SITE ELEMENTS	GRADING OF SIGNIFICANCE
Ground floor: • Apron curved corner detail. • Substructure including piling, open layout, piles, fenders, wailings, headstocks, girders, timber deck and associated early ironmongery and identification (refer to fig. below). • Gantry rail in concrete (east). • Bag chute • Deadhouse • Industrial large interior spaces and volumes. **First floor:** • Gantry rail & support brackets to storey posts (east) • Industrial large interior spaces and volumes. • Timber slatted partition wall	HIGH
Ground floor: • Concrete ramp (north). • Two-level apron detail and ramp. • Timber stair and shower room. **First floor:** • Toilet block (north). • Timber stair (middle). • Timber office and toilet block (shore shed). • Ramps, deadhouse and timber offices (south).	MODERATE
Ground floor: • Recent ramp and infill to cargo doors. • Timber stair (south).	INTRUSIVE

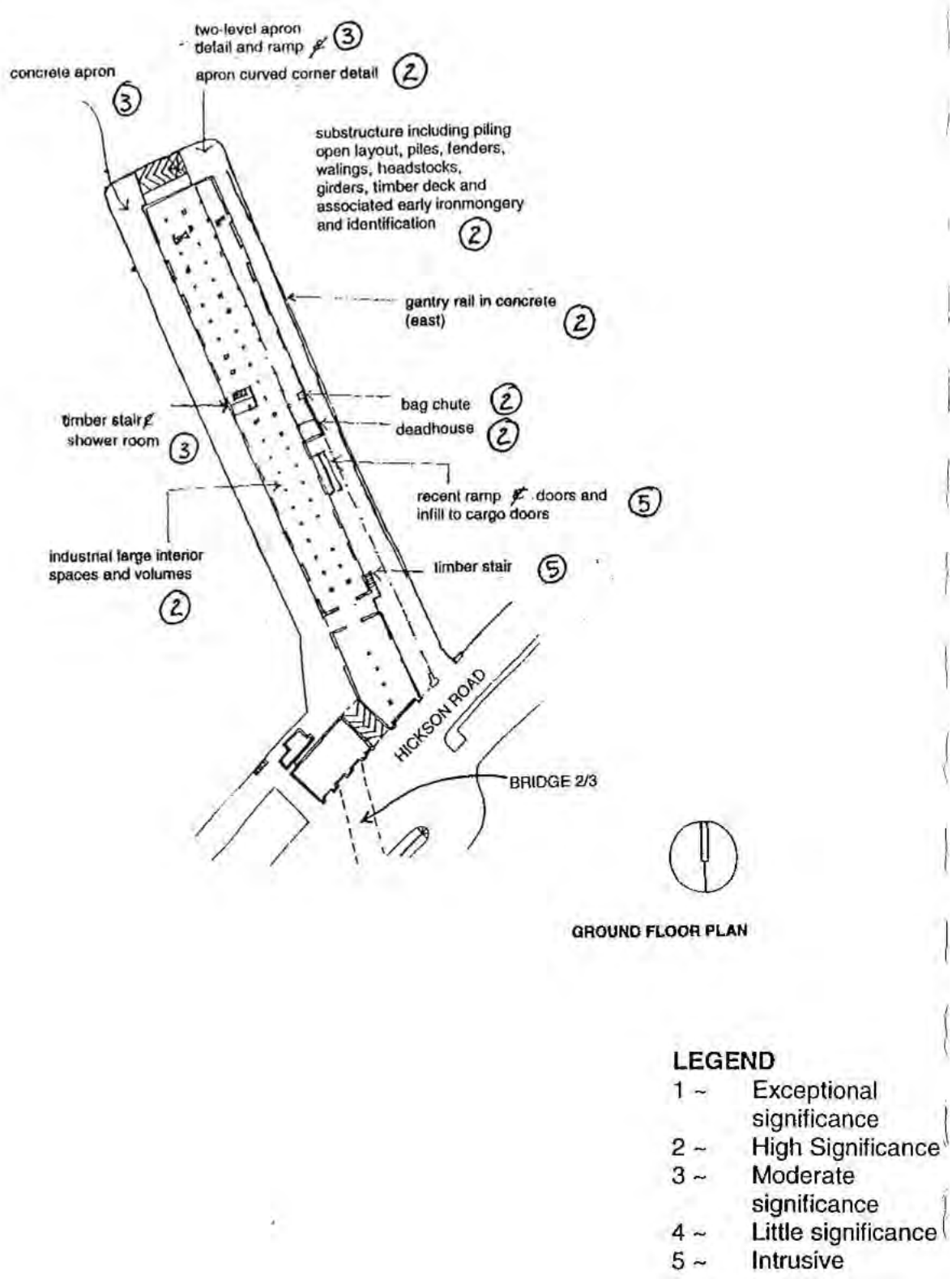


Figure 55 Significance of Pier 2/3 Ground Floor from CMP Wharf 2/3 by Tropman & Tropman Architects.

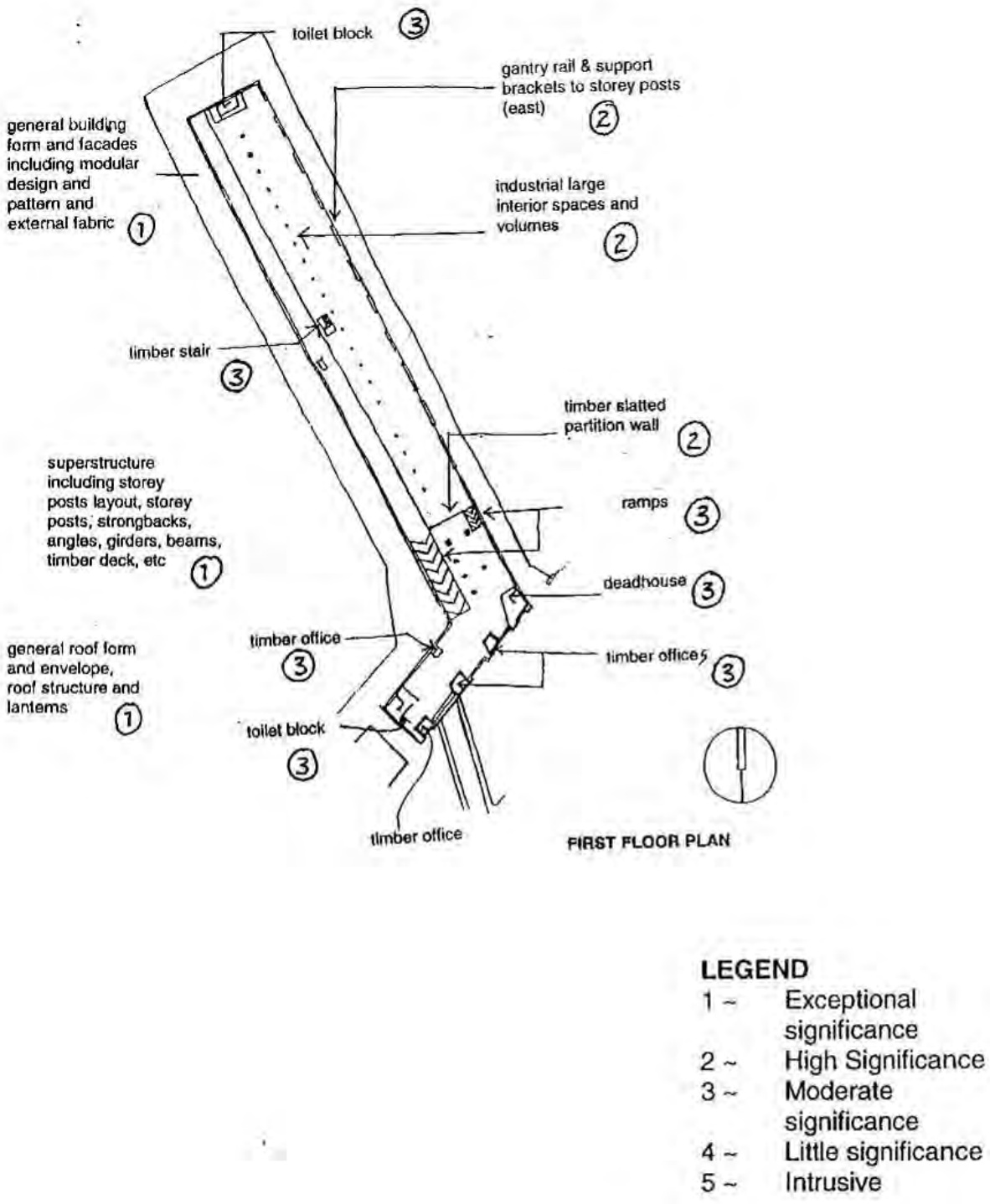


Figure 56 Significance of Pier 2/3 First Floor from CMP Wharf 2/3 by Tropman & Tropman Architects.

5.4.2 Wharf 4/5

This is the Grading of Significance from the 2007 Graham Brooks & Associates Wharf 4/5 CMP which is addressed in the Heritage Impact Assessment.

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 shed, 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 12m 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 • Theatres and rehearsal rooms associated with the various dance and theatre companies. • Timber flooring	HIGH
• 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 shed • Neon signage	LITTLE

5.4.3 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.*

5.4.3.1 Wharf 2/3

Item No	Description
52 55	Dead house (ground floor). Dead house (upper floor). *The deadhouses consist of a timber batten walled room forming a secure space to store bounded goods. They have sliding doors and a large internal shelf.* <u>Former uses</u> The deadhouses are part of the original concept of the Walsh Bay Wharves where the design was to streamline stevedoring practices by having bounded import conveniences located near to the ship for easy handling. They were used as temporary secure storage rooms for imported items that required excise to be payed to Custom's.
54	Gantry rail remnants to first floor east facade and to concrete apron along the eastern side (existing). Travelling Gantries **(removed).** There were originally eight travelling gantries, four on each side. They were installed in association with the construction of the shore shed and completed by 1922. Constructed of riveted mild steel, timber and with a concrete deck at first floor level. In 1989, the underside lifting gear was missing and the original manual drive mechanism converted to electricity. They did not appear operable at this time. <u>Former uses</u> The gantries moved on two rails along the length of the apron, one rail near the outer eastern edge of the apron, the other mounted at first floor level on the facade of the jetty shed. Their main purpose was 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 apron.
89 (53)	Bag Chute It consists of an open slatted timber chute with door opening to the east wall onto the apron. It was installed as part of the original constructed of Pier 2/3 which was completed in 1922. <u>Former uses</u>

The chute was for the removal of hessian bags from the upper floor to the apron where they could be re-used.

Other items include joinery and fitments associated with the occupation of the space, construction systems adapted and modified during the building's life cycle, personnel and cargo movement systems, fire detection, hydraulic and electrical fitments, and moveable items.

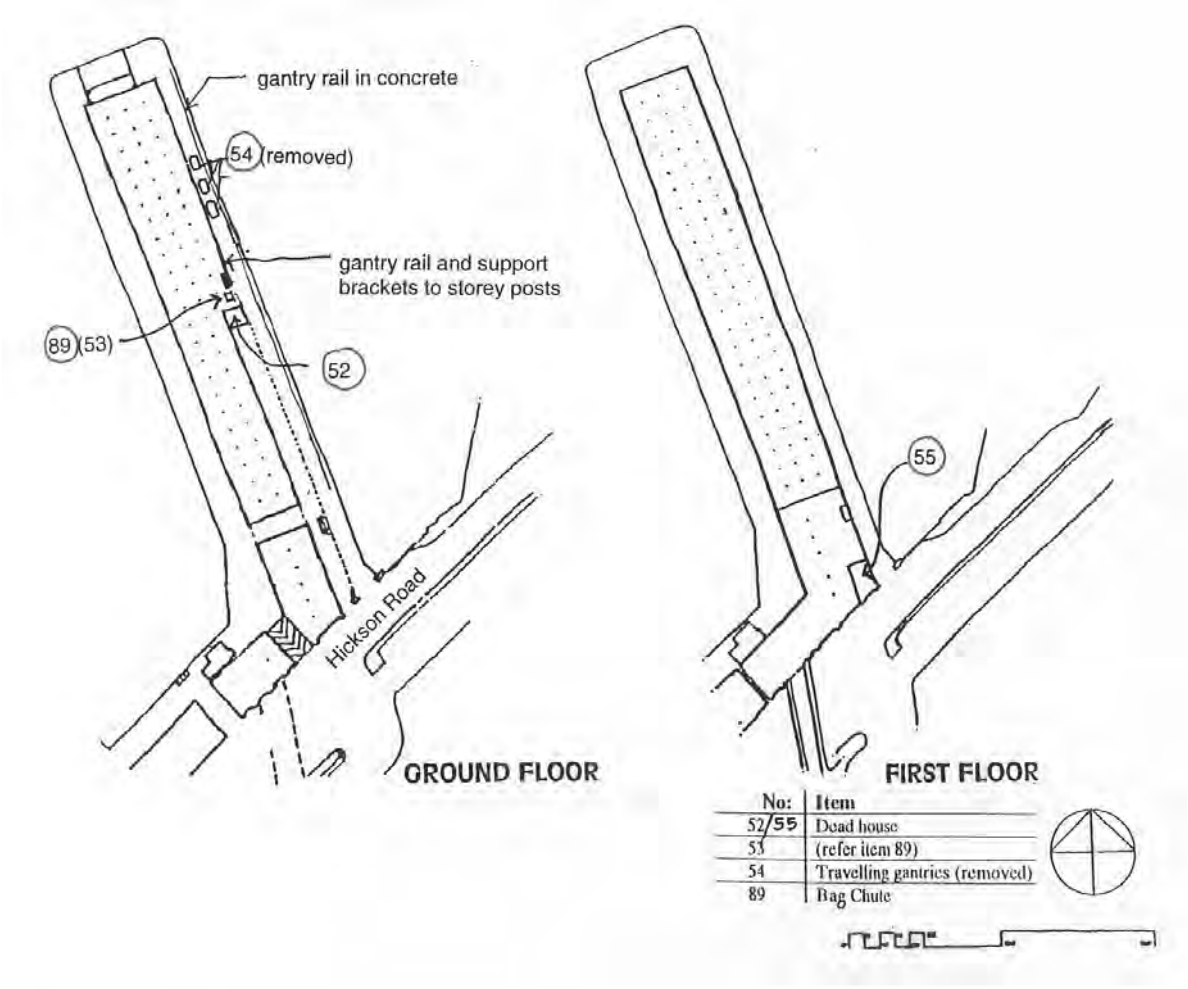


Figure 57 Location Plan Pier 2/3 Source: *Walsh Bay Precinct, Conservation Management Plan,* December 1998 for Walsh Bay Finance.

5.4.3.2 Wharf 4/5

Item No	Description
81	Overhead Travelling Gantries (3). This overhead travelling crane is one of the wharf fitting 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. 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. Former uses This overhead travelling crane performed normal crane operations for goods being loaded and moved onto and off trucks and carts.
82	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 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.

5.4.4 Moveable Heritage Items

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.

While it is possible that some fabric may have been removed and stored during the construction of the lift or derived 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[7] an exhibition of the whole of Walsh Bay.

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

5.4.5 Interpretation

The SEARS (SSDA 8671) dated 1 September 2017 and OEH Letter dated requires that the Heritage Impact Assessment Proposes opportunities to interpret the site's heritage significance and archaeology maritime and historical association.

The locations for interpretative devices displays and information panels within the area of this application are shown below.

A separates Interpretation Strategy is supplied which demonstrates opportunities and uses for Moveable Heritage and site interpretation.

The site in this SSDA is restricted to the two Wharf precincts. Walsh Bay as a whole is controlled by the Walsh Bay Precinct Committee who has the carriage of renewing and caring for the extensive existing Interpretation strategy currently in place.

The whole of Walsh Bay is leasehold to the RMS under a number of methods of holding. Precinct alterations to the Interpretation strategy require the approval of the Precinct Management Committee

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 an accompanying document *Interpretation Strategy for Movable Heritage Items Pier 2/3 Walsh Bay.*

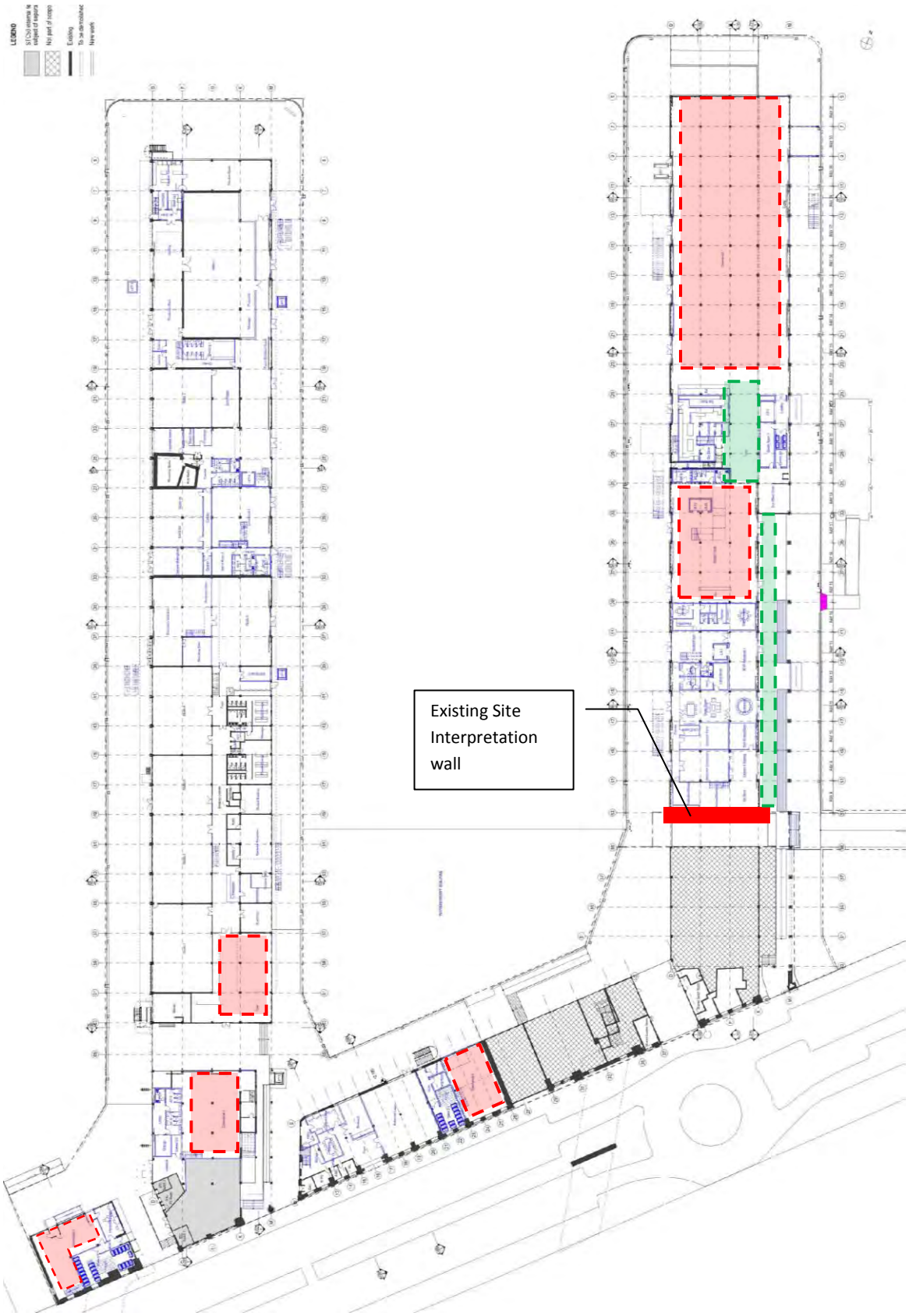


Figure 58 Pier 2/3 & 4/5 Ground Level. Highlighted in red suggested locations for interpretation static elements.

Highlighted in green suggested locations for interpretation panels, text and historic photographs.

Figure 59 Pier 2/3 First Level. Highlighted in red suggested locations for interpretation static elements.

Highlighted in green suggested locations for interpretation panels, text and historic photographs.

6. Design Proposal

The Walsh Bay Arts and Cultural Precinct includes the following proposal:

6.1 Wharf 2/3

Internal alterations and reconfiguration to provide for the following:

- Performance venues;
- Rehearsal rooms, production workshops, back of house facilities and offices;
- Function spaces, bars, cafes and foyer spaces extending onto external gantry platforms (balconies) providing breakout space for internal foyers and allowing views of outdoor performances;
- Mezzanine spaces for offices and back of house facilities;
- Upgrades to meet compliance with current BCA, DDA and fire codes;
- Creation of new commercial tenancies and public toilets;
- Removal of some storey posts and beams to facilitate internal reconfiguration and new uses;
- Retention of a large proportion of the ground floor in its existing 'raw' heritage state for events and festivals including Sydney Writers' Festival and Biennale including venue and commercial hire.

External alterations and additions comprising:

- New balconies and external stairs for fire egress;
- Installation of glazing in existing cargo sliding doors and other solid panels on the eastern, western and northern elevations to allow for views into and out of the building;
- Roof penetration within the central valley at the northern end to accommodate an auditorium;
- Installation of ESD elements, such as photovoltaic panels and seawater heat exchange systems;
- Raising of the external floor level on the eastern side by introducing a new raised deck and continuous set of stairs beyond the existing column line.

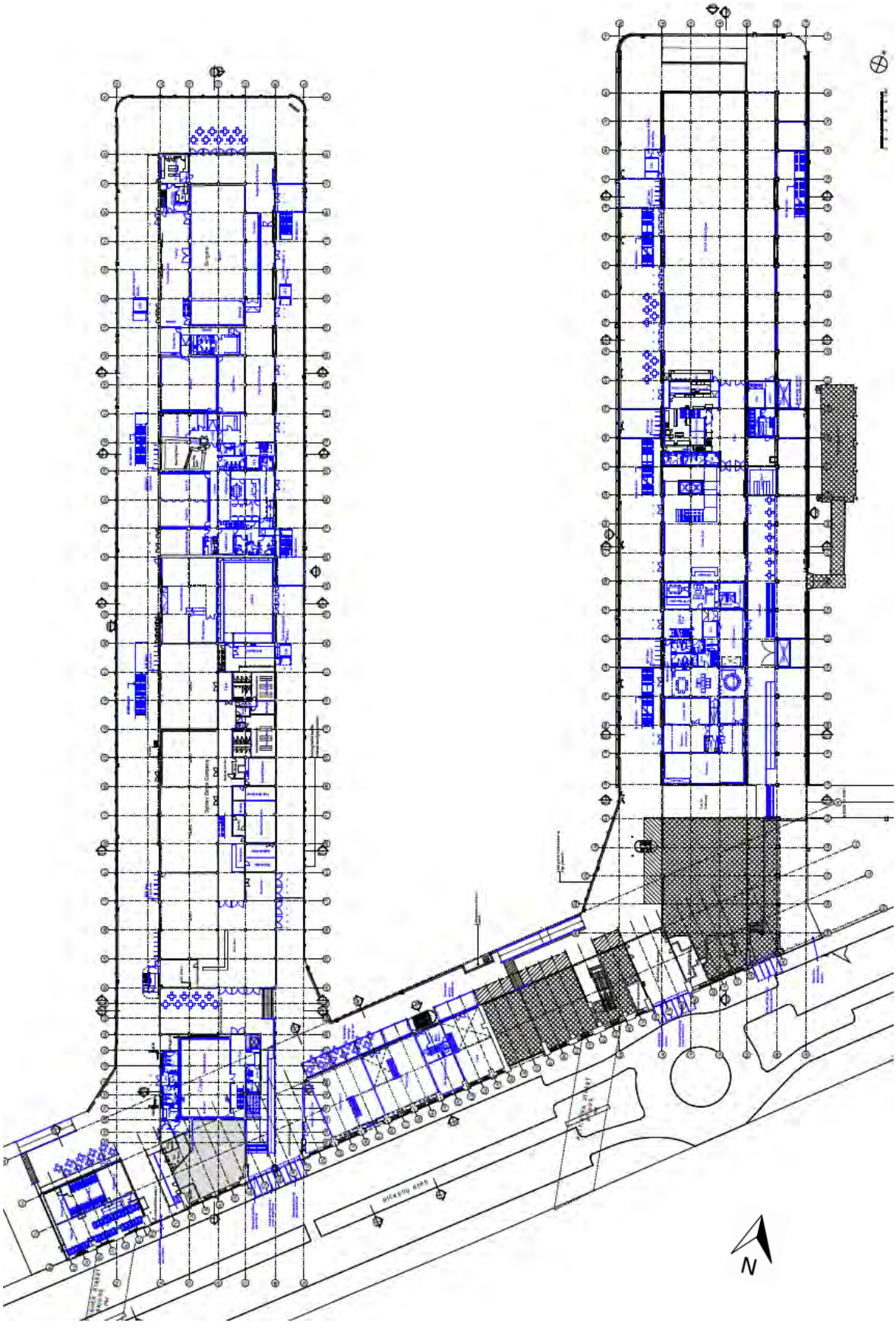


Figure 60 Wharves 2/3 & 4/5 Ground Level. Proposal highlighted in blue. Plans by TZG.

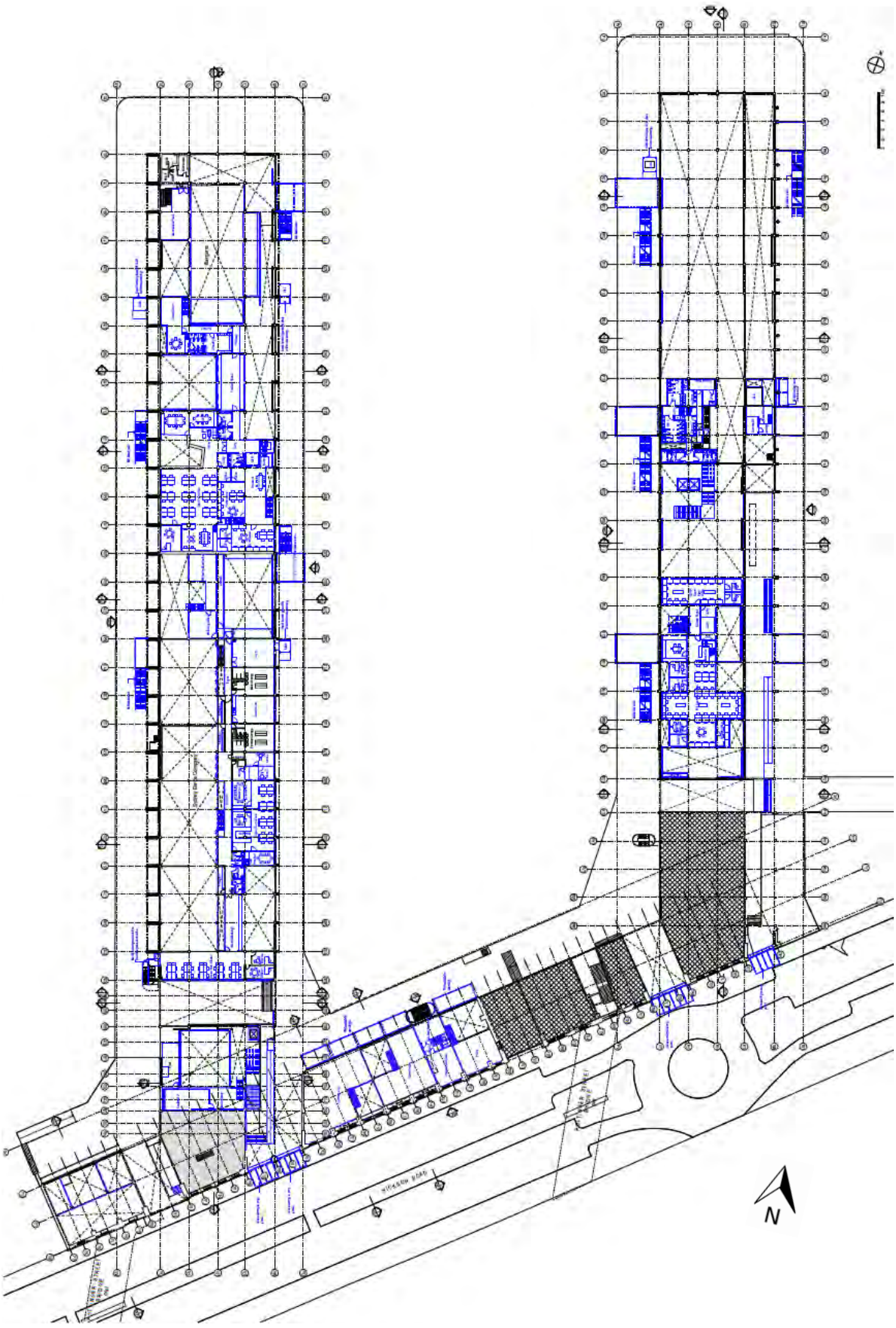


Figure 61 Wharves 2/3 & 4/5 Mezzanine Level. Proposal highlighted in blue. Plans by TZG.

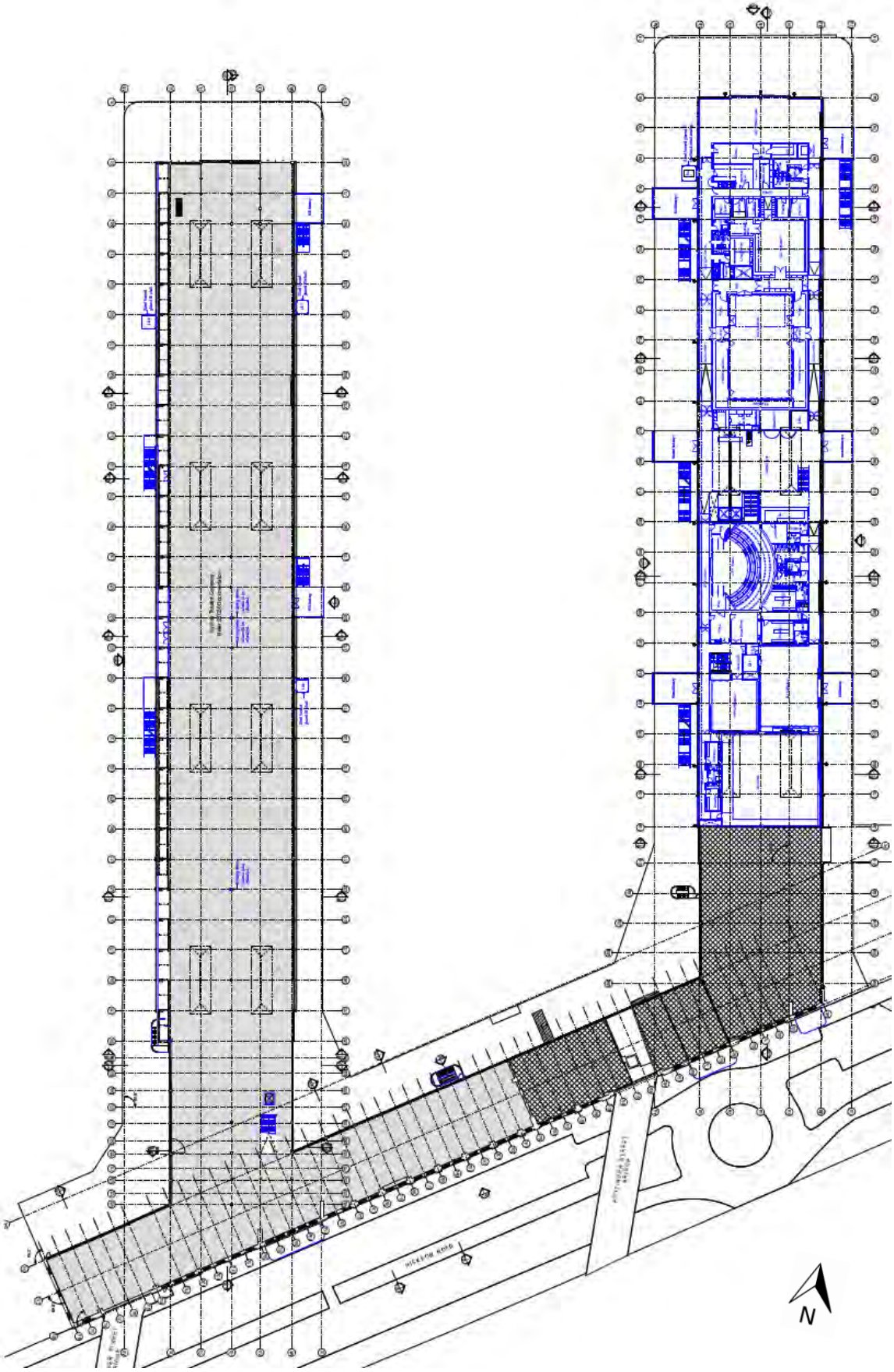


Figure 62 Wharf 2/3 Level 1. Proposal highlighted in blue. Plans by TZG.

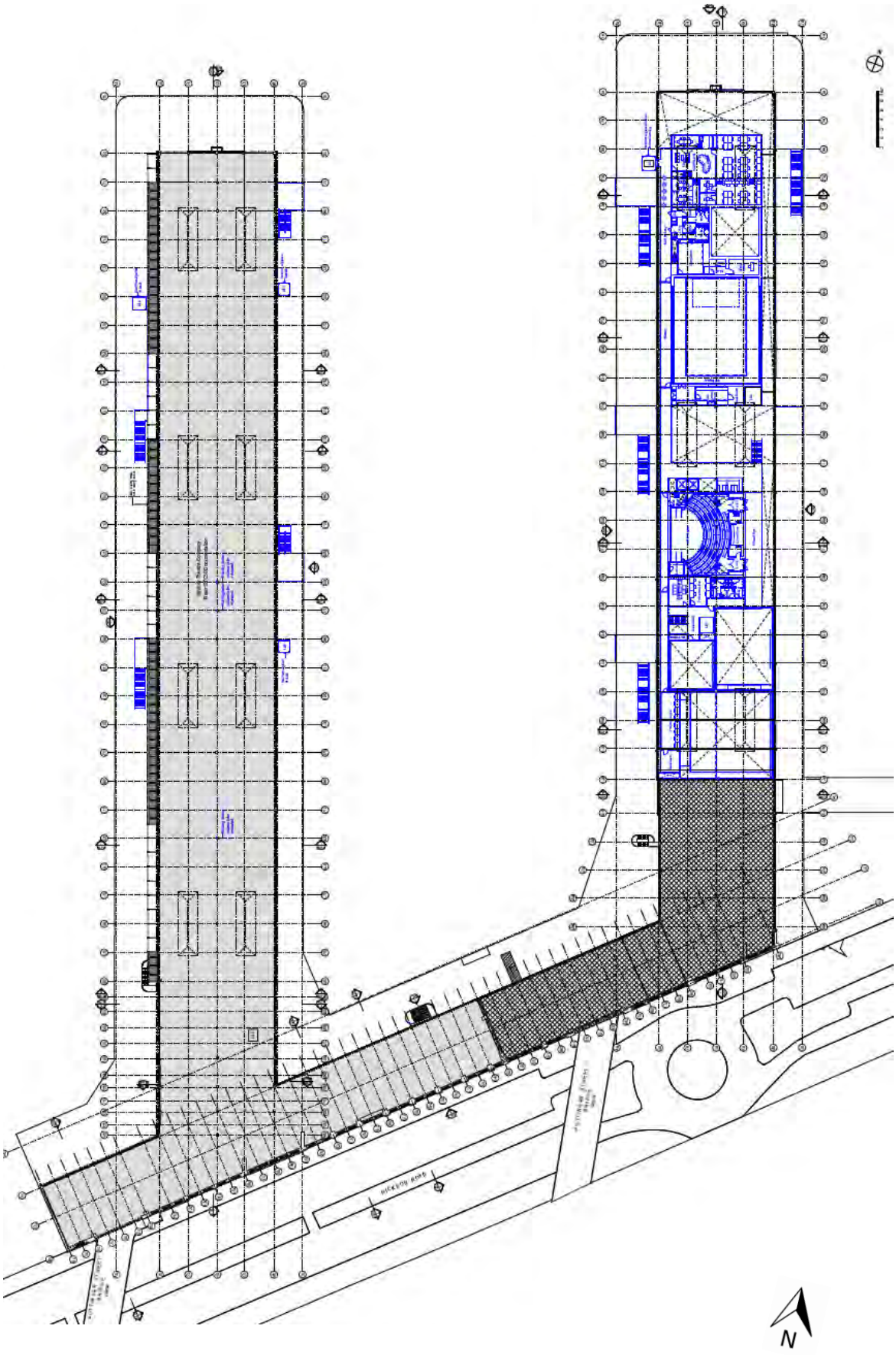


Figure 63 Wharf 2/3 Level 2. Proposal highlighted in blue. Plans by TZG.

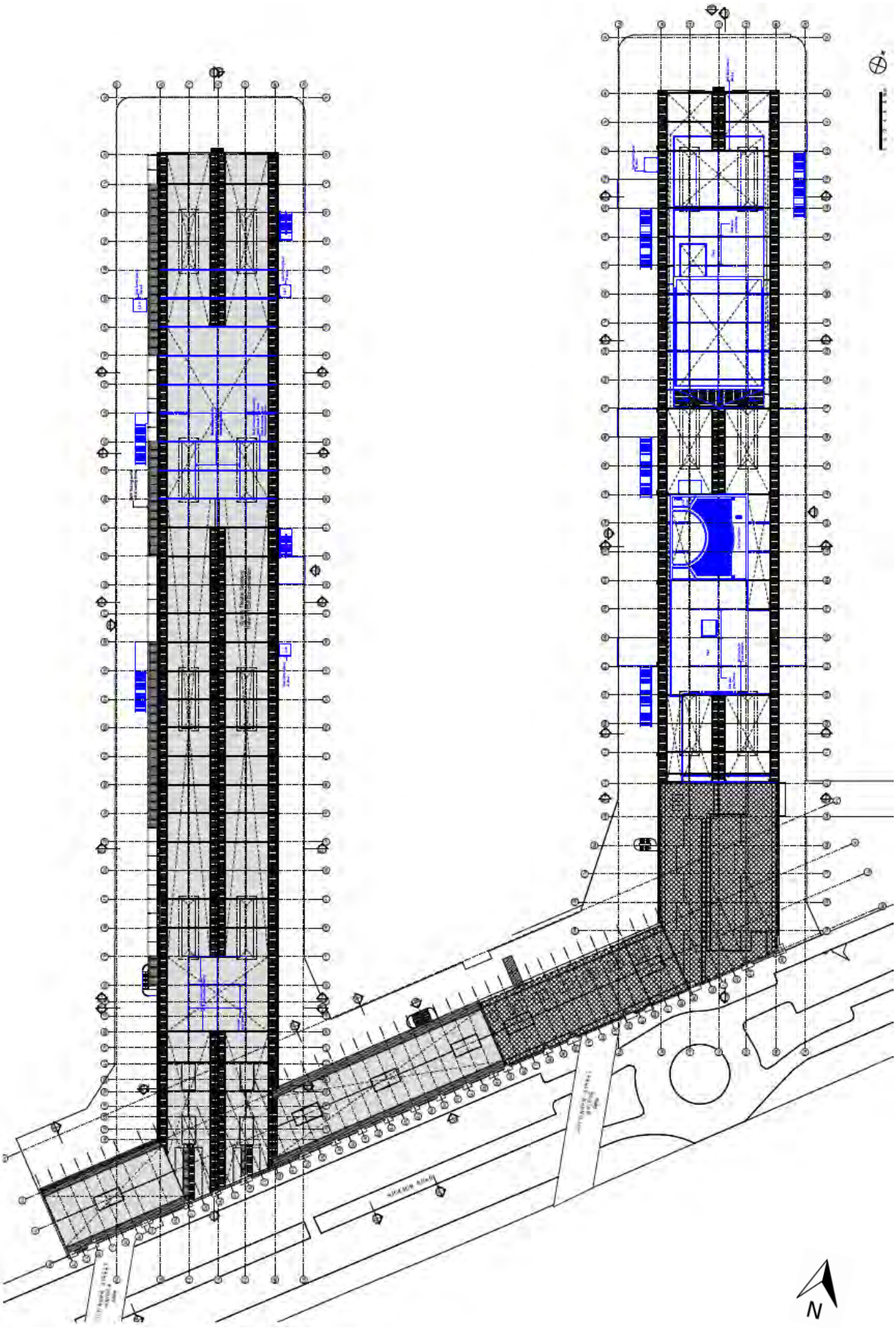


Figure 64 Wharf 2/3 Level 3. Proposal highlighted in blue. Plans by TZG.

6.2 Wharf 4/5

Wharf 4/5 accommodates Sydney Dance Company and Bangarra Dance Theatre in the lower shed, along with Sydney Theatre Company in the upper shed.

BANGARRA

The design proposes an internal reconfiguration of Bangarra's tenancy to incorporate:

- New function space at the north end of the pier;
- Upgrade of the main rehearsal and performance space to provide improved daylight and natural ventilation;
- Removal of a column in Studio 2 to improve usability;
- A new Foyer/exhibition space along the eastern frontage;
- Two multi-purpose studios for visiting artists with an operable wall to allow for use as a third rehearsal studio;
- Consolidated office space at mezzanine level;
- New air conditioning and mixed mode ventilation throughout;
- A new retail tenancy in the centre of the lower shed.

SYDNEY DANCE COMPANY

Upgrades to Sydney Dance Company's tenancy include:

- New studio 5 in place of workshop space, including removal of two existing columns;
- New reception and admin area in current wardrobe store;
- New glazing alongside cafe, allowing the eastern facade to open up to the waterfront;
- New air conditioning and mixed mode ventilation throughout;
- Reconfigured open plan office space at the mezzanine level;
- New green room for SDC professional dancers;
- The public and patrons of the Sydney Dance Company cafe will be provided with additional toilet facilities such that their access to SDC can be restricted for security.

External fabric alterations around the STC tenancy comprising:

- Improved street entry at Hickson Road involving relocation of the stairs to allow for an improved landing and point of arrival to the STC;
- New 'gantry' balconies, stairs and lifts mid-wharf and at the end of the wharf to provide for improved accessibility and compliance with fire engineering solutions;
- Minor amendments to the existing façade to accommodate new entries and exits along the wharf; and
- Roof penetrations and reinstallation of existing photovoltaic panels where applicable.

6.3 Shore Sheds

The eastern tenancies within the Shore Sheds contain a restaurant and a function centre.

While they fall outside the scope of works, they will contribute to the activation of the precinct.

The remaining Shore Sheds will be refurbished to contain:

- The choir spaces which are internally reconfigured to provide 3 rehearsal spaces and supporting office space;
- A Precinct Manager's office in the western tenancy;
- Remaining tenancies proposed as commercial tenancies to reinforce the pattern of retail tenants within the shore shed

6.4 Facades

PIER 2/3 EAST ELEVATION

The eastern elevation of Pier 2/3 provides a ceremonial entrance to the precinct via the axial bridge and existing colonnade. The existing building facade has a chequer board pattern of sliding doors which open up to provide panoramic views of the Sydney Harbour Bridge.

The following facade interventions are proposed as a common language in both Piers 2/3 & 4/5:

- Cargo doors on the upper and lower floors are to remain operable. Glazing is to be installed to the full extent of the opening. This will enable flexibility to provide panoramic views of Sydney Harbour Bridge from the internal spaces and also shut them off for possible performance and event scenarios;

- At key locations, generous balconies of 8x6m provide breakout space from the internal public areas. The design of these balconies echoes the form and detailing of the original gantries;

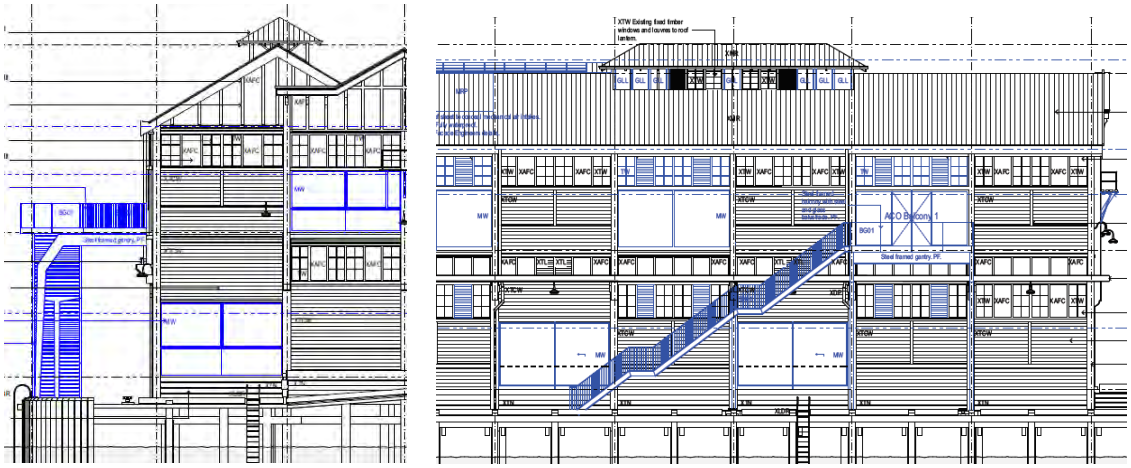


Figure 72 - 73: North and East Elevations Wharf 2/3 showing the proposed glazed gantry balconies. Drawing by TZG.

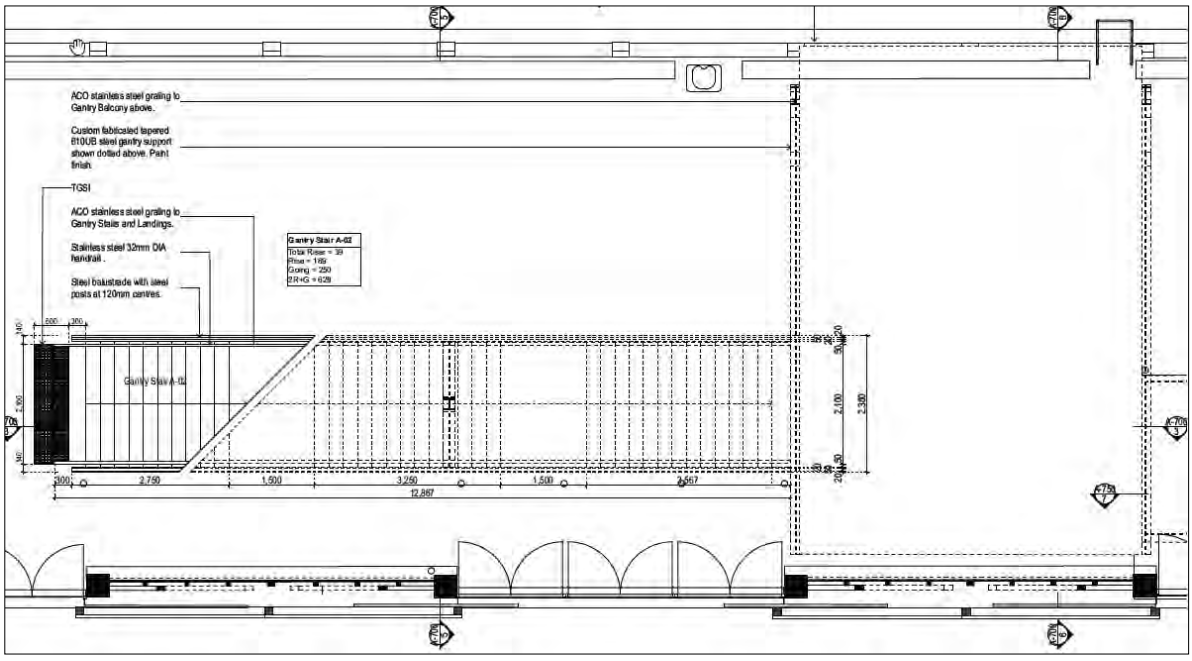


Figure 74: Detail of the proposed stairs. Plan view. Drawing by TZG.

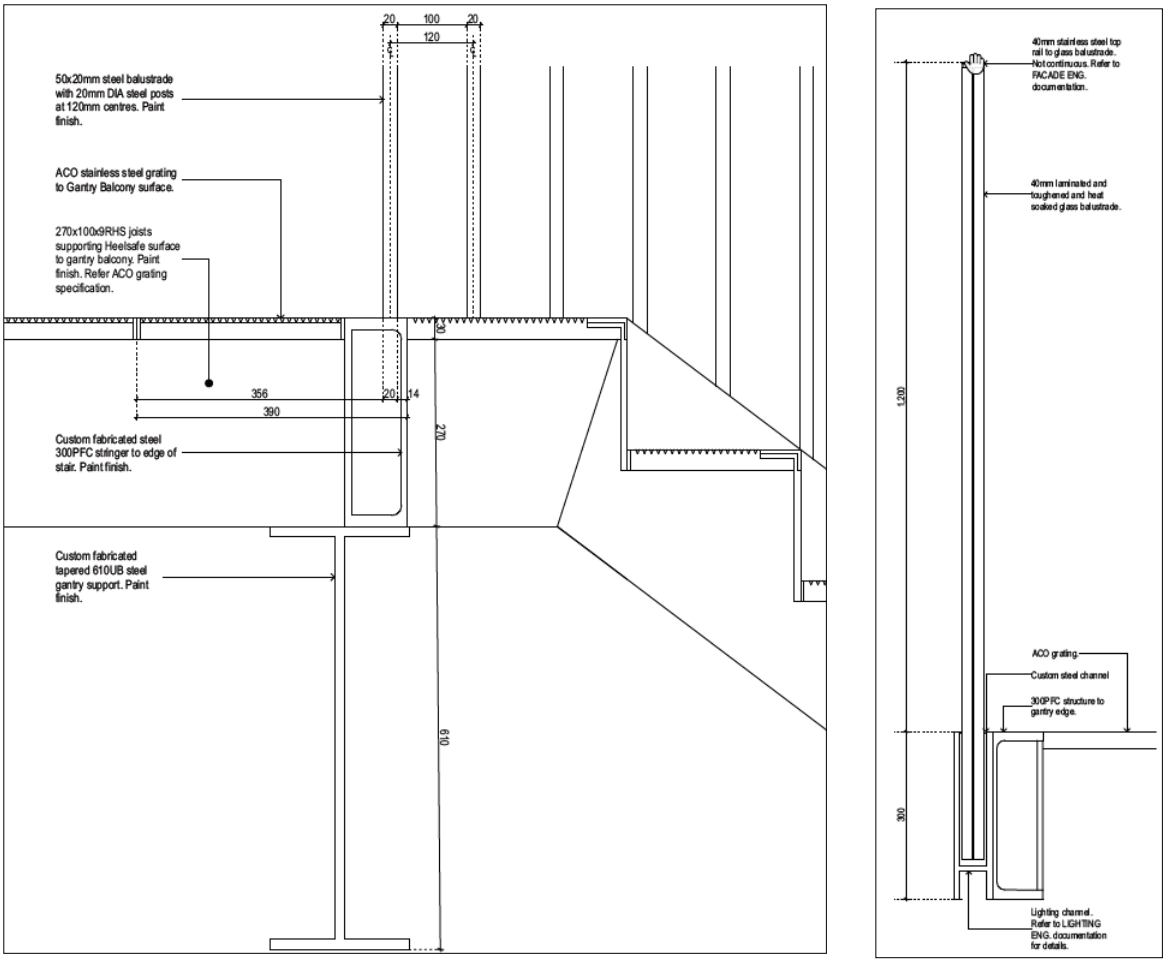


Figure 75 - 76: Details of the proposed stairs. Drawing by TZG.

- Some balconies include generous glazed stairs which provide fire escape from the upper level;
- In pier 2/3 only an elevated walkway is proposed within the colonnade, providing safe pedestrian access separated from service vehicles at the lower apron level.
- New external glazed lifts are proposed to allow better circulation through the building. The design and aspect proposed is contemporary and minimal, to allow clear distinguishing to the heritage fabric and the new material introduced.
- <u>Assessment of new steel platforms lifts and stairs</u>

  The Detailed design is in keeping with the strong industrial character.

  Glazed balcony rails have been used following a risk analysis which suggested a high risk of climbing jumping or diving from the upper levels.

  The industrial character is reinforced by the robust steel detailing.

Figure 78: 3D representation of the proposed external facade, rendering by TGZ.

Figure 78: 3D representation of the proposed external facade, rendering by TGZ.

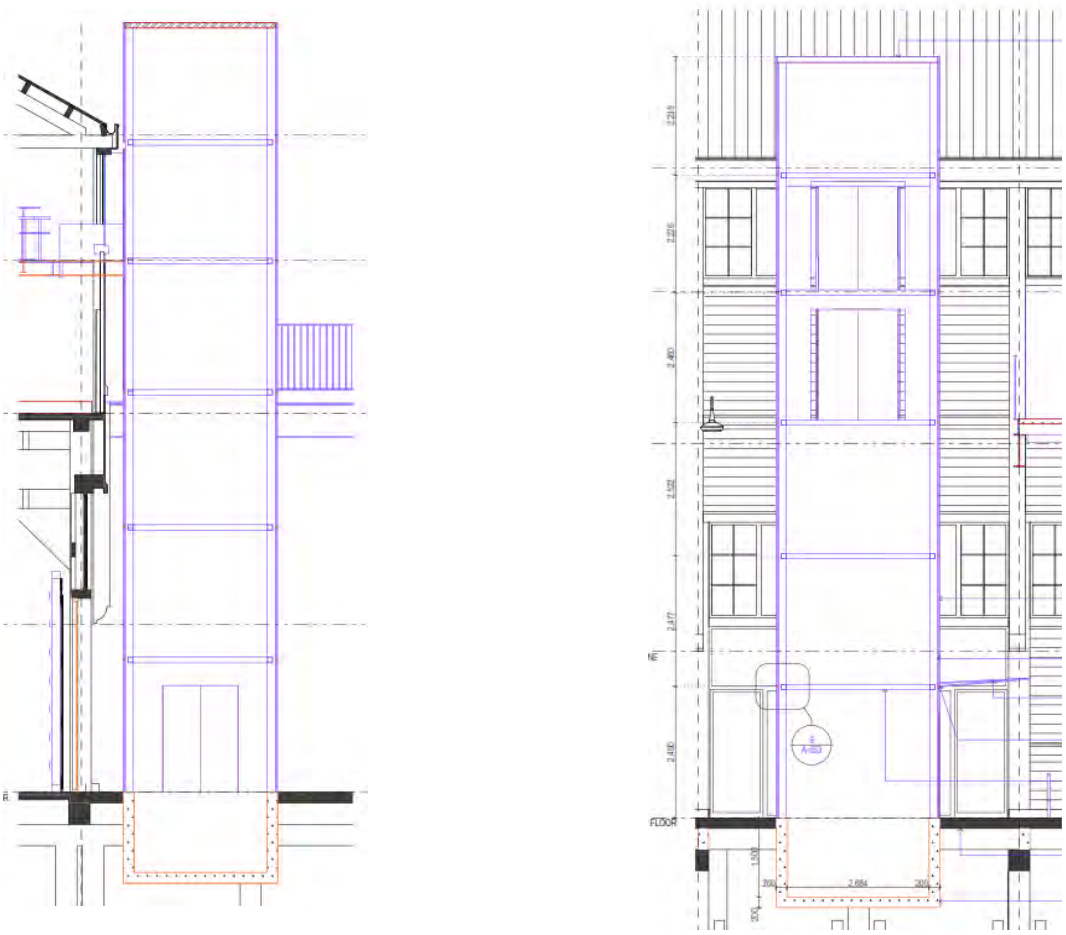


Figure 79-80: Design of proposed lifts, section and frontal, by TGZ.

PIER 2/3 WEST ELEVATION

The western elevation of Pier 2/3 provides the 'public' face of Pier 2/3. The existing building has an alternating pattern of solid panels and cargo doors at ground level, and a solid wall to the upper shed.

The following facade interventions are proposed:

- Cargo doors on the lower floor are to remain operable. Operable portions of glazing are to be installed to the full extent of the openings connecting the flexible open space, central lobby and Bell/ATYP foyer, workshops and rehearsal space to the public domain;

- The cargo doors to the lobby are to remain operable with new glass sliding doors installed within the opening;

- Three new balconies with associated stairs are proposed in front of the primary public spaces;

- On the upper level we have proposed to open up alternate facade bays to respect the chequer board rhythm of the building. Other than those in front of the balconies, new openings are screened with louvres adapted from the existing sidings to mimic the solidity of the existing facade.

  Historic drawings by Sydney Harbour Trust show cargo doors and gantry cranes in both eastern and western facades of Pier 2/3. This demonstrates either that those cargo doors have been infilled

during the 1920-30's modifications of the Pier (Note that even the western internal deck at first level has been infilled and today it is at the same level of the other deck), or that there was the intention to create them.

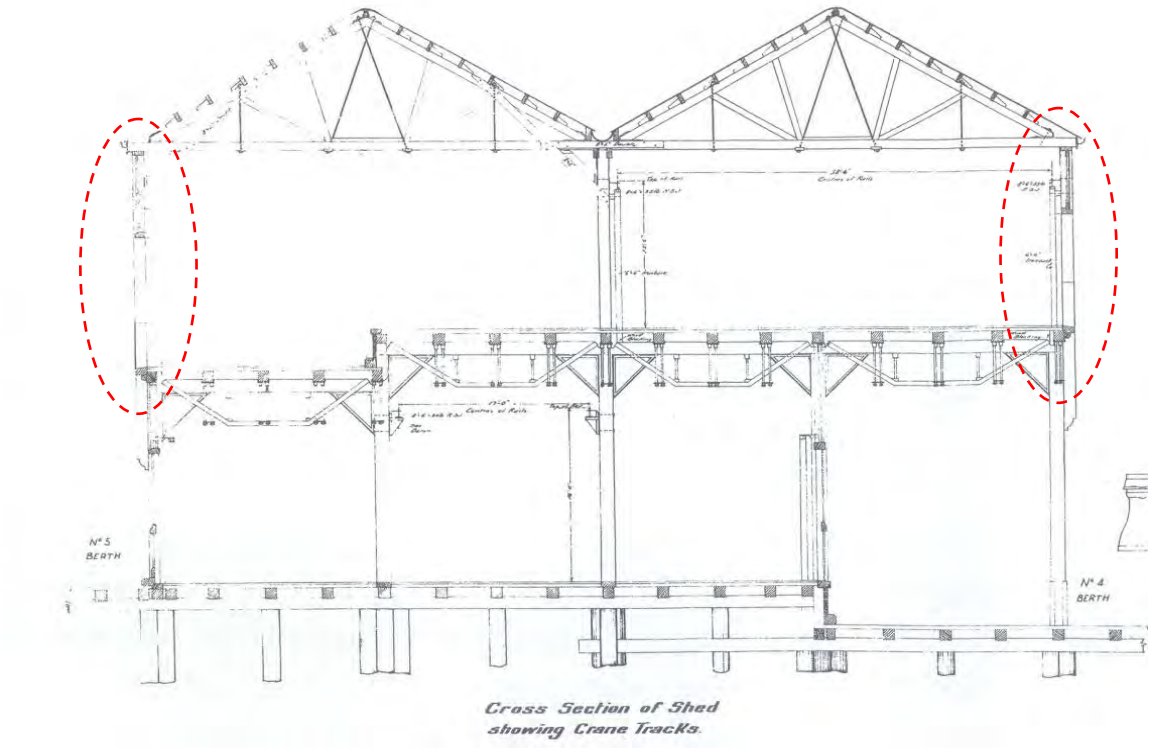


Figure 78: Historic drawing by Sydney Harbour Trust showing cargo doors in both facades of Pier 2/3.

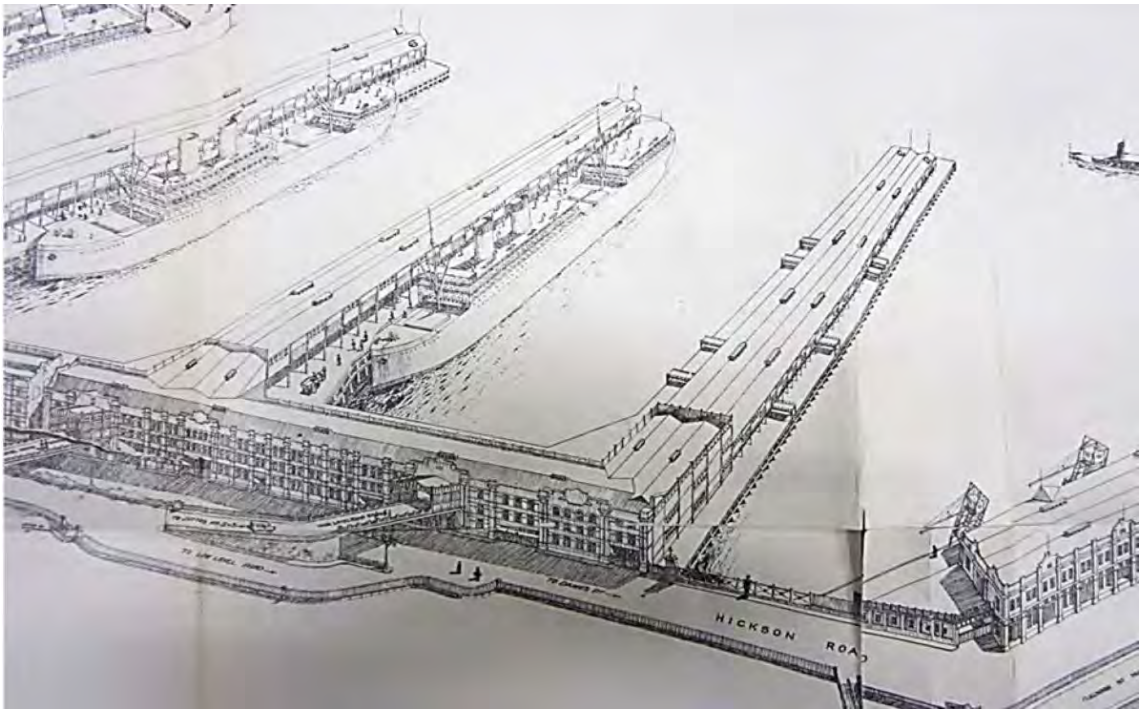


Figure 79: Historic drawing of the work in progress in 1918 showing the eastern and western gantry platforms in Pier 2/3.

- New retractable awnings are proposed on the west facade in order to provide shelter against hot weather. The awnings will be a contemporary and removable element...

  It is also proposed to have a lightweight steel framed awnings to Hickson Road at each of the breezeways with integrated signage.

- Assessment

  The proposed awnings are necessary protection and are a medium impact.

  The detail is suitable for the wharf apron and reflects the utilitarian design of the marine environment. The illuminated LED panels are able to be "Silenced" and rendered a matching colour as required. Activation of the entrances is necessary for safety and way finding.

  All signage is transient in that it can be removed at a later date

Photo 77: Existing retractable awning at Simmer On The Bay cafe.

PIER 4/5 EAST ELEVATION

At the lower level the following works are proposed:

- Sydney Dance Company's facade is to be opened up to better activate the waterfront. New glazing is proposed in every second bay in the original location of the sliding cargo doors;

- Bangarra Dance Theatre will have a new entrance and new glazing in bays of sliding cargo doors, opening up the foyer and main studio to the Wharf 4 apron;

- A new canopy is proposed over Bangarra's main entrance to provide shelter and also identify their position along the wharf. The canopy will be a contemporary element that interprets historical loading platforms that were present.

- The existing external lift No.5 in Pier 4/5 is proposed to be removed. This operation will give more space and clarity to WBACP main entrance.

- Assessment

The relocation of the lift has a beneficial impact on the wharf apron as the vista along the shore shed apron is now unobstructed

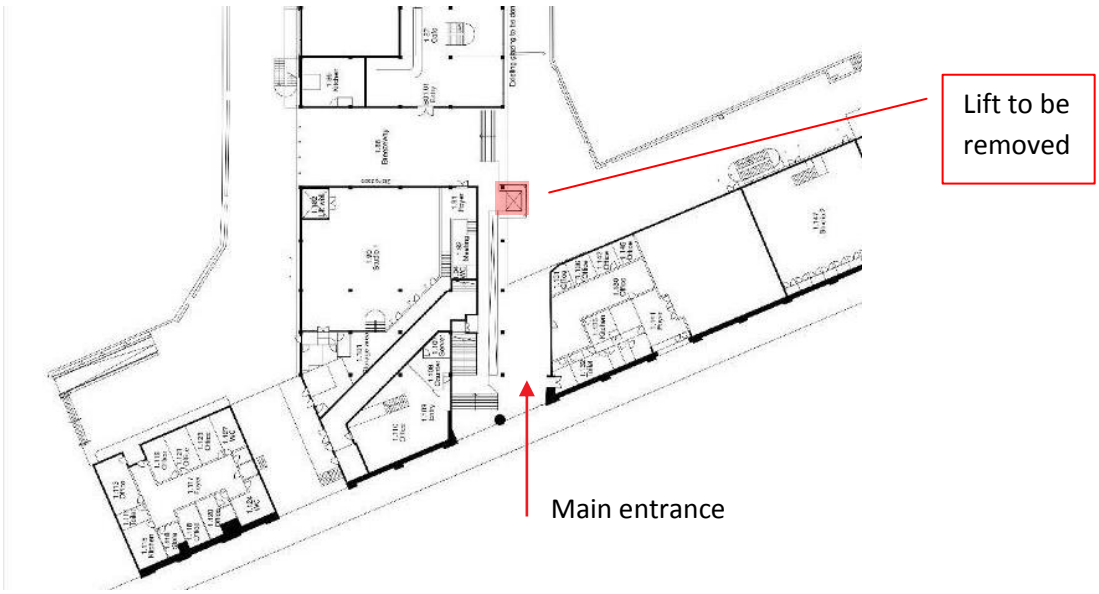


Figure 80: Lift that will be removed, Pier 4/5.

- The new lift proposed along the apron for STC requires localised removal of the gantry rail and penetration in the facade. The removed part will be kept in loco, hanged close to the original location, as interpretative strategy.

- Assessment

  There is an impact on the gantry rail but it will be kept and welded at a lower level for reinstatements i.e. it is a reversible impact.

PIER 4/5 WEST ELEVATION

External alterations comprising:

- New, stairs and lifts mid-wharf and at the end of the wharf to provide for improved accessibility and compliance with fire engineering solutions;
- Minor amendments to the existing façade to accommodate new entries and exits along the wharf;

WHARF 4/5 NORTH ELEVATION

The northern elevation of Wharf 4/5 has already been significantly altered at the upper level. The central bays at the lower level will be replaced with glazing to provide access to and outlook from Bangarra's function space.

PIER 2/3 NORTH ELEVATION

In the end elevation of Pier 2/3, three new openings are proposed. At the upper level, the central two bays will be replaced with glazing, providing Harbour views from the independent function space. At the lower level, the north eastern corner is opened up and replaced with glazing, reinterpreting the original building which was open in this corner.

6.5 Tenancy's Areas

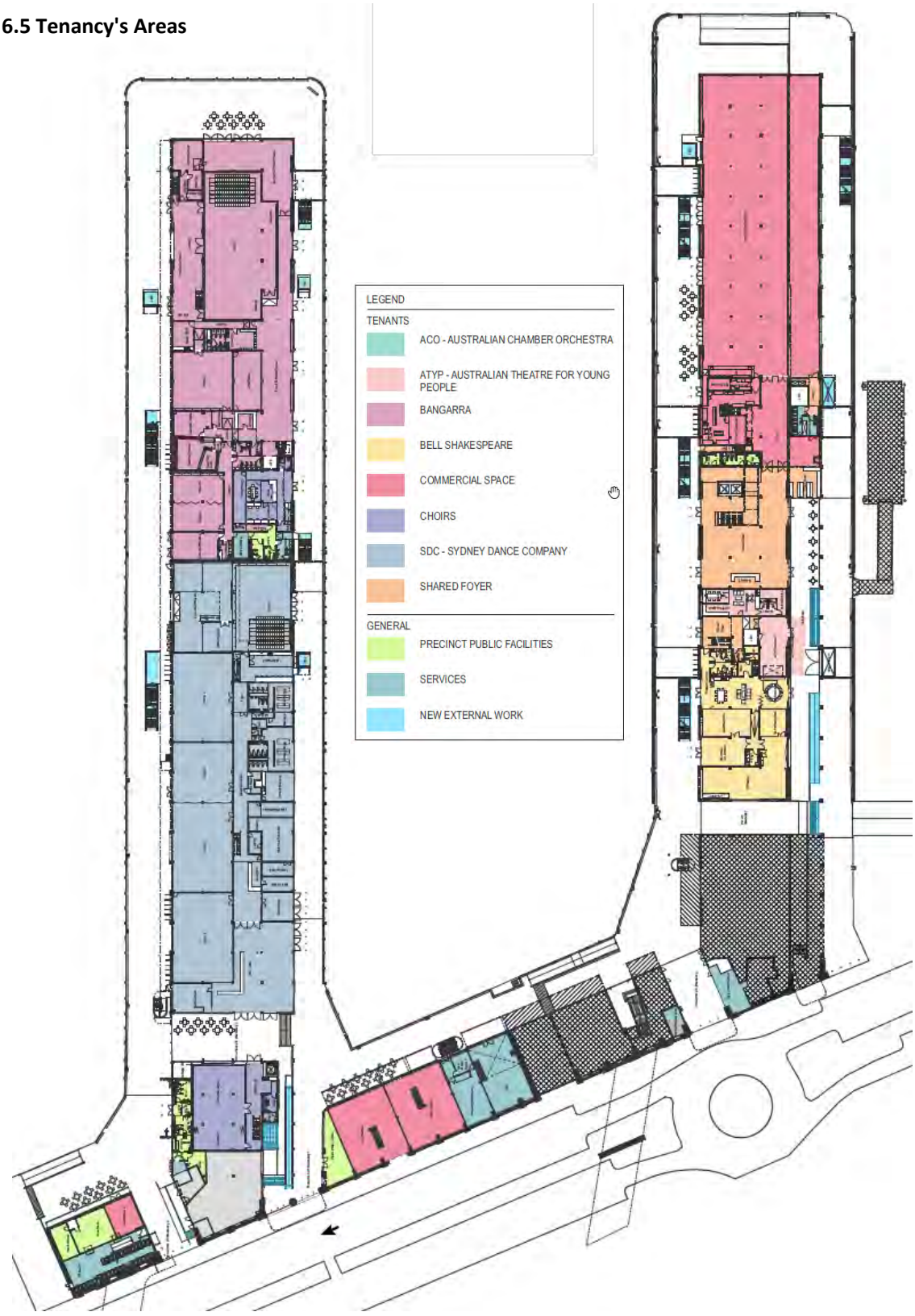


Figure 75: Subdivision of areas with different tenants. Ground floor. Plans from TZG.

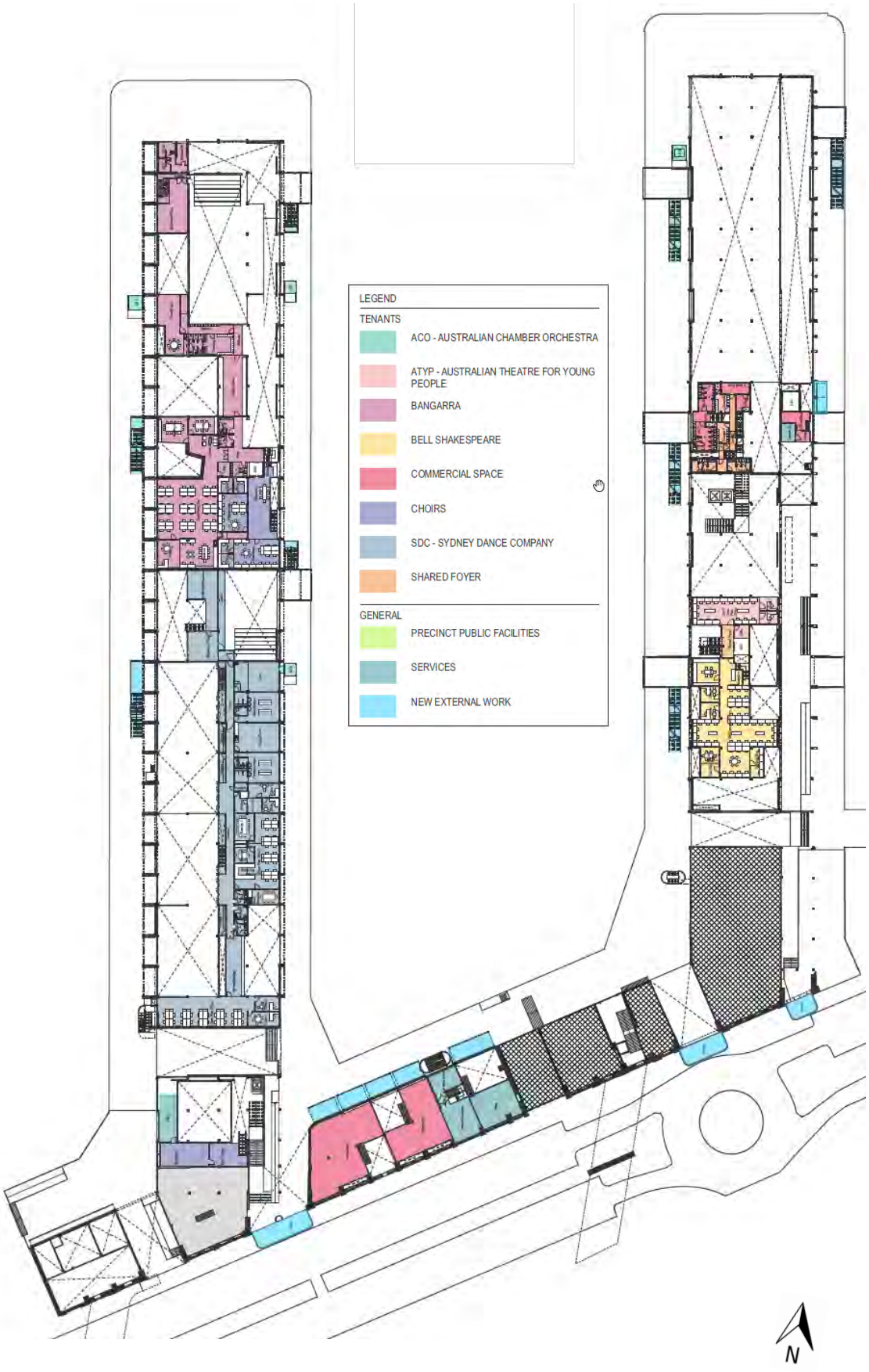


Figure 76: Subdivision of areas with different tenants. Mezzanine floor. Plans from TZG

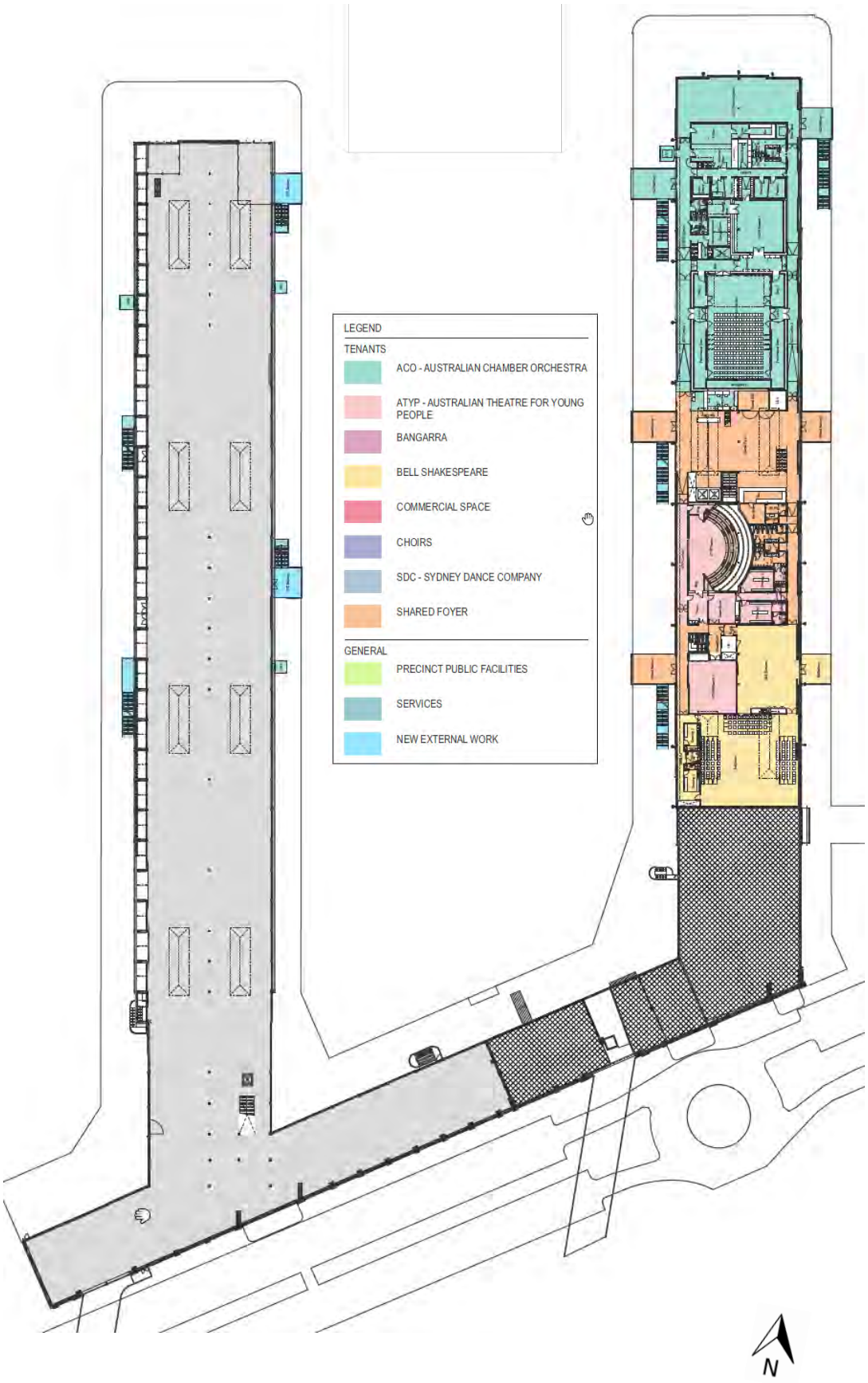


Figure 77: Subdivision of areas with different tenants. First floor. Plans from TZG.

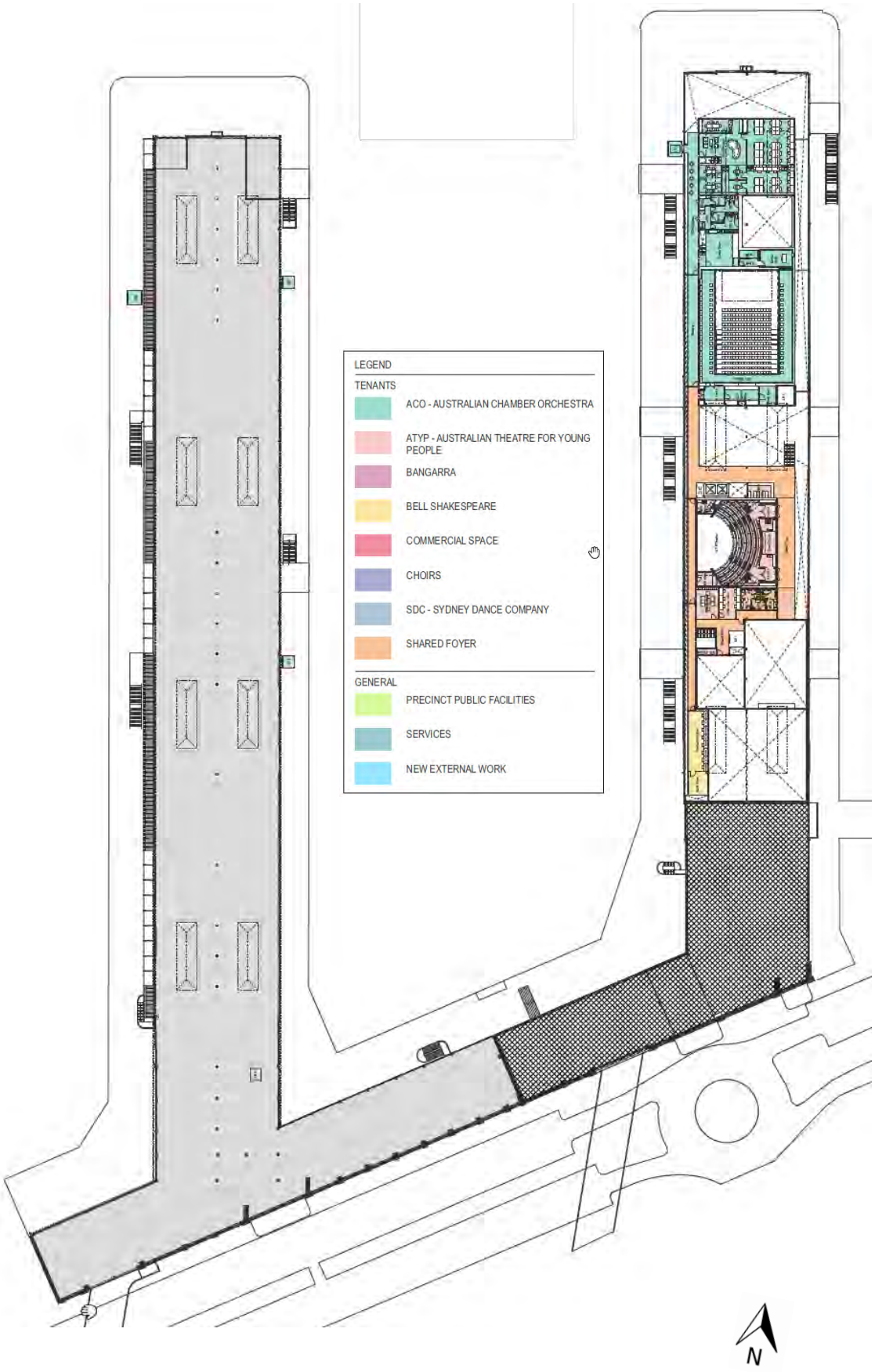


Figure 78: Subdivision of areas with different tenants. Second floor. Plans from TZG.

6.6 Plan of the original floor and ceiling structure

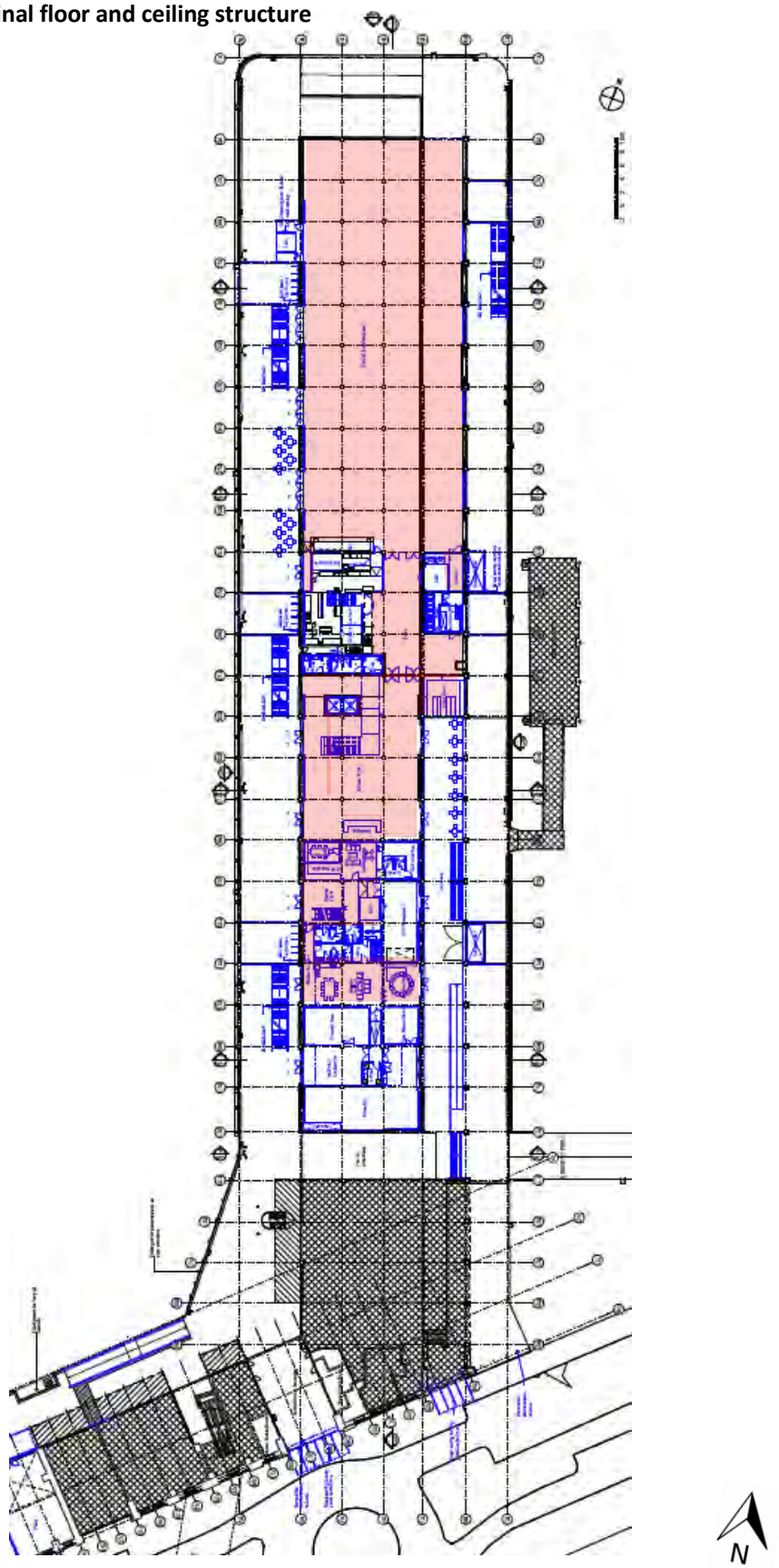


Figure 79: Proposed Ground Level Wharf 2/3 Floor finishes. Highlighted in red existing Ironbark to remain exposed.

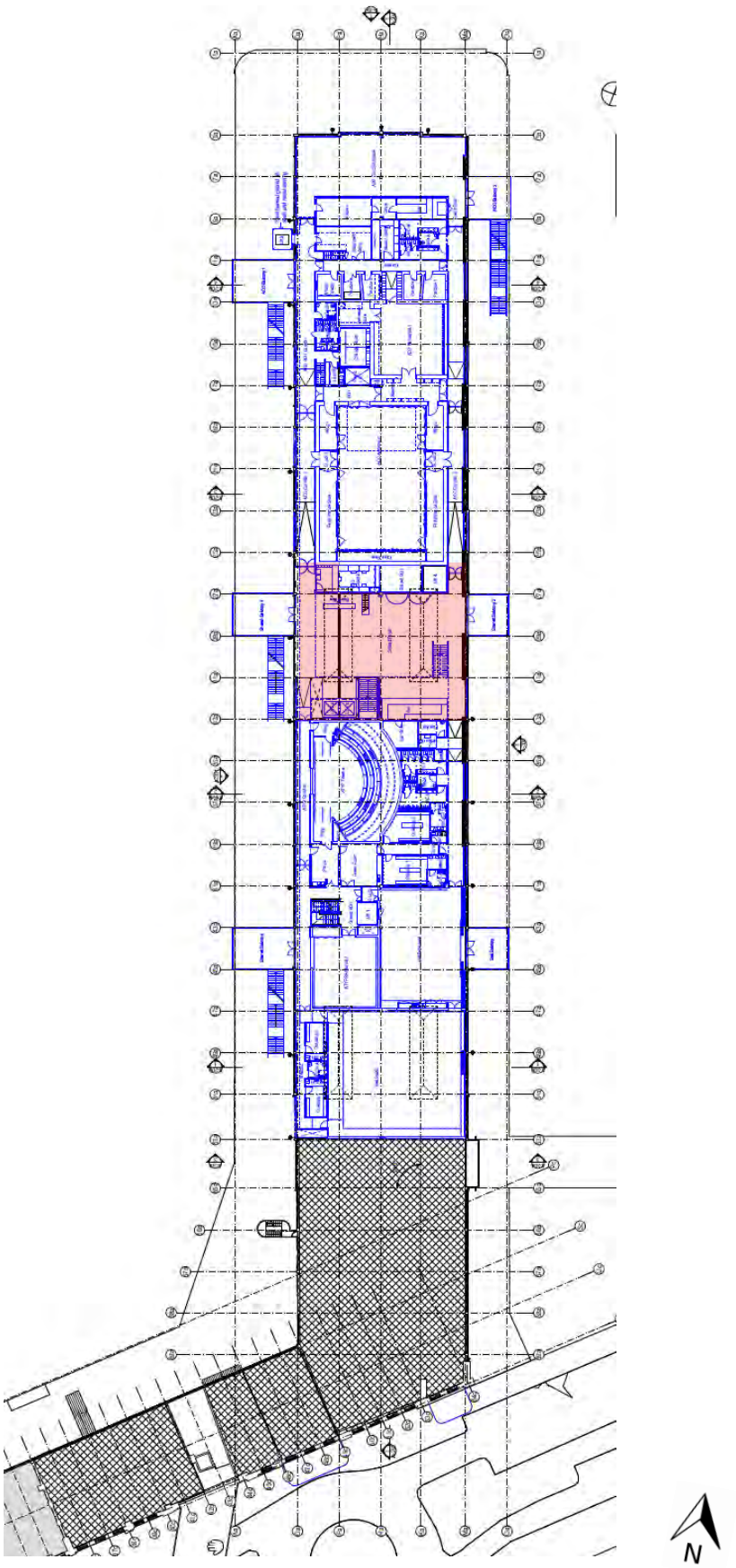


Figure 80: Proposed First Level Wharf 2/3 Floor finishes. Highlighted in red existing Ironbark floor to remain exposed.

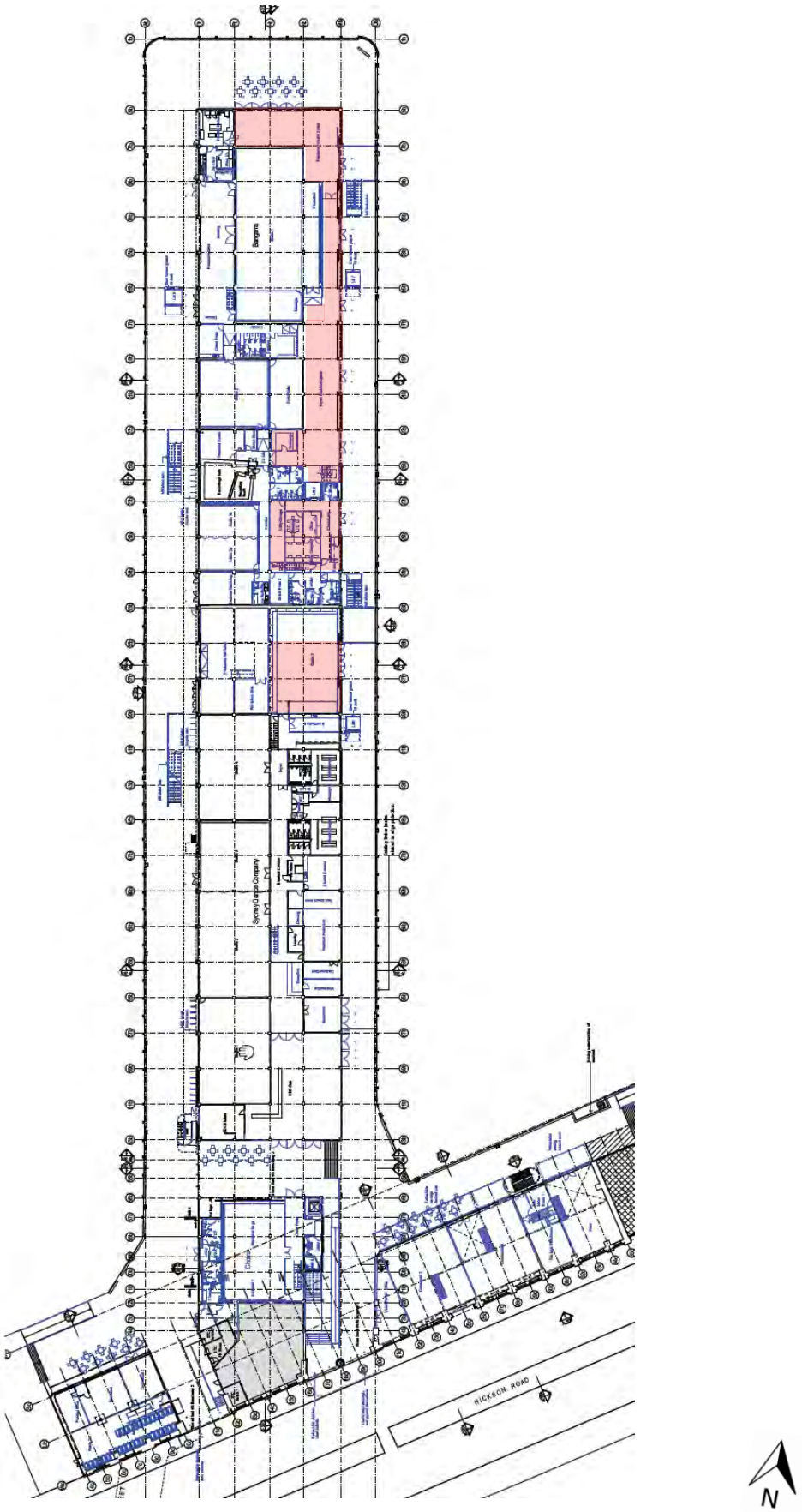


Figure 81: Proposed Ground Level Wharf 4/5 Floor finishes highlighted in red existing Ironbark to remain exposed.

6.7 External Elevations

In Pier 2/3 former cargo doors appear to have been filled in when level 1 floor was raised. The proposal opens up with new glazing installed in the opening, reinforcing the checkerboard façade pattern of the original building. The existing upper floor western façade currently has no openings below the clerestory windows. New openings are proposed in a checkerboard rhythm respecting the rhythm of the wharves. A louvered screen over some of the new openings makes the new windows appear more solid than the clerestory or open cargo doors. On the eastern side of the building, balconies are designed as a contemporary interpretation of the original gantries.

In Pier 4/5 the architecture language proposed is similar to create a visual connection between the 2 Wharfs.

New lifts and several stairs are required to provide access and egress to the upper levels.

In Pier 2/3 three new balconies each side are proposed reminiscent of the travelling gantries that once moved along the apron. These elements will all be detailed in a simple contemporary manner, with a sympathetic industrial aesthetic. The hand rails are transparent to provide a lessened risk of climbing and also to reduce visual impact on the original structure.

In Pier 4/5 only 2 balconies are proposed in the eastern elevation.

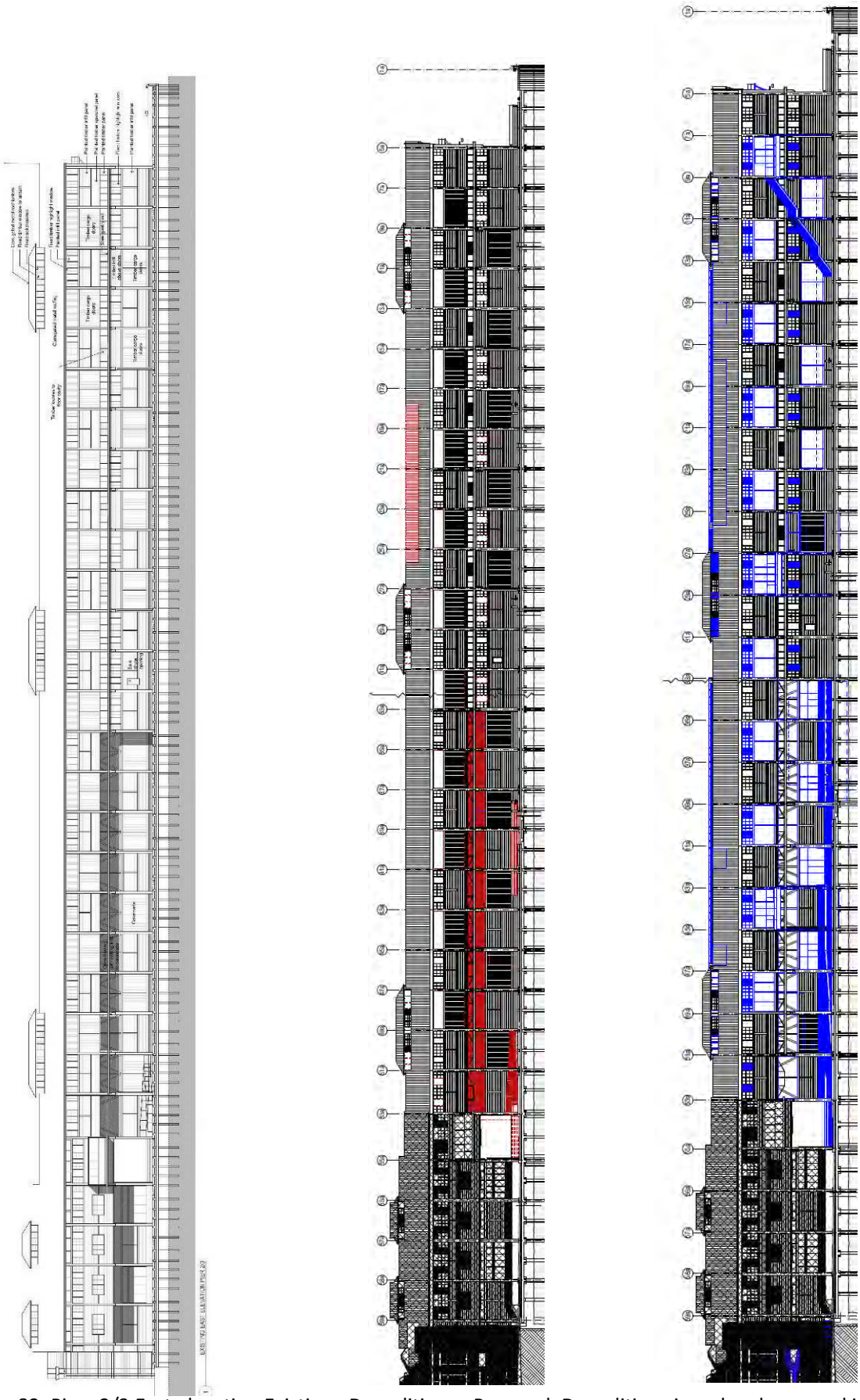


Figure 82: Piers 2/3 East elevation Existing - Demolitions - Proposal. Demolitions in red and proposal in blue. Plans by TZG. Plans by TZG.

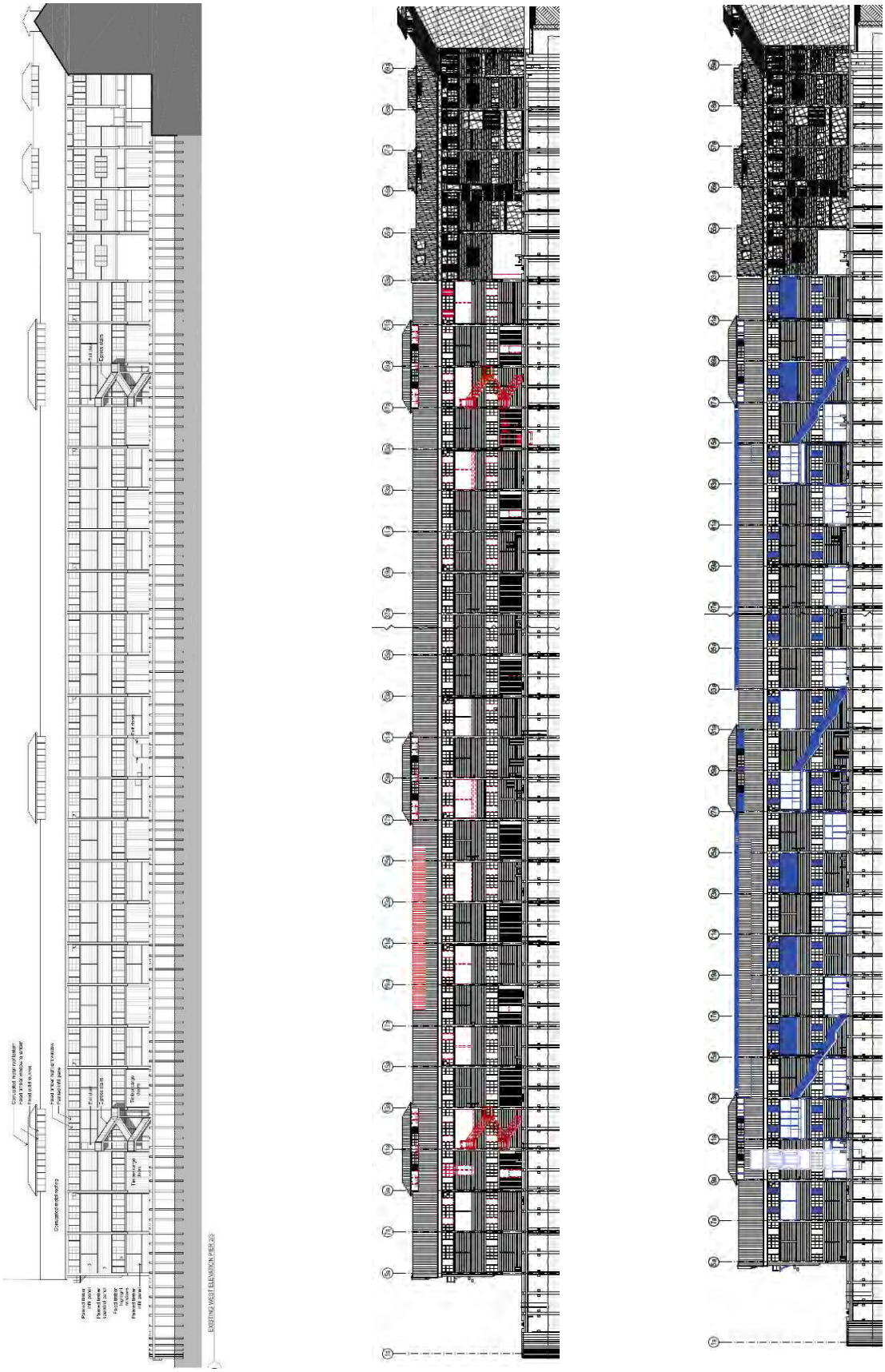


Figure 83: Piers 2/3 West elevation Existing - Demolitions - Proposal. Demolitions in red and proposal in blue. Plans by TZG.

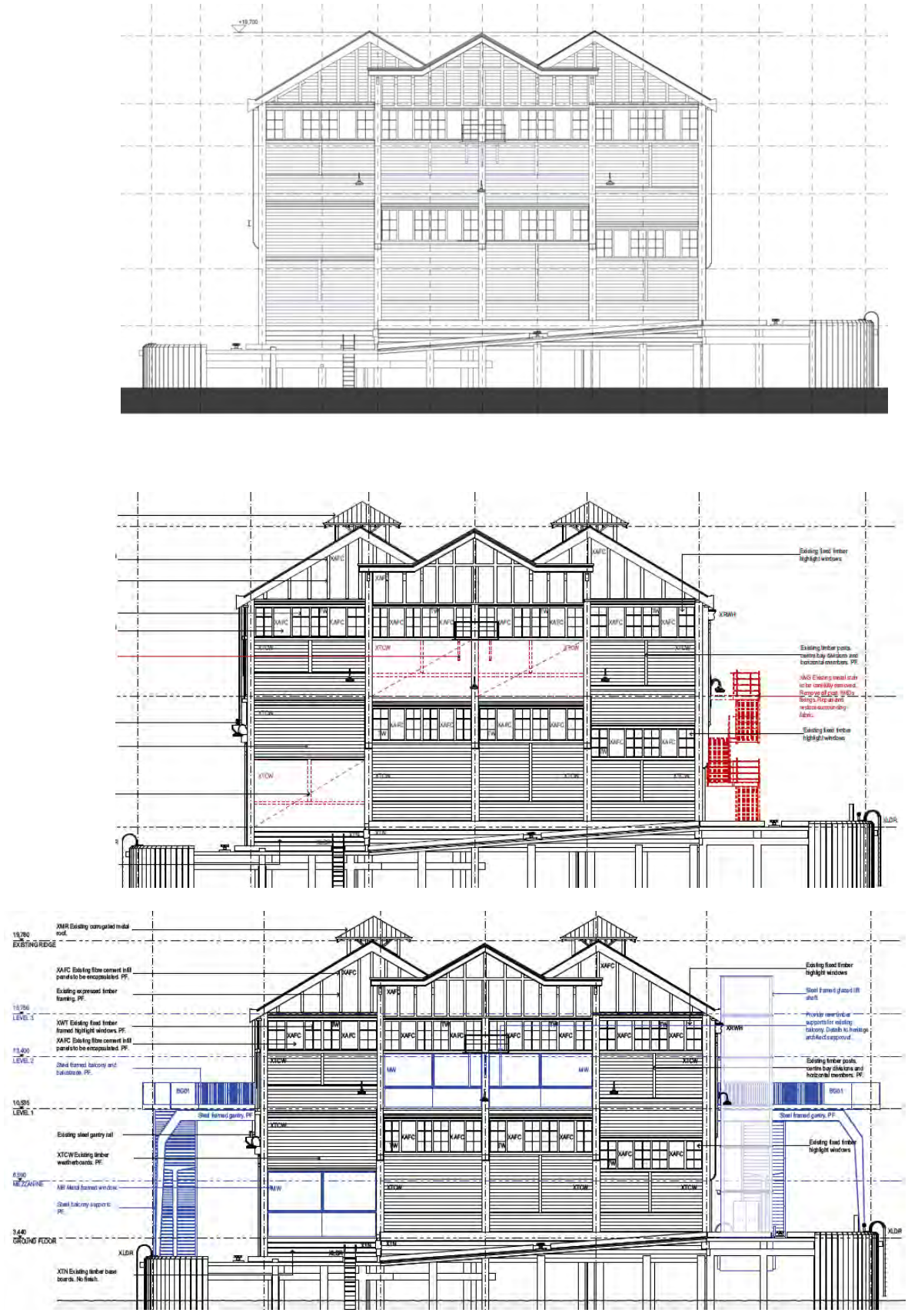


Figure 84: Pier 2/3 North Elevation Existing - Demolition - Proposal. Demolitions in red and Proposal in blue. Drawing from TZG Architects.

6.8 Roof Penetrations Pier 2/3 and 4/5

The existing roof profile has been maintained wherever possible, however both buildings require additional volume for acoustics, plant rooms, set building, technical reasons and to enable theatre to be used in different configurations. Amendments to the existing roof have been minimised and changes to the profile are within the central valleys and separated from the existing lanterns.

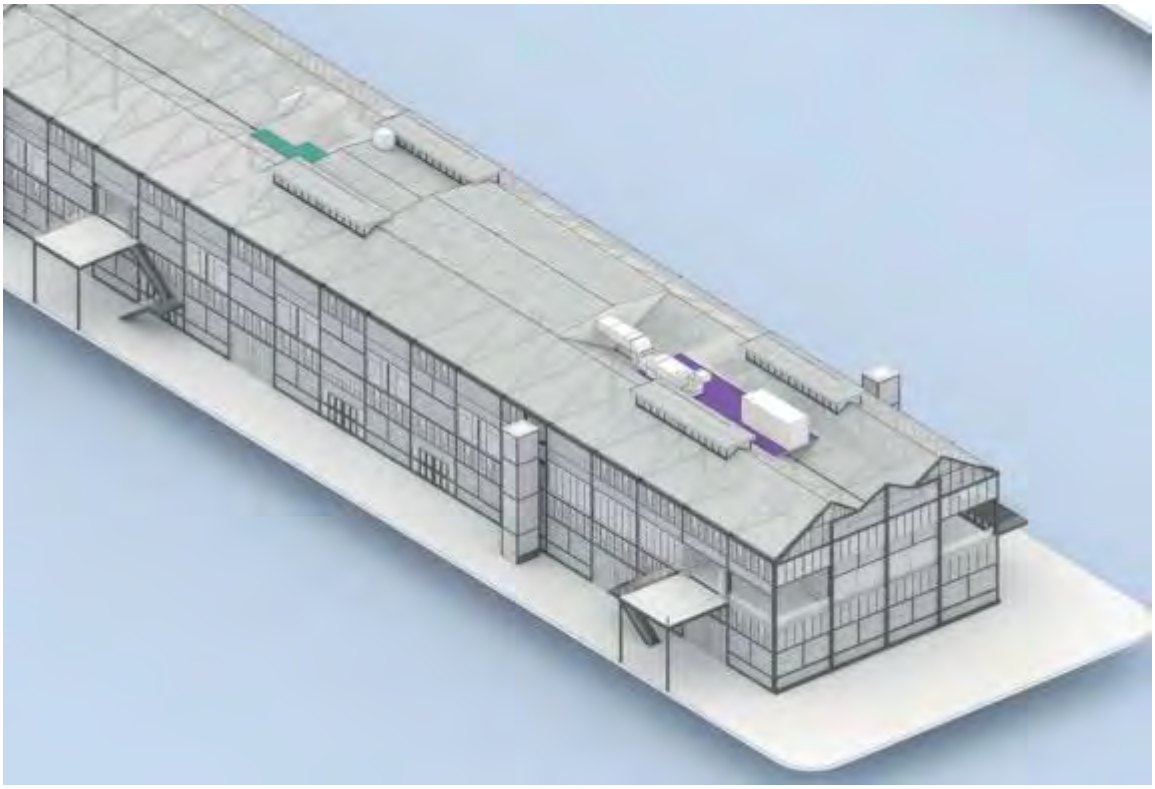


Figure 85: 3D showing rationalized roof plant and equipment.

Figure 85a: Existing roof plant and equipment to be rationalized as per illustration above.

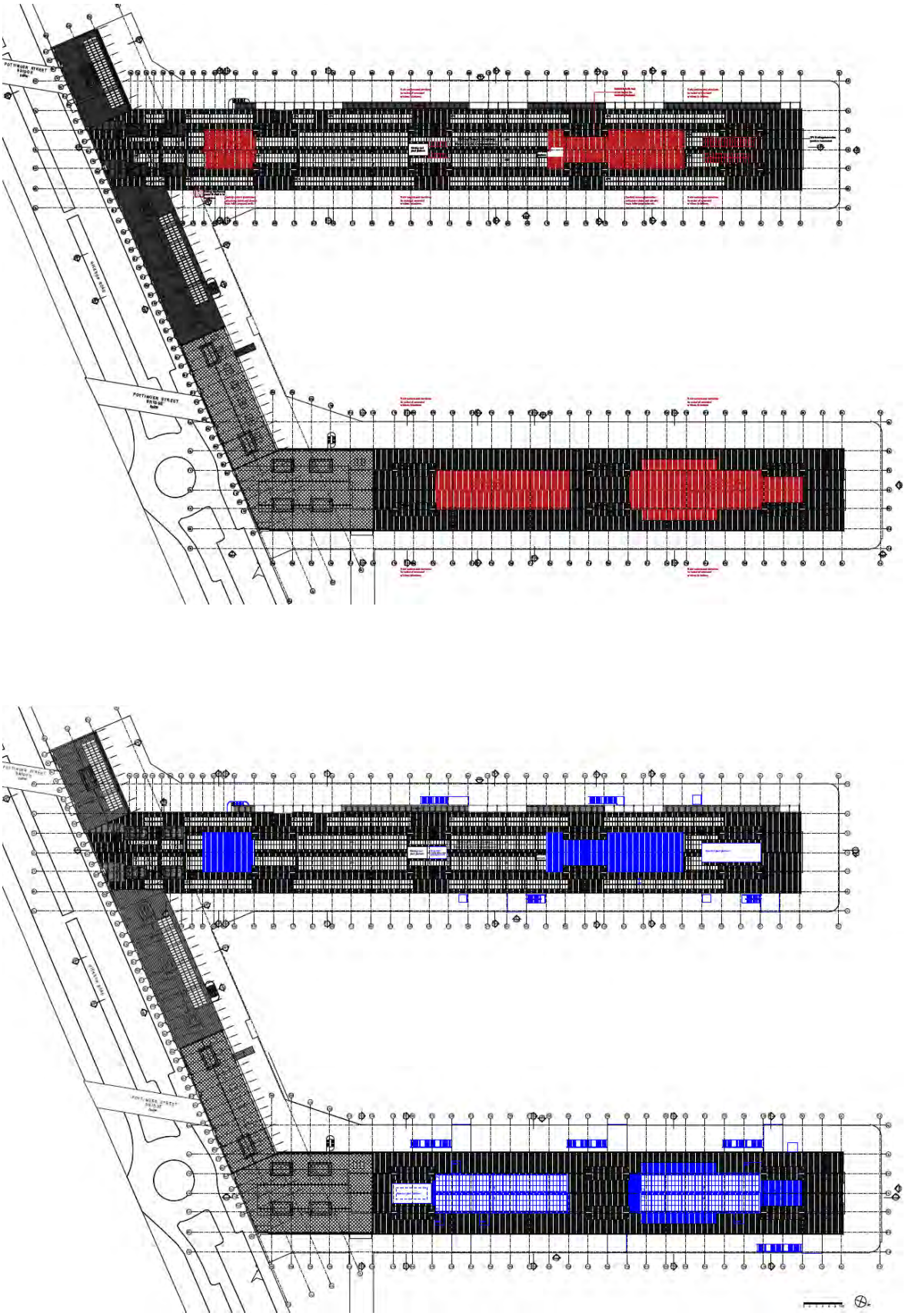


Figure 85b: Roof penetrations. Demolitions in red and Proposal in blue. Drawing by TZG.

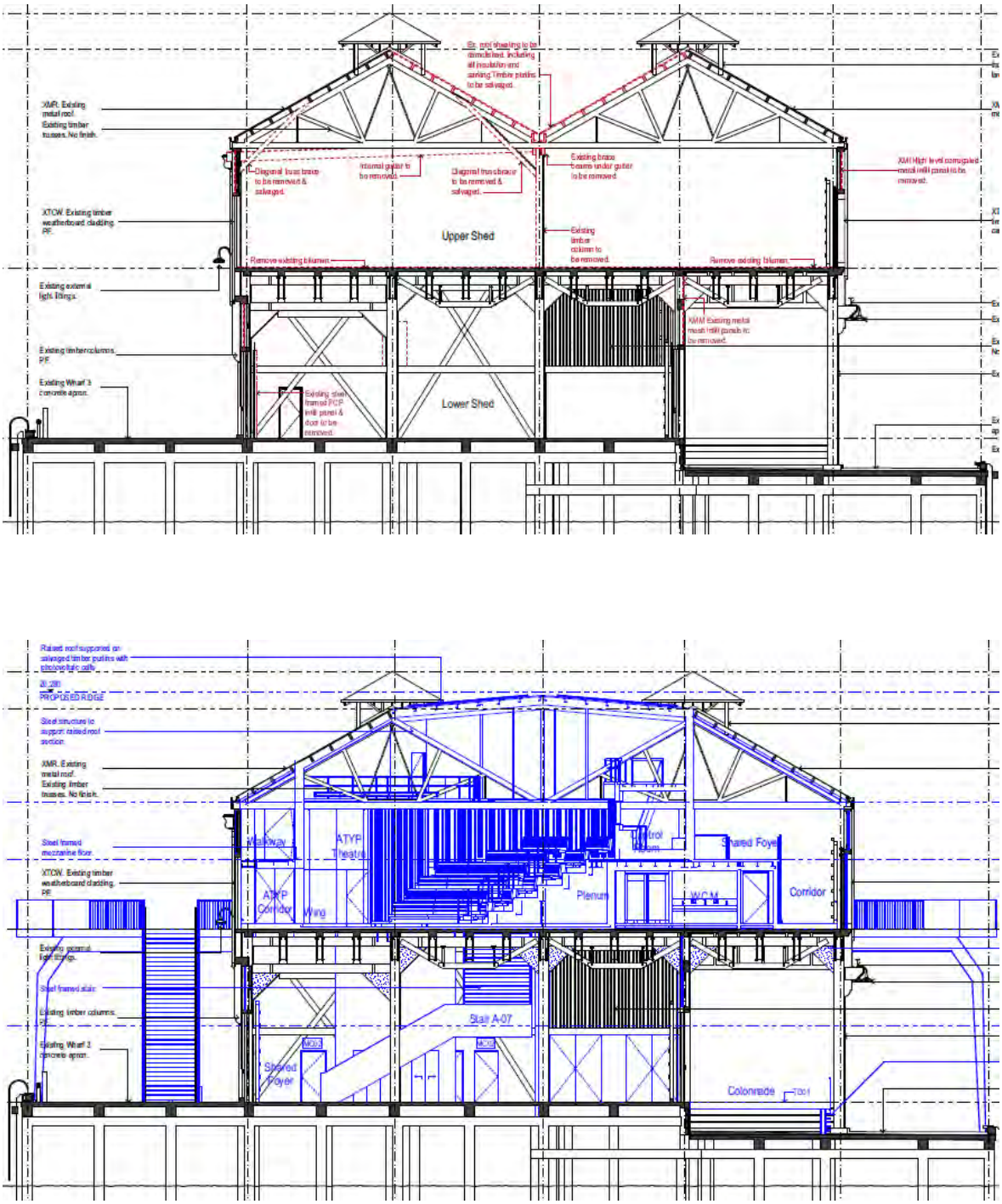


Figure 86: Pier 2/3 Sections showing in blue the roof modification. Drawing from TZG Architects.

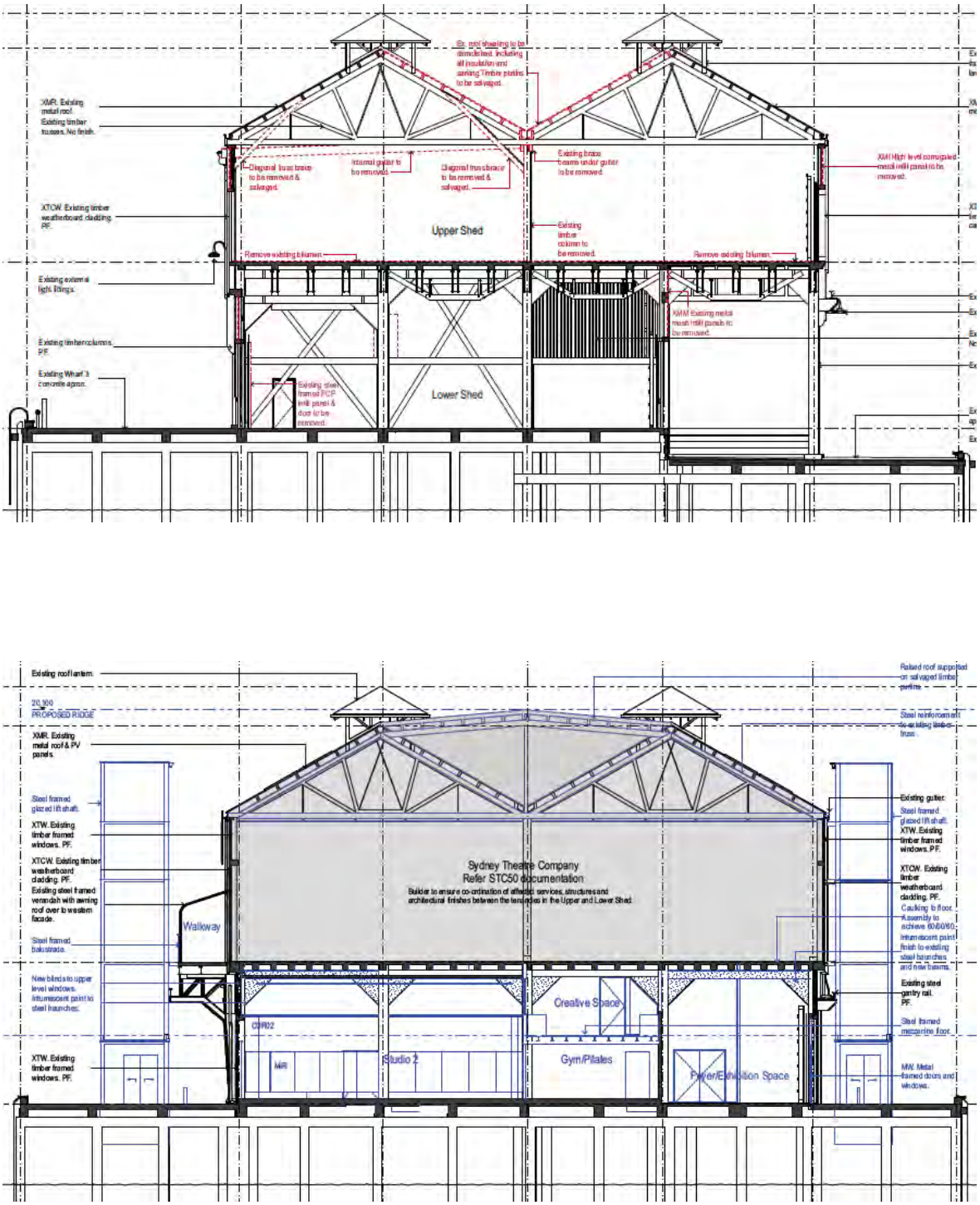


Figure 87: Piers 4/5 Sections showing roof modification. Demolitions in red and Proposal in blue. Drawing from TZG Architects.

Visual Assessment photographs

Figure 88 Existing view of Pier 2/3. Illustration by Richard Lamb & Associated.

Figure 89 Proposed view of Pier 2/3. Illustration by Richard Lamb & Associated

6.9 External Elevations Wharf 4/5

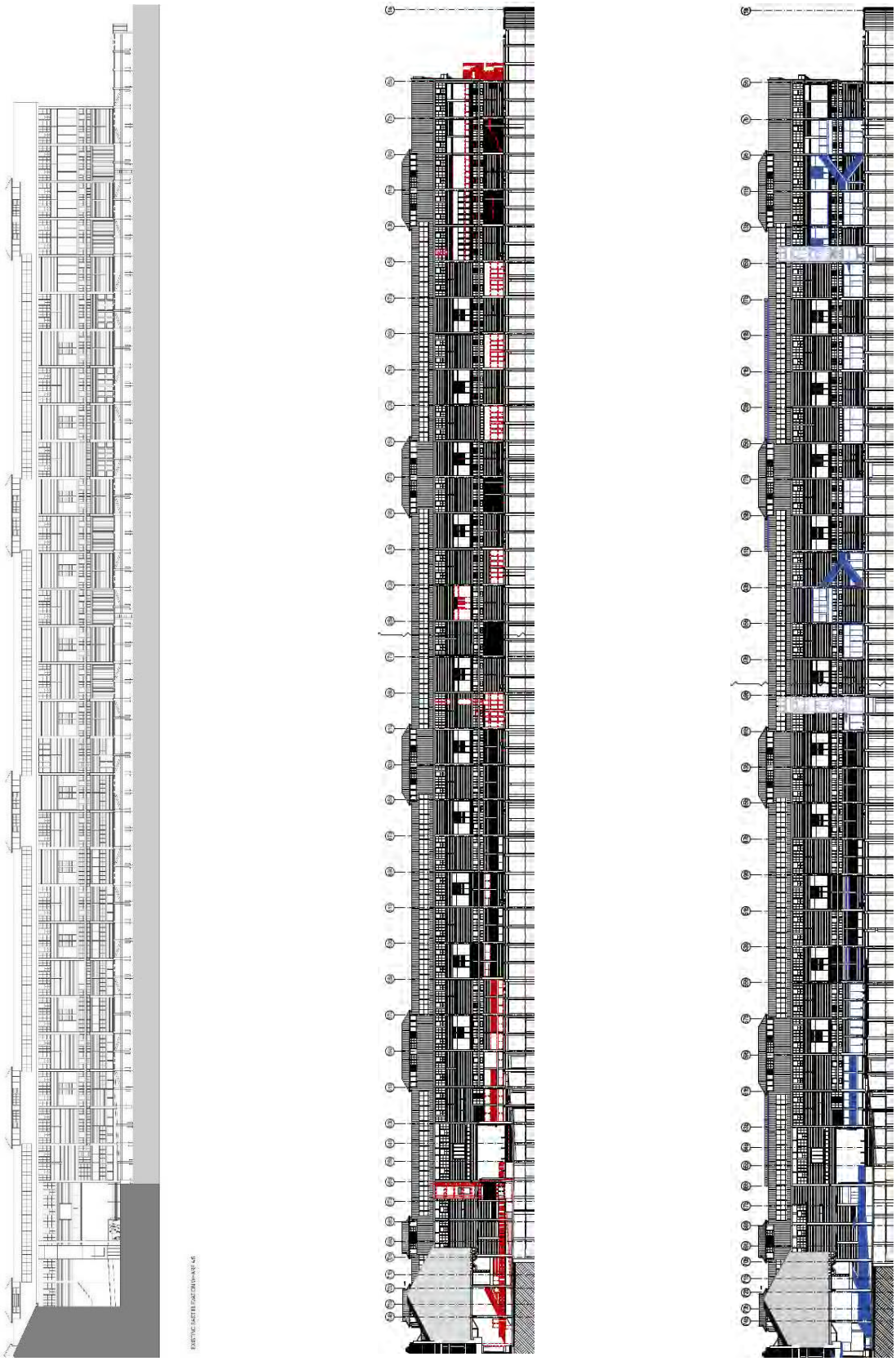


Figure 90: Pier 4/5 East Elevation Existing - Demolitions - Proposal. Demolitions in red and proposal in blue. Plans by TZG.

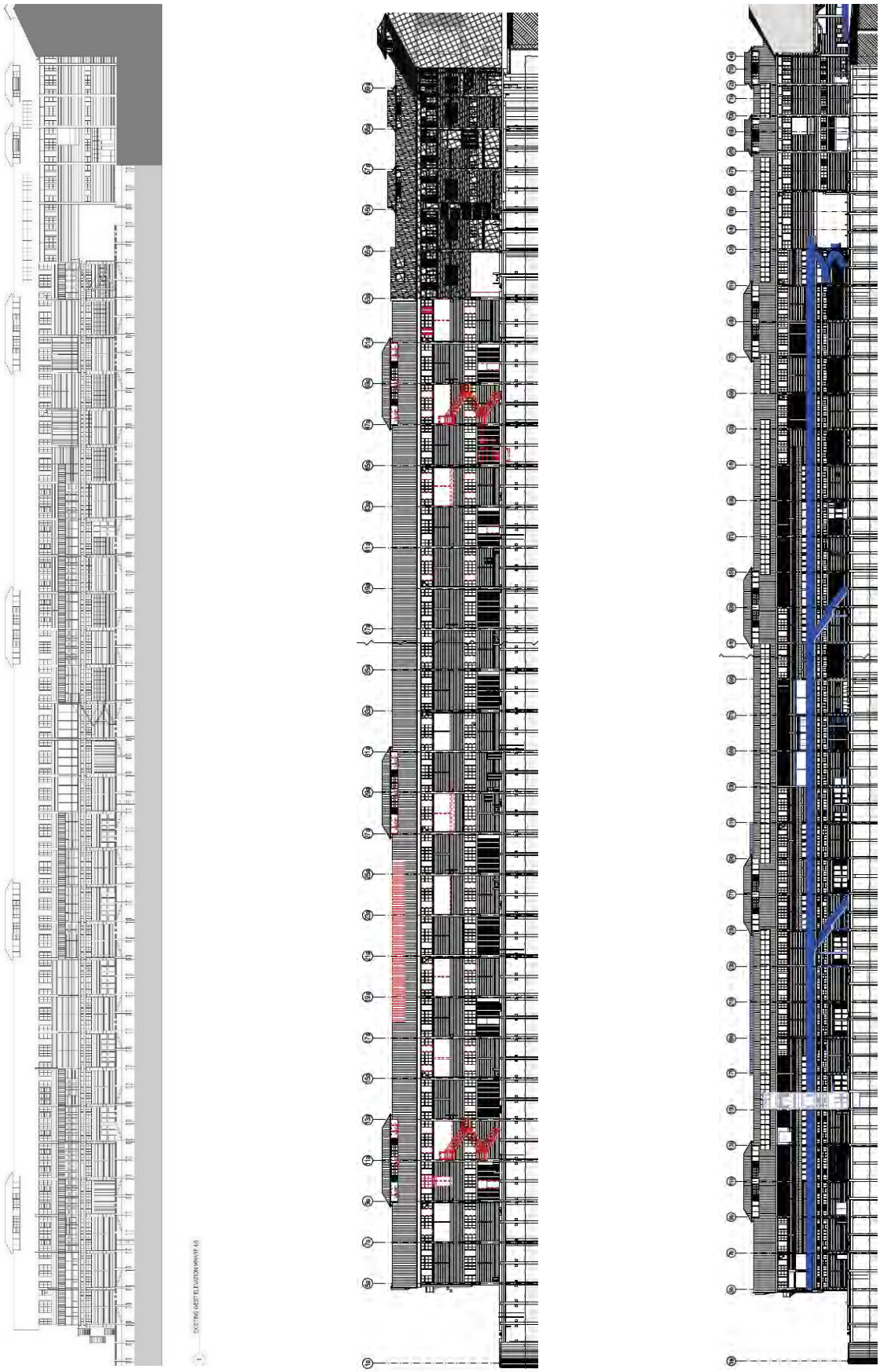


Figure 91: Pier 4/5 West elevation Existing - Demolitions - Proposal. Demolitions in red and proposal in blue. Plans by TZG.

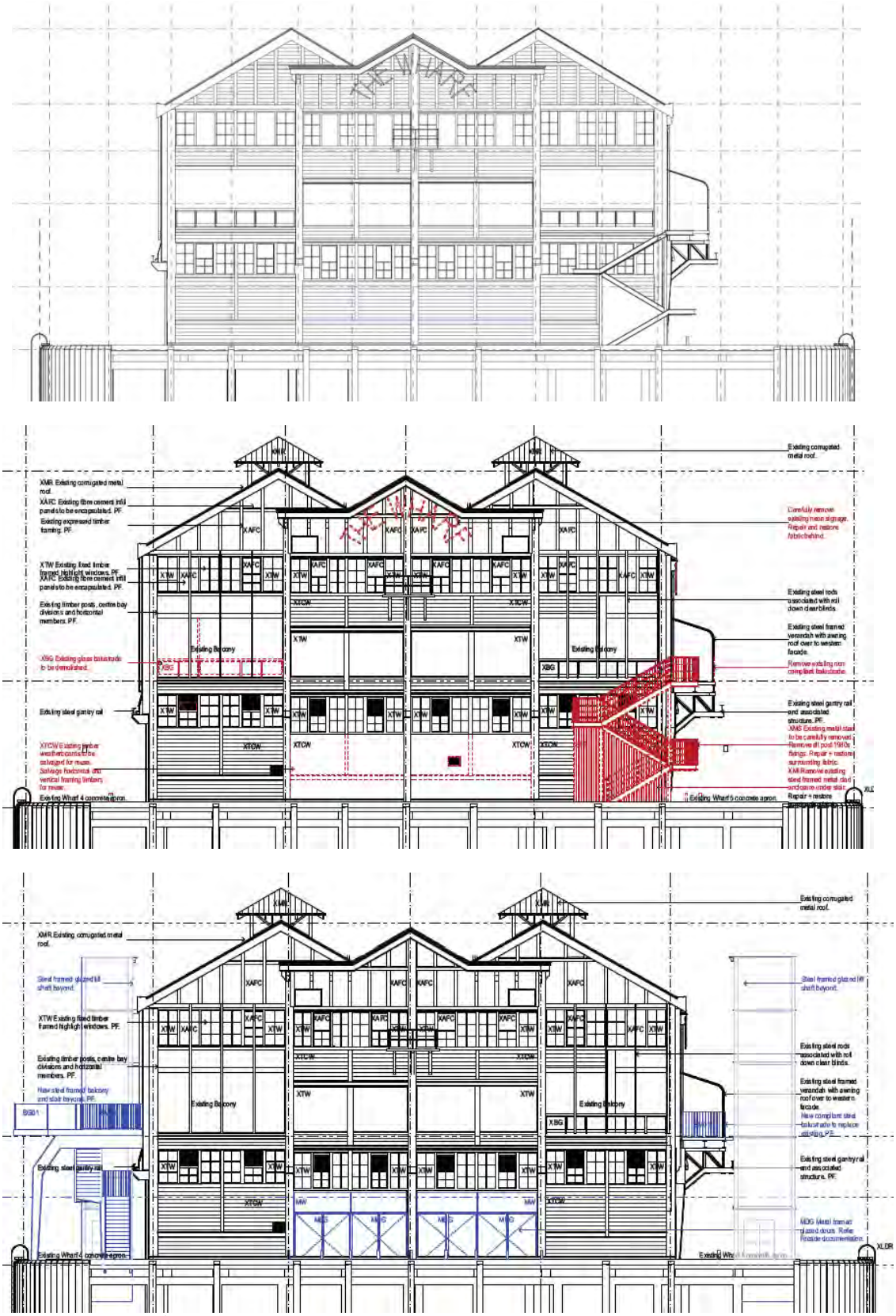


Figure 92: Wharf 4/5 North elevation Existing - Demolition - Proposal. Demolitions in red and Proposal in blue. Drawing from TZG Architects.

6.10 Mechanical Services

The Walsh Bay Arts and Cultural 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 precinct is split into two distinct wharfs. Pier 2/3 is currently an empty shell and will be transformed into an arts and entertainment venue housing two auditoriums, rehearsal rooms, commercial events space and administration/support services. The lower floors of wharf 4/5 which currently house the Sydney Dance Company and Bangarra will be modified where necessary to improve the level of servicing currently afforded.

In both scenarios 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

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.

6.10.1 Air-conditioning

Air conditioning will generally be employed in the auditoriums, rehearsal spaces and the office areas. Areas such as the foyers and some BOH spaces will be naturally or mechanically ventilated with supplementary heating but no active cooling system is proposed. In areas where air conditioning is required, the perimeter building fabric must be upgraded to comply with the relevant codes and standards.

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

Pier 2/3 currently has no mechanical services apart from ceiling fans.

There will be a range of approaches to ventilation and air conditioning within the project to suit the nature of the space served.

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 via overhead ducting in the majority of theatre spaces, however, the ACO theatre will utilise a displacement system. Air will be supplied at low level through the raked seating and extracted at high level.

Due to similar acoustic constraints, the large rehearsal spaces will also be fully air conditioned. 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. Seawater chiller plant will be hung under the deck.

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.

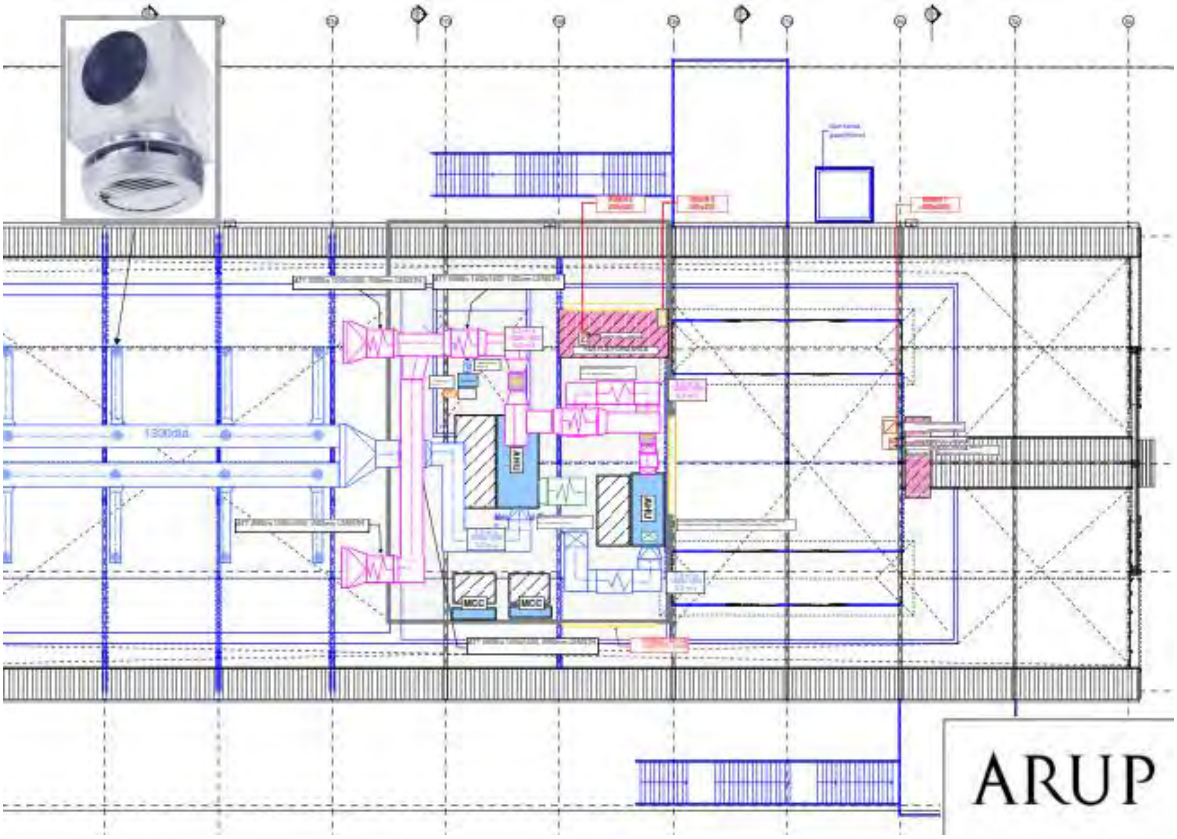
The Commercial Events/Arts space is almost in its original condition, and is intended to act as a multi-purpose function space. The space will be naturally ventilated and subject to internal fluctuations in temperature and humidity in line with the external weather conditions.

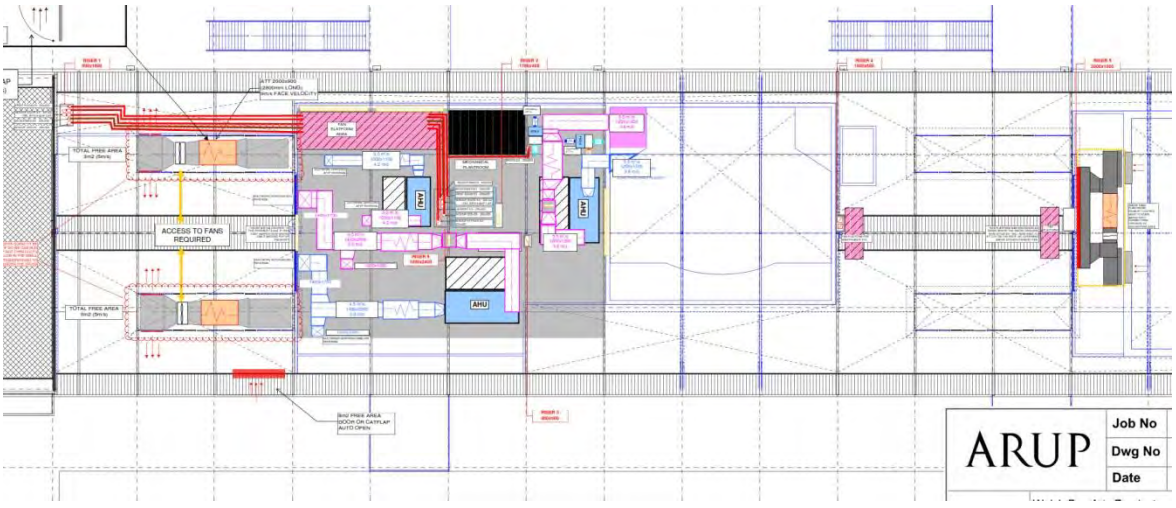
All mechanically ventilated areas including toilets, tearooms, cleaner's rooms, kitchens, plantrooms and storerooms will typically be ventilated in accordance with the current Australian Standards.

In Wharf 4/5 currently, Level 1 utilises air cooled refrigerant systems to provide heating and cooling. These systems are to be retained where possible, with minor ductwork alterations to suit the new partition layout. Fan coil units located in purpose built enclosures on the balconies or hung from the ceiling between the beams will provide air conditioning to the studio spaces. The current façade

openings will be retained to facilitate natural ventilation. Air conditioning and ventilation to the Bangarra theatre will be via a dedicated air handling unit located in the upper voids of the auditorium support spaces.

In Pier 2/3, chillers, located in a new plant room within the shore shed as shown on the plan this will provide chilled water, Air Handling Unit's and Fan Coil Units. Distribution pipework from the external plant room will run under the wharf before entering the building and connecting to cooling coils in the air handling equipment. It is wholly within the built structure.





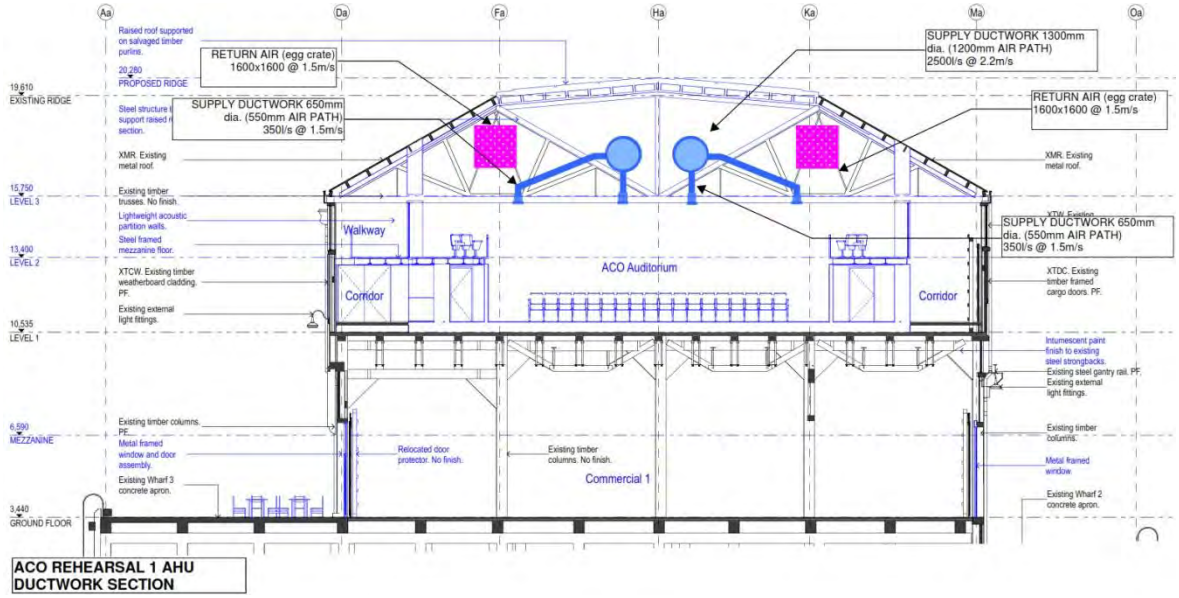


Figure 93-94-95: Example of ducting in Pier 2/3, by Arup.

Mitigation

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.

The ground floor plant room will not extend beyond its internal enclosure.

6.10.2 Electrical

Pier 2/3 and Wharf 4/5 each have an existing dedicated MDF room, which are shared with the Main Switchroom. 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 Piers 2/3 and Wharf 4/5. To keep the horizontal cabling to less than 80m, FCRs will be provided on each floor where required.

Space will be provided for vertical and horizontal cable routes in dedicated spaces throughout the buildings to facilitate the distribution of backbone and horizontal cables that will be supported on cable basket/tray for the main reticulation routes and supported on catenary wire or in conduit elsewhere.

A small number of traditional copper telephone lines will be provided as required for a number of discrete applications such as lift intercoms, fire alarm panel and back-up to critical systems as required. A new substation is required.

Mitigation

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.

6.10.3 Hydraulic and Fire

The Walsh Bay Arts and Cultural Precinct will be provided with hydraulic systems to service occupant facilities. Fire services will be provided such that patrons and staff can be safely evacuated and the Fire Brigades alerted in the event of an incident.

Wharf 4/5 has 30 year old existing services and will require fire upgrade and new fitouts.

Pier 2/3 works proposed involve alteration to servicing strategies including new services throughout.

The proposed hydraulic and fire services strategy aims to maximise the projects amenity via subtle integration, without compromising the heritage of the space. The strategies will also seek to minimise the environmental footprint of the building.

The existing pier 2/3 building is provided with water and drainage serving the existing tenancies. The building is provided with an existing roof drainage system. Internal gutters need to be removed. The building is also protected by Fire Sprinklers, Fire Alarm System, Fire Hydrants, Fire Hose reels and Fire Extinguishers. The redesign and partitioning proposed within this pier will require significant modification to the hydraulic and fire services. It is expected that only external services will remain unmodified.

The existing building on Pier 4/5 is fully serviced with hydraulic services.

The redesigned Pier 2/3 will be provided with a sanitary drainage system to the Sydney Water sewer in Hickson Road. This mirrors Pier 4/5 as gravity draining to Hickson Road from this end is not possible. The drainage system within Pier 4/5 will be augmented as required to meet the needs of the changed fit outs. The redesigned Pier 2/3 will be provided with a domestic water service and natural gas service supplied from Hickson Road.

The system within Pier 4/5 will be augmented as required to meet the needs of the changed fit outs.

Rainwater is currently collected from the roof of Wharf 4/5 and stored in a tank located under the pier.

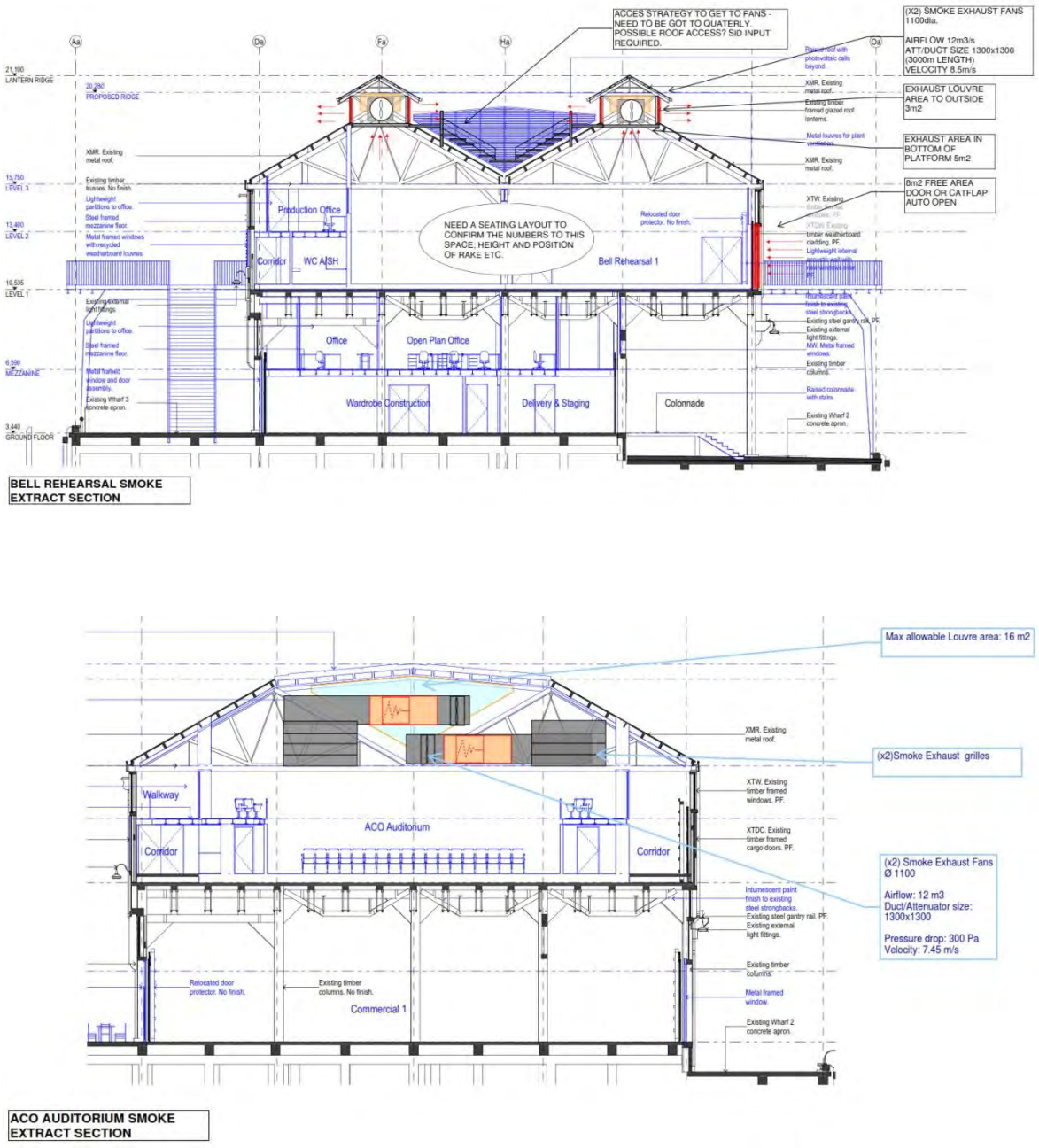


Figure 96-97: Drawings showings ductwork modification within the roof lanterns reducing visible plant on the roof.

Mitigation

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

6.10.4 NSW Heritage Office Information Sheet 8.1

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.

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!

6.10.5 Acoustic

Proposals for internal sound insulation take into consideration the performance required from the partitions which are dependent on the noise levels in the source and receiver rooms, the sensitivity of the spaces to noise and privacy, the practical constraints associated with natural ventilation and the

retained heritage elements. The sound insulation proposals have allowed for the inevitable weaknesses introduced by doors which mean that corridor partitions generally have less onerous sound insulation ratings than party walls between spaces.

ACO *Rehearsal Space*

Musical instruments are particularly sensitive to humidity changes, which affect tuning, and would suffer long term harm if there were significant changes to the environment of the rehearsal room.

For the above reasons, it is recommended that the ACO Rehearsal Space be fully mechanically ventilated. In order to provide the room to room sound insulation to the adjoining spaces (including the plantroom), the Rehearsal Space is likely to have a solid ceiling that will provide good protection against noise intrusion from above. A simple variable acoustic is proposed using drapes to provide variable sound absorption behind a diffusing wall finish. There are critical adjacencies which will require isolated constructions in order to achieve acceptable levels of sound insulation.

The Rehearsal Room is proposed to have an isolated structure with a floating concrete floor.

ACO Auditorium

Sound insulation is particularly critical for this space as meeting acoustic target is critical to its success. The current expectations are for a relatively dry natural acoustic.

The auditorium will be a floated structure (on a floated concrete floor). The extent of the floating floor will need to be carefully evaluated to minimise the costs whilst still achieving the required sound insulation.

ACO Small Practice Rooms

These will require high standards of sound insulation that are only achievable with individually isolated rooms (on separate floating floors).

BELL Rehearsal Rooms

The Concept Design proposes a high-mass raised floor on 200mm concrete topping. Arup have concerns that this may not be practicable theatrically (in terms of being able to fix scenery down etc) and is likely to give rise to issues with impact noise affecting the spaces below. To this end, a floating concrete slab is preferred with timber finish. With the spaces interconnecting, the sound insulation between the spaces becomes critical through the doorway.

ATYP Theatre and Rehearsal rooms

The intention is to provide minimal room acoustic treatment in the rehearsal rooms. A simple acoustic finish to the soffit would suffice, along with the ability to hang theatrical drapes if needed. The ATYP Performance space will have a conventional system which provides air from overhead diffusers. Extract will be provided at high level over the front of the stage. The design of this is being carefully coordinated to ensure that the ductwork does not interfere with the technical theatre systems and to avoid the system being overly noisy.

Offices spaces

Not all office spaces will have a conventional suspended ceiling as some of the heritage ceilings will be left exposed. This will make the offices more reverberant than would typically be the case.

Event Spaces

An allowance is made for some acoustic treatment in workshops where power tools are to be used. A simple acoustic finish to the soffit will help reduce the levels of workplace noise.

6.10.6 Structural

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

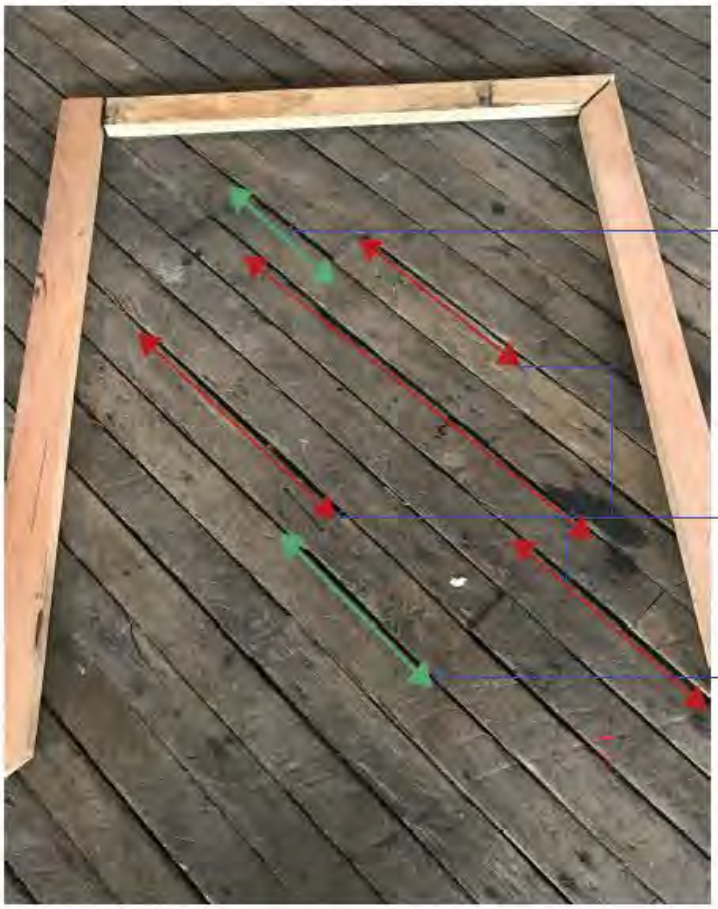
The proposed upgrade and alterations involve removal of additional internal columns, replacement of some columns previously removed, additional stairs, lifts and mezzanine floors throughout, raised roof profile in parts, and some additional roof plant platforms.

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.

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 is specified for its minimalist impact on the existing form.

The structural design of the Walsh Bay Arts and Cultural 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.



More than 5mm vertical height variation. Sand high section, sanding to be kept to an absolute minimum on raised boards only. Sand with 100grit only, not high polished.

More than 10mm gap between boards required to be filled. Fill gaps with scribed timber fillet. Timber fillets to match existing timber type. Where possible re-use salvaged boards. No finish.

More than 5mm vertical height variation. Sand high section, sanding to be kept to an absolute minimum on raised boards only. Sand with 100grit only, not high polished.

Floor Repair Notes

Typical floor repair to comply with DDA consultant's requirements.

This is only a small representational sample only, allow to repair all visible existing timber floors.

No finish to existing floor. Minimise floor repair and sanding in line with heritage requirements.

For Level 1 floors all joints more than 5mm should be fillet filled all gaps to be fully silicone sealed to ensure water tight seal between floors.

Provide a 3mx3m fully finished prototype of the repairs for approval by the Architect and Heritage Architect prior to undertaking any work on the existing floors.

XTFR EXISTING TIMBER FLOOR TYPICAL REPAIR

Figure 98: Proposed repairing of existing timber floor to comply with DDA requirements, by TZG.

6.11 Heritage Risks and Opportunities

This is a summary of the Heritage Risk Assessment Workshop.

Risks Detail	Mitigations
The works proposed require that the base structure is in good order. There are considerable risks in altering or adding loads to heritage buildings and that the materials are either adequate for the load or other needs or possibly decayed. This applies to piling and other structures. Cost can escalate when reconstruction or strengthening of heritage fabric is required to accommodate loads for new openings and heavy finishes required in the tenants fit-outs.	A thorough defects inspection is required especially for termites and pile defects. The interventions to support the new loads must acknowledge the heritage fabric.
The provision of services along and through the fabric is at its most difficult in the long wharf buildings and intervention not immediately obvious may mean that some solutions will require more intense consideration and a higher level of intervention. This may generate a prolongation and additional design costs from the engineers and architects; then swing to a new approval process being required.	Design out issues and keep the engineering designer aware of all the implications. Avoid the use of standard solution templates and specifications which are commonly used by all engineers. Design a gutsy industrial looking method for treating the services and do not be afraid to expose them as design elements in this marine industrial environment.
The piling perimeter is considered as vital in the historic expression of the Wharf apron. Engineering solutions may be required in and around the apron which effect the edge. The most efficient systems may not be appropriate. There is a risk that the heritage values will trigger additional costs and design costs for subfloor systems and piling.	The engineers have only two assigned areas in the apron into which to put major services tanks etc. Highly detailed engineering solutions are required to ensure that the leading edges of the apron are not affected by bulky and unsightly objects. Design a system for addressing the appearance of the items and services.
The individual fit-outs for tenants represent quite intense building methodologies which may obscure key elements of the base building and with the potential for hidden problems to occur. Additional	The heritage values of the spaces are likely to be obscured by the extensive acoustic treatments and the cellular planning. A design theme should be developed which

access space will be required to access the heritage fabric and this will be reflected in reduced areas and additional cost not necessarily accounted for in the cost plan.	acknowledges a process and a formulated design rational rather than ad hoc solutions with each tenant. This can be coordinated with the STC.
There is a risk in gaining approval for the alterations to the existing fabric as it may be considered by some heritage advisors to be too great an intervention. This cost will be reflected in redesigning and reassessing or defending the design. If the interventions are to be approved in a conceptual sense there may be additional information and detailing requested in a SSDA approval to demonstrate the design proposal and this may delay the works programme.	The design will be based on the SSDA discussions with the Heritage Branch and not vary (within reason). There is a need to argue on the grounds of "do no harm" and reversible intervention as a theme for all works.
There may also be a requirement to closely monitor approved works and report or list any items demolished during construction as was the case in the last DA approval. Where all materials were required to be tagged and logged as they left the site and stored or have a reuse assigned them.	Salvage significant demolished elements and incorporates them into the new works whenever possible.

6.12 Storage and Removal Methodology

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

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 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 Plan Policies

The following table sets out the compliance of the design proposal with the relevant policies contained in the:

- *Wharf 2/3 Conservation Management Plans* prepared by Tropman & Tropman Architects - 2000

- *Wharf 4/5 Conservation Management Plans* prepared by Graham Brooks and Associated - 2007

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7.2.1 Pier 2/3 Policies

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
9.2.2 Views and Vistas Assessment		
Policy 9.2.2.1 The visual dominance of the site should be conserved.	Complies	No change expected. **TZG comment:** The visual dominance of the site is conserved and enhanced by the proposed works.
Policy 9.2.2.2 The existing significant views and vistas to and from the site should be conserved.	Complies	No change expected to views and vistas TO the site. Improvement to views and vistas FROM the site are part of the proposal. **TZG comment:** Significant views and vistas to the site are conserved as demonstrated by the Visual Impact Assessment that accompanies the proposal.
9.2.3 Context		
Policy 9.2.3.1 The existing industrial maritime streetscape character formed in association with the surrounding structures, water areas between the piers and local steep topography should be conserved.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** The existing industrial maritime character is conserved. New elements have been designed to respect this highly significant context.
Policy 9.2.3.2 The open water areas around the pier should be conserved.	Complies	The open areas around the pier are conserved.
Policy 9.2.3.3 The historical associations of the site with Bridge 2/3, Pottinger Street, Hickson Road and Port Jackson should be conserved.	Complies	No change expected. **TZG comment:** Historical associations are conserved.

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
Policy 9.2.3.4 The two-level circulation & access-ways connecting the site to the steep topography is a feature of the Sydney Harbour Trust development & should be conserved.	Complies	No change expected. **TZG comment:** The proposal has no impact on the two level circulation and access ways connecting the site, which are outside of the site boundary.
Policy 9.2.3.5 The former associations of the site with the Sydney Harbour Trust, and Maritime Services Board operations, with wharf owners and labourers and generally with the local community should be interpreted.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Associations with the Sydney Harbour Trust, Maritime Services Board, wharf owners, labourers and the local community are interpreted on site.
9.2.4 Interpretation		
Policy 9.2.4.1 Informative and interpretative displays should be considered on the grounds to assist public understanding of the history, development and significance of the subject site and Walsh Bay Precinct. These interpretative techniques are to be well managed in a cohesive manner and to be integrated into the entire Walsh Bay Precinct Interpretation Plan.	Complies	There are Informative and interpretative displays already present is situ. They will be kept or improved.
9.2.5 New Interventions		
Policy 9.2.5.1 New interventions should be carried out in a sympathetic manner to the existing size, layout, construction technique, materials and detailing.	Complies	This has been addressed in the documents and design proposal by the Consultant Team.
Policy 9.2.5.2 New interventions if required should be organised to minimise any removal or concealment of significant fabric. Interventions should be generally reversible and clearly interpreted by means of introduced interpretative devices or by method of style of construction, as new work. There should be a clear division	Capable of Complying	The removal of the existing fabric is minimal and new interventions are clearly distinguished as new entity, while maintaining the idea and respect for the industrial buildings. This is a design development application and Construction detailing will ensure that this is fully compliant.

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
between new and existing.		
9.3.1 Subject Building **9.3.1.1 Generally**		
Policy 9.3.1.1 The strong sense of unity of the site as part of the wharf complex, including industrial maritime character, scale, general form, construction technology, roof envelope and treatment of facades should be conserved.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** The Walsh Bay Arts and Cultural Precinct project aims to unify Pier 2/3, Wharf 4/5 and the associated Shore Sheds with the remainder of Walsh Bay.
Policy 9.3.1.2 Significant open exterior spaces including apron, colonnade and open passage between sheds should be conserved.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** The wharf apron, colonnade and open passages between the sheds are conserved by the proposal. A raised area is proposed adjacent the eastern façade beneath the colonnade to provide access to the building interior. This will be detailed in a reversible manner.
Policy 9.3.1.3 Significant interior industrial large spaces and volumes should be conserved.	Complies	Where possible double store large rooms maintain the original open volume. The ground floor of Pier 2/3 is kept in raw state and unobstructed as well as large foyers and commercial areas in both levels. Other rooms like offices and services need to be concealed and fragmented in smaller volumes. **TZG comment:** The proposal involves adaptive reuse of Pier 2/3 as a new home for three major performing arts companies: Bell Shakespeare, Australian Theatre for Young People and the Australian Chamber Orchestra. A large 'raw' foyer that connects the all levels of the building is proposed at the centre of the pier. A large space at the northern end of the pier is to be retained as a 'raw' event space on the ground floor, whilst in the upper shed a smaller 'raw'

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
		event space is proposed at the northern end. These spaces retain the full volume of the original industrial shed.
Policy 9.3.1.4 Significant and/or recorded. These include but are not limited to the following: • timber Shoreshed customs office and associated items ie. awning, painted signage at the entrance doors ('H.M. Customs'), etc • timber slatted partition wall and associated timber slatted sliding doors, hardware, etc • timber stair and associated slatted timber stairwell, timber kerbing, protective fence and metal balustrade, • timber gatekeepers office at the entrance of the shoreshed, including associated painted 'Gatekeeper and Storeman' signage, timber rack, windows, timber kerbing around office, etc • other adjacent early timber offices (first floor) including associated signage, timber kerbing, etc	Complies	**TZG comment:** • The timber Shoreshed Customs Office is not part of the subject site. • The timber slatted partition wall and associated sliding doors and hardware located on the ground floor at the northern end of the pier are retained insitu. • The timber stair and associated wall, kerbing, fence and balustrades are non compliant. These are proposed to be retained insitu, capped off at Level 1 and interpreted in the floor of the foyer. The timber gatekeepers office at the entrance of the shoreshed and adjacent early timber offices are not part of the subject site.
Policy 9.3.1.5 Existing special items and design features should be considered as design models and used as a direction for new intervention.	Complies	This has been addressed in the documents and design proposal by the Consultant Team.
9.3.2 Substructure and Ground Floor Deck Apron		
Policy 9.3.2.1 The existing open piling layout should be conserved for the outer two rows, and where possible for the inner rows.	Complies	Only reinforcement is expected. **TZG comment:** The open piling layout is generally conserved. Lift pits are set behind the second row of piles to minimise their visual impact. Reinforcement will be required in several locations beyond this, however, will be minimised.

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
Policy 9.3.2.2 The two-level deck detail and truck loading ramp on the north end apron should be conserved.	Complies	No change expected. **TZG comment:** The two level deck detail and truck loading ramp at the north end of the apron are conserved.
Policy 9.3.2.3 The curved timber shipping fender detail to the north end corners of the pier (round corner detail) should be conserved.	Complies	No change expected. **TZG comment:** The round corner detail to the north end corners of the pier are retained unchanged.
Policy 9.3.2.4 Significant fabric should be retained in-situ and conserved. This includes but is not limited to the following: • Turpentine piles and raking piles, • headstocks and girders, • fenders and walings, including timber shipping fenders fixed to the north end corners of the pier (round corner detail), • timber kerbing to the edge of the apron, • cast steel mooring bollards bolted to the apron edge, • timber ladders from water, • associated early ironmongery ie. iron spikes and straps and fixings for service lines below deck, etc • associated early signage ie. marker plates fixed to the apron kerb indicating pier lengths, etc • timber internal deck including floor boards and planks, flooring layout, floor hatches for access to substructure, etc	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Significant fabric is generally retained insitu including: • Turpentine piles • Headstocks and girders • Fenders and walings including shipping fenders • Timber kerbing to the edge of the apron • Cast steel mooring bollards • Timber ladders from the water • Associated early ironmongery • Associated early signage Timber internal deck including floor boards and planks, flooring layout, floor hatches for access to substructure. On the ground floor wet areas will need to be raised above the existing floor. This will be installed in a reversible manner. The bitumen will be removed from the upper shed floor to reveal the original

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
		timber in the foyer and northern function room. Other areas require a new floor build up over the timber, installed in a reversible manner, to achieve acoustic and fire separation between the upper and lower shed.
Policy 9.3.2.5 Any intrusive recent alterations or additions should be removed and replaced with sympathetic materials.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. All the recent alterations additions are removed.
Policy 9.3.2.6 Any required strengthening, repair or replacement will be subject to the structural engineers' requirements after further investigation and analysis and should be carried out in a sympathetic manner to the existing size, layout, construction technique, materials and detailing.	Complies	This has been addressed in the documents and design proposal by the Consultant Team **TZG comment:** The existing structure requires strengthening in some areas. This will be carried out in a sympathetic manner. The upper shed has limited head height of 4800mm beneath the trusses requiring the removal of braces and gutters located below this level to insert two new levels.
Policy 9.3.2.7 Any repair or replacement of external (visible) piles (ie. two outer pile rows minimum), should be carried out in matching materials timber, and in a sympathetic manner to the existing size, layout; construction technique and detailing.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Any repair or replacement of external piles will be carried out using matching materials, size, layout, construction technique and detailing.
Policy 9.3.2.8 Any required new structure should be organised to minimise any removal or concealment of significant fabric and any impact on the existing open layout and vistas through the piling grid. New structure should be organised adjacent to the existing structure, be reversible and as independent as possible. New interventions should be clearly identified as such.	Capable of Complying	This has been addressed in the documents and design proposal by the Consultant Team. New walls' structure is detached to the existing walls and it is clearly identifiable such new intervention. **TZG comment:** A marine archaeology report prepared by Cosmos Archaeology accompanies the proposal.

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
Policy 9.3.2.9 Any new substructure should be planned and carried out with regard to the maritime archaeology.	Complies	This has been addressed in the documents and design proposal by the Consultant Team.
9.3.3 Superstructure		
Policy 9.3.3.1 The existing storey posts layout should be conserved.	Capable of Complying	The existing posts layout at ground level is entirely conserved. At the first level 6 posts in 2 different locations are removed. **TZG comment:** All storey posts are conserved in the lower shed whilst in the upper shed 5 storey posts are proposed to be removed. This is required for the ATYP Theatre (2 posts), the ACO Auditorium (2 posts) and the ACO Rehearsal Space (1 post). The posts will be salvaged and stored for future re-use.
Policy 9.3.3.2 Significant fabric should be retained in-situ and conserved. This includes but is not limited to the following: • hardwood storey posts and associated items including angle iron fenders, signage, etc • riveted steel strong backs (primary), and steel bar strongbacks with turnbuckles (secondary), • triangular riveted steel web plates connecting the storey posts to the beams (colonnade), • triangular riveted steel web plates with central hole connecting the perimeter storey posts to the beams, • heavy timber framing (first floor) where the floor was raised to fill in the truck loading bay, • timber deck including girders, beams, floor boards, planks, and flooring layout,	Complies	This has been addressed in the documents and design proposal by the Consultant Team. Existing brace beams under central gutter and diagonal truss braces are removed for height issues. **TZG comment:** Significant superstructure fabric is generally retained insitu. Exceptions are the existing brace beams under the central gutter and diagonal braces, which are required to be removed to achieve head height. Lifts and stairs will require the localised removal of superstructure. All removed original elements will be salvaged and stored for future use.

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
• timber truck ramps (east and west) built when the floor of the pier was raised, and associated timber kerbing, metal rails, etc • timber roof trusses, • associated early ironmongery, • associated early signage ie. painted bay identification to storey posts and roof trussers, etc		
Policy 9.3.3.3 Significant associated items if detrimental to significant fabric by encouraging pest and rot should be investigated to take remedial action, including maintenance and monitoring. This includes but is not limited to the following: • angle iron fenders to storey posts, etc	Complies	This has been addressed in the documents and design proposal by the Consultant Team.
Policy 9.3.3.4 Any intrusive alterations or additions should be removed and replaced with sympathetic materials. These include but are not limited to the following: • existing bitumen on top of timber floor and truck ramp should be removed and the timber floor should be exposed, etc	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** The existing bitumen on top of the timber floor in the upper shed will be removed as part of the proposal. Temporary toilets will be removed from the lower shed.
Policy 9.3.3.5 Any required strengthening, repair or replacement will be subject to the structural engineers requirements after further investigation and analysis and should be carried out in a sympathetic manner to the existing size, layout, construction technique, materials and detailing.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Strengthening of trusses is required where posts are to be removed in the ACO Auditorium and ATYP theatre. Simple steel members are proposed to line either side of the existing timber trusses in these instances.
Policy 9.3.3.6 Any required new structure should be organised to minimise any removal or concealment of significant fabric. It should be organised adjacent to the existing structure, be reversible and as independent as possible. New	Complies	This has been addressed in the documents and design proposal by the Consultant Team. New walls' structure is detached to the existing walls and posts as independent envelope and it is clearly identifiable such new intervention. **TZG comment:** New structure will be clearly identifiable and located adjacent

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
interventions should be clearly identified as such.		existing structure where exposed such as the required truss strengthening in the Auditoria. Structure associated with new mezzanines will be independent and reversible. A new lift and several stairs are required to provide access and egress to the upper shed. New balconies are proposed adjacent the stairs reminiscent of the travelling gantries that once moved along the apron. These elements will all be detailed in a simple contemporary manner, with a sympathetic industrial aesthetic.
9.3.4 External Fabric Facades		
Policy 9.3.4.1 The original modular design, textural pattern and treatment of facades should be conserved.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. The original design of facades is restored removing the existing high level wall panels and restoring the raw of windows. **TZG comment:** The original modular design, textural pattern and chequerboard treatment of the facades is conserved. New windows and doors on the eastern facade, fitted into original door openings respect this original design, retain the original cargo doors as operable and are installed in a reversible manner. Upper level windows are proposed to replace the existing metal infill panels to the east, to match adjacent windows, based on historic photographs. To the north and west, new openings are proposed.
Policy 9.3.4.2 Significant fabric should be retained in-situ and conserved. This includes but is not limited to the following: • external walls protective frame, • timber jetty shed kerbing,	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Original significant fabric is retained by the proposal including: External walls Timber jetty shed kerbing

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
• timber weatherboards, • heavy framed timber driveway gates (pier 2), • cargo doors, including cargo door protective frame, sliding doors, sheet metal sleeves fitted over door leaves to protect the edge, door rollers, hardware ie. hasp, staple, lock, etc • steel slatted pedestrian entrance roller door to Hickson Road, • lifting bay door (door with fold down platform held in place with a chain on each end) and timber fender to the external wall below (first floor), • metal louvres, • timber framed multi-paned windows, • flag pole and balcony platform used for raising flags (north facade), • associated signage ie. painted pier numbers on the north facade ('2' and '3'), bay identification to external walls, 'Roof' sign to roof truss, etc		Timber weatherboards The heavy timber framed driveway gates are not located on the subject site. Cargo doors and associated hardware The steel slatted pedestrian entrance roller door to Hickson Road is not located on the subject site. The lifting bay door is not located on the subject site. Metal louvres Timber framed multi paned windows Flag pole and balcony platform used for raising flags to the north façade. Associated signage including painted pier numbers on the north façade, bay identification etc
Policy 9.3.4.3 Any intrusive alterations or additions should be removed and replaced with sympathetic materials. These include but are not limited to the following: • recent infill and openings to ground floor cargo doors (west), • metal cladding to original window openings, • later concrete kerbing to jetty shed, etc	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Recent infill and openings to the ground floor cargo doors on the west will be removed and replaced with new glazed panels. The metal cladding to the original high level window openings on the eastern elevation will be removed and replaced with windows similar to those in adjacent bays.
9.3.5 Roof		

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
Policy 9.3.5.1 The existing roof envelope should be conserved.	Complies	Two portions of the roof, in the existing roof valley, are penetrated to raise the ceiling level. **TZG comment:** The proposed use as theatres requires two roof 'pops' – one for the ACO Auditorium and office and another for the ATYP Theatre.
Policy 9.3.5.2 The existing roof lanterns, including windows and metal louvres should be conserved.	Complies	No change expected. **TZG comment:** The existing roof lanterns including windows and metal louvres are conserved.
Policy 9.3.5.3 Any existing early associated items, including rainwater heads, etc should be conserved or replaced where necessary with matching detail.	Complies	Existing early rainwater heads are conserved or replaced where necessary with matching detail. The existing internal gutter will be replaced with a new stormwater pipe that runs to downpipes located in their original locations.
9.3.6 Industrial Archaeology		
Policy 9.3.6.1 Significant associated industrial items and artefacts should be conserved. Major industrial items and artefacts as identified in the Walsh Bay Precinct Heritage Technology Conservation Management Plan, November 1999, by Tropman & Tropman Architects should be retained in-situ and conserved. These include the following. • Timber slatted Dead houses (Items 52 & 55), originally for storing bonded goods, including any associated items ie. sliding doors, hardware, timber shelves, etc, • Bag Chute (item 89 -53) with door opening to east wall onto the apron, • Gantry rail to first floor jetty shed -east- facade, mounted on large riveted brackets fixed to the outer storey posts, and the gantry rail set into the apron,	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** The timber slatted deadhouse, bag shute and gantry rail are all proposed to be conserved in situ.

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
Policy 9.3.6.2 There is an opportunity to reconstruct the travelling gantries (Item 54, now removed) originally used to move cargo along the apron, as part of the Pier 2/3 redevelopment.	Complies	**TZG comment:** New balconies on Level 1 interpret the former travelling gantries. These will be detailed in an industrial manner and reference the original gantries.
Policy 9.3.6.3 Suitable examples of smaller industrial items should be retained wherever possible.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Suitable examples of smaller industrial items will be retained wherever possible
Policy 9.3.6.4 Any significant industrial archaeology to be retained in-situ should be fully incorporated into the design proposal, influencing the layout of the adaptive use of the building and the design of the new fittings. See also 'New Uses'. The design of developments in the vicinity of machinery should also take into account the spatial requirements of the operation of the machinery, the possible need for the installation of additional safety features and the need for viewing access. The design should also retain an appropriate visual setting for these items.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Significant industrial archaeology will be retained in situ and incorporated into the design proposal.
9.5 New Uses		
Policy 9.5.1 Any redevelopment of the site should be for purposes compatible with the retention of the character and the interpretation of the heritage values of the site and precinct. Wharf 2/3 site allowable uses as per the Walsh Bay Precinct Conservation Management Plan, 1998 include the following. • Warehousing • Residential Flat Building	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Adaptive reuse of Pier 2/3 for cultural uses - to provide a home for the Australian Theatre for Young People, Bell Shakespeare Company and Australian Chamber Orchestra as part of the Walsh Bay Arts and Cultural Precinct – is considered appropriate.

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
• Serviced Apartments • Hotel • Commercial retail • Commercial offices • Cultural (Museum, Art Gallery, etc)		
Policy 9.5.2 Interpretation of the original use and industrial context should be clearly evident with the new use.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** The proposal retains a large unlined 'raw' space on the ground floor that reveals the full volume and workings of the lower shed. The northern function room in the upper shed also reveals the full volume of the original space. Further the foyer allows one to travel between the lower and upper sheds to experience the relationship between the different spaces.
Policy 9.5.3 Any new redevelopment should acknowledge significant fabric and the spatial qualities of the existing structure.	Complies	Where possible double store large rooms maintain the original open volume. The ground floor of Pier 2/3 is kept in raw state and unobstructed as well as large foyers and commercial areas in both levels. **TZG comment:** As per 9.5.2. The design aims to retain the original fabric of the pier with minimal interventions into the external walls. A strategy of containing new uses within separate free standing 'boxes' has been employed to reduce the need to line the original external walls.
Policy 9.5.4 The specific location of new uses within the buildings should be organised to minimise any concealment, alteration or damage to significant fabric.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** As per 9.5.3

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
Policy 9.5.5 The specific location of new uses within the site should take advantage of the interpretative potential of the site and contents. Significant fabric is to be conserved and revealed to public view.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** As per 9.5.3
Policy 9.5.6 New uses should be compatible with the ongoing conservation of the significant fabric.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** The new uses will ensure that the pier is maintained and conserved for future generations.
Policy 9.5.7 Interior partitioning if necessary should allow the maximum amount of significant fabric to be revealed to view and interpretation of the original volumes.	Complies	**TZG comment:** Refer 9.5.2.
Policy 9.5.8 Vehicular movements are appropriate on the apron and into the Wharf buildings to maintain a level of activity compatible with its port history.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** A Traffic Management Strategy accompanies the proposal. Larger vehicle movements are restricted to the eastern apron, turning at the northern end. (8.8m medium rigid vehicle max) The western apron is narrower and restricted to small vans.
Policy 9.5.9 New uses of the site and building should be compatible with the following: • STRUCTURAL LOADING CAPACITY New uses should be compatible with the structural loading capacity of the existing structural elements.	Complies	The new proposal require a reinforcement of the structure. This is a positive achievement for safety matter. **TZG comment:** The pier was originally designed to take heavy loads.

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
• STATUTORY REQUIREMENTS New uses should allow minimum alteration in relation to the statutory requirements of authorities having jurisdiction over the site.	Complies	No change expected. **TZG comment:** New egress stairs are required to meet the BCA which require alteration to the fabric.
• VESTIGATION OF THE SITE New uses should allow for archaeological research orientated to provide information to guide restoration and reconstruction work consistent with the remainder of this policy. Allow for archaeological research only when there are adequate resources to undertake complete and published results of the study and leave the site in a stable condition.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** An Archaeological Report prepared by CRM accompanies the proposal.
• SERVICES New uses should minimise any damage to significant fabric caused by the replacement or installation of new services.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** New services will generally be installed in a co-ordinated manner to minimise damage to significant fabric.
• USE BY DISABLED PEOPLE Facilitate the use of the site by disable people consistent with the remainder of this policy.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Equitable access underpins the adaptive reused of the pier. A report prepared by Accessibility Solutions accompanies the proposal.
• VEHICLE ACCESS Continue use of existing vehicular access.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** The existing vehicular access will continue to be used.

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• PEDESTRIAN ACCESS Continue use of existing pedestrian access.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** The existing pedestrian access will continue to be used.
• MARITIME ACCESS Continue use of existing maritime access.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** The existing maritime access to the wharf to the east will continue to be used.
• CAR PARKING No long-term car parking will be permitted on the site. Allow for drop off and currier parking areas consistent with the remainder of this policy.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** No long term car parking is permitted on site. Provision for drop off, loading and unloading and courier parking is included.
• PUBLIC ACCESS AND INTERPRETATION Arrange the use of the site to facilitate interpretation, for instance in the way it is leased. Allow public access to the site on a regular basis for education and tourism.	Complies	The site is open to the public 24 hours a day and has restrictions based on the Precinct Management Controls. Other controls and regulations may be put in place for security purposes and life safety during the operations from time to time. The site will include large scale static displays of industrial heritage relics suitable curated and restored. With information and story panels paced in all public areas as an adjunct to the existing interpretation plan The public open space and landscape design interprets the harbour foreshores with the figure head lands expressed in a stepped sculptural form at low level. Netting and open grid decking allow the water below to be seen and interpret the cargo nets used on the wharf apron. The harbour front is accessed by a set of

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
		sloping steps to allow a physical connection with the harbour. The original line of the whrf apron is defined and celebrated in the paving.
• RESEARCH Allow investigation of the site for research only when guided by specific and scrutinised research goals and when there are adequate resources to undertake complete and published results of the study and leave the site in a stable condition.	Complies	The site is well researched but is available in request to the Precinct management committee to anyone with a genuine interest in research projects. The site is already safe and secured. Research potential still exists into the building techniques and structural methodologies employed by Hickson and Walsh in constructing these Wharves and Pier structures.
9.6 New Services		
Policy 9.6.1 Any proposed new services or service upgrades should be organised to least interfere with the existing significant fabric, industrial character, general building form, roof envelope and open layout of the substructure and building.	Capable of Complying	3 new lifts are proposed and require penetration through the floor. The external lift box is in transparent glass and it is visible only from elevated view but not from the street level around the precinct. **TZG comment:** New lifts are required to provide access to the upper levels in an equitable manner. Internally three lifts are required – one to provide back of house access for Bell and ATYP and two central lifts to serve the main foyer spaces. A single external lift is proposed to the northern end of the western apron to service the upper level event space and to provide an alternate means of access to the upper level offices. The architectural language of this lift will match that of those proposed to Wharf 4/5 which are required to provide access to Sydney Theatre Company. The external lifts have been designed to be as transparent as possible, as simple contemporary elements with steel frames and glass walls. In order to provide the required mechanical services to the auditorium spaces two roof 'pops' are required – one over the ACO Auditorium and one over the ATYP

Policy *Pier 2/3 Conservation Management Plans* by Tropman & Tropman Architects - 2000	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
		Theatre. This will have an impact on the overall roof form, however, has been minimised by restricting the raised areas to the valley between the ridges of the original roof. This will not be visible from street level. Sheeted to match the original metal roof, the new roof pops will have minimal impact when viewed from above. Other services including electrical and hydraulic services will be co-ordinated to minimise their impact on significant fabric. They will be run in concealed spaces wherever possible and in neat runs where visible.
Policy 9.6.2 Any required new services and equipment to be installed within the site should be organised in areas and spaces of no or lower significance in preference to those of higher significance.	Capable of Complying	New water/electrical/air-conditioning ducts are organised to minimise the impact on the existing fabric and positioned in hidden areas and between floors and ceilings. **TZG comment:** Services will be organised in areas and spaces of no or lower significance in preference to those of higher significance where ever possible.
Policy 9.6.3 Any new services should be planned and carried out with regard to the maritime archaeology.	Complies	**TZG comment:** New services will be planned and carried out to have minimal impact on archaeology – historic, Aboriginal and marine.
Policy 9.6.4 Any new services should be inconspicuous throughout the building and substructure. The introduction of new services should be consistent and allow the external visible pile rows two outer pile rows minimum breezeway and exterior spaces to be clear of modern services.	Capable of Complying	**TZG comment:** New services will be installed in an integrated coordinated manner and allow for the two external visible pile rows to be read clear of modern services. A new sea water chiller plant is proposed which complies with this clause.
Policy 9.6.5 Any new elements which may obscure the existing views through the piling system and building should be separated by a minimum of two structural bays.	Complies	**TZG comment:** Lifts are setback from the wharf edge by a minimum of two piers. In accordance with.

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Policy 9.6.6 The use of screens may be appropriate to minimise any unavoidable large modern service intrusion. This may include the use of colour finishes (eg. grey or black finish), timber screens with sympathetic traditional detailing (eg. planking screens), etc	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** New services will generally be concealed, however where this is not possible, in spaces such as the 'raw' spaces, they will be painted a recessive colour and co-ordinate in neat runs.
9.7.9 Conservation Practice		
Policy 9.7.9.5 Preservation of fabric and patina. During any work to an item of the site, including documentation, the maximum amount of significant fabric and patina should be retained consistent with the preservation of the item and in relation to the relative significance of the item. Replacements, no matter how accurate, should be considered of far less heritage value than the original fabric.	Complies	This has been addressed in the documents and design proposal by the Consultant Team that is aligned to the Burra Charter Principles. **TZG comment:** The works will be carried out using conservation best practice in accordance with the principles of the Australian ICOMOS Burra Charter.

7.2.2 Pier 4/5 Policies

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
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	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** The proposal retains and expands the 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 Dance Company (SDC) and Bangarra tenancies within the lower shed of Wharf 4/5. The proposal also involves the provision of additional stairs and lifts to provide access to Sydney Theatre Company in the upper shed of Wharf 4/5. Internal works associated with STC50 are the subject of a separate SSDA application.
7.3.2 Future changes to fabric, form and associated structural elements should respect its visual significance and architectural integrity and respond accordingly.	Complies	**TZG comment:** Internal changes proposed to SDC are relatively minor whilst those to Bangarra involve a predominantly new fitout. Changes proposed to the façade adjacent Bangarra involve removal of non original timber framed doors and will improve the relationship between the adjacent piers. New windows and doors are required to address the new stairs and gantries proposed for STC50 at the upper level. These will be detailed to respect the architectural integrity of the Wharf and relate to the existing chequerboard pattern of openings in the elevation. A similar architectural language is proposed for the new lifts, stairs and gantries for both Wharf 4/5 and Pier 2/3 to maintain a close visual relationship. Upgrades are required to the existing curved external stairs and western balcony to comply with the BCA. These works will be detailed in a sympathetic manner.

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
		STC50 requires two roof extensions to house mechanical plant associated with the theatre spaces. These extensions will be detailed in a similar manner to those proposed on Pier 2/3 to ensure architectural consistency and minimal visual impact.
Policy 7.3.3 Landmark position as a strong visual element on the foreshores of Sydney Harbour should be maintained.	Complies	No change expected. **TZG comment:** The works retain and respect the landmark position of the Wharf as a strong visual element within Walsh Bay on the foreshores of Sydney Harbour. Works across the Walsh Bay Arts and Cultural Precinct will ensure that this position is retained and enhanced.
7.3.4 Conservation of Wharf 4/5 wharf, shoreshed 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	Uses are compatible to the use as a cultural precinct, already established and approved. The 1998 DA approvals for Walsh Bay and the proposal contained in this SSDA consolidates the use of these relicts as cultural facilities. These require some extensive changes to the volumes. **TZG comment:** Works associated with Wharf 4/5 are to provide better amenity for the existing tenants, all of whom are key to the success of Sydney's cultural scene. Works to the Bangarra and SDC tenancies in the lower shed upgrade their existing fitouts to contemporary standards. STC50, located in the upper shed, requires more extensive alteration to accommodate upgraded theatres. The internal changes are the subject of a separate SSDA; however, the base building works have been included in the WBACP project to ensure consistency of language between the wharfs. These works include two roof pops and their associated structural modifications, new lifts, stairs and gantries. The visual impact of these alterations will be minimised through careful contemporary design that is consistent across the precinct.

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
		A new mezzanine level is proposed in the Shore Sheds to provide office space for the choirs. This space is currently ceiling void.
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 has been addressed in the documents and design proposal by the Consultant Team. 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 that allows the scale and volume of the original building to be perceived and appreciated. **TZG comment:** Works associated with SDC involve the subdivision of the existing workshop to create Studio 5 and alterations to the office located on the mezzanine. Bangarra, the Philharmonia Choir, Gondwanna Choir and Song Company currently occupy the northern end of the pier. A separate office tenancy adjacent is currently unoccupied. The proposal involves consolidation of this space for Bangarra. The two existing studio spaces and recording suite are retained. A new foyer gallery runs along the eastern side of the tenancy leading to a new full height function space proposed at the northern end of the wharf. The Choir Offices are to be relocated to a mezzanine level proposed above the existing Choir space in the Shore Sheds. This space is currently ceiling void and is capable of housing the offices with minimal impact on existing significant fabric. New external glazed doors are proposed to replace the existing substandard doors to the western elevation on ground level to Bangarra and to provide access to the

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
		new lifts, stairs and gantries required for STC50 on the upper level, consistent in detailing to those proposed on Pier 2/3.
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 Pier 4/5 was accepted as being an appropriate methodology for sustaining the heritage building and ensuring it remains as a viable and useful object.
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	This has been addressed in the documents and design proposal by the Consultant Team. 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, 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. **TZG comment:** This policy applies more to the upper shed than the lower shed which is currently detailed in a different way. Existing walls meet columns at their centres and meet the existing external walls. Works to SDC are minor and adopt a similar approach to the existing and major spaces are retained in the Bangarra tenancy which have also set the precedent for new works adjacent. The upper shed has more clearly expressed self contained volumes and the STC50 project has been guided by this philosophy.

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
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	This has been addressed in the documents and design proposal by the Consultant Team. New services will remain subservient and respectful to the scale, dignity and presentation of the existing building. **TZG comment:** New services will remain subservient and respectful to the scale, dignity and presentation of the existing building.
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.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Egress stairs and lifts are required to provide access to STC50. These have been designed to match those required for Pier 2/3 and will therefore share a common architectural language of detailing. These new elements are distinctly contemporary, with a clear distinction between new and old fabric, yet sympathetic, referencing the stairs and gantries that once adorned the sides of the piers.
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.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. The new public domain space is insignificant in height and it doesn't preclude the visual relationship within the piers. **TZG comment:** The new lifts, stairs and gantries are designed to have minimal visual impact, respecting the relationship of Wharf 4/5 to the other buildings in Walsh Bay.
7.5.3 Adaptive reuse which respects the integrity of the structure of the building and its curtilage should continue to maintained.	Complies	**TZG comment:** The current uses of the wharf are retained and improved by the proposal.

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	Compliance Complies Capable of Complying Does Not Comply	Comment
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.	Complies	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. **TZG comment:** Internal alterations to the Upper Deck are not included in the scope of works for the Walsh Bay Arts Precinct. They are included in the separate STC50 SSDA, which has been lodged concurrently.
7.6.2 There should be no new or permanent development on the wharf apron.	Does not comply	New stairs, lifts and gantries 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. Historical documentary, photos and drawings evidence shows how the aprons accommodated gantries and balconies. **TZG comment:** External lifts and stairs are proposed to provide access to STC50. Locating them external to the building minimises impact on interior significant fabric. Their impact on the wharf apron has been minimised by designing them as contemporary steel and glass elements that are reversible. Further a similar architectural language will be employed to those serving Pier 2/3 unifying the composition across the precinct.
7.7 Conservation of Significant Fabric		
7.7.1 Roof structure Where repairs to the buildings are required, the roof framing including	Complies	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

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significant roof trusses should be retained where possible.		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 assembles 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 a single roof truss 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.
7.7.2 Roof structure Replacement of corrugated roof panels should match existing corrugated roofing material.	Complies	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. **TZG comment:** New corrugated metal roof panels will match existing.
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.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. The recent glazing covering the cargo doors are removed to restore the original looking. **TZG comment:** Regular maintenance will continue to be carried out. Replacement weatherboard panelling and painted finishes will match existing.
7.7.4 Walls - Face Brickwork Retain significant unpainted face brickwork on the Hickson Road facades of the shoresheds.	Complies	No change expected. **TZG comment:** No changes are proposed to the unpainted face brickwork to Hickson Road.
7.7.5 Flooring Original timber flooring should be retained in any future use or modifications to	Complies	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

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
the building.		will be protected and preserved. Where programmatic requirements necessitate a different floor type, such as wet areas, the ironbark will be retained and protected prior to the new floor structure being installed. **TZG comment:** The original timber flooring is retained. The bitumen will be removed from the Bangarra foyer to reveal the original timber.
7.7.6 Wharf Sub-structure Replacement of timber wharf piles should continue 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.	Complies	**TZG comment:** Maintenance of the wharf substructure forms part of the scope of works. Timber wharf piles will be replaced as required based on a Condition Audit that is currently being carried out.
7.7.7 Timber Joinery Retain significant timber joinery, including original windows and doors and original internal timber staircase.	Complies	Facade alterations introduce glazing to facilitate the internal program. This will follow the rhythm and precedent of the existing facade. **TZG comment:** Significant original timber joinery including timber windows and doors are retained. The later windows and doors to Bangarra will be replaced as part of the works.
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 has been addressed in the documents and design proposal by the Consultant Team. The building services are upgraded to satisfy BCA requirements. **TZG comment:** The proposal includes an upgrade of the existing fire protection, emergency and electrical lighting services to ensure that they comply with current standards.
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	Complies	This has been addressed in the documents and design proposal by the Consultant Team. Already an existent lift is present along the public access to the STC.

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
level of the STC and 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.		New lifts are proposed at Mid Wharf and End of Wharf locations to facilitate access to both Level 1 and 2. They 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. **TZG comment:** Two new lifts are proposed externally, on the eastern side of the wharf, to provide public access to the theatres, offices and bar at the end of the wharf. On the western side a new goods lift is also proposed externally. These lifts will be designed to match that proposed to Pier 2/3 to ensure a consistency of architectural language across the precinct. They will be designed to read as distinctly contemporary, free standing elements and be detailed in steel and glass to maximise their transparency and minimise their visual impact.
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	This has been addressed in the documents and design proposal by the Consultant Team. 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. **TZG comment:** The existing roof contains plant and exhausts at disparate locations along its length. New air conditioning is proposed to Bangarra, SDC and STC50. The proposal seeks to update the mechanical systems utilised in the building and to rationalise and consolidate the associated equipment. This involves packaged units, similar to existing to the lower shed and plantrooms within the new roof pops with consolidated plant platforms located in the northern valley. A Visual Impact Assessment accompanies the proposal.

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
7.7.11 Environmental Efficency 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	This has been addressed in the documents and design proposal by the Consultant Team. 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 WBACP and the STC50 project to identify opportunities for efficiencies. **TZG comment:** 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.
7.8 Conservation of Equipment and Machinery		
7.8.1 The Goods Lift within Wharf 4/5 should be retained and an adaptive reuse strategy created.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** 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.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** Gantry rails on the eastern and western facades are retained. New lifts, stairs and gantries have been designed to be proud of the facades to ensure that the gantry rails are unaffected.
7.9 Principles for Design of new elements		
7.9.1 New or repaired elements should generally adopt the visual characteristics of		This has been addressed in the documents and design proposal by the Consultant Team.

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
the surrounding context in order to minimise visual interruption to the original context.	Complies	**TZG comment:** New elements such as lifts, stairs and gantry balconies adopt a simple contemporary language and are designed to minimise visual interruption to the original context. Changes to the roof are restricted to the central valley to minimise their visual impact. Works to the façades have been designed to respect the chequerboard rhythm of the original facades. The existing curved stairs and western balcony both require upgrades to comply with the BCA. These will be detailed in a simple unobtrusive manner.
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	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** 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 shoresheds. Rees McKay, Government Architect, who has been responsible for the care and maintenance of Wharf 4/5 through the Department of Commerce is an invaluable source of information regarding the history and use of the site.	Do not Comply	This is not part of the scope. Arts NSW currently lease the site from RMS. An oral history programme was prepared for the Walsh Bay Precinct as part of the requirements of the redevelopment. This information is viable from the Mitchell Library and other sources.. **TZG comment:** Arts NSW currently lease the site from RMS. No known oral history program has been implemented to date, however, is encouraged in the future.
7.11 Appropriate Conservation Skills and Experience		
7.11.1 Appropriate professional and trade skills should be sourced and employed	Complies	This has been addressed in the documents and design proposal by the Consultant Team.

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
during the implementation of conservation works and in the design and installation of future uses within the buildings.		**TZG comment:** 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	This has been addressed in the documents and design proposal by the Consultant Team. **TZG comment:** A Signage and Wayfinding Strategy accompanies the proposal prepared by Urban & Public. It advocates signage that is consistent in design to the architectural form of the building to which it is attached, is of a high standard of materials, construction and graphics and is appropriately located. LED awning signs are proposed in discreet strip lighting to new awnings at Hickson Road. These are able to be switched to any appropriate colour setting and may be controlled as required.
7.13 On-going Maintenance Regime		
7.13.1 The current maintenance program should be continued and updated as required.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. Maintenance is undertaken by the major tenant Create NSW as a condition of its lease from the owner RMS. **TZG comment:** The current maintenance program is ongoing. This has recently been reviewed on behalf of Arts NSW by Tropman & Tropman.
7.13.2 Funding should be made available on a cyclical basis for the replacement of	Complies	**TZG comment:** Create NSW have allocated funds for replacement of wharf piles on a cyclical basis as part of their regular maintenance program and a requirement of

Policy *Wharf 4/5 Conservation Management Plans* by Graham Brooks and Associated - 2007	**Compliance** Complies Capable of Complying Does Not Comply	**Comment**
wharf piles as part of the regular maintenance program.		its lease with RMS.

8. Heritage Impact Assessment

8.1 Impact of the Design Proposal

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
GENERAL			
Infrastructure upgrades, demolition, hazmat removal and sub structure works	These operations are essential to improve public safety	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.	Carefully dismantle the structures and salvage and reuse fabric on site. All original and early fabric must be appropriately protected during construction and subsequently maintained.
Removal of timber columns. - 3 on Ground Level Wharf 4/5 - 8 on First Floor Level Warf 2/3	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.	This will cause some loss of original elements however the impact is considered to be minimal.	The removed columns must be numbered, tagged and securely stored. The holes in the floors should be covered 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.

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
			Removed columns could be re-instated in locations where they were removed during previous alterations.
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 is a requirement for soundproofing. There is no loss of original fabric and this operation is reversible	We consider there to be nil/minimal negative effect.	Minimise fixings where possible. Significant building fabric and elements are to be protected from potential damage during the works, especially demolition works. Protection systems must ensure historic fabric is not damaged or removed.
Restoring of Ironbark floorboards	Large areas of the Ground and First Floor Level in Pier 2/3 expose the original heritage significant rough sawn floorboards.	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.
Upgrades to meet compliance with current BCA, DDA and fire codes	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 fixings into non significant fabric where possible. Services such as plumbing, electrical, air-conditioning shall reuse existing service points and reticulation, as much as possible, or be accommodated within existing or new cavities to avoid impact on significant fabric. Do not chase original fabric.

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
New lifts and stairs	This will create better circulation through and around the buildings and also provide equitable access to this state significant site.	We consider there to be minimal negative effect.	Clearly distinguish new elements from original fabric. Salvage removed original structural elements.
Creation of new public toilets	Upgrade and compliance to current and foreseeable future needs of the site as well as compliance with current codes.	N/A	Group toilets where possible to minimise service runs.
Creation of performance venues, rehearsal rooms, production workshops, back of house facilities and offices	This operation will provide for the current and foreseeable future demands of the buildings	The removal of heritage timber columns and steel trusses over will have some impact, however this is mitigated by the overall preservation of the buildings and ongoing adaptive reuse over the next 50 years.	Carefully dismantle the structures and salvage and reuse fabric on site where possible. Tag and store surplus.
Retention of a large proportion of the ground floor in its existing 'raw' heritage state for events and festivals including Sydney Writers' Festival and Biennale including venue and commercial hire.	This is a positive outcome in achieving overall conservation goals by keeping the original raw and empty status of some areas	We consider there to be nil/minimal negative effect.	Any works must allow for the maximum retention of heritage fabric.
Creation of function spaces, bars, cafes and foyers extending onto external gantry platforms (balconies) providing breakout space for internal foyers and allowing views of outdoor	This operation is part of the strategy for a new use of the building. New balconies interpret the former travelling gantryes.	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
performances			
Restoring of Heritage Items: - Dead House - Bag Shute	This is a positive outcome in achieving overall conservation goals by restoring existing heritage items.	We consider there to be nil/minimal negative effect.	All original and early fabric must be appropriately protected during construction and subsequently maintained.
Creation of dedicated areas for Interpretation of movable heritage items	There is an extensive interpretation display throughout the Walsh Bay Precinct and this is a continuation of that, providing for displays and interpretation of moveable heritage items explaining the past industrial maritime use of the place to the public.	We consider there to be nil/minimal negative effect.	All interpretation should be guided by the Interpretation Plans and Strategies prepared on the place in consultation with the heritage architect. Locate all new fixings into non significant fabric where possible.
EXTERNAL			
External stairs for fire egress	This reconfiguration of external stairs will improve safety and movement for people during major events. In both Pier 2/3 & 4/5 a consistency of contemporary detailing will articulate these new elements across the WBACP.	We consider there to be nil/minimal negative effect.	Locate all new fixings into non significant fabric where possible.

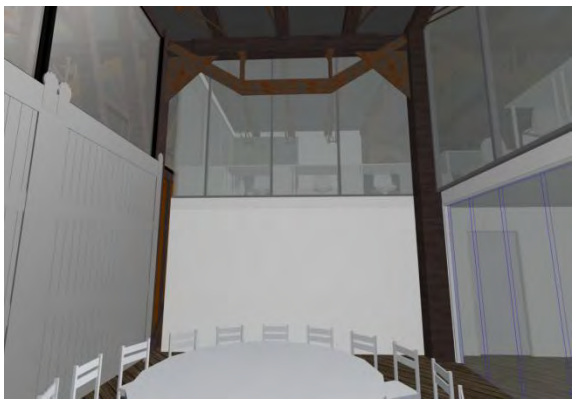
DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
New external lift for access	This is a positive outcome to provide equitable access to this state significant place. By a well considered design placing the lift outside of the building, this reduces the loss of heritage fabric that an internal lift would create.	We consider there to be nil/minimal negative effect.	Locate all new fixings into non significant fabric where possible.
Installation of glazing in existing cargo sliding door openings and other solid panels on the eastern, western and northern elevations to allow for views into and out of the building.	New balconies will improve the view from the Wharfs and lighting into the Piers and interpret the travelling gantries which once moved along the aprons.	We consider there to be nil/minimal negative effect.	All original and early fabric must be appropriately protected during construction and subsequently maintained.
Roof penetrations within the central valley at the southern and northern end to accommodate new performance spaces and associated structural modifications including truss strengthening.	This operation is necessary to create additional space in height, necessary for performance and set accommodation. Roofs of the Walsh Bay Wharves have been modified during the redevelopment that has taken place over the past 15 years, setting a precedent.	We consider there to be minor impact. In context of the size of the structures, this is a small compensation which will adequately accommodate current and foreseeable future demands on the place. This is demonstrated by the visual impact analysis.	All original and early fabric must be appropriately protected during construction and subsequently maintained.
Installation of ESD elements, such as photovoltaic panels and seawater heat exchange systems	This is in line with current best practice in sustainable design.	We consider there to be nil/minimal negative effect.	Locate all new fixings into non significant fabric where possible. Locate PV cells on new roof elements.

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
			Locate chillers past first two rows of columns under the deck.
Raising of the external floor level on the eastern side by introducing a new raised deck and continuous set of stairs beyond the existing column line	This allows level access to both sides of pier 2/3. This deck will be detailed in a reversible manner.	We consider there to be nil/minimal negative effect.	Ensure new work is identifiable as such in accordance with Burra Charter principles.

8.2 Wharf 2/3: Impact of the Design Proposal by Area

Ground Level Wharf 2/3

Wardrobes, Workshops, Tech, Reception, Meeting, WCs, Utility, Meeting, Archive, Lift



Bell boardroom. 3D by TZG

WORK DESCRIPTION:

Removal lift and stair of 2003.

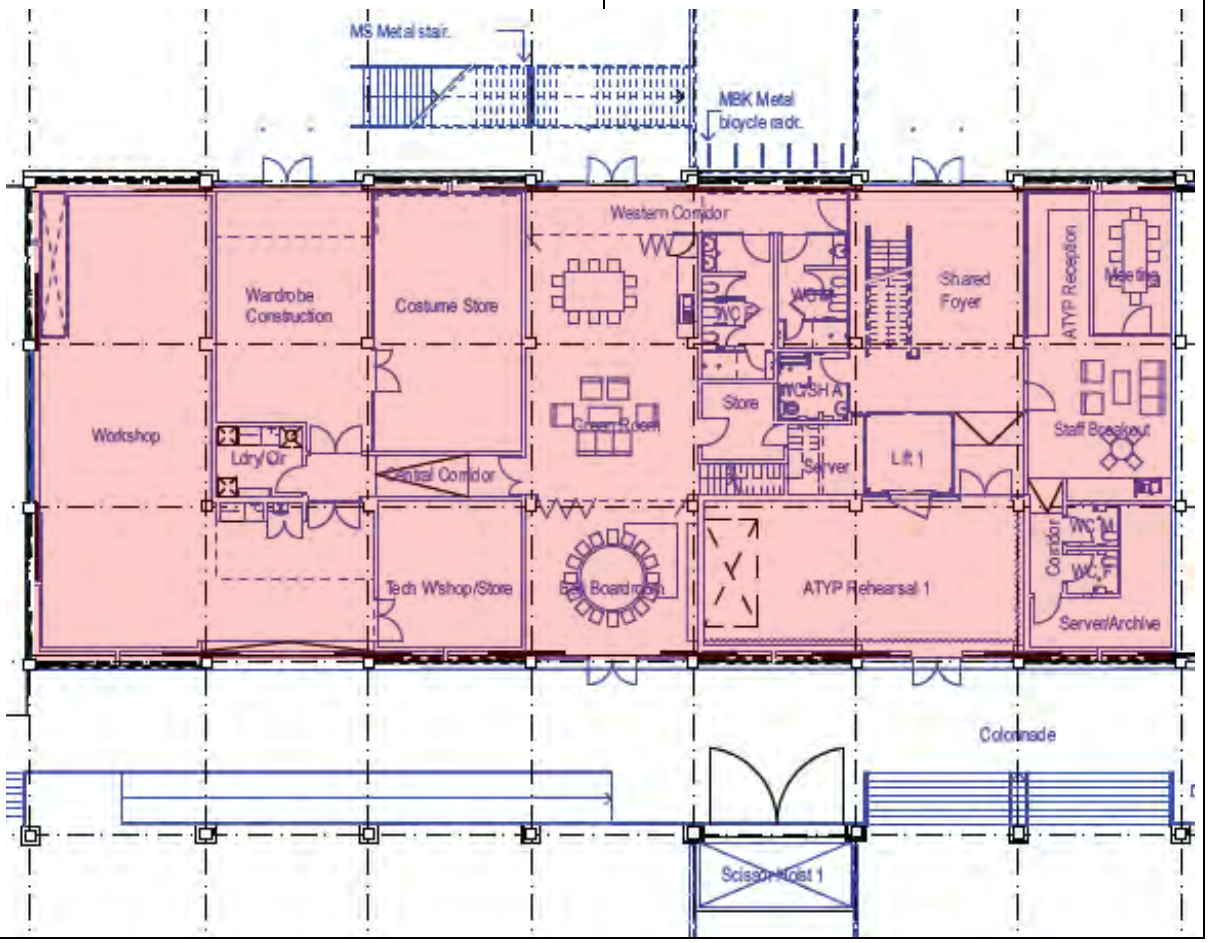
New partition walls.

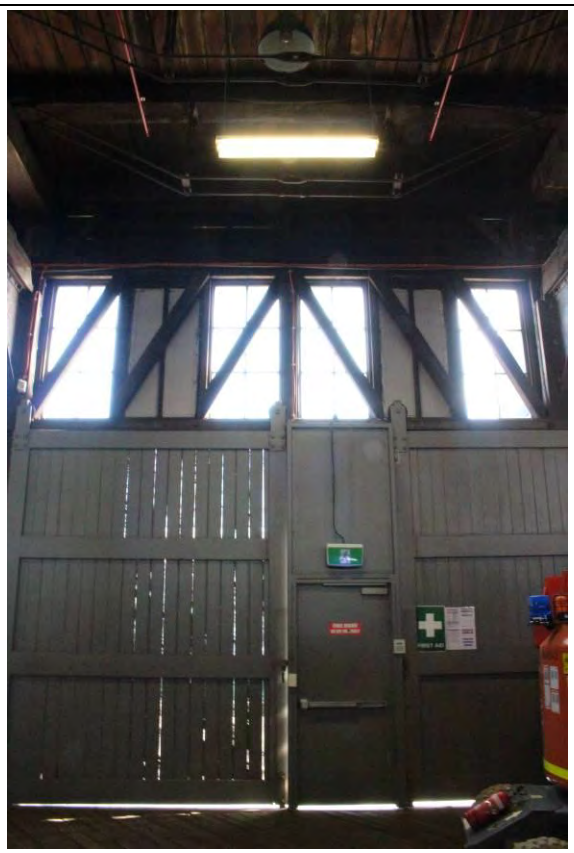
POSITIVE EFFECTS:

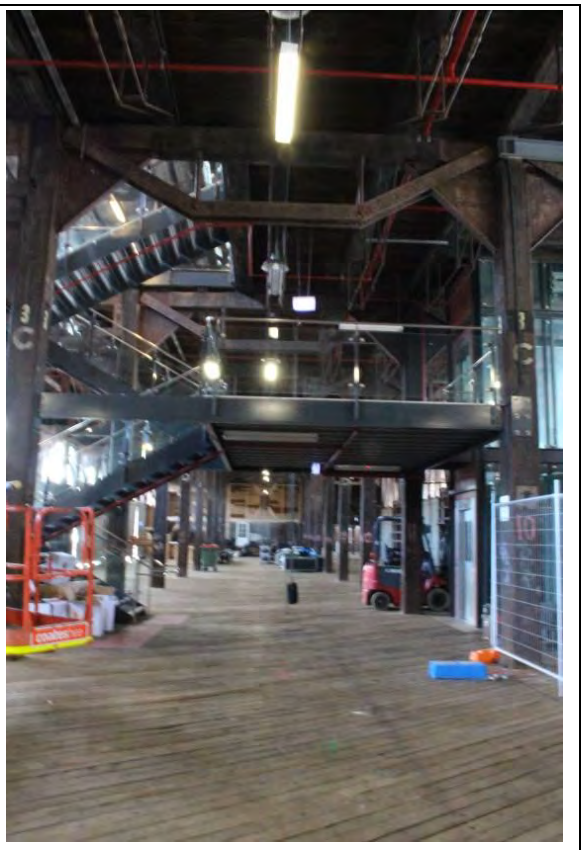
New partition walls are set back from external walls and generally following the spacing of the existing strongbacks, reinforcing the heritage volume of the place.

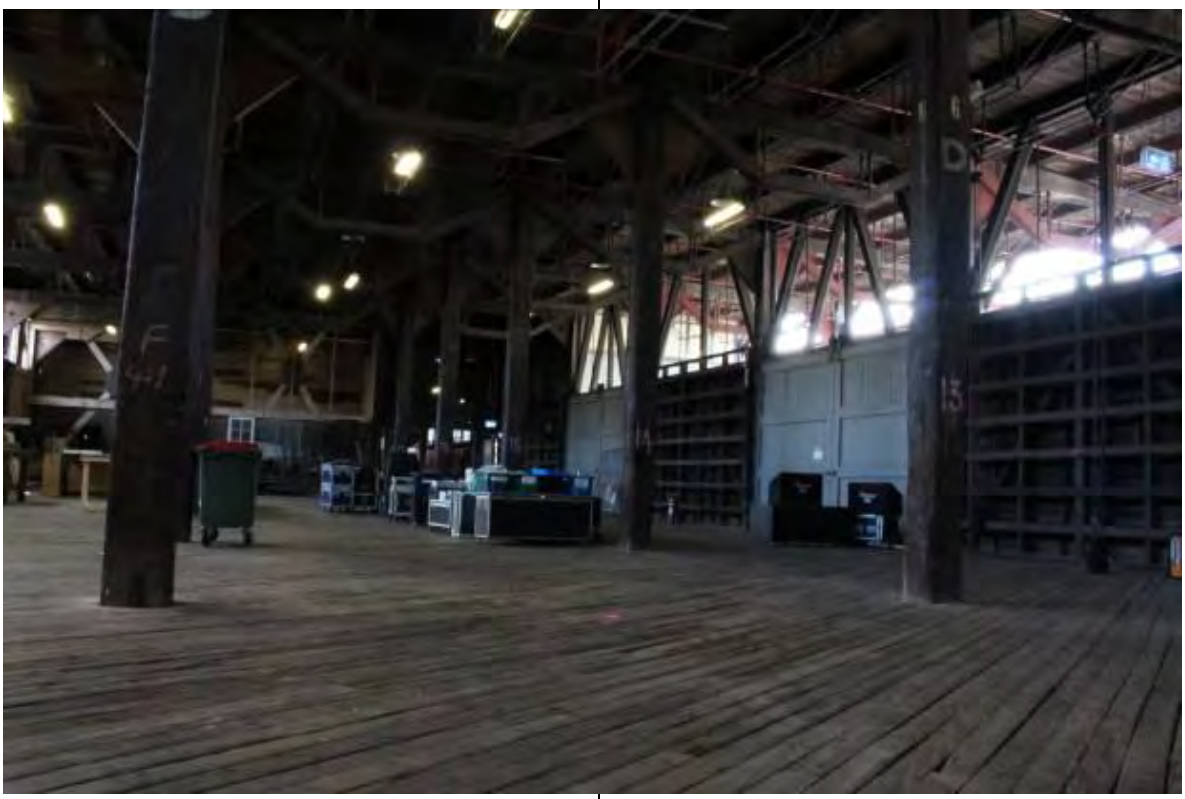
NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.





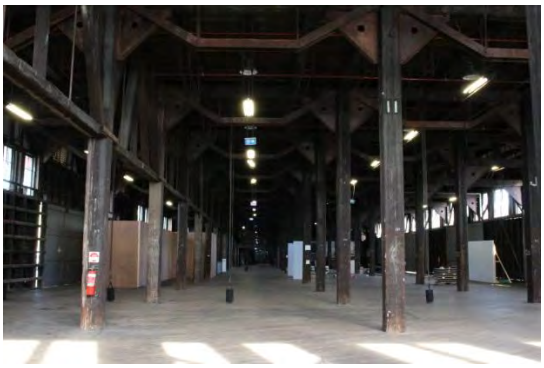




Ground Level Wharf 2/3

Commercial 1

Flexible Open Space



WORK DESCRIPTION:

The brief calls for a large raw space for temporary events. This space has minimal interventions to maintain and celebrate the heritage structure, which spans the full width of the building, and to capture views both into the precinct and toward the Sydney Harbour Bridge. The structure, floor and external walls are to be left largely untouched. The cargo doors will have glazing infill installed and space heating will be provided to provide thermal comfort year round.

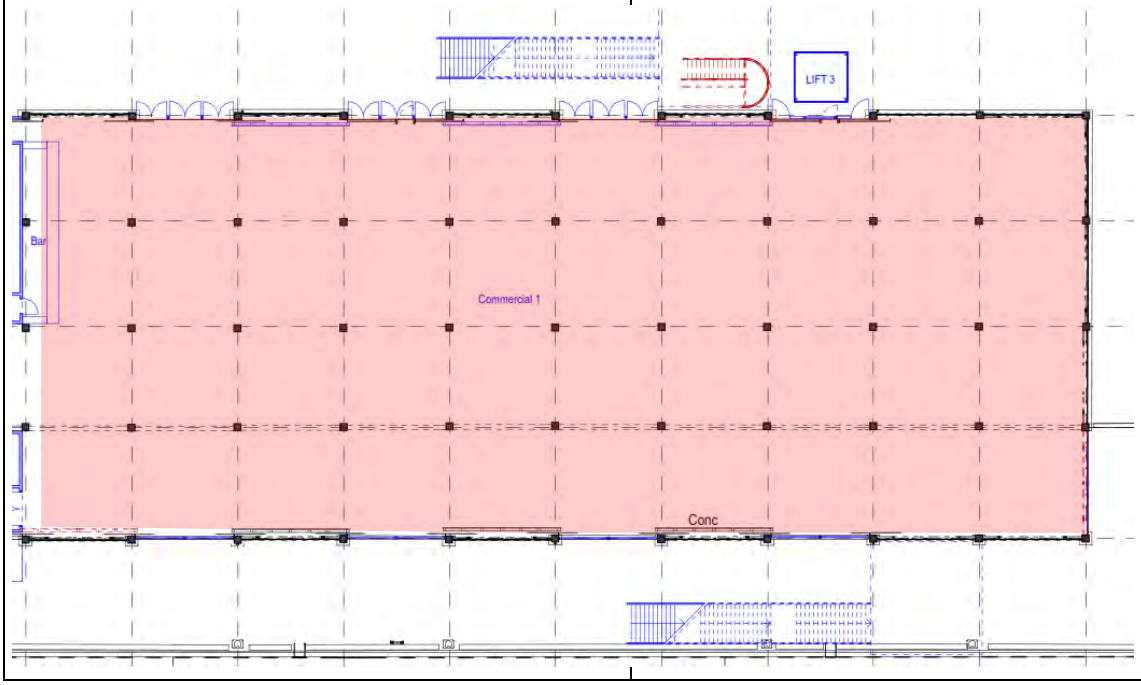
The event space spans the full width of the building, offering views both east and west. A new opening is proposed in the eastern bay of the north wall interpreting the former extend of the colonnade, providing northerly views to the Harbour.

POSITIVE EFFECTS:

A well considered design limiting intervention to heritage fabric and upgrading to current and foreseeable demands for use as a public exhibition space.

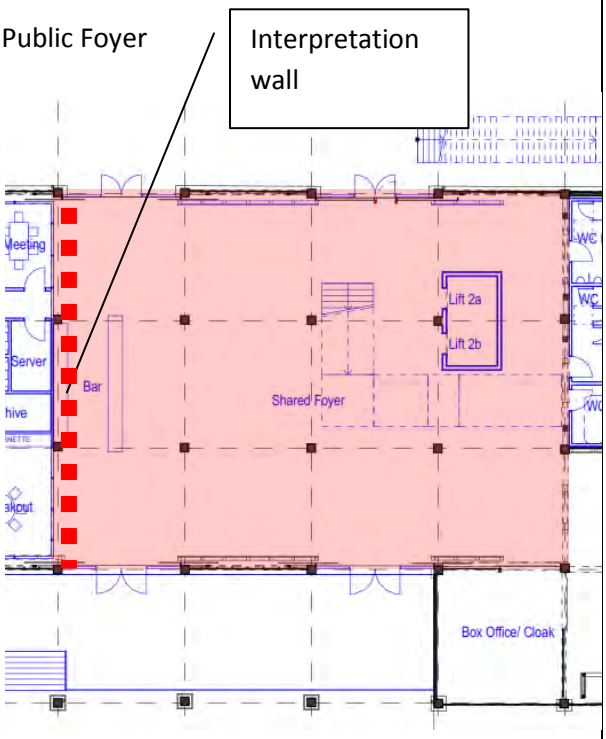
NEGATIVE EFFECTS:

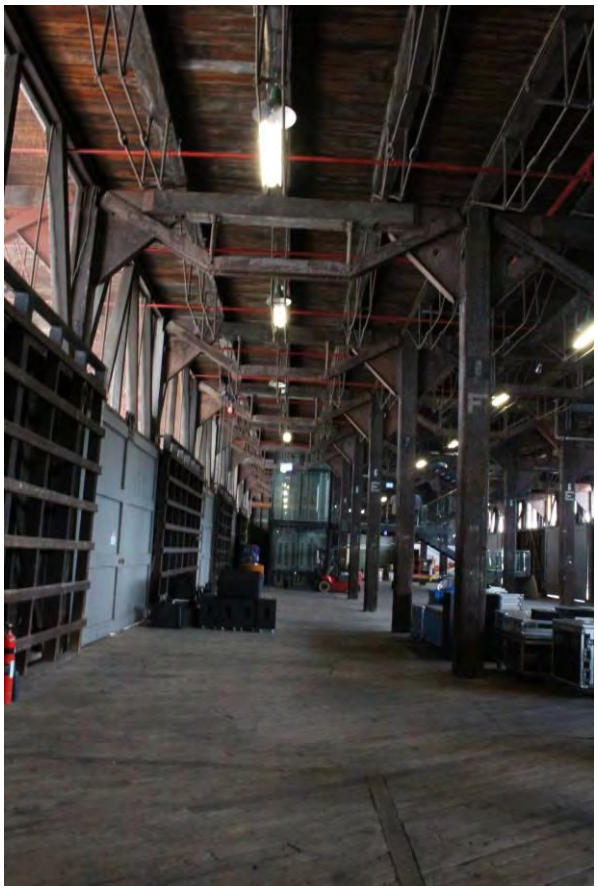
We consider there to be nil/minimal negative effect.



Ground Level Wharf 2/3

Public Foyer





WORK DESCRIPTION:

The main lobby is located in the centre of the lower shed providing access to the northern event space and, via a glass lift and stair, to the performance spaces in the upper shed. The lobby has two 6m-wide cargo-door openings to both the eastern colonnade and the western apron, providing public access through the building in addition to views of the Arts Precinct to the West and Sydney Harbour Bridge to the East. The 350m2 lobby is designed to operate as a function space, either independently or in conjunction with, the larger Commercial Arts/Events space to the North.

POSITIVE EFFECTS:

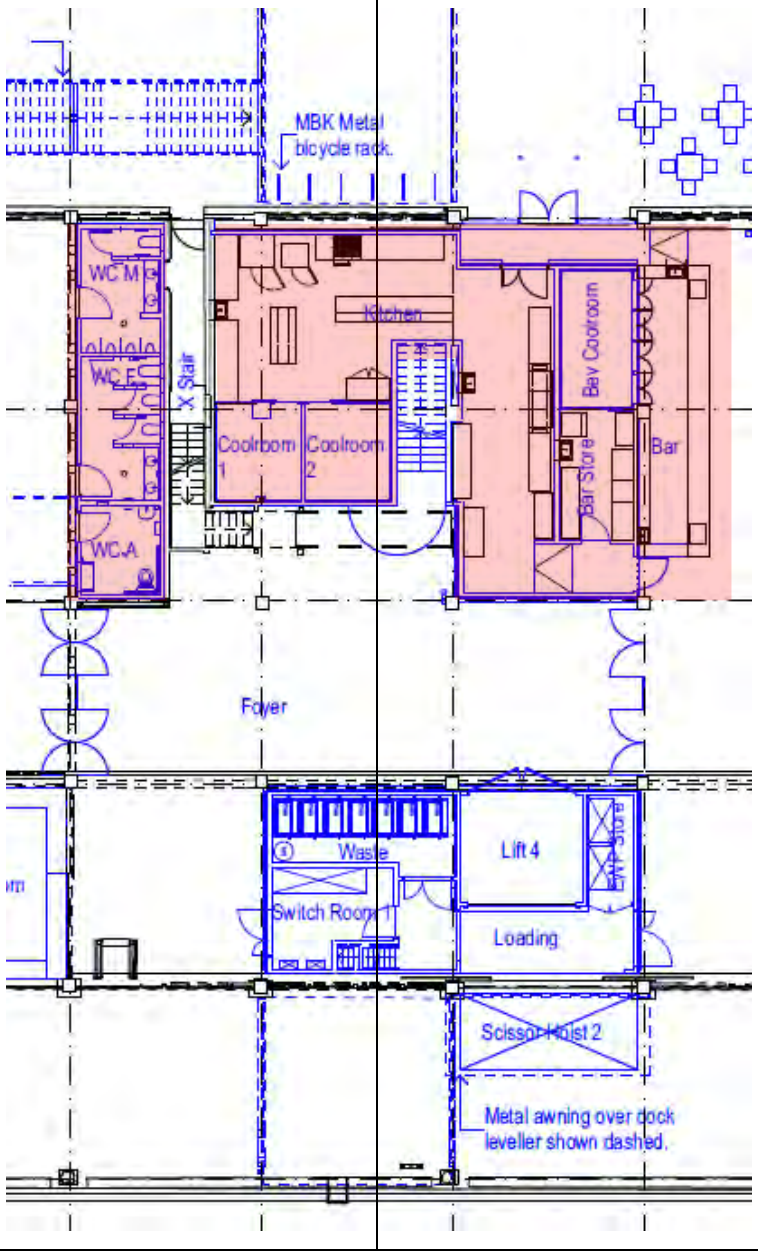
Appreciation of heritage structure.
Interpretation wall for Heritage Movable Items.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

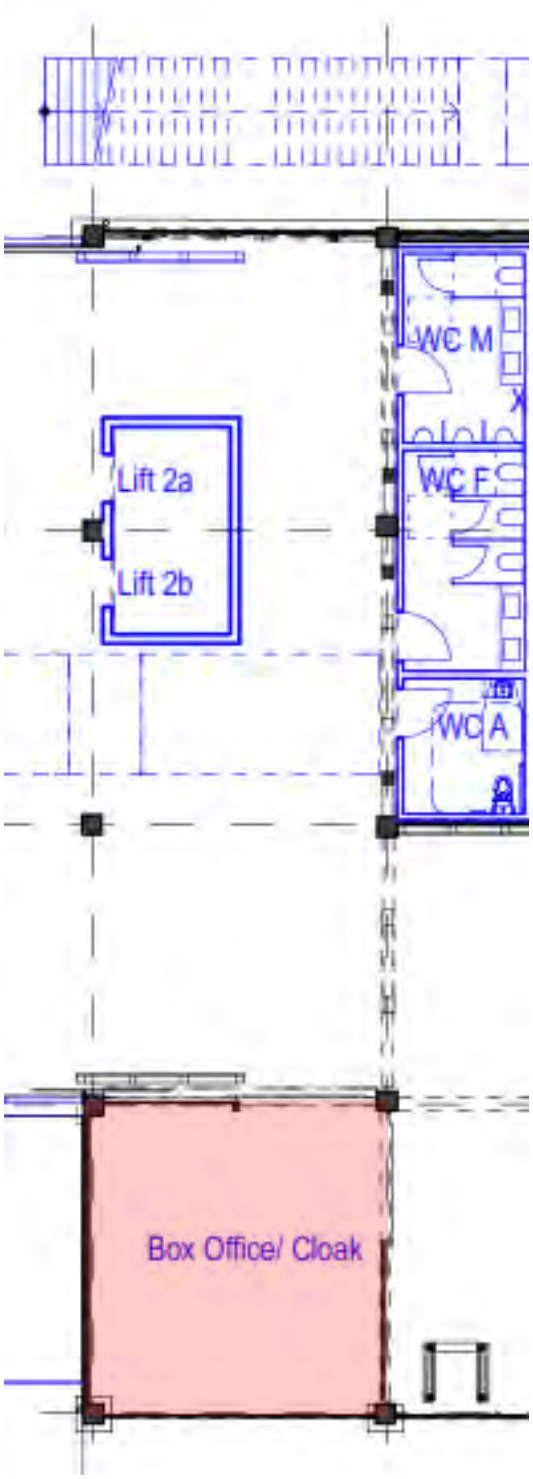
3D render by TGZ

Ground Level Wharf 2/3 Kitchen/Bar Block and WCs	WORK DESCRIPTION: Insertion of kitchen, bar and toilets with relative pluming. POSITIVE EFFECTS: The new use of the Wharf requires amenities, for both the public and staff, to satisfy not only the BCA but also the visitor's experience. NEGATIVE EFFECTS: We consider there to be nil/minimal negative effect.



Ground Level Wharf 2/3

Box Office /Cloak, Services



WORK DESCRIPTION:

Restoration of the Heritage significant Dead House and reusing it as box office.

POSITIVE EFFECTS:

This is a clever adaptive reuse of this significant element, ensuring it is an integrated part of the new life of Wharf 2/3.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

Mezzanine Level Wharf 2/3

Open Plan Office ; Offices ; Meeting Rooms

3D by TGZ

WORK DESCRIPTION:

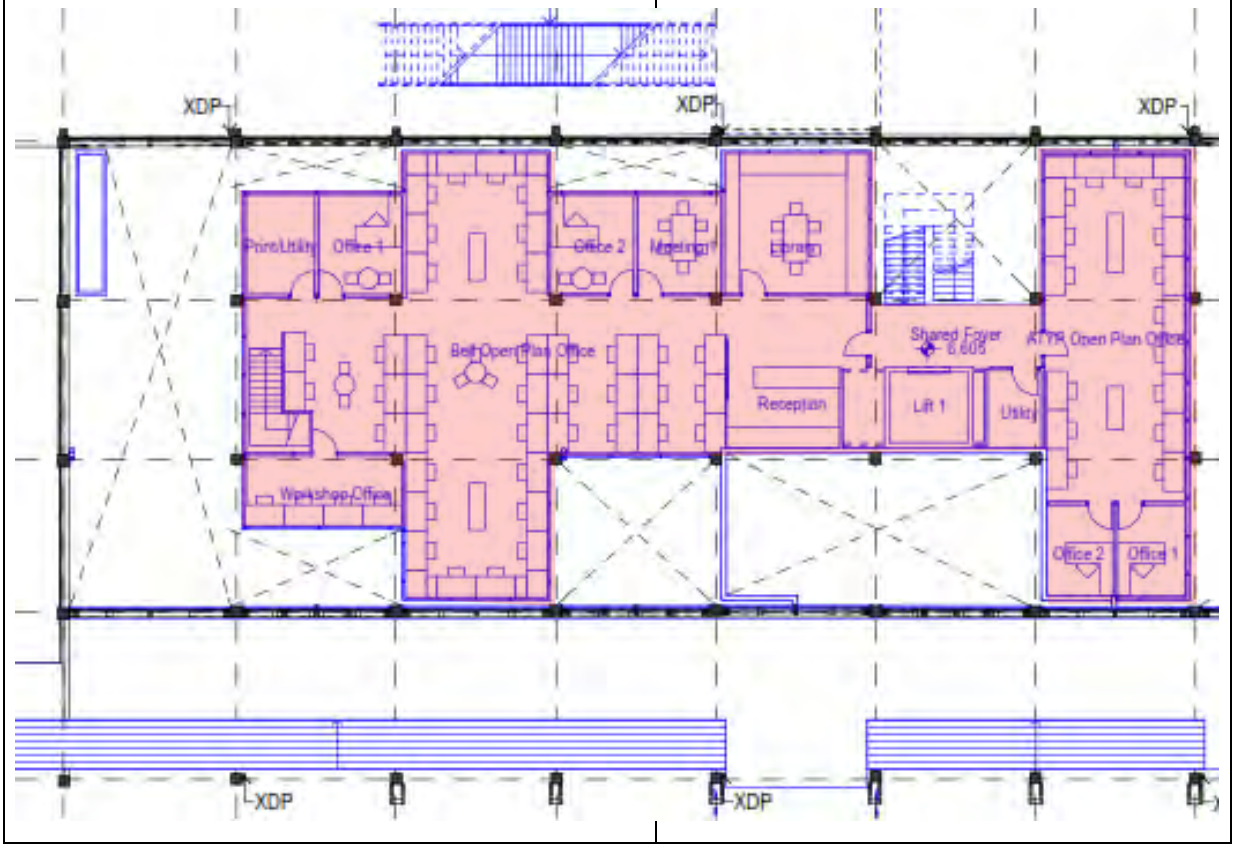
At the south end of the lower shed, mezzanines are carefully located to reveal the full height space immediately inside the cargo doors. Mezzanine floors have been set back from the cargo doors at the facade in order not to interrupt the existing rhythm of the facade and to permit their operation. Mezzanine floors will be designed as inserted contemporary elements, clearly independent of the original fabric.

POSITIVE EFFECTS:

Insertion of mezzanine floors is appropriate to the former uses and scale of the building.

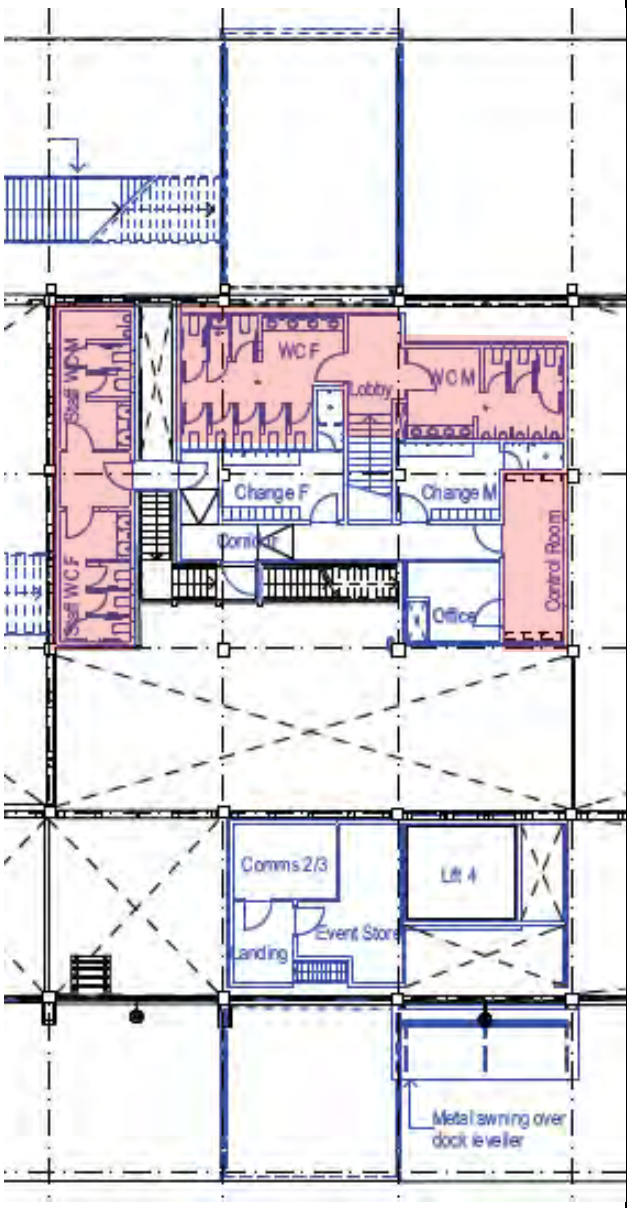
NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



Mezzanine Level Wharf 2/3

WCs and Tech Balcony



WORK DESCRIPTION:

Insertion of a new mezzanine floor

POSITIVE EFFECTS:

Insertion of mezzanine levels for needed space is an accepted design in industrial buildings and is appropriate here.

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

Toilets are grouped in this new area. Plumbing is located in the new floor and walls which are set back from the heritage fabric, limiting impact.

NEGATIVE EFFECTS:

Downstairs accessible toilet may require removal of top layer of flooring to achieve levels.

Removal of fabric mitigated by improved functionality. Impact is minor.

Level 1 Wharf 2/3

Rehearsal Rooms

POSITIVE EFFECTS:

Works will cater for the current and foreseeable future demands of the place.

NEGATIVE EFFECTS:

Removal of two timber posts, installation of new beam and truss strengthening. Mitigated by improved functionality. Impact is minor.

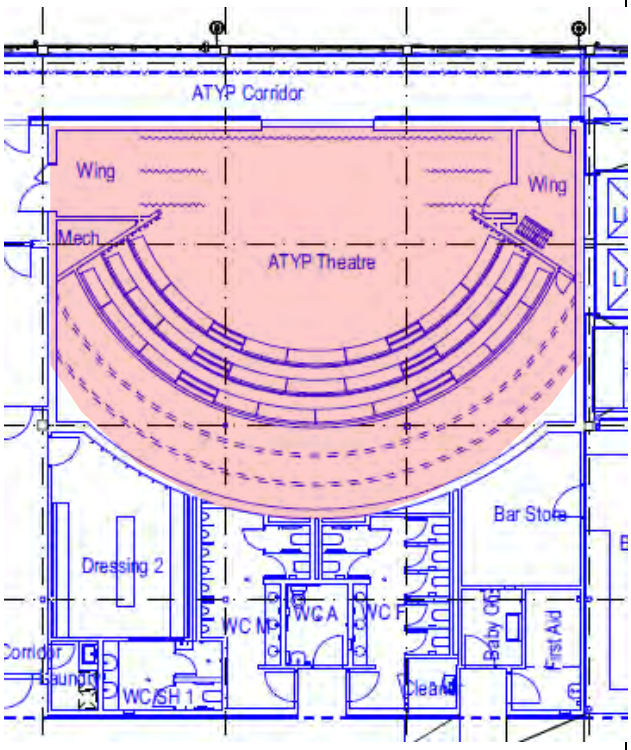
WORK DESCRIPTION:

Because of the need to provide a very tightly controlled environment to protect valuable music instruments, the air-conditioning system will need to operate out of normal operational hours. The systems required to control humidity separately from the adjoining auditorium will need careful assessment for noise control.

Mechanical plant is located in the raised section of roof between the valleys.

Level 1 Wharf 2/3

ATYP Theatre



WORK DESCRIPTION:

Auditorium and rehearsal space are required to be column free and are thus located in the upper shed to minimise removal of existing structure. It cannot be avoided to accommodate the arts companies' requirements. New insertions will be expressed as distinct architectural elements that will read as objects independent of the original fabric. This performance space present a raised floor over a concrete topping.

The design of the air-conditioning system ensure that the ductwork does not interfere with the technical theatre systems and to avoid the system being overly noisy.

The southern half of the upper shed accommodates a 200 seat theatre for ATYP and three large rehearsal spaces. These have been arranged to minimize the removal of heritage fabric.

The theatre is arranged in a semi-circular, thrust arrangement with a steep rake. This limits the distance required for children performers to project their voices and maximises a sense of intimacy and audience engagement.

POSITIVE EFFECTS:

Design has been well considered to minimize impact on heritage fabric and removal

NEGATIVE EFFECTS:

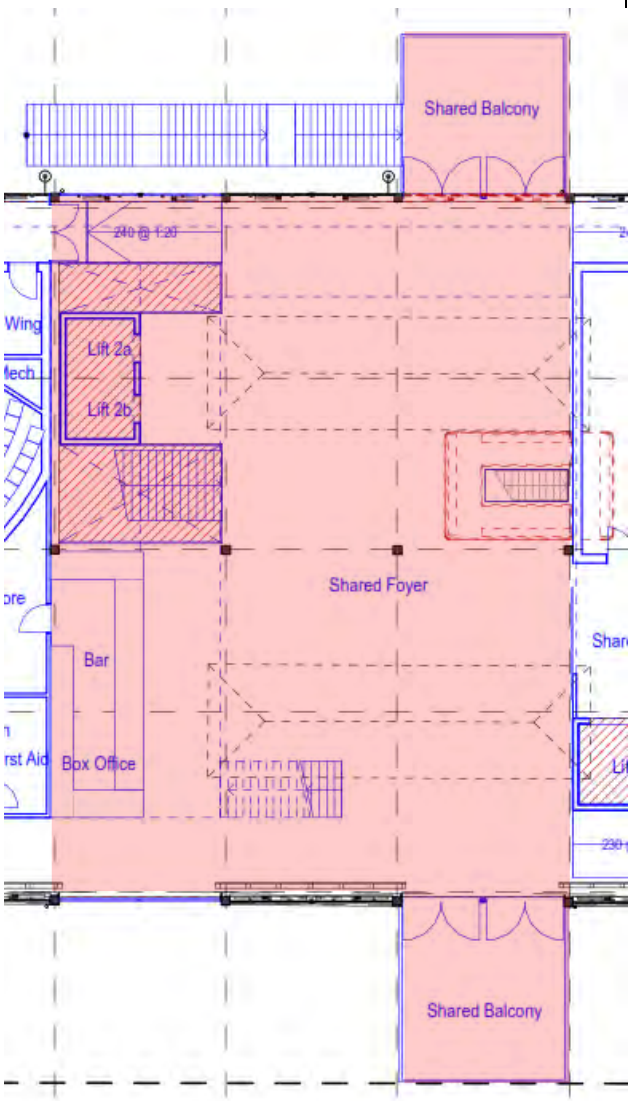
Removal of two timber posts, installation of new beam and truss strengthening. Mitigated by improved functionality. Impact is minor.

3D by TGZ

Level 1 Wharf 2/3

Shared Foyer

3D by TGZ



WORK DESCRIPTION:

At the centre of Level 1 is a double-height foyer with a mezzanine. The foyer is set over two bays, underneath the existing lanterns and is bounded on either side by new performance spaces. These are expressed as new volumes separate and distinct from the original structure. Both east and west sides of the foyer open onto generous external balconies. The central foyer connects all of the circulation routes in the upper shed. To the south of the foyer, a front of house corridor along the eastern side gives access to public amenities and Bell's rehearsal spaces. To the north of the foyer, a front of house corridor along the western side gives access to ACOs auditorium and other facilities along with the independent function space.

The mezzanine level of the foyer wraps around the east side of the ATYP theatre providing a separate pre-show function area for ATYP with views of the Sydney Harbour Bridge. Access to the ATYP theatre and supplementary access to the ACO auditorium also occurs at the mezzanine level.

POSITIVE EFFECTS:

Improved circulation and functionality of the space. New work is distinct from the heritage fabric.

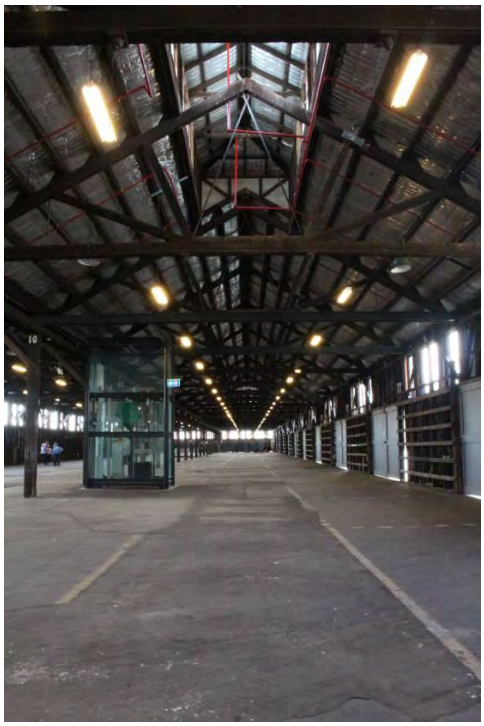
NEGATIVE EFFECTS:

Heritage stairs from lower shed capped at this level. The handrail is removed.

Removal of fabric mitigated by improved functionality. Impact is minor.

Level 1 Wharf 2/3

ACO Auditorium and Rehearsal Room



WORK DESCRIPTION:

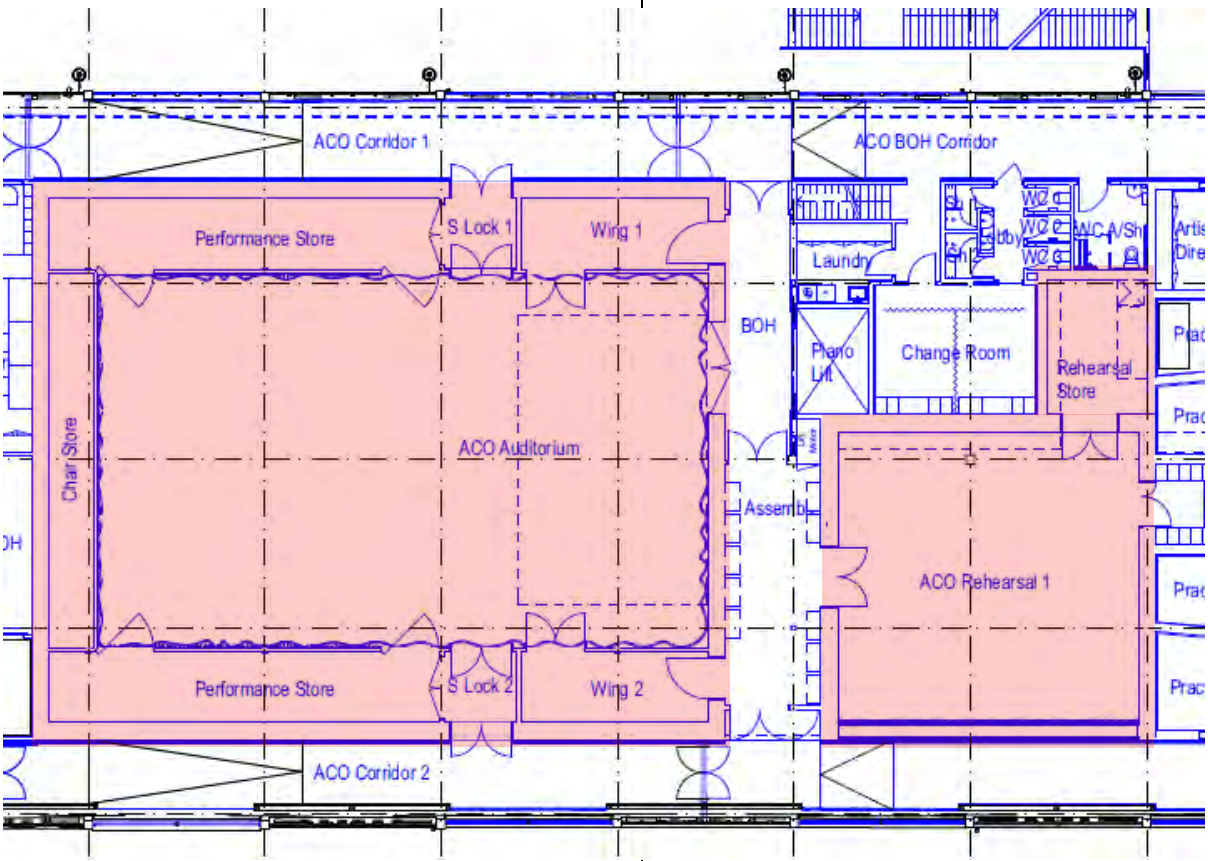
The ACO auditorium is located in the northern half of the upper shed. To achieve the required volume, the central valley will be replaced with a flat roof. Four storey posts are to be removed and the existing trusses are to be reinforced to achieve the required span. The auditorium is proposed to have full height glazing for three bays on the east side providing expansive views of the Sydney Harbour Bridge as the backdrop to the performance. The proposal to reinstate high level glazing along the upper level of the east facade will enhance these views from within the auditorium. Floated floor for main space. Isolated ceiling and lining with rain noise control. Internal walls mounted on floated floor. Secondary glazing to outside.

POSITIVE EFFECTS:

Retention of large spaces.

NEGATIVE EFFECTS:

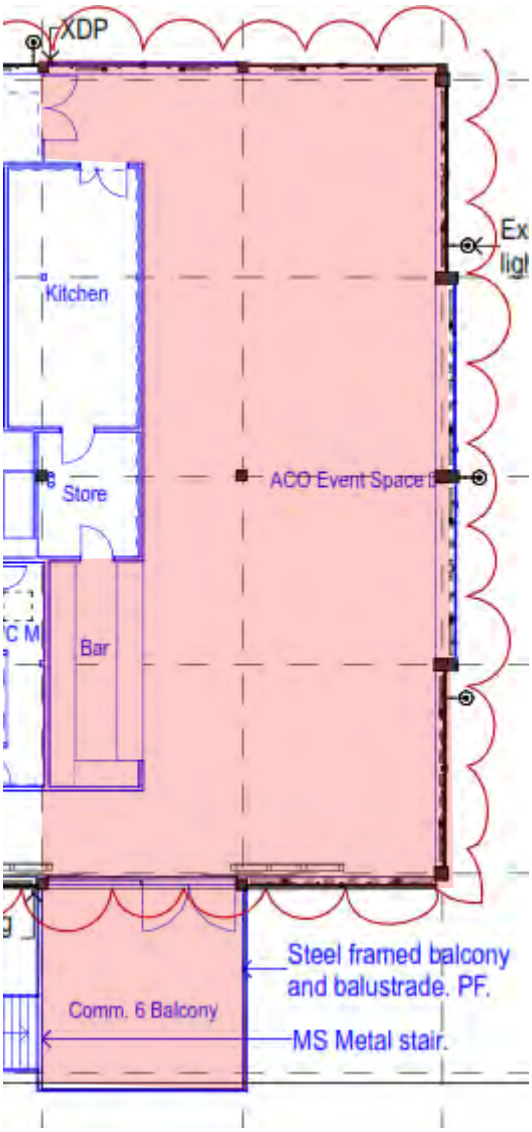
Removal of five timber posts. Mitigated by improved functionality. Impact is minor.



Level 1 Wharf 2/3

ACO Event Space and Balcony

Flexible Open Space



WORK DESCRIPTION:

At the north end of the building is a 300m2 full height function space with panoramic views of the precinct to the west, the harbour to the north and the Sydney Harbour Bridge to the east. Access to the function space is via an external lift and stair along the eastern facade. The function space has a balcony to the east with stairs accessing the apron of Pier 2/3.

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. This also enables the newly configured spaces beyond 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.

3D by TZG

Level 2 Wharf 2/3

Offices and Meeting Rooms

POSITIVE EFFECTS:

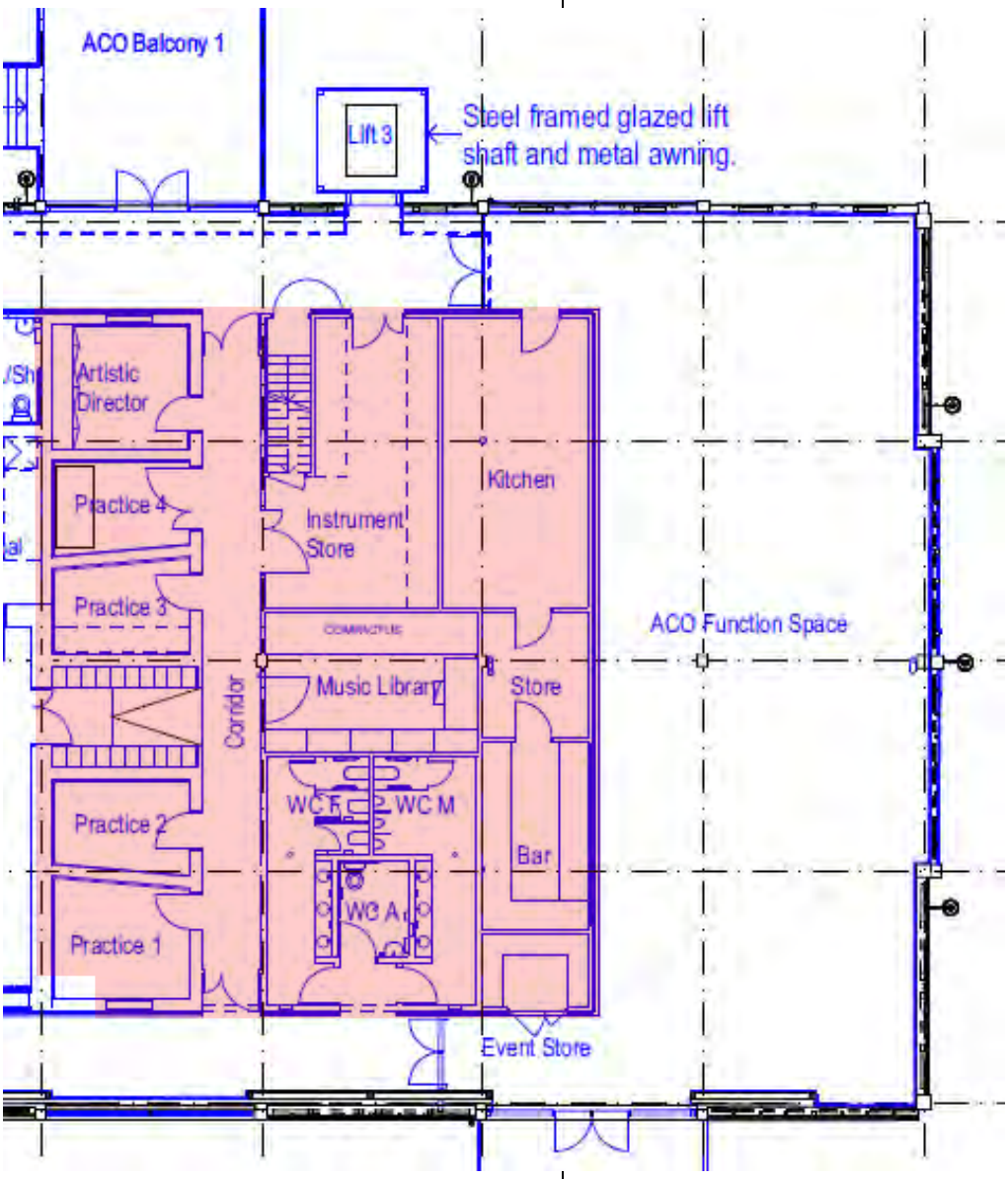
The new insertions need to connect back to the existing structure in a carefully considered manner. Following the precedent that exists elsewhere in Walsh Bay, new structure will be readily identifiable as distinct from the heritage fabric. A sensitive approach to detailing will enable the effective 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.

WORK DESCRIPTION:

ACO's office is located at the northern end of Level 2 accessed via a new external lift and stair on the west facade or internally via a stair from the front of house corridor on the western façade of level 1. The office space overhangs the independent function space and will require acoustic separation to limit disturbance from below during events.

NEGATIVE EFFECTS:

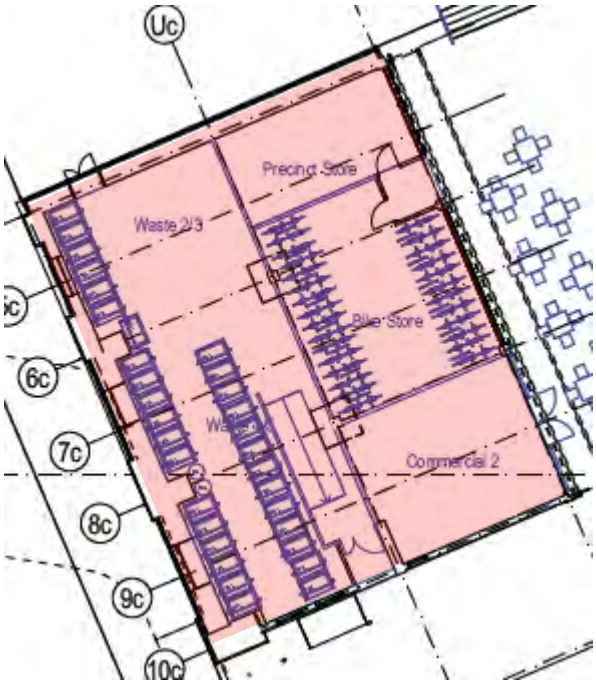
Loss of empty large areas mitigated by improved functionality. Impact is minor.



8.3 Wharf 4/5: Impact of the Design Proposal by Area

Ground Level Shore Shed 4/5

Waste, Commercial and Office Manager



WORK DESCRIPTION:

Removal light weight walls. New layout configuration.

POSITIVE EFFECTS:

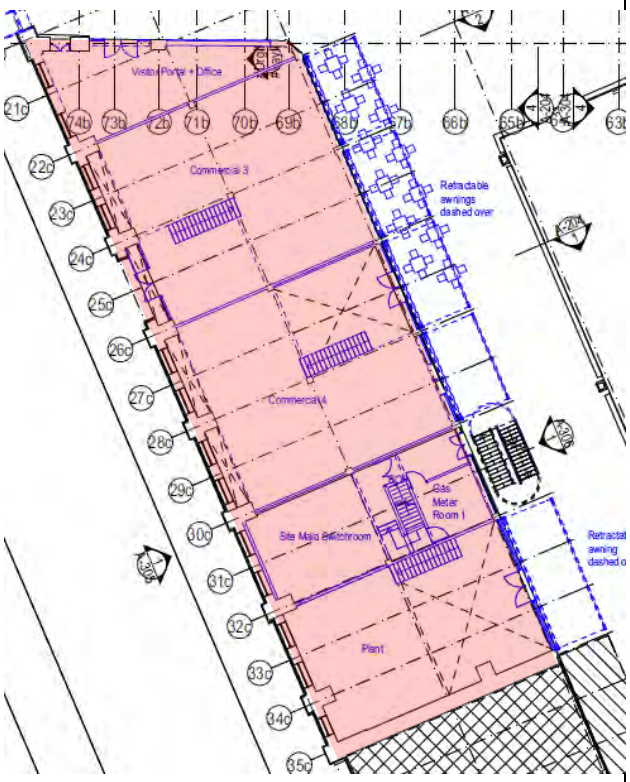
Reintroduction of larger areas.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

Ground Level Shore Shed 4/5

Commercial, Rehearsal and Services



WORK DESCRIPTION:

Removal lightweight walls and ceilings.

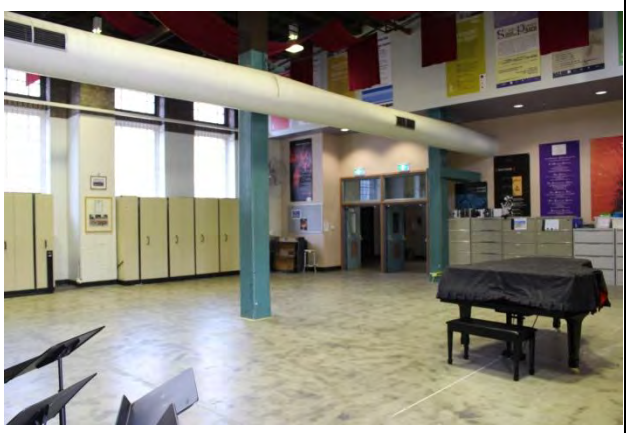
Removal of roller shutter on Hickson Road.
Insertion of new mezzanine office level.
Introduction of air-conditioning.

POSITIVE EFFECTS:

Better organised areas.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



Ground Level Wharf 4/5

Rehearsal Large

WORK DESCRIPTION:

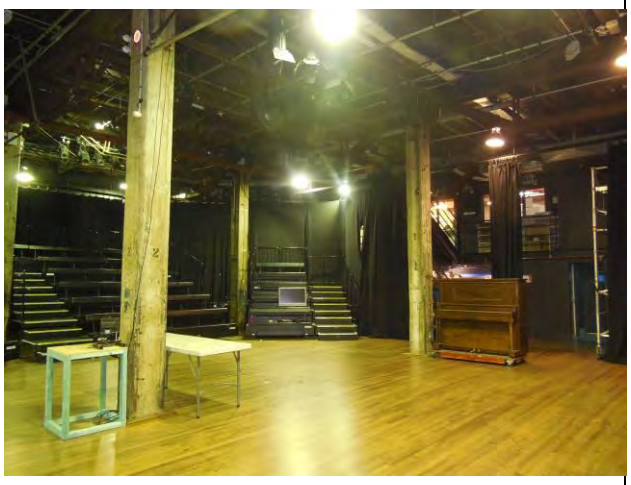
Removal of partition walls and recent mezzanine structures.

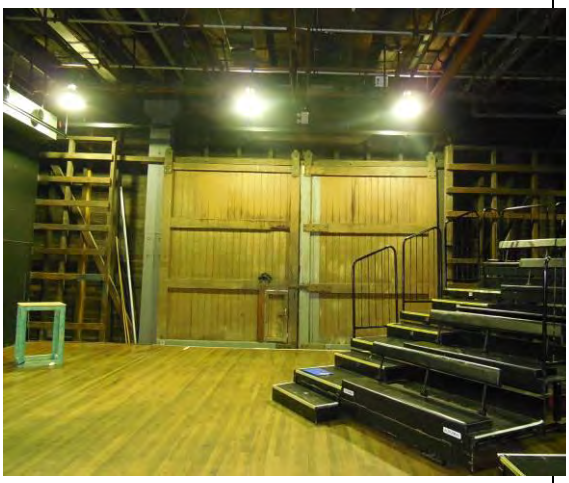
POSITIVE EFFECTS:

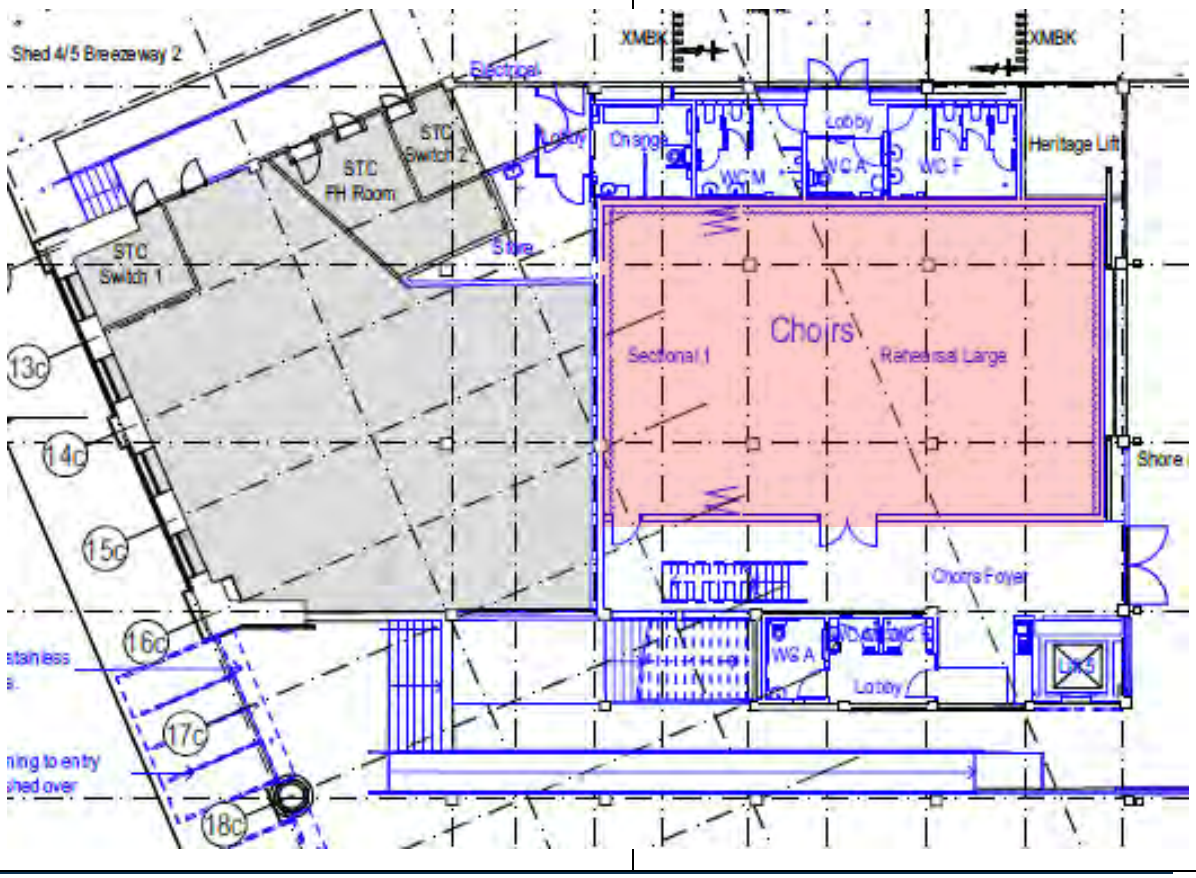
Reintroduction of larger area.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.







Ground Level Wharf 4/5

Cafe and Studios

WORK DESCRIPTION:

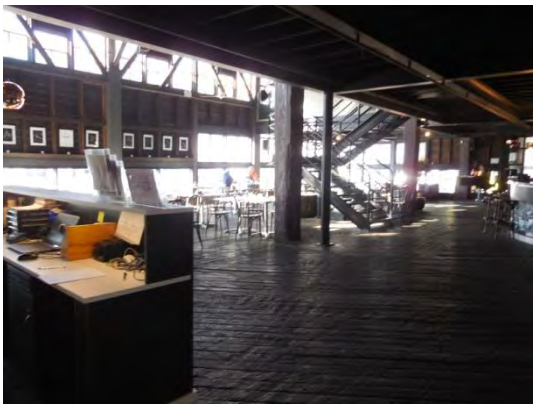
Demolition of stairs.

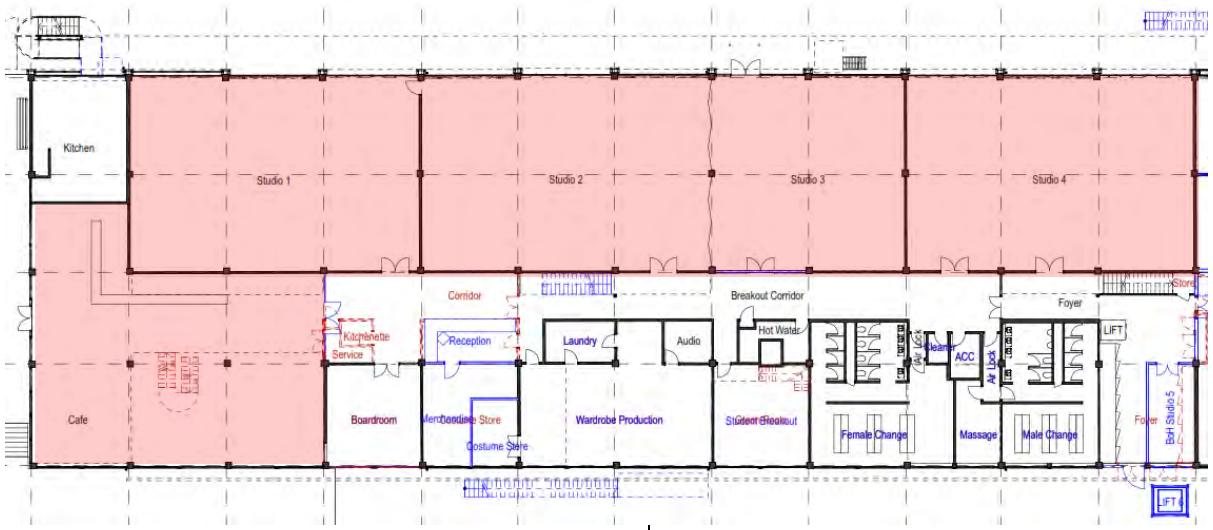
POSITIVE EFFECTS:

The existent large rooms are kept as they are.

NEGATIVE EFFECTS:

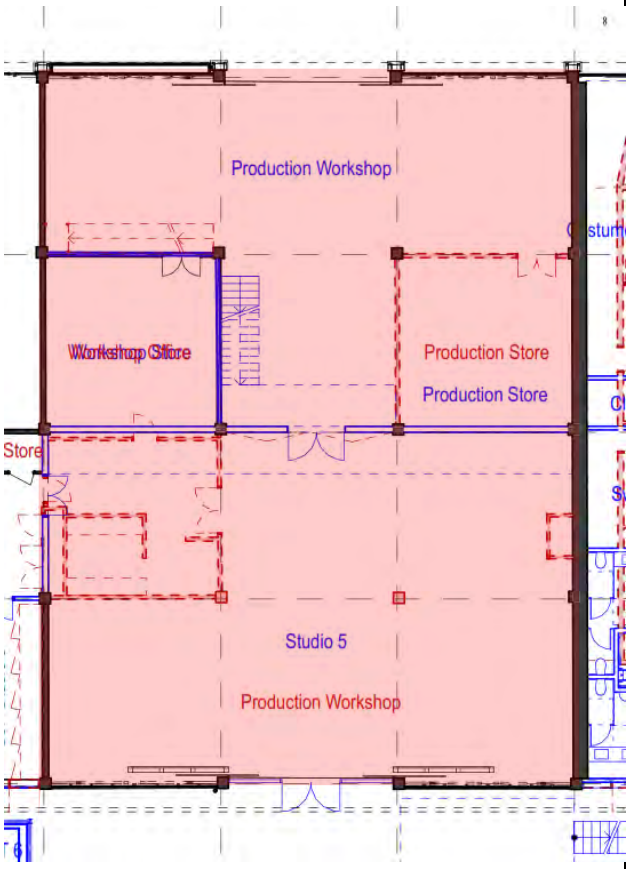
We consider there to be nil/minimal negative effect.





Ground Level Wharf 4/5

Workshops & Studio



WORK DESCRIPTION:

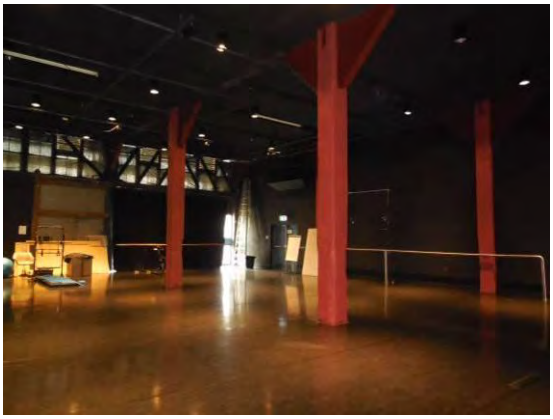
New layout.

POSITIVE EFFECTS:

Improved configuration of large areas.

NEGATIVE EFFECTS:

Loss of large open areas mitigated by improved functionality. Impact is minor.



Ground Level Wharf 4/5

Bangarra

WORK DESCRIPTION:

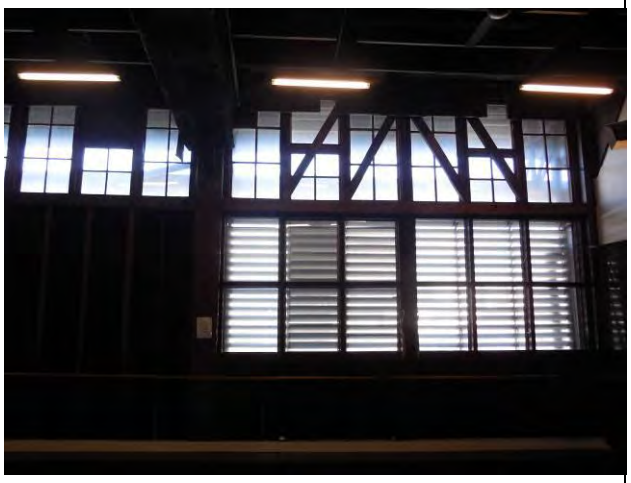
Re-introduction of large open areas.

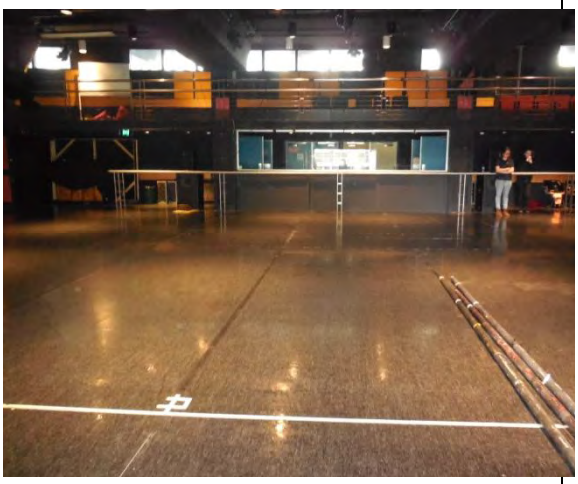
POSITIVE EFFECTS:

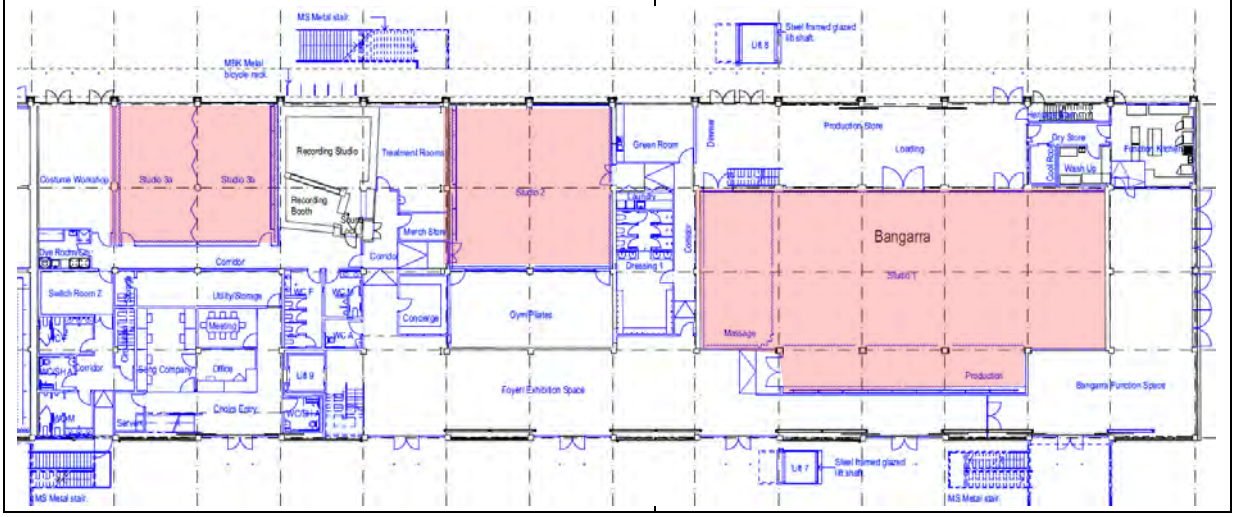
Two studios retained. Recent cellular fit-out removed.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

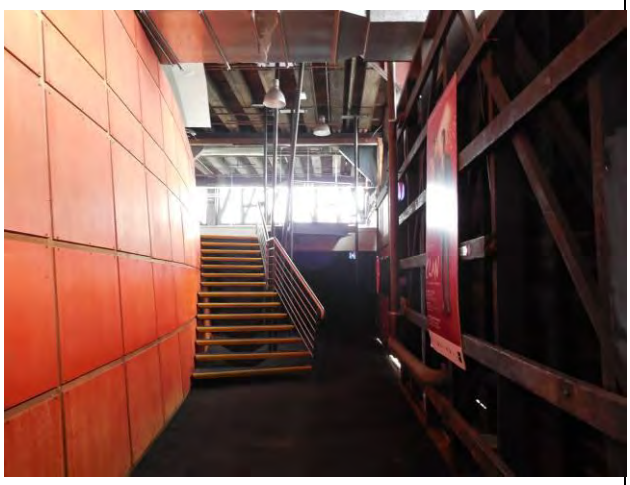


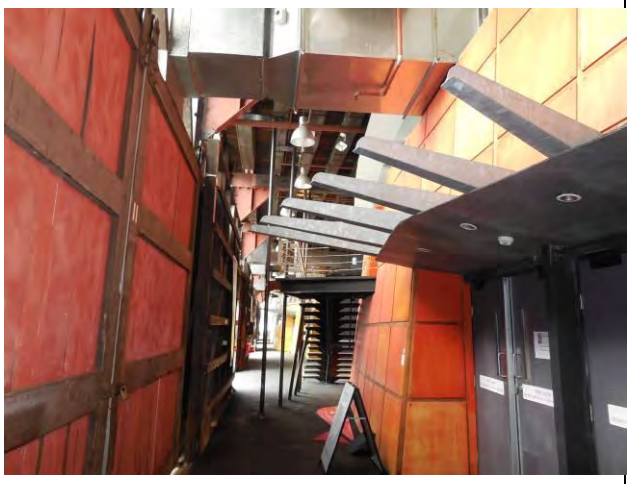




Ground Level Wharf 4/5

Foyer/Exhibition Space/Function Room





WORK DESCRIPTION:

Demolition of partition walls, recent mezzanine, floor tiling and stairs.

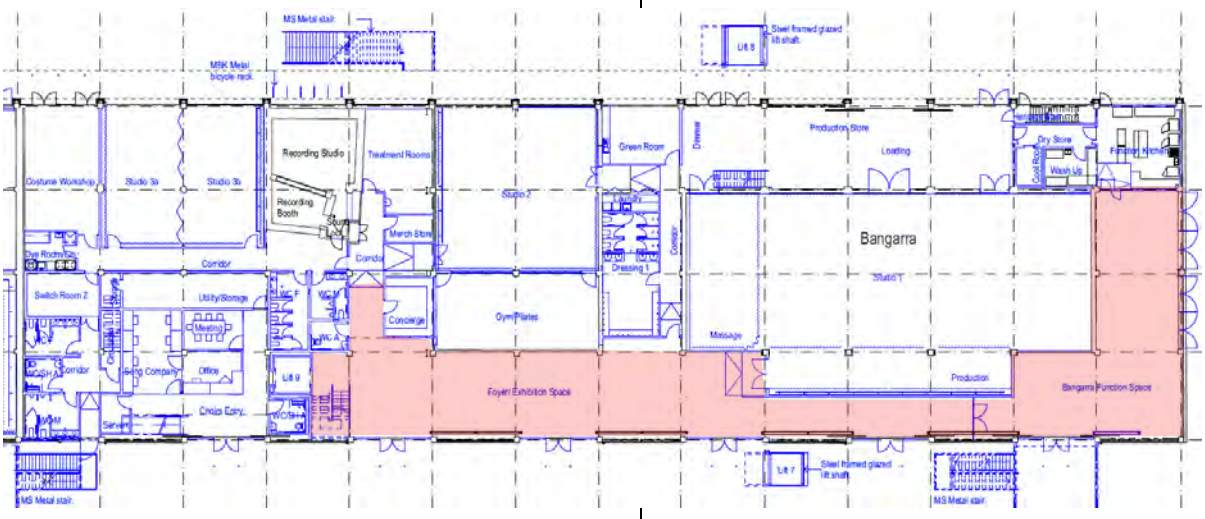
POSITIVE EFFECTS:

Improved configuration of large areas.

New fit-out to create double height foyer exhibition space to the east and function room to the north.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



8.5 Conclusions of Impact

This report has examined and reported on the information available as a resource for ongoing restoration and adaptive reuse of the Wharves at Pier 2/3 and 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 ongoing maintenance or adaptive reuses comply with the Burra Charter and the standards required under the Heritage Act 1977 and Aboriginal heritage legislation in NSW as amended pertaining to items of State Significance.

Wharf 4/5 has a long history as an Arts Pier and as an exemplar has a number of lessons to inform the development of the restored Pier 2/3.

The design for Pier 2/3 and Wharf 4/5 is one which will require alteration to the fabric, and the proposed uses of the buildings will by the nature of the long leasehold, change from an abandoned Port facility to a cultural performance based occupation, for the foreseeable future.

With this in mind the design must address the matters of interpretation of the original fabric in its original context as well as how it the new uses of performance spaces, services and backstage functions are incorporated into without undue damage.

The two Pier structures both include large scale theatres which require alterations to the roof line as well as services interventions and matters of access and fire egress. There will be 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.

Land and marine based archaeological reports are included.

The design is refined sufficiently to resolve all matters which pertain to the adaptive reuse, the Heritage legislative requirements and the Burra Charter while fulfilling the essential need of providing Performance spaces to international standards.

8.5.1 General

i **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.

ii The design has extended the area of **the raised roof section** the visual survey indicates that this style of roof is relatively inconspicuous when viewed from key vantage points and vistas.

iii **Roof plant rooms** on the Pier 4/5 have been historically located to the north between the two pitched roofs.

iv Pier 4/5 has had an extensive **photovoltaic array installed** on the faces of the roof. This was the subject of a Section 60 approval and shall remain. New PV cells are proposed in a similar manner to the new roof of Pier 2/3.

v **Services interventions** (note the impact in this document) have been designed to be subservient to the structure. The roof plant has been concealed in Pier 2/3 by the low roof design

vi **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 instance 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.

vii **The Structural solutions** and removal of heritage fabric have been prepared in a accordance with the Burra Charter

viii **The large scale spans** in both wharf buildings are treated similarly and there is a unity in the structural solutions. The impact is acknowledged as being significant to the Exceptional heritage fabric but necessary to achieve the outcomes for the WBACP.

ix 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**.**

x **Minimal material will leave the site** and where possible parts will be dismantled carefully and used in interpretive displays or reused structural elements**.**

xi **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.

xii **Plant rooms on Pier 2/3** have been generally placed beneath a new low roof system which is below the ridges of the roofs. The design has extended the area of the raised roof section however it was the conclusion of the Visual Impact assessment report that this style of roof was relatively inconspicuous when viewed from key vantage points and vistas. Roof plant rooms on Pier 4/5 have been historically located to the north between the two pitched roofs.

xiii Apron fire escapes and access including lifts and stairs have been incorporated to allow adequate access for egress and equitable access under the DDA and BCA and AS1428. These have been designed in **a simple and sympathetic contemporary aesthetic language** which is consistent throughout the precinct. The escape concepts were approved in the Walsh Bay redevelopment.

xiv 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.

xv The Architects TZG at Pier 2/3 have **developed a detailing and planning language** which reflects the policies and heritage philosophies and desired outcomes.

xvi **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 recommendations.

xvii The Public Domain is to be considered as a sympathetic design element across the Precinct. The works will be subject to approval by RMS and the Precinct Management Committee who have carriage across all of the Walsh Bay Precinct.

8.5.2 The Cumulative Impact of The Proposed Works - SSDA 8671

In the original Walsh Bay redevelopment approval it was envisaged that Pier 2/3 would be reconfigured for cultural purposes and to that end small scale activities including the Biennale have been held there along with the Writers Festival, for over a decade.

These are low impact activities and use has not been made of the upper levels simply because of the lack of life safety measures and lack of compliance with the BCA egress requirements.

As mention in this report the current proposal by the NSW Government to activate the precinct as the Walsh Bay Arts Community Precinct, known as WBACP realizes the original intent of the Development approval of December 1998.

The use of the Pier and its immediate environs is in keeping with the acclaimed conversion of Pier 4/5 into a theatre venue which still accommodates the foundation tenants of the precinct and consolidates the future use and continued maintenance of the relics ensuring the survival of these very difficult to maintain timber structures overwater.

The external appearance of the proposed works has been carefully considered and the added attachments and interventions are designed to reflect the industrial wharf aesthetic while being clearly new works in accordance with the Burra Charter.

Internally fit outs must reflect the life safety needs of the visitors and occupying arts companies. Much care has been taken by the architects TZG and Hassel in developing details and insertions which provide the least interference with the original structure. Where such changes are necessary to fulfill the new functions the use of steel and timber is sympathetic to the robust original wharf methodologies.

While the works in each Pier are by two different firms the detailing and insertions follow a similar and established vocabulary.

It has been argued in this application and in the STC50 application for the fitout of Pier 4/5 that the Arts users are now the primary users and are not only long established but have extended government leases for some decades to come.

The original uses as a wharf for lading has long since been abandoned (from the 1970s) and the future uses must be accommodated respectfully within the Piers and environs.

This calls into question as an aesthetic and heritage responses as to what should be interpreted, kept or reconfigured.

It is essential that the original structure is kept as the major element and is reflected in all experiences within and outside these buildings.

The interventions and insertions of the new functions do have an impact as the volumes were previously simple voids filled and emptied with the import and export activities of the wharves.

The newer occupation (from 1980s) is somewhat permanent as can be attested by the longevity of the still present Sydney Theatre Company, The Sydney Dance Company, The Phillamonia Choirs and the Australian Theatre for Young People along with the Bangarra Dance Company a welcome later addition.

New Arts groups like the ACO and the Bell Shakespeare Company will join these established arts companies in Pier 2/3.

The transience of goods and cargo has been replaced by the consistent presence of the arts functions.

These require venues to an international standard and life safety measures for public occupation.

8.5.3 Mitigation Measures

The Piers 2/3 and 4/5 are vast structures and hold a great presence not only immediately but within Sydney Harbour known as Port Jackson to Hickson and Walsh the designers. The texture of the horizontal boarding ad the chequer board pattern of the opening is maintained by the architectural design and is reinforced in the design solutions ./ *This is a positive impact*

The Bulk and scale of the external additions has moderate impact on the Piers and this is ameliorated by the use of steel structures which are similar to the travelling cargo cranes which were previously a part of the whole appearance. To that extent the Piers are now more like the original than they have been for decades. This in part mitigates the new works by restoring the complexity of the Piers and reflects better the steel tracery which was always present. *This has a positive impact.*

Internally while the spaces are now occupied with theatres and ancillary functions, the architectural treatments are consistent with the wharf construction and character. This has been a well considered part of the design culture and language developed in by the architectural teams.

The Black Box design of the auditoria are set back from the man structures while services are strung through the original structural openings and voids.

In some spaces there is by necessity removal of columns and where that happens the supporting works are consistent with the wharf construction steel aesthetic and inform the observer of two key things First this is a new intefvention and second this is a natural method of amending the wharf and pier.

It should be remembered that as living and functioning buildings in the past many dynamic changes occurred not the least of which was the introduction of a high level infill of the original step along the full width of Pier 2/3. *The Mitigation measures have had a positive effect*

8.5.4 Constancy of Visual Character

The architecture of the new works has been devised to be consistent with the language of the Walsh Bay Precinct Pier and Shore shed buildings. Vivien Frazer set a number of precedents which were upheld n the design by the architects TZG and Hassel. A frame work of design principles was determined based on the light touch espoused by Frazer.

The large scale of these buildings requires a similarly scaled response and in that sense the Proposal is consistent with both the character and the materials used. The design elements in the proposal are holistically applied across both Piers externally. While internally the languages for the auditoria has

distinct similarities and are sufficiently aligned despite somewhat different arts company briefs to be viewed as one holistic design solution.

The standardization of detailing and systems has been achieved through dialogue and the use of the same consultants across the WBACP in most cases.

8.5.5 Public Domain Framework

The Public Domain design elements within the WBACP will be addressed within the controlled frame work of the whole Precinct via the RMS the owner, The Walsh Bay Precinct Committee, the administrator of the 99 year leases and the authorities, The City of Sydney and the Heritage Council of NSW.

The CoS has a DCP which directs all signage in the precinct; while there are design standards in the bylaws in the 99 Years leases which are agglomerated into a holistic set of bylaws which cover each of the stratum lots.

Two factors are required in the public domain.

First consistent and clear instructive information and direction and second a high quality of design at an international standard. The final design of the Public Domain including outdoor furniture will be set to achieve those standards while being in concert with the design aesthetic of the historic precinct.

It is important to note that information will be presented in a contemporary way with digital communications at the forefront .It should be expected that cutting edge international standards of instant access will be used within the WBACP in keeping with those international standards

In reality these elements are not permanent and are replaceable, ephemeral by nature. Permanent fixtures bases platforms and supports must also be removable and provide the least impact on the fabric.

8.5.6 Summary Comments on SEARS – 8971

Prepare 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 including submerged maritime heritage and all archaeology;

This has been completed and is included and part of the HIS. A number of reports cover this aspect including an extensive site catalogue with recommendations by GML and also a site specific Interpretation Strategy by CHL consultants. Attached to this HIS is a Maritime Archaeological Report prepared by Cosmos Archaeology, an Terrestrial & Aboriginal Archeological Report prepared by CRM.

- Clearly identifies on plans the significance of fabric, building components and spaces that will be impacted by the proposed works

This has been completed and is included and part of the HIS. Attached to this HIS is a Maritime Archaeological Report prepared by Cosmos Archaeology, an Terrestrial & Aboriginal Archeological Report prepared by CRM.

- assesses potential impacts of the proposal on Aboriginal cultural heritage values and where Aboriginal cultural heritage values are identified include measures to avoid, conserve or mitigate against the impact and consult with the Aboriginal people to identify the significance of the cultural heritage item;

A Terrestrial & Aboriginal Archeological Report prepared by CRM is attached to this HIS.

- addresses the proposal against the policies of the endorsed Conservation Management Plans for Wharves Precinct and specific buildings and the proposed adaptive reuse measures to minimise impacts on the buildings, moveable heritage items and any archaeology;

This has been completed and is included and part of the HIS

- proposes opportunities to interpret the site's heritage significance and archaeology maritime and historical association; and

This has been completed and is included and part of the HIS

- include a framework to manage and fund the maintenance of public domain/common areas through a committee of owners to maintain a consistent visual character throughout the Walsh Bay Precinct;

This is a redundant requirement. The Walsh Bay Precinct Committee has a series of by-laws which bind all strata owners as part of the Walsh Bay Redevelopment. This as an active and ongoing registered strata committee and includes government authorities as well as private owners. The

by-laws and regulations are extensive and cover such matters a signage, garbage and waste access, and the preservation of state significant relics in each Stratum Lot.

The liability for relics lies with each Strata 99 year lease owner's corporation.

ARTS NSW must comply with the by-laws.

- Provide an Archaeological Assessment and Management plan, prepared by a suitably qualified person, to assess the likelihood of significant historical, maritime and aboriginal archaeology on the site, how this may be impacted by the project and measures to mitigate impacts.

This has been completed and is included and part of the HIS

8.5.7 City of Sydney agency response

The City of Sydney has previously made comments on the proposal as follows

- SENSITIVE INTRODUCTION OF NEW SERVICES with minimal impact on significant fabric and spaces

  IMPACT

  The functional requirements for all the theatres rehearsal and production areas where complex services installations are required, have been based on a number of complex factors which include adequate environment and energy efficiency as required by Section J of the BCA Fire restrictions for life safety and preservation of the building, acoustics life safety and egress productions lighting as well as the efficient removal of waste and reticulation of essential services.. The design has been created considering each if these functions but also in the context of the historic structure

  There is significant impact redolent in the functions which have been approved and are permitted in the Walsh Bay Arts Precinct. The design has been prepared to ameliorate these impacts as far as is possible.

- THE DESIGN OF THE ACO AUDITORIUM BEING CAREFULLY AND SENSITIVELY CONSIDERED to minimise the impact of removal of columns, on changes to significant fabric, on the Commercial Events/Art Space below and changes to the roof;

  IMPACT

  The functional requirements for all the theatres rehearsal and production areas where large volumes are required, have been re based on a number of complex factors which include

acoustics life safety and egress productions lighting as well as the basics of performance and sight lines. The design has been created considering each if these functions but also in the context of the historic structure

There is significant impact redolent in the functions which have been approved and are permitted in the Walsh Bay Arts Precinct. The design has been prepared to ameliorate these impacts as far as is possible.

- INVESTIGATE THE LEAST-IMPACT OPTION in relation to opening up the northern most bay on the east and west elevations of Pier 2/3 - altering existing weatherboards to become adjustable louvers, which will be open most of the time, will have a high visual impact;
  IMPACT

  The design responds adequately to the pier chequer board rhythm minor changes are acceptable in the light of the many and varied adaption's to function in the buildings life and use as a wharf.

- THE COMMERCIAL EVENTS/ARTS SPACE be designed such that all amenities and ancillary rooms are reversible and the full height and openness of the space being retained, with any partitions or screens to be temporary and not appearing permanent. The space should be not be modified to accommodate a fully controlled air-conditioned environment;
  IMPACT

  The design has been carefully guided to avoid unnecessary intervention and provides simple and direct solutions which are subservient in the main to the robust wharf character.

- REMOVING THE DETRACTING SKYLIGHT on the external slopes of the south end of Pier 2/3;
  IMPACT

  Not part of the scope.

- AN EXTERNAL SIGNAGE STRATEGY being prepared that ties in with the signage within the rest of the precinct.
  IMPACT AND ACTION

  The Walsh Bay Precinct Committee has carriage over all signage.

In the Walsh Bay Redevelopment approval there was a requirement to prepare information, way finding and interpretation signage. This strategy and sign design was jointly prepared by Spatchurst design and Tropman and Tropman. Interpretation signage was approved by the OEH and DUAP and installed with each Phase

The main interrelation node is to be found in the Breezeway of Pier 2/3. This illustrated glass panelled exhibition was approved by the OEH and DUAP It contains important relics in a curated exhibit. It is proposed to be removed and a new interpretation wall is proposed in the foyer of Pier 2/3. This will require a separate Development Application.

Other interpretation exhibits signage and interpretation are spread across the site and comply with the 1999 Interpretation Plan prepared by Tropman and Tropman and HPA architects. This was approved by the OEH and DUAP.

The signs are to be reviewed every 10 years and the WBPC has commenced a programme of review and repair in need of refreshment now.

Interpretation will be incorporated into the new way funding and signage strategy for the Walsh Bay Art Precinct.

9. Conclusions and Recommendations

The works planned for the WBACP 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 2/3 & 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 Pier 2/3 structure includes redevelopment of a large scale theatre and rehearsal spaces in the upper shed which requires alterations to the roof line as well as services interventions and matters of acoustics and fire egress. There is a consistency in treatments for all areas within the WBACP 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 WBACP is generally in accordance with the Tropman and Tropman and Graham Brookes CMPs

The adaptive reuse of any structure by its nature will have significant impact upon the place. The impact on the relics 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.

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 and external modifications proposed are sympathetic.

The current Arts and Cultural uses are profoundly significant as a continuum of the intangible cultural heritage 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 fulfill the visions for the precinct and they are the 1998 Master Plan Approval for the eastern half of the site to become an heritage preservation area and cultural facility and the 2014 Walsh Bay Arts and Cultural 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 the SEARS requirements.

The WBACP 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 of Pier 2/3 and 4/5.

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11. Endnotes

[7] (***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.)*

Appendix A

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*).

Cover photograph by Ian Stapleton.

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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.

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.

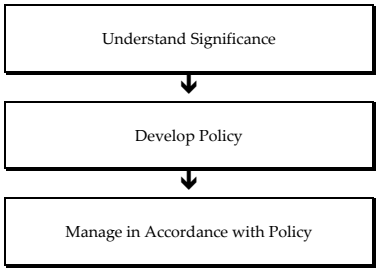
5.2 Relative degrees of *cultural significance* may lead to different *conservation* actions at a place.

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*.

Setting is explained in Article 1.12.

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

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.

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.

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.

New decisions should respect and have minimal impact on the cultural significance of the place.

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*.

The best conservation often involves the least work and can be inexpensive.

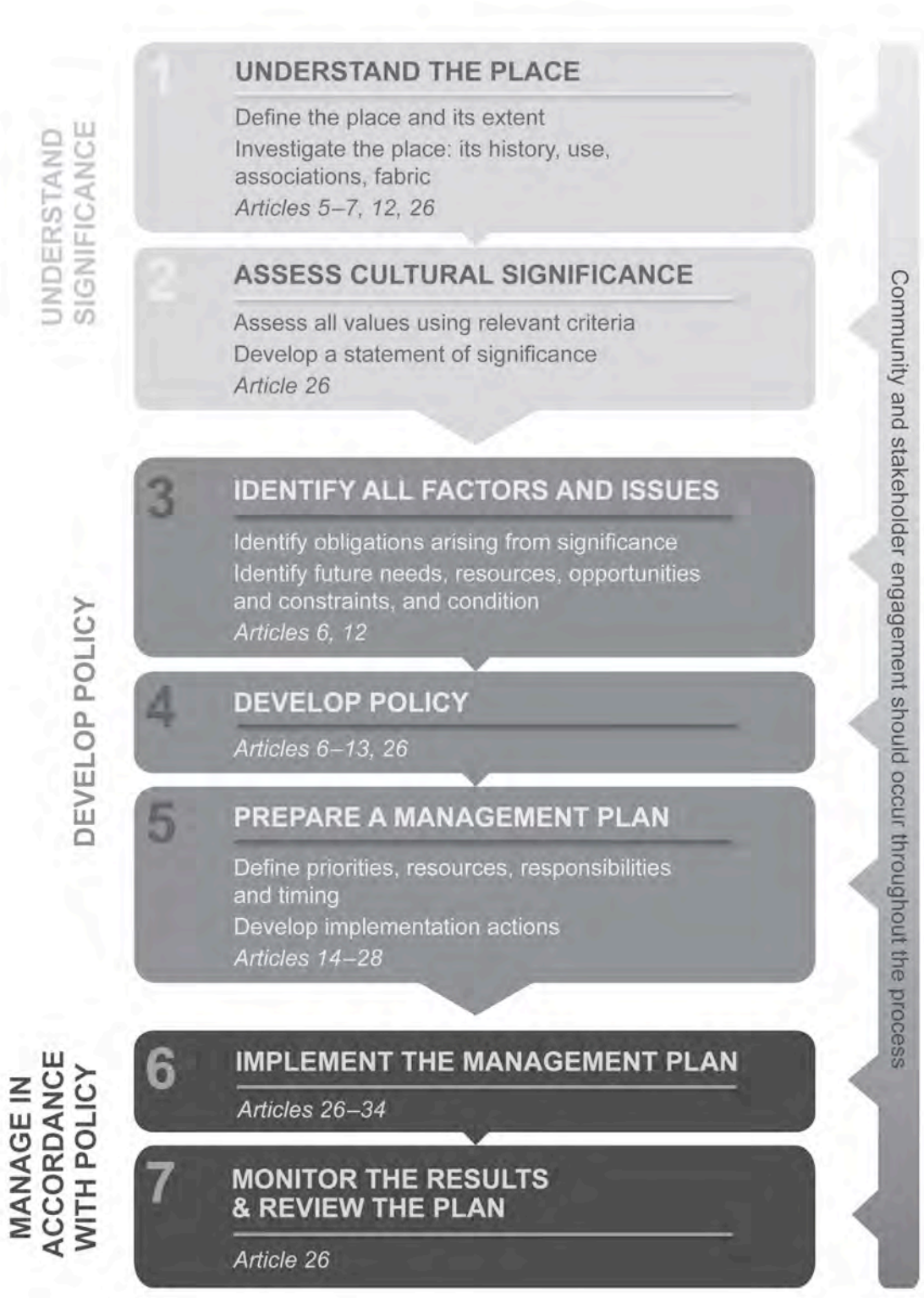
Words in italics are defined in Article 1.

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 B

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 C

Assessing Significance for Historical Archaeological Sites and 'Relics'

HERITAGE BRANCH
Department of Planning

Acknowledgements

This project was an initiative of the Heritage Branch Department of Planning.

Original text for this publication was prepared for the Heritage Branch Department of Planning, by Siobhan Lavelle. Early draft versions were reviewed by the Archaeology Advisory Panel to the Heritage Council of NSW.

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Contents

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.

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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 D

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 4- Structural

Conservation Policy Statement

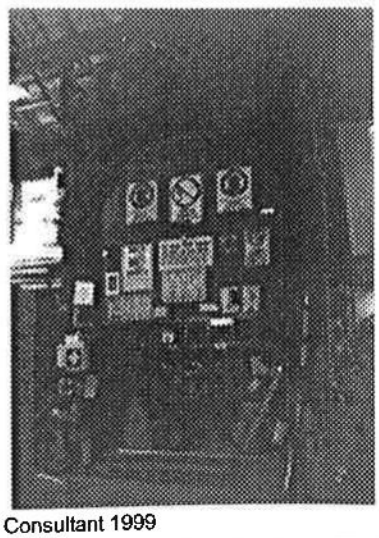
Managed by others.

Schedule of Sites

6 Pier 4/5

Level

Level G - 2



O.H.M. Consultant 1999

Reference

O.H.M. Consultants

Approved Building Proposal

Outside development area. Building to be retained

Item Proposal

Retain in situ

Action Policy

Managed by others

Current Ownership

Owned by NSW Government

Date printed: 19/11/1999

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: 1911/1999

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.