as necessary all anchors, connectors and mountings. Dry clean timber.	This item is of local significance and is to be conserved and adapted into the new building format.
91	Gantry Rails (West)	Pier 4/5	Restored and adaptively reused	Retain in situ and adapt	5A 5C	Check for termites & fumigate if required. Repair and/ or replace defective timberwork and metalwork. Treat with corrosion inhibitor. Inspect and replace as necessary all anchors, connectors and mountings. Dry clean timber.	This item is of local significance and is to be conserved and adapted into the new building format.
--	Timber Stairs	Pier 4/5	Restored and adaptively reused	Retain in situ and adapt	5A 5C	Check for termites & fumigate if required. Repair and/ or replace defective timberwork and metalwork. Treat with corrosion inhibitor. Inspect and replace as necessary all anchors, connectors and mountings. Dry clean timber.	This item is of local significance and is to be conserved and adapted into the new building format.

Received and Checked by:
Signature: …… Date:……
Company: **Tropman & Tropman Architects**

ACTION PLAN 5A

STC50 Masterplan
Conservation Action Plan

Heritage Consultant: Tropman and Tropman Architects
55 Lower Fort Street, Sydney NSW 2000

Phase	:	2
Description	:	STC50 Masterplan
Action Plan	:	**5A**
Title	:	**CONSERVATION OF INDUSTRIAL FABRIC**
Revision No	:	1
Date of revision	:	February 2017

INTRODUCTION

This Action Plan has been prepared and appended to the Conservation Management Plan and the Heritage Impact Assessment for STC50 project, to outline the actions necessary to fulfil its policies and recommendations.

APPLICABILITY

This plan applies to all items of STC50 project that have been identified in the Walsh Bay Heritage Technology Conservation Management Plan 1999. It applies to all items that are retained in situ, moved to a new setting on site or to be removed.

For details on the salvage, conservation, storage and removal of the items, refer to Action Plans 5, 5A, 5B and 5C respectively.

OBJECTIVES

This Action Plan is intended to:
- Minimise any further deterioration of the industrial items.
- Maximise the amount of significant fabric conserved.
- Protect adjacent retained elements from damage.
- Facilitate conservation and future installation of significant fabric.
- Stipulate the method of repair and or replacement of specific elements of the fabric consistent with the Conservation Management Plan.
- Maximise re-use of salvaged heritage items.
- Protect archaeological information and artefacts.

REPORT STRUCTURE

The Industrial Heritage Technology is tabulated in terms of its principal materials. These have been grouped according to the nature of the actions required to conserve or repair them.

GENERIC METHODOLOGY

Work is to be carried out to the satisfaction and with approval and/or as instructed by the Heritage Conservation Architect (HCA).

Care and protection against damage to the existing fabric is to be taken at all times to the satisfaction and approval of the HCA.

Prior to any works commencing, the methods and approach for care and protection of the existing fabric are to be documented by the Contractor to the satisfaction and approval of the HCA.

All removed and/or relocated fabric is to be identified and carefully salvaged for reuse, storage, or removal as instructed by the HCA. Removal of any existing fabric is to be minimal to the satisfaction and approval of the HCA.

Conserve all early signage and identification as approved and directed by the HCA.

STRATEGY

1. Where the extent of damage may not be immediately obvious (like termite damage) the elements in question should be thoroughly investigated by an appropriate testing method, prior to the scheduling of work.
2. A summary of damaged, unsound or missing items is to be carried out prior to removal of items from the site.
3. All sound material is to be salvaged in accordance with the action plan.
4. All items are to have a Treatment Proposal prepared before any conservation work commences.
5. All Treatment Proposals are to conform to the relevant Government Agencies approvals.
6. If the proposal does not conform to the Government Agencies approval, approval must be obtained before work commences.
7. All work and Treatment Proposals must be documented and entered into the CMS treatment sheet.
8. The treatment proposal will form the specification for work to be undertaken on the item and include a description of materials, chemicals, finishes and the name of the person recommending the treatment.
9. Replacement should occur only when the existing item is causing damage to the surrounding fabric.
10. Replacement sections must be clearly identified by marking the component with W B-2000
11. The CMS is to be implemented to allow for the long-term management and regular inspections of the items.

The following is general advice to be applied to all items (for specific details refer to the Treatment Proposals included in the CMS):

- Replacement should occur only when the original section is unable to be conserved.
- Replacement should be carried out using similar fabric, finishes and profiles as the original.
- Replacement is to occur when the section is missing and is required to maintain the integrity and heritage significance of the item.

BUILDING ELEMENTS

MATERIAL	GENERAL ADVICE	TREATMENT
Iron/steel	Stabilise so as to prevent further corrosion. Replace sections if they are crucial to the interpretation of the item	Corrosion is to be treated with a tannic acid. Iron proposed for an external location in an unpainted condition is to be coated with Shell Ensis or similar oil.
Brass/bronze	Check for bronze disease.	Coat with microcrystalline wax.
Timber	Replace if the section has become so deteriorated that the item's integrity is threatened, or where the section will cause damage to the item if not replaced.	Dry clean all sections. Check for termites and fumigate if required.
Electrical	Electrical items must not to be immersed in water or stored in damp conditions. Asbestos components may be removed by qualified personnel. Prepare for interpretation purposes.	SLS for interpretation purposes.
Hydraulic (water)	Drain all pipes. Allow for all pipes to be open to allow for the free flow of air. Prepare for interpretation purposes.	External unpainted iron is to be coated with Shell Ensis oil or similar. To be treated with a tannic acid.
Glass	To be salvaged and removed from site. RI where possible.	Replace all broken sections with new glass. RI where possible. DIS broken glass.
Paper	To be stored in archival storage conditions. Make facsimile.	Consult a conservator.
Textiles	To be stored in archival storage conditions.	Consult a conservator
Leather	Replace all missing or torn sections.	Consult a conservator. To be cleaned with a leather soap.

Received and Checked By:
Signature: ……
Company: **Tropman & Tropman Architects**
Date: ……

ACTION PLAN 5B

STC50 Masterplan
Conservation Action Plan

Heritage Consultant: Tropman and Tropman Architects
55 Lower Fort Street, Sydney NSW 2000

Phase	:	2
Description	:	Heritage Technology, STC50 Masterplan
Action Plan	:	**5B**
Title	:	**CONSERVATION & STORAGE OF INDUSTRIAL FABRIC**
Revision No	:	1
Date of revision	:	February 2017

INTRODUCTION

This Action Plan has been prepared and appended to the Conservation Management Plan and the Heritage Impact Assessment for STC50 project, to outline the actions necessary to fulfil its policies and recommendations.

APPLICABILITY

This plan applies to all items of STC50 project that have been identified in the Walsh Bay Heritage Technology Conservation Management Plan 1999. It applies to all items that are retained in situ, moved to a new setting on site or to be removed.

For details on the salvage, conservation, storage and removal of the items, refer to Action Plans 5, 5A, 5B and 5C respectively.

OBJECTIVES

This Action Plan is intended to:
- Minimise any further deterioration of industrial items.
- Maximise the amount of significant fabric conserved.
- Protect adjacent retained elements from damage.
- Facilitate, where appropriate, the labelling, removal, storage, conservation and re-installation of specific elements of significant fabric.
- Stipulate the method of repair and or replacement of specific elements of the fabric consistent with the Conservation Management Plan of the building.
- Maximise reuse of salvaged heritage items.
- Protect archaeological information and artefacts.
- To provide the best temporary conditions for storage of items during the construction phase of the redevelopment of Walsh Bay.

REPORT STRUCTURE

The procedures and practices for the conservation & storage of the industrial Heritage Technology is described in terms of the principal requirements for storage and care.

GENERIC METHODOLOGY

Work is to be carried out to the satisfaction and with approval and/or as instructed by the Heritage Conservation Architect (HCA).

Care and protection against damage to the existing fabric is to be taken at all times to the satisfaction and approval of the HCA.

Prior to any works commencing, the methods and approach for care and protection of the existing fabric are to be documented by the Contractor to the satisfaction and approval of the HCA.

All removed and/or relocated fabric is to be identified and carefully salvaged for reuse, storage, or removal as instructed by the HCA. Removal of any existing fabric is to be minimal to the satisfaction and approval of the HCA.

Conserve all early signage and identification as approved and directed by the HCA.

STRATEGY

1. All elements stored are to be handled and treated during the process to prevent any further mechanical, water, termite or fungal damage.
2. All sound material is to be stored in accordance with the action plan.
3. Transportation to storage facilities is to be completed in a manner which will minimise damage to salvaged material.
4. The method of transportation is to be prepared in conjunction with the proposed contractor and submitted prior to removal.
5. Structural elements are to be disconnected, handled and recovered in sections, lengths and sizes suitable for their planned reuse in the project.
6. Assemblies and architectural elements are to be disconnected, handled and recovered in whole elements.
7. All items are to be suitably packaged and protected for transportation
8. Items should not be considered for removal before approval for work to commence in that phase or site is gained from the HCA.
9. Items must have a Treatment Proposal, in accordance with the Conservation Management Plan, prepared before removal and storage can take place.
10. If items are to be stored off site the storage facility must be approved by the HCA
11. Items or parts of items identified for storage must be fully documented before removal and the information entered into the CMS.

All items are to be labelled with the following information:

- the number of the item
- the name of the item
- the site of origin
- the location within the site of origin
- the date of removal

STORAGE CONDITIONS

Optimum storage conditions must be guaranteed for items in storage:

- The areas must be under cover and offer dry conditions and not be kept in direct sunlight.
- All items should be covered with cover sheets that allow free movement of air.
- Pest controls should be in place.
- All items should be supported off the floor.
- Paper and textile items require specialist storage facilities.
- Items are to be stored for their own safety and care.
- Appropriate security measures must be provided for all storage areas used for the storage of items identified in the CMS.
- A regular inspection of each item should take place with the conditions entered into the Inventory database and the Item Tracking List.

Received and Checked by:
Signature: ……
Company: **Tropman & Tropman Architects**
Date: ……

ACTION PLAN 5C

STC50 Masterplan
Conservation Action Plan

Heritage Consultant: Tropman and Tropman Architects
55 Lower Fort Street, Sydney NSW 2000

Phase	:	2
Description	:	Heritage Technology, STC50 Masterplan
Action Plan	:	**5C**
Title	:	**PERMANENT REMOVAL OF INDUSTRIAL FABRIC**
Revision No	:	1
Date of revision	:	February 2017

INTRODUCTION

This Action Plan has been prepared and appended to the Conservation Management Plan and the Heritage Impact Assessment for STC50 project, to outline the actions necessary to fulfil its policies and recommendations.

APPLICABILITY

This plan applies to all items of STC50 project that have been identified in the Walsh Bay Heritage Technology Conservation Management Plan 1999. It applies to all items that are retained in situ, moved to a new setting on site or to be removed.

For details on the salvage, conservation, storage and removal of the items, refer to Action Plans 5, 5A, 5B and 5C respectively.

OBJECTIVES

This Action Plan is intended to:

- Secure significant Heritage items for conservation because they are no longer safe in their current location.
- Facilitate the documentation, removal, storage, conservation and re-installation of significant fabric.
- Maximise reuse of salvaged heritage items.
- Protect archaeological information and artefacts.
- Allow for the removal of items identified in the CMS after following this action plan.

REPORT STRUCTURE

The procedures and practices for the permanent removal of industrial fabric are described herein.

GENERIC METHODOLOGY

Work is to be carried out to the satisfaction and with approval and/or as instructed by the Heritage Conservation Architect (HCA).

Care and protection against damage to the existing fabric is to be taken at all times to the satisfaction and approval of the HCA.

Prior to any works commencing, the methods and approach for care and protection of the existing fabric are to be documented by the Contractor to the satisfaction and approval of the HCA.

All removed and/or relocated fabric is to be identified and carefully salvaged for reuse, storage, or removal as instructed by the HCA. Removal of any existing fabric is to be minimal to the satisfaction and approval of the HCA.

Conserve all early signage and identification as approved and directed by the HCA.

STRATEGY

1. All elements salvaged are to be handled and treated during the process to prevent any further mechanical, water, termite or fungal damage.
2. All sound material is to be salvaged in accordance with the action plan.
3. Removal is to be completed in a manner to minimise damage to salvaged material.
4. The method of removal is to be prepared in conjunction with the proposed demolisher and submitted to the HCA prior to removal.
5. Structural elements are to be disconnected, handled and recovered in sections, lengths and sizes suitable for their planned reuse in the project.
6. Assemblies and architectural elements are to be disconnected, handled and recovered in whole elements.
7. Items identified in the CMS are only to be removed if approved by the HCA and other consent authorities.
8. All alternative possibilities for the retention of the item on site must be assessed and documented by suitably qualified personnel before an item is removed.
9. Items should be considered for interpretation value.
10. Any item that is to be removed must first be offered to a collecting institution nominated by the consent authorities to be accessioned into its collection if accepted.
11. Items or parts of items identified for removal must be fully documented before removal, and the information entered into the CMS.
12. Items that are to be disposed of and have failed to be relocated may be used for the repair and conservation of other items listed in the Inventory.
13. All items to be removed off site must be fully documented in accordance with NSW Heritage Office Guidelines.

AN ITEM MAY BE REMOVED FOR THE FOLLOWING REASONS:

- If it has been identified (and documented after examination) to be of a condition that is dangerous and may cause harm.
- If the condition of the item is diminished to a point where it fails to be of heritage significance.
- If the item has been assessed as having no Heritage Significance.
- If the item has been nominated and approved for removal by the relevant consent authorities and the actions herein have been adhered to.

Received and Checked by:
Signature: ……
Company: **Tropman & Tropman Architects**
Date: ……

ACTION PLAN 6

STC50 Masterplan
Conservation Action Plan

Heritage Consultant: **Tropman and Tropman Architects**
55 Lower Fort Street, Sydney NSW 2000

Phase:	:	2
Description	:	STC50 Masterplan
Action Plan	:	**6**
Title	:	**SALVAGE AND STORAGE OF TIMBER PILES**
Revision No	:	1
Date of Revision	:	February 2017

INTRODUCTION

This Action Plan has been prepared and appended to the Conservation Management Plan and the Heritage Impact Assessment for STC50 project, to outline the actions necessary to fulfil its policies and recommendations.

APPLICABILITY

This plan applies to timber piles present in all areas of the project STC50 that require salvage as a result of structural rectification and proposed development interventions.

OBJECTIVES

This Action Plan is intended to:
- Maximise the amount of significant metal conserved and retained in situ.
- Protect adjacent retained elements from damage.
- Facilitate, where appropriate, the documenting, labelling, removal, storage, conservation, and re-installation of significant fabric.
- Stipulate the methods by which appropriate documenting, labelling, removal, storage, and conservation of the fabric will best be achieved.
- Maximise recycling of salvaged heritage materials.
- Protect archaeological information and artefacts.

REPORT STRUCTURE

The piles are tabulated according to the nature of actions required to salvage and store them.

INVESTIGATION OF EXISTING FABRIC

Where the extent of damage may not be immediately obvious, the elements in question should be thoroughly investigated by an appropriate testing method, prior to the scheduling of work. A summary of damaged, unsound or missing heritage fabric is to be carried out prior to removal from site.

GENERIC METHODOLOGY

Work which includes care and protection of fabric and review of methods and approach is to be carried out to the satisfaction of and with approval and/or as instructed by the Heritage Conservation Architect (HCA) and the Design Architect (DA).

All removed and / or relocated fabric is to be minimal and is to be identified and carefully salvaged for reuse, storage or removal as instructed by and to the satisfaction and approval of the HCA and the DA.

Conserve all early signage and identification as approved and directed by the HCA and DA.

STRATEGY

PROTECTION OF ADJOINING FABRIC

- Where parts of adjoining structures are exposed during the works and are subject to weather or other damage, these parts are to be suitably protected at all times during the works.
- In the completed works, all external elements are to be protected from the weather and other damage in ways consistent with their original appearance and normal building practice.

SALVAGED ITEMS

1. All sound material is to be salvaged in accordance with the action plan.
2. All elements salvaged are to be handled and treated during the process with care, to prevent any further mechanical, water, termite or fungal damage.
3. Stripping of lead based paint for environmental reasons is permitted.
4. Salvage is to be completed in a manner to minimise damage to salvaged material.
5. The methods of salvage are to be prepared in conjunction with the proposed demolisher and submitted prior to commencement of the works.
6. Assemblies and architectural elements are to be disconnected, handled and recovered in whole elements.
7. Where the existing fabric is to be reused in situ or in another location and is to be used as a working platform, the fabric is to be protected during the works.

BUILDING ELEMENTS

The following actions are to be carried out in respect to the substructural timber piling:

NO.	ELEMENT	CONDITION/LOCATION OF ELEMENT	ACTION
01	Existing Timber Piles	Structurally sound; all areas	• Retain all sound timber piling in outer two rows. Stabilise and conserve. • Retain all sound timber piling below internal deck area, except where removal is necessary for the integration of services and new substructure. • Salvage lable & store removed sections of piling >4m. • Discard lengths <4m.
		Non-structural; all areas	• Retain if intact. Stabilise and conserve. • If pile is structurally required, rectify as required, by replacing with new timber pile. Removed sections of piling >4m to be salvaged labled & stored for reuse or interpretation. • Discard if not intact.
02	Ironmongery attached to piles	All conditions	• Retain in situ all ironmongery attached to piles where possible. • Salvage label & store groups of best intact items of each type for future interpretation. • See also Action Plan 4 – Salvage and storage of metalwork during demolition. • Discard where not intact.

Received and Checked by:
Signature: ……
Company: **Tropman & Tropman Architects**

Date: ……

ACTION PLAN 07

STC50 Masterplan
Conservation Action Plan

Heritage Consultant **Tropman and Tropman Architects**
55 Lower Fort Street, Sydney NSW 2000

Phase:	:	2
Description	:	STC50 Masterplan
Action Plan	:	**07**
Title	:	**REPAIR OF WHARF SUPERSTRUCTURE INCLUDING STRUCTURAL TIMBERS, METALWORK, CLADDING AND ROOF**
Revision No	:	1
Date of Revision	:	February 2017

INTRODUCTION

This Action Plan has been prepared and appended to the Conservation Management Plan and the Heritage Impact Assessment for STC50 project, to outline the actions necessary to fulfil its policies and recommendations.

APPLICABILITY

This plan applies to all the superstructure of STC50 project including structural timbers, metalwork, cladding and joinery, and roof.

OBJECTIVES

This Action Plan is intended to:

- Maximise the amount of significant fabric conserved and retained in situ.
- Protect adjacent retained elements from damage.
- Facilitate, where appropriate, the labelling, removal, storage, conservation, and re-installation of specific elements of significant fabric.
- Stipulate the method of repair and or replacement of specific elements of the fabric consistent with the conservation of the building (note that conservation of the place in this case may include some adaptation of particular elements or areas).
- Maximise recycling of salvaged heritage materials.
- Protect archaeological information and artefacts.

REPORT STRUCTURE

The wharf superstructure is described in terms of its principal elements. These have been grouped according to the nature of actions required to preserve, retain in situ, repair or remove them.

INVESTIGATION OF EXISTING FABRIC

Where the extent of damage may not be immediately obvious (e.g. such as termite damage to the core of large section hardwood columns or rot damage), the elements in question should be thoroughly investigated by an appropriate testing method, prior to the scheduling of work.

A summary of damaged, unsound or missing heritage fabric is to be carried out prior to removal from site.

GENERIC METHODOLOGY

Work, which includes care & protection of fabric, review of methods & approach, is to be carried out to the satisfaction and with approval and/or as instructed by the Heritage Conservation Architect (HCA) & the Design Architect (DA).

All removed and/or relocated fabric is to be identified and carefully salvaged for reuse, storage, or removal as instructed by & to the satisfaction and approval of the HCA & DA.

Conserve all early signage and identification as approved and directed by the HCA.

STRATEGY

PROTECTION OF REMAINING OR ADJOINING FABRIC

- Where parts of adjoining structures are exposed during the works and are subject to weather damage, these parts are to be suitably protected.
- In the completed works, all external elements are to be protected from the weather and other damage in ways consistent with their original appearance and normal building practice.

SALVAGED ITEMS

- All sound material is to be salvaged in accordance with the action plan in a manner which will minimise damage to salvaged material.
- All elements salvaged are to be handled & treated with care during the process to prevent any further mechanical, water, termite or fungal damage
- Stripping of lead based paints for environmental reasons is permitted
- The methods of salvage are to be prepared in conjunction with the proposed demolisher and submitted prior to the works.
- Structural elements are to be disconnected, handled and recovered in sections, lengths and sizes suitable for their planned reuse in the project.
- Assemblies and architectural elements are to be disconnected, handled and recovered in whole elements.
- Where the existing fabric is to be reused in situ or in another location and is to be used as a working platform, the fabric is to be protected during the works.

REPAIR AND REPLACEMENT

i. Repair methods are to include maintenance, patching, strapping, encapsulation, patch welding, caulking, splicing and regalvanising.
ii. Adaptation methods include introduction of supplementary elements, services, fixtures, bracing and replacement.
iii. The main renewal method to be used is the replacement of elements/fixtures to match existing in appearance and function.
iv. All repair works to match existing, employing traditional construction methods wherever possible, including fixings.
v. Reuse existing fabric to fullest extent possible for all conservation, repair and replacement work as approved and instructed by the HCA & DA.
vi. All repairs, adaptations and new work to be identified with appropriate date stamp as approved and instructed by the HCA & DA.
vii. Any new structural, system required, or works other than replacement of existing to match existing, should be identifiable as being distinct from the existing & part of new works. It is to have minimal connections to & intervention with existing fabric as approved by the HCA & DA. Samples of fabric and full size conservation techniques and construction systems are to be satisfactorily provided as required by the HCA & DA before proceeding with works.

BUILDING ELEMENTS

No.	ELEMENT	CONDITION/ LOCATION OF ELEMENT	ACTION
01	First Floor Columns Joists, Bearers, Studs, Rails and Noggings Timber components of roof trusses, wall braces, top and bottom plates, Roof Purlins & Cargo Door Frames	Sufficient strength.	Retain in situ & repair where possible, otherwise Salvage label & store, then repair & reinstall.
		Insufficient strength	Retain in situ, strengthen by attaching steel plates or other approved methods
		Sound but removed as a result of new works	Salvage label & store; retain whole lengths and any sound sections from damaged areas. Re-use for the repair of similar elements, Reinstall as appropriate.
		Surface damage	Retain & repair in situ
		Substantial termite damage to some of the element	Retain & repair in situ, or Salvage label & store; retain whole lengths and

			any sound sections from damaged areas. Re-use for the repairs of areas retained in situ. Reconstruct
		Substantial termite damage to most of the element	Retain in situ, fill cavity with epoxy & stabilise.
		Substantial damage due to mechanical or fungal damage	Retain in situ, splice repair damaged area Or Reconstruct
04	Weatherboards and cappings Skirtings Fascias and eaves soffits Sill and door plate moulds Panel Moulds Timber floorboards Timber balustrades Boarded soffit linings Boarded interior wall claddings	Sound	Retain in situ timber plinth Retain in situ all other items where possible, Otherwise Salvage label & store, & reinstall,
		Sound but removed as a result of new works	Salvage label & store, retain whole lengths and any sound sections from damaged areas. Re-use for the repair of similar elements.
		Most (to be determined on site) of the length of a component has termite, fungal or mechanical damage.	Salvage label & store, Repair or Reconstruct Retain any sound sections from damaged areas. Re-use for the repair of similar elements.
		Some (to be determined on site) of the length of a component has termite, fungal or mechanical damage.	Salvage label & store, patch and/or splice repair, Reinstall
05	Timber cover battens Mouldings securing fibre cement panels and galvanised corrugated steel panels	Sound	Retain in situ where possible. Or Salvage label & store, & Reinstall
		Unsound	Salvage label & store, Reconstruct or repair, Reinstall

06	Window and door frames including jambs, sills and heads and transoms. Door mullions	Sound	Salvage label & store, Repair & Reinstall
		Sound but removed as a result of new works	Salvage label & store where required for potential reuse in the project and retain any whole lengths and any sound sections >800mm in length from damaged areas. Re-use for the repair of similar elements, Reinstall
		Most (to be determined on site) of the length of a component has termite, fungal or mechanical damage.	Salvage label & store, RC or RME (PS) Retain any sound sections from damaged areas where required for potential reuse in the project. Reuse for the repair of similar elements, Reinstall
		Some (to be determined on site) of the length of a component has termite, fungal or mechanical damage.	Salvage label & store, Reconstruct and/or splice repair, Reinstall
07	Window Sashes Louvred Sashes	All sashes (treat individual sash components as follows below)	Salvage label & store, Repair or Reconstruct, Reinstall
		Sound but not required as a result of new works.	Salvage label & store. Re-use for the replacement of similar elements elsewhere in the fabric.
		Most of the length (to be determined on site) of a component has termite, fungal or mechanical damage.	Repair or Reconstruct, Reinstall Retain any sound component sections. Re-use for the repair of similar components.
		Some of the length (to be determined on site) of a component has termite, fungal or mechanical damage.	Patch and/or splice repair or Reconstruct, Reinstall
08	Framed and sheeted door leafs.	All doors (treat individual door components as follows below).	Salvage label & store, Repair or Reconstruct, Reinstall

		Sound.	Retain in situ or if not operating well, remove repair & reinstall
		Sound but not required as a result of new works.	Salvage label & store. Re-use for the replacement of similar components.
		Most of the length (to be determined on site) of a component has termite, fungal or mechanical damage.	Repair or Reconstruct, Retain any sound component from damaged areas. Re-use for the repair of similar components.
		Some of the length (to be determined on site) of a component has termite, fungal or mechanical damage.	Patch and/or splice repair. Reinstall
09	Window and door hardware, Steel door tracks and runners for top hung sliding doors.	Sound.	Items fixed to fabric: retain on fabric & repair where appropriate or, Remove to workshop, rust treat, make operable where possible. Reinstall
		Sound but not required as a result of new works	Retain in situ for interpretation Or where interfering with new works. Relocate to appropriate location or Re-use for the replacement of similar elements elsewhere in the fabric.
		Not sound or repairable	Discard
10	Metal components of timber roof trusses including ties and stiffening plates External Knee Braces Internal Knee Braces Internal Knee Brace Angles Strong Back Trusses	Sufficient strength	Retain in situ
		Insufficient strength	Retain in situ, strengthen by attaching steel plates or other approved methods.

		Surface rust damage	Rust treat
		Substantial damage to most of the element.	Discard
		Substantial damage to some of the element.	Retain samples
		Minor damage	Retain in situ & stabilise.
11	Fibre cement panels	Sound.	Discard
		Sound but not required as a result of new works.	Discard
		Cracked or otherwise damaged.	Discard
12	Corrugated iron external cladding	Sound panels including those with minor rusting or mechanical damage.	Retain in situ & patch
		Panels with substantial rusting or mechanical damage.	Replace with matching profile in galvanised corrugated steel. Fixing method and centres to match original detail.
13	Metal gutters, flashings, downpipes. Metal cover strips to window mullions.	All areas except where removed to allow adaptation.	Retain in situ where possible or Reconstruct or Repair & reinstall

Received and Checked By:

Signature: ……
Company: **Tropman & Tropman Architects**

Date: ……

ACTION PLAN 08

STC50 Masterplan
Conservation Action Plan

Heritage Consultant: Tropman and Tropman Architects
55 Lower Fort Street, Sydney NSW 2000

Phase:	:	2
Description	:	STC50 Masterplan
Action Plan	:	**08**
Title	:	**REPAIR OF MASONRY WALLS**
Revision No	:	1
Date of Revision	:	February 2017

INTRODUCTION

This Action Plan has been prepared and appended to the Conservation Management Plan and the Heritage Impact Assessment for STC50 project, to outline the actions necessary to fulfil its policies and recommendations.

APPLICABILITY

This Action Plan applies to Masonry at STC50 project that requires salvage and repair as a result of structural rectification and proposed development interventions.

OBJECTIVES

This Action Plan is intended to:

- Maximise the amount of significant fabric conserved and retained in situ.
- Protect adjacent retained elements from damage.
- Facilitate, where appropriate, the documenting, labelling, removal, storage, conservation, and re-installation of significant fabric.
- Stipulate the methods by which appropriate documenting, labelling, removal, storage, and conservation of the fabric will best be achieved.
- Maximise recycling of salvaged heritage materials.
- Protect archaeological information and artefacts.

REPORT STRUCTURE

The structural masonry is tabulated in terms of its principal elements. These have been grouped according to the nature of actions required to salvage and store them.

INVESTIGATION OF EXISTING FABRIC

Where the extent of damage may not be immediately obvious, the elements in question should be thoroughly investigated by an appropriate testing method, prior to the scheduling of work. A summary of damaged, unsound or missing heritage fabric is to be carried out prior to removal from site.

GENERIC METHODOLOGY

Work which includes care and protection of fabric and review of methods and approach is to be carried out to the satisfaction of and with approval and/or as instructed by the Heritage Conservation Architect (HCA) and the Design Architect (DA).

All removed and / or relocated fabric is to be minimal and is to be identified and carefully salvaged for reuse, storage or removal as instructed by and to the satisfaction and approval of the HCA and the DA.

Conserve all early signage and identification as approved and directed by the HCA and DA.

STRATEGY

PROTECTION OF ADJOINING FABRIC

- Where parts of adjoining structures are exposed during the works and are subject to weather or other damage, these parts are to be suitably protected at all times during the works.
- In the completed works, all external elements are to be protected from the weather and other damage in ways consistent with their original appearance and normal building practice.

REPAIRED ITEMS

1. All significant damaged material is to be repaired in accordance with the action plan.
2. All repairs are to be sensitive, to prevent any further mechanical, water or fungal damage.
3. Stripping of lead based paint for environmental reasons is permitted.
4. Repairs are to be completed in a manner which will minimise damage to salvaged material.
5. Repairs are only as necessary to stabilise or complete fabric. Generally repairs should aim to retain the patina of heritage fabric. New fabric should be clearly distinguished from the existing
6. The methods of repair are to be prepared in conjunction with the HCA and submitted prior to commencement of the works.
7. Where the existing fabric is to be reused in situ or in another location and is to be used as a working platform, the fabric is to be protected during the works.

DOCUMENTATION

1. Heritage Technology Items must have a Treatment Proposal, in accordance with the Conservation Management Plan, prepared before repairs can take place.
2. If items are to be repaired off site the repairer must be approved by the HCA
3. Items or parts of items identified for off site repair must be fully documented before removal and the information entered into the CMS (Conservation Management System).
4. All items are to be labelled with the following information:
    - the number of the item
    - the name of the item
    - the site of origin
    - the location within the site of origin
    - the date of removal

TRANSPORTATION

1. Transportation to repair facilities is to be completed in a manner which will minimise damage to salvaged material.
2. The HCA is to be notified of the method and day of transportation.
3. All items are to be suitably packaged and protected for transportation
4. Items should not be considered for removal before approval is gained from the HCA.

BUILDING ELEMENTS

NO.	ELEMENT	CONDITION/ LOCATION OF ELEMENT	ACTION
01	Historical Recording	All areas; all conditions	Record with photographs and drawings before and during salvage or removal
02	Hazardous materials	All areas, refer to Hazardous Materials Survey; all conditions	Remove all the hazardous materials in the manner described in the Hazardous Materials Survey and prior to commencement of demolition. Ensure all heritage fabric remains intact.
03	Face & carved stonework including cornices, parapet cappings, base courses and sills	All parapet cappings, string course and cornice wider than 150mm	Provide flashing.
		Sound	Retain in –situ. Repoint where necessary to match sound original joints
		Sound but demolished as a result of the new works	Salvage label and store where required for potential re-use in the project.
		Some of the element (to be determined on site) is damaged.	Repair in situ. Repoint to match existing joints
		Most of the element (to be determined on site) is damaged	Where sufficient thickness present, reface to a depth of 100mm. Repoint to match sound existing joints, Or Replace to match existing.

05	Face Brickwork	Sound	Repair in situ. Repoint to match sound existing joints. Remove intrusive surface cladding or render as required for new work.	
		Sound but demolished as a result of new works	Salvage, label and store where required for potential reuse in the project	
		Unsound	Replace to match existing. Match brick rod, bond & joints of existing brickwork.	
		Localised Damage	Patch masonry	
06	Concrete and Render including cornices, parapet cappings, base courses and sills	All cappings, string course & cornice wider than 150mm	Provide flashing	
		Sound	Retain in-situ . Repoint to match existing	
		Sound but demolished as a result of the new works	Discard	
07	Masonry door & window sills & lintels	Sound	Retain in-situ . Repoint to match existing	
		Sound but removed as a result of the new works	Salvage, label and store where required for potential reuse in the project.	
		Sufficient strength but with water or mechanical damage which does not compromise strength	Retain in-situ and fill cavities with plastic material, or patch repair damaged area. Repoint where necessary to match sound existing.	
		Insufficient strength but with no damage	Strengthen by attaching concealed steel plates or channels or by other approved methods. Repoint to match sound existing	
		Insufficient strength due to mechanical or water damage	Limited damage	Where possible strengthen by concealed steel plates or channels or by other approved methods. Repoint to match sound existing
			Extensive damage	Discard and replace to match existing
			Visually prominent	Discard and replace to match existing
			Visually recessive	Supplement with reinforcing to support loads & repoint to match
08	Steel lintels, beams & columns See Action Plan17	Sound	Retain in-situ . Rust treat	
		Sound but removed as a result of the new works	Salvage, label and store where required for potential reuse in the project.	
		Sufficient strength but with water or mechanical damage which does not compromise strength	Retain in-situ, rust treat, and fill cavities with plastic material, or patch repair damaged area.	

		Insufficient strength but with no damage	Strengthen by attaching concealed steel plates or channels or by other approved methods. Rust treat	
		Insufficient strength due to mechanical or water damage	Limited damage	Where possible strengthen by concealed steel plates or channels or by other approved methods. Rust treat
			Extensive damage	Discard and replace to match existing
			Visually prominent	Rust treat & salvage label and store for reuse in the project
			Visually recessive	Supplement with new steel elements to support load
09	Parapet stepped and raking flashings	All conditions	Retain in-situ. If new are required install without damaging or removing existing	

Received and Checked by:
Signature: ……
Company: **Tropman & Tropman Architects**
Date: ……

TROPMAN & TROPMAN ARCHITECTS

Architecture Conservation Landscape Interiors Urban Design
55 LOWER FORT STREET SYDNEY NSW 2000 FAX (02) 9251 6109 PHONE (02) 9251 3250

DISPOSAL RECORD: WBAP

TO: WALSH BAY Road and Maritime Services

SHEET NUMBER: **Date**

DATE	DESCRIPTION OF FABRIC/ITEMS TO BE REMOVED	ORIGINAL LOCATION	PROPOSED LOCATION	CHECKED BY	SENT FOR APPROVAL