

# NEW USES FOR HERITAGE PLACES

GUIDELINES FOR THE ADAPTATION OF HISTORIC BUILDINGS AND SITES



## **TEXT**

**New Uses for Heritage Places** was written by the Heritage Office, NSW Department of Planning and the Royal Australian Institute of Architects NSW Chapter **New Uses for Heritage Places** Working Party.

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## FOREWORD



The NSW Government is committed to high quality design. Cities and towns across the state invariably benefit when their buildings are creatively designed and functional. NSW has a growing economy and to keep it moving it is important that we continue to stimulate new investment and create new jobs. Alongside that, we need to protect the history and character that makes our state unique. Adapting heritage buildings to creative new uses helps to achieve both these goals.

Put simply, heritage buildings need to be used. Once a building's function becomes redundant, adapting it to a new use provides for its future. The Mint in Sydney, now home to the offices of the Historic Houses Trust, is one example of what is possible when the task of adaptive re-use is tackled creatively. In regional NSW, projects like the Sully's Emporium in Broken Hill offer similar inspiration. Sully's Emporium was once a mining hardware shop; now it is home to the Broken Hill Regional Art Gallery.

This publication has been developed by the Royal Australian Institute of Architects (NSW) and the Heritage Council of NSW to complement *Design in context: guidelines for infill development in the historic environment*, which was published in 2005. The case studies cited here are best practice examples, and they demonstrate the skill and creativity of many NSW architects, as well as the vision and commitment of their clients.

Work to heritage buildings should conserve what is important about them, and provide the opportunity to reveal and interpret their history, while also providing sustainable long-term uses. This is a challenge that I hope architects, developers and clients will relish.

**The Hon. Frank Sartor MP**  
**Minister for Planning**  
**Minister for Redfern Waterloo**  
**Minister for the Arts**

**BELOW** Sully's Emporium in Broken Hill (top) and The Mint in Sydney





Rural and urban communities are becoming much more sophisticated in using their heritage to enhance the appeal of their towns and neighbourhoods. One of the key ways they are doing this is by giving their heritage buildings and precincts a new lease of life through adaptation.

These communities are seizing the opportunity to extend the life of their heritage items by making them useful — by giving them new and productive purposes. Through innovation they are achieving the twin goals of heritage conservation and financial viability.

The Heritage Council travels all over the State to meet people who are passionate about heritage and to see what they have done to showcase their local heritage places. Because of the concentration of human and financial resources in the cities we expect to find good examples of adaptive reuse in the major population centres.

It is therefore particularly satisfying that, as well as showcasing some excellent examples from metropolitan areas, this publication also demonstrates how well some regional and rural communities do this kind of work, given the greater challenges they face in terms of funding and resources.

This publication includes case studies demonstrating best practice in both the rural and the urban context. There are many other examples around the state of local heritage items that have been successfully adapted for cafés and restaurants.

The Heritage Council was delighted to be involved in this publication, particularly since it highlights such a variety of remarkable projects. I hope that they inspire others to see the possibilities of adaptation as a way of taking heritage into the future.

Gabrielle Kibble  
Chair  
Heritage Council of NSW



There are few more controversial and complex areas for architects to work than those deemed to be 'heritage'. The challenge for architects who take on the challenges posed by adapting heritage buildings to new uses is to embrace their inherent qualities and values in their new work.

I hope that these guidelines will reduce the controversy that sometimes arises in these situations, by setting out some guiding principles, and by demonstrating the creative and inspiring ways some architects have approached adaptation.

An architect's responsibility is not just to the client. We are equally compelled to consider the benefit to the community and the environment in our work. The guidelines help by setting appropriate benchmarks and standards that can assist in the design approach. They should be interpreted in the spirit in which they were written — for guidance, not prescription. They also provide a useful structure for discussions with the authorities who assess development proposals.

The examples shown in this document demonstrate the work of a wide range of architects, who have dealt positively with the challenges of working in a heritage environment. The selected projects show how complex problems can be transformed into clever outcomes with the help of guiding principles, insight and creativity.

This publication is the second in a series of guidelines which has been developed through a co-operative relationship between the NSW RAIA Chapter Council's Heritage Committee and the Heritage Council of NSW. I hope you will be inspired to take on the challenge of adaptation and that you will take full advantage of the information and experience the guidelines offer.

Dr Deborah Dearing, FRAIA  
President NSW Chapter  
Royal Australian Institute of Architects



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## INTRODUCTION



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**EACH GENERATION CONTRIBUTES TO THE CONSTANTLY EVOLVING HISTORIC ENVIRONMENT IN ITS OWN WAY. ARCHITECTS, BUILDING DESIGNERS AND DEVELOPERS PLAY A CRUCIAL ROLE IN THE QUALITY OF SUCH CHANGE, AND HAVE A RESPONSIBILITY TO FUTURE GENERATIONS TO ENSURE THAT THEIR CONTRIBUTIONS ENRICH RATHER THAN DIMINISH THE ENVIRONMENT.**



3

In New South Wales, the community has identified many places that it values and wants to retain for the enjoyment of future generations. There are now over 20,000 heritage listed buildings in NSW and about 200 conservation areas, heritage building groups or precincts.

Many of our heritage buildings were built for a use that no longer exists today. If we want to conserve these buildings, then viable new uses must be found that retain and sustain them into the future. Redundant buildings are vulnerable to neglect, decay and eventually demolition.

The best way to conserve a heritage building, structure or site is to use it. Adaptation or adaptive reuse offers new uses for old places. The new use needs to be compatible with the building, retain its historic character and conserve significant fabric, but it can still introduce new services, as well as modifications and additions.

Each generation contributes to the constantly evolving historic environment in its own way. Architects, building designers and developers are crucial to the outcome of such change. They have a responsibility to future generations to ensure that their contributions enrich, rather than diminish, the environment. They need to understand the significance of a place and respond to it. Heritage items are a response to their cultural, social, historical, political, economic and physical environments. Adaptation projects link the past to the present and project into the future. This provides both a challenge and an opportunity for professional design teams to demonstrate their skills and creativity.

Adaptation usually requires some element of new work, but this work should be informed by an understanding and analysis of a heritage building's significance, its character and quality. It should result in a design which creates a relationship between the existing and the new work, its neighbours and its setting.

As with infill development, adaptation can accommodate a rich variety of interpretation and expression. Some designers may adopt a more traditional or vernacular approach; others may wish to explore a highly contemporary solution. Both are valid. It is the quality of the response that is the key and the relationship between the old and the new — a respect for the old and the inspiration it provides for the new work.

Despite improvements in the way heritage items have been adapted, there is a community perception that too much historic fabric is being lost. As a consequence, planning policy has been developed to identify areas and places of special character and quality. Legislation at national, state and local government levels attempts to encourage the retention and reuse of heritage items, and to promote new development that positively contributes to that historic context.



4

The Heritage Council of NSW and the Royal Australian Institute of Architects (RAIA) believe that historic buildings are not a constraint but an opportunity for creative endeavour, which results in the whole being greater than the sum of the parts. These guidelines encourage conservation approaches that reveal and interpret heritage places, adding contemporary layers to already significant heritage places.

Finally, adaptation also makes good economic and environmental sense. Construction waste accounts for 33% of all landfill in Australia. Of this, over 75% is clean fill, brick, timber and concrete. Recycling existing buildings and materials significantly reduces waste and increases sustainability.

Many 19th century and early 20th century buildings were constructed of materials and techniques that today require repair and renewal at half the rate of more recent buildings. A concrete tile roof for example, will need to be replaced three times before

a terracotta tile roof. So, although some traditional materials may at first glance appear more expensive than modern materials, they will last up to three times longer and are more economical and environmentally friendly in the long-term.

Adaptation projects involve alterations and additions to existing buildings and may in some instances involve new infill buildings. *Design in context: guidelines for infill development in the historic environment*, produced by the Heritage Office and the RAIA provides detailed information on infill design, and should be consulted where new buildings form part of the project.

1 : 2 :

The redevelopment of Walsh Bay, Sydney involved the conservation and adaptation of existing buildings, construction of new infill buildings and interpretation of the site's maritime and industrial history.



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3 :

The former Balgownie Migrant Camp dining hall at Fairy Meadow has been conserved and adapted as a child care centre for the University of Wollongong. The new shade shelter is inspired by the original building. Other huts have been conserved and put to new uses.

4 :

Customs House at Circular Quay, Sydney was recently adapted to accommodate the City of Sydney Library.

5 :

The Lindt Café, Martin Place, Sydney has provided a new use for this prominently located former office.



## 6: HOW TO USE THESE GUIDELINES

**THE GUIDELINES PROVIDE INFORMATION ABOUT THE LEGISLATIVE CONTEXT FOR THE ADAPTATION OF HERITAGE BUILDINGS, EXPLAIN THE POLICIES THAT GUIDE ADAPTATION PROJECTS AND PROVIDE INFORMATION ABOUT HOW STATUTORY AUTHORITIES ASSESS SUCH APPLICATIONS. A CHECKLIST FOR APPLICANTS AND ASSESSORS IS PROVIDED.**

Case studies provide examples of adaptation projects across New South Wales, which reflect the types of use listed below:



### Case Study A:

Small scale industrial to residential:  
Egan Street, Newtown



### Case Study B:

Grand city house to apartments:  
Babworth House, Darling Point



### Case Study C:

Rural agricultural building to function centre:  
Tocal Visitor Centre, Tocal



### Case Study D:

Local church and church hall to residential:  
Toxteth Church, Glebe



### Case Study E:

Inner city industrial site to offices:  
the Bushells Building, The Rocks



### Case Study F:

Defence buildings to Sydney Harbour Federation Trust offices:  
Georges Heights



### Case Study G:

Commercial building to art gallery:  
Sully's Emporium, Broken Hill



### Case Study H:

The Mint: Coining Factory to Historic Houses Trust head office and library,  
Macquarie Street, Sydney



### Case Study I:

Railway workshops to health and wellness centre:  
The Forum Health and Wellness Centre, Newcastle



### Case Study J:

Warehouse to hotel complex:  
George Patterson House, Sydney



### Case Study K:

Heritage-led urban regeneration:  
revitalisation of a government health facility to residential, commercial and health facilities,  
Prince Henry at Little Bay

The case studies illustrate how the guidelines work in practice. Each case study demonstrates a respect for the building traditions of the past, as well as the successful integration of modern technology and design. They celebrate the richness and diversity of good architectural solutions — conserving and adapting existing buildings to sustainable new uses.

## LEGISLATIVE FRAMEWORK

The Heritage Council of NSW has endorsed the policies in these guidelines as best practice for the conservation and adaptation of heritage items of either local or State significance. It will use these guidelines when assessing development applications for adaptation projects. Local councils should use the guidelines for the same purpose.

Applicants should seek the advice of their local council's heritage advisor or planning staff at an early stage of their project. The advice of the Heritage Office, NSW Department of Planning, should be sought at the earliest opportunity for proposals which affect heritage items or precincts of State significance.



## DEFINITIONS

### Adaptation or adaptive reuse

The modification of a heritage place to a new use that conserves its heritage values. Adaptation may involve the introduction of new services, or a new use, or changes to safeguard a heritage item. A good adaptation is one that is sympathetic to the existing building and its historic context, and inserts new work, or makes changes that enhance and complement the heritage values of the heritage item.



6 : The former GPO Sydney is a landmark building, whose functions are now delivered from much smaller premises. The building retains its public role in the city centre, and adds a grand foyer to the new hotel complex.

### Alterations and additions

Physical changes to the fabric, setting or layout of a heritage item.



7 : The adaptation of Pier 4/5 at Walsh Bay in the 1980s to the Wharf Theatre complex demonstrates the creative adaptation of an industrial building to a new use, and the role of heritage in urban regeneration. The alterations and additions to this building were carried out in a way that retained the industrial character and structural integrity of the building. The project exemplifies successful adaptation.

### Amenity

The 'liveability' of a place — making it pleasant and agreeable for individuals and the community. A building's amenity is affected by its features, access to sunlight and views, and general design. Access to facilities and services also impact on the amenity of a place.



8 : Former Mark Foy's department store, Sydney, now the Downing Centre Courts. The steps of the building have always been an important meeting point in this part of the city.

### Bulk

The combined effect of the arrangement, volume, size and shape of a building or group of buildings.

### Character

The combination of the particular characteristics or qualities of a place.

### Context

The specific character; quality; physical, historical and social characteristics of a building's setting. Depending on the nature of the proposal, the context could be as small as a suburban street, or as large as a whole town.



9 : The International Grammar School Sydney, Ultimo adapted this inner city warehouse for primary and high school use.

### Conservation

Conservation includes preservation, protection, maintenance, restoration and adaptation (NSW Heritage Act 1977).

### Curtilage

The area of land surrounding an item, area or place of heritage significance that is essential for retaining and interpreting its heritage significance. It is also the term used to describe an area listed on the State Heritage Register or in a local environmental plan.

### Direct value or capital value

The value added to a place as a result of the adaptive reuse project.



10 : The adaptation of a number of warehouse buildings in Pyrmont for commercial and residential purposes considerably increased the financial value of the properties.

### Environmental Planning and Assessment Act 1979 (NSW)

The statutory framework managing land use and development in NSW.

### Fire, Access and Services Advisory Panel (FASAP)

FASAP provides expert advice to the Heritage Council of NSW about the introduction of fire safety, disability access and services to heritage items. Advice from this panel can be sought when solutions cannot be found to resolve the needs of conservation and the requirements of the respective building codes and regulations.



11 : The Camden Library and Museum successfully adapted three buildings: the old library which featured bricks from an 1876 school of arts building; an 1876 Temperance Hall, which became a fire station in 1916; and the 1900 Town Hall, now a local history museum.

## DEFINITIONS

**12 :**  
The town of Braidwood is listed on the State Heritage Register due to its special historic character and fine collection of 19th century buildings. The former mechanics shop has been adapted for residential purposes.

**13 :**  
The adaptation of this former bank building in Orange to a restaurant has initiated a fine-dining precinct in this part of the town.

**14 :**  
The location and interpretation of the archaeological remains at the Sydney Conservatorium of Music influenced the planning of the public areas of the building.

**15 :**  
The adaptation of the old King's School in Parramatta to the Heritage Office recognised the importance of retaining the relationship between the building and its environment.

**16 :**  
The former toilet block near St James Station has been adapted to a café, thereby providing a new public use in a busy city precinct.

**17, 18 :**  
Sections of the Newington Armaments Depot were adapted for a residential and teaching precinct by the Sydney Olympic Park Authority.

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### Form

The overall shape and volume and the arrangement of the parts of a building.

### Heritage Act 1977 (NSW)

The statutory framework for identifying and managing heritage items in NSW.

### Heritage agreement

Section 39 of the NSW Heritage Act provides for the creation of heritage agreements between the NSW Minister for Planning and an owner of a heritage item that is listed on the State Heritage Register. A heritage agreement can provide for a range of conservation outcomes and is sometimes used in major adaptation as a mean of establishing a legal nexus between a long-term conservation outcome and a particular development.

### Heritage conservation areas or heritage precincts

Areas listed on the State Heritage Register or in a local environmental plan for their heritage significance. They may also contain individually listed heritage items.

### Heritage place

A place, building, work, archaeological site or relic, garden or landscape, movable object or place of Aboriginal heritage significance, listed on the State Heritage Register or in a local environmental plan.

### Historic character

The combination of particular characteristics or special qualities of a place, related to its period or style of construction.

### Indirect value

The transfer of value of the project to adjacent properties. For example, adapting and conserving a heritage building for a new business in a rural town contributes to the local economy and attracts other businesses by enhancing the streetscape.

### Infill development

A new building in an established and valued historic context, which is adjacent to a heritage item, within a conservation area, or within a heritage site or precinct. Good infill is a building that is sympathetic to the surrounding buildings and historic context, and creates new structures that enhance and complement the existing urban, suburban or rural character.

### Interpretation

Interpretation explains the heritage significance of a place to the users and the community. The need to interpret heritage significance is likely to drive the design of new elements and the layout or planning of the place.

### Massing

The size and volume of a building.

### Reversibility

The ability of an adaptation to be removed in the future without damage to heritage significance; in particular, without damage to significant fabric.

### Scale

The size of a building and its relationship with its surrounding buildings or landscape.

### Setting

The area around a heritage place or item that contributes to its heritage significance, which may include views to and from the heritage item. The listing boundary or curtilage of a heritage place does not always include the whole of its setting.



## THE DOLLARS AND SENSE OF ADAPTATION

19 :

The former Anglican Church schoolhouse in Bathurst was converted to a café and restaurant by using incentive clauses in the local environmental plan. Bathurst Council also provided rate relief for the first five years of the new business, so that funds could be directed to conserving the buildings. The café created 20 new jobs.

20 :

The adaptation of the Queen Victoria Building in Sydney to an exclusive shopping precinct is credited as the catalyst for heritage conservation in NSW. The project has iconic status and attracts large numbers of local and international tourists.

22



20



21A



21B

Adapting heritage buildings for new uses makes sound economic sense. Adaptation provides new economic uses for buildings. However, the adaptation needs to create enough financial value to cover the costs of both conservation and adaptation, as well as the long-term maintenance of the building; otherwise, the building will be subject to future redevelopment and change. Unless the long-term benefits are considered, this cycle of ongoing change can continue so that some, if not all, of the item's significance can be lost.

Adaptation projects provide *direct* or *capital value* to places. For example, record prices were paid in 2006 for the apartments developed following the conservation and conversion of Babworth House in Sydney (Case Study B). Rents for retail premises in historic areas like The Rocks or the Strand Arcade in Sydney attract a premium over their non-heritage counterparts.

Adaptation also provides *indirect value* which is the transfer of value of the project to adjacent properties. For example, adapting an old post office in a country town to bed and breakfast accommodation can add value to the town by enhancing the streetscape and encouraging tourism.

Conservation projects can cost more than standard modern construction projects owing to the skills and craftsmanship demanded of the builders and, in some cases, the rarity and quality of the materials required. However, this has wider economic benefits. Conservation projects typically employ more workers than modern building projects. In regional and rural areas, where repair and maintenance work far outstrips new building work, adaptation projects help to retain much needed trade skills that are being lost in other parts of the State.

21A, 21B :

The Rocks Discovery Centre has been set up to enhance the experience for visitors to this popular tourist destination in Sydney.

22 :

The Bathers' Pavilion in Mosman — a successful restaurant and café — has become an important local landmark. The building also retains its function as a public change facility. Many surf/bathing pavilions in NSW are being used for a variety of new uses, for example, as function centres.



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Heritage conservation can be a catalyst for improving social, economic and environmental outcomes when urban areas in towns and cities are being regenerated. Heritage items create a sense of place — they have local character and identity — and communities feel strongly about what happens to them. Large-scale adaptation projects, or heritage-led regeneration projects, account for some of this state's most successful urban, regional and rural regeneration projects by renewing the economic, social and environmental vitality of local areas in decline.

The key to heritage-led regeneration is understanding the heritage significance of the place, and how the different features of the site contribute to its significance. The historic environment can encompass landscape, townscape, archaeological, built and Aboriginal heritage values.

Specialist knowledge can contribute to the success of heritage-led regeneration projects at every stage: during the initial planning and assessment, master or concept planning stages; and the construction and completion

phases of the project. The potential to conserve, provide long-term sustainable uses, and interpret the heritage values of the place can be integrated into the project, thereby increasing the potential for long-term benefits.

Engaging appropriate professional advice from the outset, and consulting the local council (and in the case of State heritage significant sites, the Heritage Council of NSW) early will help develop a common understanding about what is considered appropriate. Engaging with the local community early in the project will avoid resistance to the project at a later stage and can provide fruitful local support and partnerships, as well as contribute vital information to the interpretation of the place.

23 :

Jones Bay Wharf, Pyrmont provides office and restaurant facilities in the newly developed residential and commercial precinct on the city's fringe.

24 :

The former Waratah flour mill and silos at Dulwich Hill have been converted to residential apartments, reinvigorating this former industrial site.

25 :

The adaptation of this former parcel shed at Central Station, Sydney to backpackers' accommodation has retained the character of the original use, while providing facilities within an area of the city where a niche has developed in the tourism market.

26 :

The Pullen Centre in Grafton has been adapted as a community centre and assisted in revitalising the heritage precinct of this part of the town.

27 :

The locomotive workshop at Eveleigh Railway Yards has been converted to a business complex, bringing jobs back to this once intensively used, inner-city area.

## PRINCIPLES FOR THE ADAPTATION OF HISTORIC BUILDINGS AND SITES TO NEW USES

ADAPTATION DOES NOT MEAN IMITATION OR FOLLOWING INFLEXIBLE RULES. A WIDE RANGE OF SOLUTIONS TO A DESIGN PROBLEM MAY EMERGE AFTER CAREFUL ANALYSIS AND SYMPATHETIC INTERPRETATION.

28



29

28 :  
The Woolworths supermarket car park was redesigned to preserve and interpret the archaeological remains of the Fitz Roy Ironworks in Mittagong.

29 :  
Adapting this former school complex at Willoughby to residential apartments has provided a new use for these important buildings.

30 :  
The former CBC Bank in George Street, Sydney was adapted to a new commercial use as a Virgin Megastore. The owner was required to retain the interior volume, architectural features and fit-out of the building, which related to its former use.



30

The key document guiding conservation practice in Australia, *The Burra Charter*; the *Australia ICOMOS Charter for Places of Cultural Significance*, has been adopted by the Heritage Council of NSW and underpins the principles below. The Burra Charter states:

- a place should have a compatible use (Article 7.2);
- adaptation is acceptable only where the adaptation has minimal impact on the cultural significance of the place (Article 21.1); and
- adaptation should involve minimal changes to significant fabric achieved only after considering alternatives (Article 21.2).

Adaptation does not mean imitation or following inflexible rules. A wide range of solutions to a design problem may emerge after careful analysis and sympathetic interpretation.

The owner of the item and the statutory authorities may need to adopt a flexible approach to planning to retain the significance of the heritage item. In some cases, incentives clauses in local environmental plans and the NSW Heritage Act (Section 129) can be used to provide for uses that may otherwise not

be permitted within the zoning, or provide for additional development that may secure the financial viability of a project (see Case Study D: Toxteth Church).

Large projects that involve major development of a heritage place need to demonstrate that the change of use, and associated work, provides long-term sustainability for the heritage place. It should not be a one-off project that makes the place vulnerable to uncertainty and ongoing change. Legally-binding management mechanisms that secure the future maintenance and care of the place (such as a heritage agreement) may be required as part of the project.

To achieve a successful adaptation, new work must be appropriate and accord with the following seven principles:

### 1. UNDERSTAND THE SIGNIFICANCE OF THE PLACE

Understanding what is important about a place is the first stage of any project. The analysis of the heritage values and the fabric should result in a clear statement of heritage significance, and identify significant fabric.



12: **PRINCIPLES FOR THE ADAPTATION OF HISTORIC BUILDINGS AND SITES TO NEW USES**



**2. FIND A USE WHICH IS APPROPRIATE TO THE HERITAGE SIGNIFICANCE OF THE PLACE**

*Retain the existing use when it is integral to the heritage significance:*

- Retain or re-establish the relationship between the heritage place and its use.
- Continue practices or associations that contribute to the cultural significance of the place.
- Continue public access to heritage places that have historically been accessible to the public.

*A new use should be compatible with heritage significance and involve minimal changes to significant fabric, layout and setting:*

- Reuse the heritage place and significant elements of the place in the new use in preference to constructing major new additions. Where aspects of the new use would have an unacceptable heritage impact, consider accommodating them in sympathetic modest additions.
- Continue significant associations and meanings in any new use.

*Inappropriate uses are those where:*

- Extensive changes are required to accommodate the new use, resulting in a loss of heritage significance. In this case, either the functional requirements need to be reduced, or an alternative use must be found.
- Changes of use require major structural upgrading that negatively impacts on heritage significance. Changes of use should be compatible with the structural capabilities of the item.
- Changes of use negatively affect the technical performance and durability of the fabric.
- Changes of use require major new services that impact negatively on the heritage significance of the site.

**3. DETERMINE A LEVEL OF CHANGE WHICH IS APPROPRIATE TO THE SIGNIFICANCE OF THE PLACE**

*Minimise impact on significant fabric.*

*Minimise impact on significant interiors, interior planning (circulation patterns and use of rooms) and decorative schemes and finishes.*

- Locate new services and service areas so they do not impact on significant spaces or fabric.
- Changes of use require compliance with the Building Code of Australia (BCA) for disabled access, fire, health and safety, which adversely impact on the significance of the place. However, the BCA is sufficiently flexible so that solutions can be found in most cases.



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#### 4. PROVIDE FOR THE CHANGE TO BE REVERSED AND FOR THE PLACE'S FUTURE CONSERVATION

- Adaptation and development should not prevent the future conservation of a heritage item.
- New additions and adjacent or related new construction should be undertaken in such a way that, if they are removed in the future, the essential form and integrity of the historic place is unimpaired.
- Non-reversible changes to a heritage place will only be considered when there is no alternative way of retaining the place as a viable asset.
- Existing fabric, use, associations and meanings should be recorded and archived before changes are made, according to Heritage Council of NSW guidelines.

31 :

The upper level of the rowing shed at Blackwattle Bay has been adapted for a restaurant; the lower level continues to provide rowing facilities.

32 :

The Chief Secretary's Building on Bridge Street, Sydney has been converted to courts and retains its government use and public access.

33 :

At the Darlinghurst Gaol, a new stair has been added externally to the existing building to avoid major internal change.

34 :

The Roxy Cinema in Parramatta has been adapted to a bar and restaurant complex. The upper level of the cinema has been retained for public entertainment.

35 :

One of the six Flowers Wards at the former Prince Henry Hospital, Sydney has been retained as a museum and used as an interpretive centre for this large site, which has now been regenerated and hosts residential, commercial and health uses. The strong historical associations with the medical professions are celebrated in the museum building.

36 :

The former Callan Park Mental Hospital, Rozelle was adapted for the Sydney College of the Arts. Administrative functions were located in former hospital administrative areas, and intrusive uses were located in new buildings.

37 :

The domed space in the former School of Arts Building in Pitt Street, Sydney, has been adapted as a restaurant in the Arthouse Hotel.

38 :

The original doors on the goods lift were retained in Railway House, Sydney. The lift shaft provides services for the building.

39 :

This former mechanics shop in Paddington has been adapted as an art gallery but it still retains its streetscape character.

40 :

The new structure within the old Toxteth Church, Glebe provides for residential use, but it can be removed without damage to the old.

14: **PRINCIPLES FOR THE ADAPTATION OF HISTORIC BUILDINGS AND SITES TO NEW USES**

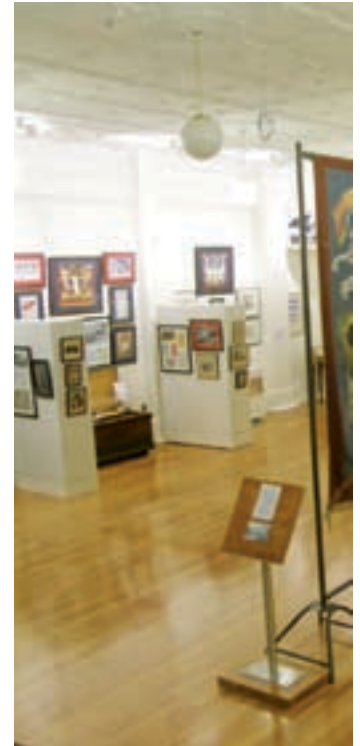


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**5. CONSERVE THE RELATIONSHIP BETWEEN THE SETTING AND PRESERVE SIGNIFICANT VIEWS TO AND FROM THE HERITAGE PLACE**

- Where the relationship between the heritage item and its setting contributes to its significance, this relationship should be preserved. Views that have been identified as contributing to the significance of the place should also be retained.

**6. PROVIDE FOR THE LONG-TERM MANAGEMENT AND VIABILITY OF THE HERITAGE PLACE**

- Secure ongoing funds to maintain the heritage place in the future as part of the project. The benefits from the project will then offset the change of use.
- Link conservation works and proposed new works together by conditions of approval, a heritage agreement, or other appropriate mechanism, so that the conservation works are integral to the project.

- Prevent fragmentation of the management of the heritage place in large-scale adaptations. Where there is a fragmentation of ownership through lease or sale, a legally binding overarching management framework should be put in place (such as a heritage agreement). This will ensure that the heritage values of the place are appropriately managed.

**7. REVEAL AND INTERPRET THE HERITAGE SIGNIFICANCE OF THE PLACE AS AN INTEGRAL AND MEANINGFUL PART OF THE ADAPTATION PROJECT**

Interpretation communicates the history and previous uses of a building to its occupants and visitors and helps to explain how and why the adaptive reuse changes have been made. Retaining historic signs, the layout of internal spaces and the physical evidence of past uses contributes to greater understanding of the significance of the place. The Sydney Harbour Federation Trust (Case Study F) took this a step further by reinstating a colour scheme from the buildings' former use as a hospital.

Interpretation is a key element of the adaptive reuse process, as it helps people to understand how the new life of the building has added a new chapter to its story, providing a sense of continuity from the past to the present. It adds to the uniqueness of the property, providing appealing selling points in the competitive real estate market.

The museum at the Prince Henry Hospital site (Case Study K) is a good example of how interpretation can both retain key links with a place's past by conserving an important building and movable collection and also provide a resource for current and future generations to understand the historical context of the place where they live or work.

41 : The new additions to the Sydney Conservatorium of Music were built in the landscape to reduce the impact of the new building on the Royal Botanic Gardens and preserve the important views.

42 : The conversion of the offices of the former Maritime Services Board to the Museum of Contemporary Art at Circular Quay, Sydney retained and enhanced the building's relationship with its harbour setting.

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Any alterations or additions to satisfy fire protection, access or safety requirements of heritage items should be carried out in a way that minimises the impact on the significance of the place. Solutions should be developed by suitably qualified and experienced experts.

Consulting early with regulatory bodies is the key to developing appropriate solutions to meeting codes, legislation and regulations. The legislation is flexible enough for satisfactory solutions to be developed without compromising significance.

Where a solution is not readily apparent, the Heritage Council's Fire, Access and Services Advisory Panel (FASAP) can assist.

Sometimes, heritage items will not be able to sustain the changes required to comply with the regulations, so alternatives must be explored. It may be possible to use another building with a less onerous BCA classification, or to use the discretionary provisions of the regulations.

Discreet adaptations are preferred that do not impact on the significance of the place, but still achieve compliance with the regulations. Alterations should also be reversible, and new work should be identifiable as such.

**FIRE SAFETY**

The *Building Code of Australia* (BCA) is a performance-based document. As such, it is sufficiently flexible for a fire engineering solution to be developed which minimises the impact of works on an item's significance.

Where alterations, additions or adaptation is carried out that requires some level of compliance with the BCA, it is important that this work preserves significant heritage fabric, where possible.

**DISABILITY ACCESS**

The *Disability Discrimination Act* (DDA) requires that independent access be provided to all heritage items, with the exception of some residential buildings. This Act is flexible enough to provide scope for consultation between relevant authorities over conflicts between access needs and heritage significance.

43 :

An appropriate curtilage around historic Denbigh, in the growth area of Camden south-west of Sydney, will retain significant elements of its setting. The development process will enable the release of some of the land for housing development, providing sufficient funding for the ongoing conservation and maintenance of the property.

44 :

The interpretation at the Trade's Hall in Sydney was designed as part of the adaptation project to ensure a more meaningful and enduring experience.

45 :

These automated, original sliding fire doors are in the former Gowings Building, Sydney.

46 :

Using a fire engineering approach to managing fire safety can usually provide solutions that result in less physical intervention than those deemed to satisfy requirements of the BCA, as was the case here with the recessed fire curtains (see arrow) at David Jones Elizabeth Street, Sydney store.

47 :

New services have been installed between the joists in the Cleland Bond Store in The Rocks, Sydney.

48 :

The entry to the King Street Courts in Sydney has been modified to provide easy access, without compromising the integrity or significance of the building.





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## HEALTH & SAFETY

Alternatives should be explored if the strict compliance with health and safety standards would result in compromising the heritage significance of a building. For example, while contamination and hazardous materials are normally removed, they can be contained or covered if their removal would result in the loss of significant fabric.

## SECURITY

Alternatives should be explored where the strict compliance with security standards would compromise heritage significance. Security systems that limit the impact on the heritage significance of a heritage place, such as surveillance, alarms and wireless systems, are preferable to grilles, bars and new security doors. If it is necessary to insert security devices such as grilles, their design should be sympathetic to the building.

## ENERGY EFFICIENCY

Conserving heritage places is the essence of sustainability. Reusing heritage buildings helps reduce greenhouse gas emissions by reducing the embodied energy needed to produce new building materials, as well as

significantly reducing construction waste, and the reprocessing of construction waste. Many older buildings are inherently energy efficient when they are used in the way they were designed to perform.

The global aim of reducing energy consumption should not affect the heritage significance of heritage items. Modifying heritage buildings should be done to achieve appropriate energy conservation outcomes. The right balance is needed between reducing energy use and greenhouse gas emissions and conserving the State's heritage.

## FURTHER INFORMATION

Additional guidance about managing fire safety, disability access and energy efficiency in heritage items is provided on the conservation page on the Heritage Office website at [www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au). The website is also regularly updated with advice from FASAP.

49 :

A new top rail has been added to the balustrade on the upper level verandah at the former King's School headmaster's cottage at Parramatta to comply with the building code, so that members of the public can continue to use the building.

50 :

Grilles have traditionally been used in heritage buildings and provide good models for security.

51 :

The new entry door to the Heritage Office at Parramatta provides a secure entrance and visibility for those in reception. Surveillance and an intercom system removed the need for additional security bars.

52 :

The Walter Burley Griffin Incinerator at Willoughby has been used as offices. Managing contamination in former buildings such as this can pose specific challenges.

53 :

The Heritage Office has a 4.5\* rating under the Building Greenhouse Scheme. The building has a considerable thermal mass and has been internally re-planned to provide natural light via the addition of a new skylight.

54 :

The conversion of large-scale industrial buildings, such as the former power station to the Casula Powerhouse Arts Centre, captures significant greenhouse savings by recycling materials.

## ASSESSING ADAPTATION PROJECTS

This section provides information about how statutory bodies assess development applications for adaptation projects, involving a heritage listed item.

Assessors consider a number of issues when appraising development applications. The assessor will check that the development meets the principles for adaptation outlined in these guidelines. Given that most heritage buildings and conservation areas have been listed for their historic and/or aesthetic qualities/aspects (including architectural), design quality is an important part of the assessment process. For this reason, there will be a subjective element to the process. It is important, therefore, to define objectives for assessing development of a heritage item, as these guidelines attempt to do.

Consulting early with statutory approval authorities improves understanding and outcomes. For State Heritage Register listed items contact the Heritage Office, NSW Department of Planning.

### DOCUMENTATION

Sufficient information needs to be provided with any application for an adaptation project. The checklist that follows will help designers, applicants and assessors decide whether or not the proposal is appropriate. It also lists the documentation required. It encompasses both the qualitative aspects of the design of the new elements of the building, and the quality of their relationship with its significant fabric.

Where a change of use is being considered for a heritage item, a conservation management plan or conservation management strategy should be prepared. This should identify a compatible use and any constraints on a new use. For major adaptation projects affecting State significant items, the conservation management plan should be endorsed by the Heritage Council of NSW.

Part A: Documents to be included	Applicant's confirmation	Assessor's comments
<b>Date of submission</b>		
<b>Conservation Management Plan (CMP) or Conservation Management Strategy (CMS)</b> A CMS may be sufficient where no major intervention is proposed or as an interim planning document while a CMP is prepared.		
<b>Statement of Heritage Impact (SOHI)</b> Include a Statement of Significance of the heritage item, precinct or conservation area affected by the new development. Address the <i>Adaptation principles</i> described in the <i>Guidelines</i> in graphic and written point form (see Part B of this checklist).		
<b>Drawings</b> Show clearly existing fabric, extent of demolition and/or alterations and additions, including the information below:		
<b>Site plan</b> showing setting, view lines and cones, adjacent properties (buildings, trees and structures, such as fences). 1:200 scale minimum		
<b>Landscape plan</b> 1:100 scale		
<b>Floor plans</b> 1:100 scale		
<b>Sections and details</b> 1:100 scale minimum		
<b>Elevations</b> 1:100 scale minimum		
<b>External materials and colours</b> Provide a schedule and sample board, where required.		
<b>Working model</b> 1:200 scale minimum		

## ASSESSING ADAPTATION PROJECTS

<b>Part B:</b> <b>Checklist for inclusion in Heritage Impact Statement: response to adaptation principles</b>	<b>Applicant's confirmation</b>	<b>Assessor's comments</b>
<p>1. Does the project demonstrate that the significance of the place has been understood?</p> <ul style="list-style-type: none"> <li>● Is there a CMP or CMS that provides policies for change?</li> <li>● Is the proposal consistent with the CMP/CMS policies?</li> </ul>		
<p>2. Is the use appropriate to the identified significance?</p> <ul style="list-style-type: none"> <li>● Where use is significant, is it retained?</li> <li>● Is the new use compatible with significance – explain how?</li> <li>● Are practices or associations that contribute to the site's significance continued?</li> <li>● Is public access retained where this has been available?</li> <li>● Does the project involve minimal change to significant fabric?</li> </ul>		
<p>3. Is the level of change appropriate to the significance of the place?</p> <ul style="list-style-type: none"> <li>● Is significant fabric appropriately conserved or adapted?</li> <li>● Are any new elements sited appropriately?</li> <li>● Are significant interiors conserved?</li> <li>● Are significant associations and meanings conserved?</li> <li>● Do the proposed works affect the structural or technical performance of the buildings?</li> <li>● If the works have a major impact on the significance of the place, describe the alternative solutions examined.</li> </ul>		
<p>4. Does the project allow for the place to be returned at a later time to its former uses or for significant fabric to be conserved?</p> <ul style="list-style-type: none"> <li>● Are additions sited so that if they are removed at a later date, the essential form would be restored?</li> <li>● Are non-reversible changes proposed to significant fabric — if so, is there no other feasible alternative?</li> <li>● Is adequate recording proposed?</li> </ul>		
<p>5. Does the proposal conserve the setting and preserve significant views?</p>		
<p>6. Does the proposal provide for the long-term management and viability of the heritage place?</p> <ul style="list-style-type: none"> <li>● Are conservation works to the place part of the project? How are they secured as part of the project?</li> <li>● Does the project involve fragmenting the site through subdivision? If so, what mechanisms are proposed that secure overarching management to conserve related aspects of the site?</li> </ul>		
<p>7. How does the proposal reveal and interpret the significance of the place in an integrated and meaningful way?</p>		



# CASE STUDIES OF HERITAGE PLACES

**THE FOLLOWING CASE STUDIES ILLUSTRATE A RANGE OF SUCCESSFUL NSW ADAPTATION SOLUTIONS.**

**THEY INCLUDE URBAN, SUBURBAN, REGIONAL AND RURAL EXAMPLES, AS WELL AS DOMESTIC, COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL BUILDINGS AND A LARGE-SCALE URBAN REGENERATION PROJECT.**

**THEY ILLUSTRATE A VARIETY OF ARCHITECTURAL APPROACHES TO THE CHALLENGE OF CONSERVING AND ADAPTING HERITAGE BUILDINGS FOR NEW USES. THE IMPACTS OF VARIOUS PLANNING PROCESSES ON THE ADAPTATION PROJECTS ARE EXPLAINED IN THE TEXT.**

**THE CONSULTANTS INVOLVED IN THE CASE STUDY PROJECTS ARE ACKNOWLEDGED AT THE END OF THE GUIDELINES.**

- A: Small scale industrial to residential: Egan Street, Newtown
- B: Grand city house to apartments: Babworth House, Darling Point
- C: Rural agricultural building to function centre: Tocal Visitor Centre, Tocal
- D: Local church and church hall to residential: Toxteth Church, Glebe
- E: Inner city industrial site to offices: Bushells Building, The Rocks
- F: Defence buildings to Sydney Harbour Federation Trust offices: Georges Heights
- G: Commercial building to art gallery: Sully's Emporium, Broken Hill
- H: The Mint: Coining Factory to Historic Houses Trust head office and library, Macquarie Street, Sydney
- I: Railway workshops to health and wellness centre: The Forum Health and Wellness Centre, Newcastle
- J: Warehouse to hotel complex: George Patterson House, Sydney
- K: Heritage-led urban regeneration: revitalisation of a government health facility to residential, commercial and health facilities, Prince Henry at Little Bay



A



B



C



D



E

A :  
Small scale industrial to residential:  
Egan Street, Newtown

B :  
Grand city house to apartments:  
Babworth House, Darling Point

C :  
Rural agricultural building to function centre:  
Tocal Visitor Centre, Tocal

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F



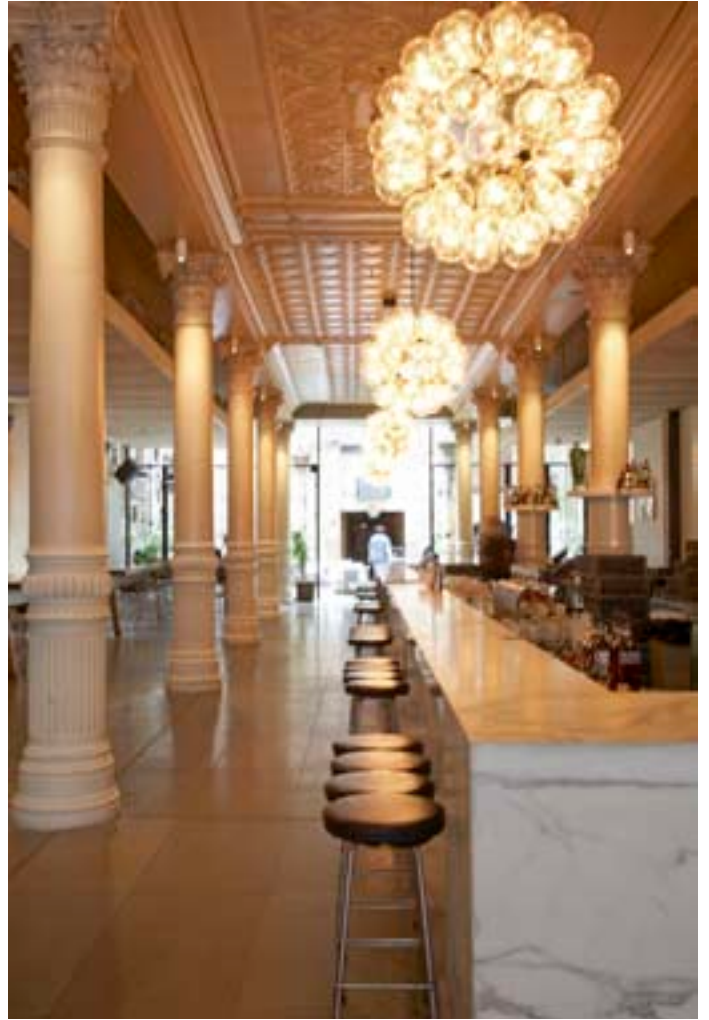
H



G



I



J



K



## A

## SMALL SCALE INDUSTRIAL TO RESIDENTIAL: EGAN STREET, NEWTOWN



55 :  
Egan Street, Newtown has been adapted for apartments and a studio space for a collective of architects.



56 :  
The interior of the industrial warehouse, prior to its adaptation.

57, 58 :  
New elements were added which are functional and contemporary, yet sympathetic.



57 :

### THE PROJECT

A small industrial warehouse was adapted to create three affordable contemporary apartments and a studio office space for a collective of architects, while retaining the heritage significance of the place. The original office entry was retained as the entry to the studio from Egan Street and new steel framed windows were inserted in place of the original timber roller shutter. The painted signs, rough sawn timber trusses, and items of industrial archaeology — including the original line shafting — have been retained, reminding future generations of the building's former working life.

The original external brick walls and concrete slab were retained. The position of the original trusses formed the natural division between the new apartments. Behind the street façade the roof and timber trusses were raised to achieve viable first floor clearances. A north-facing courtyard was created for each apartment by removing part of the roof between the trusses.

The tight site required a clever use of space to make the 70 square metre apartments feel generous, light and airy. The new apartments inserted in the robust brick structure are obviously modern, but the original fabric remains clearly legible.

### THE SITE

The building that occupies 23-25 Egan Street, Newtown is of local historic significance. It is a representative example of a 1920s light industrial development and makes a positive aesthetic contribution to the streetscape. It is located in the O'Connell Town Estate Conservation Area.

The utilitarian workshop building was constructed in the 1920s for Gough Bros Sheet Steel Metal Workers. It was used continuously by the company as a metal workshop, panel beater's and mechanic's workshop until 1964. Since then it has changed ownership twice and was used for car repairs until it was purchased by the current owners in 2000.

### THE CHALLENGES

The original warehouse building covered the entire site, which measures 27 metres x 8 metres, and contained a small office and mezzanine at the Egan Street entrance, and modest toilet and wash-up facilities at the rear. A high degree of architectural integrity existed, although repairs to the fabric were required.

The Egan Street façade contained an entrance door and a large timber roller shutter, and was structurally sound, but in need of minor repairs. The parapet was constructed of detailed brickwork and had large painted signs. The rear façade, facing the lane, was of much plainer face brickwork than the Egan Street façade and contained two large windows on the boundary. The concrete lintels to these windows were in need of repair, and the glazing did not meet Building Code of Australia (BCA) requirements with regard to fire separation.

The permissible floor space ratio for the site was 0.7:1; however, the existing building covered 1.1:1. Height was restricted to 6 metres. Each apartment required private open space.

### THE SOLUTIONS

The architectural philosophy guiding the project was to retain a tangible memory of the building's past, respect the existing significant fabric, and insert strong new elements that were functional and contemporary, yet sympathetic. Despite the small dimensions of the site, the architects cleverly used space to create three 70 square metre apartments, with a separate studio shopfront. This was achieved by taking advantage of the existing floor space ratio and parapet height. The original trusses and roof were raised 600mm without any adverse effects to neighbouring properties. SEPP1 objections for floor space ratio and height were lodged as part of the development application process.

The layout retains a generosity of space and maximises the usable area, while appearing an appropriate evolution of the existing building. Energy efficiency is achieved through a layout that optimises solar access to habitable spaces for the winter months. Ample natural daylight to habitable rooms, and the inclusion of solar hot water, further reduces energy demand. The roof overhang provides shading to glazing during the summer months and the cathedral ceilings are fully insulated.

### THE LESSONS

The completed project complies with all relevant building standards and sets a benchmark for small scale, sustainable inner-city mixed use developments. It demonstrates how to adapt existing buildings in environmentally and socially beneficial ways. The architects consulted with local residents and former South Sydney Council planners and heritage advisors. The latter endorsed the contemporary design approach to the new insertions.

The project provides a viable model for adaptive reuse of an industrial heritage building to create affordable housing. It advocates sustainable design and retention of heritage significance in preference to demolition, to create a richer urban environment.

The project won the 2006 NSW Royal Australian Institute of Architects ESD/Energy Efficiency Award, the Multiple Housing Award and the Presidents Award. The project was also the recipient of the 2006 National Trust Adaptive Re-Use Award.



58 :



Above: The industrial warehouse prior to adaptation.

Below: The building after adaptation for apartments.

ADAPTATION PRINCIPLES		ASSESSMENTS
Understand significance		<ul style="list-style-type: none"> <li>The architects demonstrated a good understanding of the local significance of the building</li> </ul>
New use to be appropriate to heritage significance	Retain use when significant  New uses to be compatible	<ul style="list-style-type: none"> <li>Use changed from industrial to residential but the industrial character was retained</li> </ul>
Level of change to be appropriate to significance	Minimise impact on significant fabric  Conserve significant interiors	<ul style="list-style-type: none"> <li>External features are respected and conserved in the new design</li> <li>Tangible evidence of the past use was retained</li> <li>Interior features are conserved in the new scheme</li> </ul>
Provide for reversibility and future conservation		<ul style="list-style-type: none"> <li>The new works do not preclude an alternative future use</li> </ul>
Conserve relationship between significant setting and views		<ul style="list-style-type: none"> <li>The streetscape quality of the building was important and conserved</li> </ul>
Provide for long-term management and viability		<ul style="list-style-type: none"> <li>The project puts the building to new sustainable uses. The success of the residential apartments will secure the property's ongoing care</li> </ul>
Reveal and interpret heritage significance		<ul style="list-style-type: none"> <li>The significance of the building and its past use is celebrated in the architectural design solution</li> </ul>

# B

## GRAND CITY HOUSE TO APARTMENTS: BABWORTH HOUSE, DARLING POINT



59 :  
Babworth House after its adaptation for apartments.



60 :  
Babworth House prior to adaptation.



61 :  
A glazed conservatory within the internal rear courtyard.

### THE PROJECT

A grand 93-room Sydney mansion called Babworth House was adapted to five apartments, and ten new houses were constructed within its grounds. The house and its garden setting are listed on the State Heritage Register.

### THE SITE

Babworth House was designed by Morrow and de Putron in 1912 on the site of Mount Adelaide House, a Mortimer Lewis design. The house was commissioned by Sir Samuel Horden. Following his death in 1956 it was used by St Vincent's Hospital (1961-1998). Major rooms were retained without significant alteration. Services, such as bathrooms, kitchens, laundries and a hospital lift, were clustered about the inner courtyard and within the eastern wing.

Designed in the Federation Arts and Crafts style, the house displays an eclectic mix of Classical Revival, Arts and Crafts and Art Nouveau styles. Magnificent oak-panelled walls, decorative plaster work and an imposing timber stairway characterise the interior. The site, which continued to the harbour's edge, included significant garden features and plantings, integral to the site's heritage significance.

### THE CHALLENGES

The land value in this area is at a premium and the house and garden were unlikely to be retained in a single ownership, other than for institutional uses. At an early stage, defining a use for this very large house and preserving the relationship between the house and its garden setting was considered critical. The ongoing management of the site as a single entity also needed to be secured.

The division of the house into apartments needed to recognise the relationship between the principal rooms and retain their original configuration, with any subdivision of interior spaces unlikely to be permissible. The new apartments were required to incorporate lifts and up-to-date services without affecting significant fabric. Dormer windows in the attic bedrooms within the roof space could only face into the internal courtyard and there could be no visual impact upon the external roof form. The division of the house into five apartments created compliance challenges with the Building Code of Australia.

### THE SOLUTIONS

A conservation management plan was prepared, followed by a development control plan for the entire estate. Detailed discussions throughout the process with the Heritage Office and Woollahra Municipal Council resulted in approval of the layout of the apartments within Babworth House, and the location of ten new houses with roof gardens set into the lower grounds. These were designed to ensure that Babworth House retained unimpeded views to the harbour.

The original grand porches were used to create individual entries for each of the five apartments, with no impact on significant elevations or external fabric. The planning was dependent upon the introduction of a sympathetic glazed conservatory within the internal rear courtyard. This permitted Apartment 3 to span across both wings at the rear of the house. Apartment 5 was designed within the original basement store of Babworth House, and was extended to incorporate and interpret the remnant stone footings of Mount Adelaide House.

Significant rooms were conserved and retained in their original configuration, resulting in innovative fire and acoustic separation details. New lifts, stairs and services were carefully installed without impact upon significant fabric, while fire and acoustic separation were sandwiched between existing and new panelled doors within existing openings.

The new houses in the lower grounds were positioned so that they did not interrupt harbour views from Babworth House, and all parking was located underground, to maximise the garden setting of the estate.

The former gabled brick and slate roofed garage was adapted to a gatehouse residence by the addition of a new glazed and copper roofed pavilion reflecting the proportions of the original garage. A connecting glazed and copper-louvered atrium link interpreted a former glasshouse.

Community title, rather than strata subdivision, was used as a means of ensuring the garden setting was conserved as a single entity. Community title legally shares responsibility between the apartment owners for the ongoing maintenance and conservation of Babworth House and its formal gardens in perpetuity.

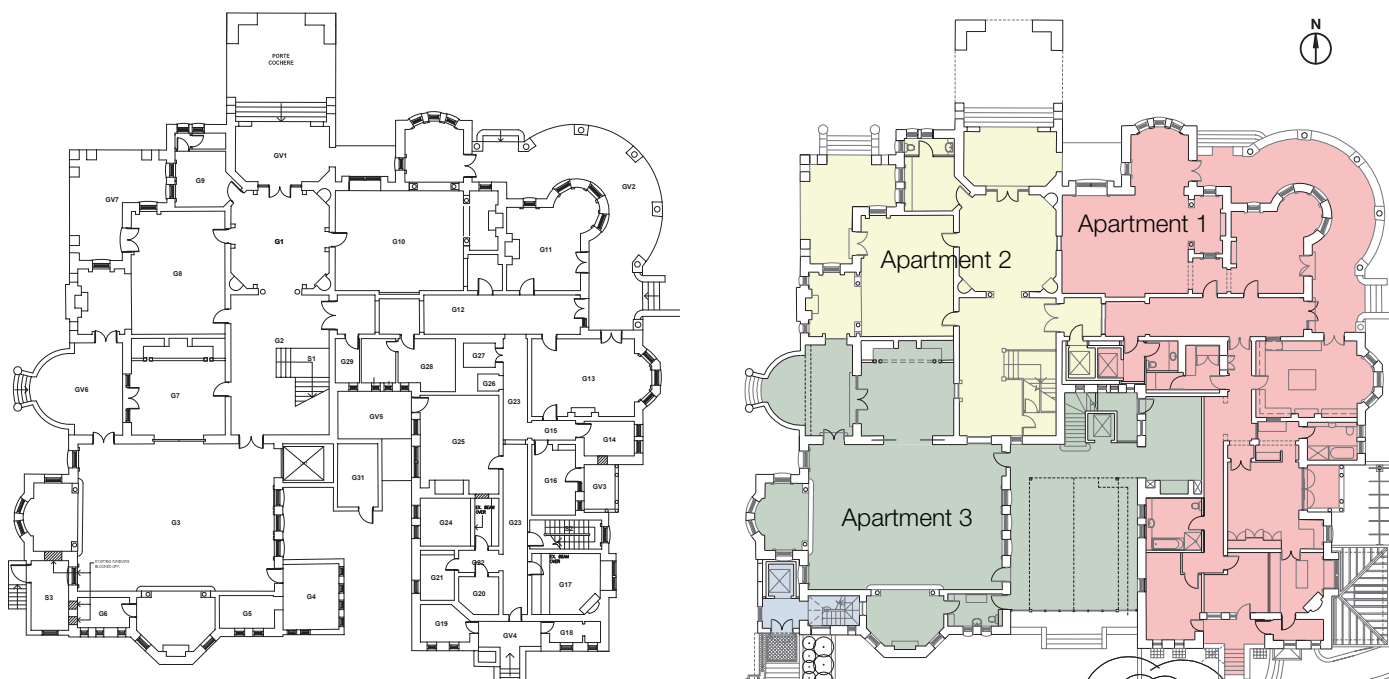
### THE LESSONS

Detailed discussions at the outset of the project with the Heritage Office and Woollahra Municipal Council were an intense and collaborative exercise. They resulted in new, sympathetic design approaches being considered and approved for an innovative yet sensitive adaptation of Babworth House that secured its ongoing care and use. The owner/developer's co-operative and committed involvement throughout the entire process, ensured an exceptional heritage outcome for both Babworth House and its garden setting.

Investment in a well developed conservation plan and the preparation of a masterplan for the site, in advance of the development application, was successful in managing local community expectations.

The Babworth House adaptation was the recipient of the Woollahra Conservation Award in 2004 and was short-listed for the RAI and National Trust 2004 awards.





Above: The ground floor plan prior to adaptation.

Right: The ground floor of Babworth House showing the layout of apartments 1-3.

ADAPTATION PRINCIPLES		ASSESSMENTS
Understand significance		<ul style="list-style-type: none"> <li>The conservation plan clearly identified significance, and this was translated into policy in the DCP</li> </ul>
New use to be appropriate to heritage significance	Retain use when significant  New uses to be compatible	<ul style="list-style-type: none"> <li>Residential use was retained, although at a higher level of density, and the garden setting was conserved</li> <li>The new houses in the grounds retained the original residential use, as did the apartments</li> </ul>
Level of change to be appropriate to significance	Minimise impact on significant fabric  Conserve significant interiors	<ul style="list-style-type: none"> <li>New buildings were placed sensitively in relation to garden features and views from the house to the harbour were retained</li> <li>The apartment layouts maintained the original relationships between significant rooms and new services were located in areas of lower importance</li> </ul>
Provide for reversibility and future conservation		<ul style="list-style-type: none"> <li>The new occupancy configuration does not prevent the future reconversion to a house with a single occupancy</li> </ul>
Conserve relationship between significant setting and views		<ul style="list-style-type: none"> <li>The views from the house and garden areas to the harbour have been retained</li> <li>The views from the house to garden features have been conserved</li> </ul>
Provide for long-term management and viability		<ul style="list-style-type: none"> <li>Community title rather than strata title was used, which provided joint and shared ownership and responsibility for the house and garden, including the new buildings</li> </ul>
Reveal and interpret heritage significance		<ul style="list-style-type: none"> <li>Significant fabric was conserved and restored. The garden was re-established following the construction and adaptation</li> </ul>



## RURAL AGRICULTURAL BUILDING TO FUNCTION CENTRE: Tocal Visitor Centre, Tocal



62 :  
The Tocal Visitor Centre was adapted from an early 20th century hay shed.



63 :  
The Tocal hay shed prior to adaptation.



64 :  
The centre is now recognised as one of the best wedding function centres in the Hunter Valley.



65 :  
Recycled and local materials were used in the building wherever possible.

1980s with zincalume (since replaced with the original corrugated galvanized iron), but the existing cladding on the sides remained.

### THE CHALLENGES

One of the features of Tocal is its unique buildings and long construction period, dating from 1825 to 1965. A design was needed which continued this layering of significance, and which retained the external appearance and parameters of the original building, but allowed for some internal reorganisation. At the same time, the original interior wall and ceiling had to remain intact.

The brief aimed for maximum energy efficiency. Air conditioning was required, but opportunities for natural ventilation had to be maximised, and the use of air conditioning minimised.

Costs had to be carefully controlled and accountability to a number of funding bodies was required.

### THE SOLUTIONS

The hay shed had to be adapted to provide a comfortable, energy efficient multi-function centre. It had to look like and feel like a hay shed. Features that had been removed since the building was constructed were reintroduced in another form, such as the original opening for the tall hay laden carts, which was reinterpreted in the new skylight in the north façade.

Recycled fabric from the property, together with some local materials, were used wherever possible; they included timber from wind-blown spotted-gum trees, rabbit netting and roller-wire strainers, found in farm sheds. Traditional techniques of repair and construction also added to the authenticity and cost effectiveness of the project. Tiles imported in the late 1940s (new and still in their box) were found in the shed, and hinges and other fencing materials were incorporated into the facilities associated with the building.

The side fence and safety rail for the mezzanine were designed around the use of rabbit-proof netting. The top rail was an iron bark sapling, commonly used on stockyards. This reflected the widespread use of rabbit-proof netting in Tocal in the 1920s.

Glazing, including high performance glass in some areas, was used across the whole northern face of the building. The glass wall is set back to express the original structure, especially when viewed from the north and the adjacent road. The building is designed to use natural systems as much as possible so that air conditioning is only used when necessary. Louvres were incorporated at the base of the northern glass wall together with gable vents and exhaust fans in the roof apex, to provide maximum natural air flow. An innovative heat pump system was installed in a prominent location in the basement.

### THE PROJECT

The Tocal Visitor Centre was adapted from an early 20th century hay shed within the State Heritage-listed Tocal Homestead precinct. It still maintains the appearance and feel of an Australian rural shed. It provides a multi-purpose visitor centre for both Tocal Homestead and Tocal Agricultural College. It is capable of seating 100 guests, has a 60 seat theatre and exhibition areas, and provides modern and comfortable amenities for visitors. There has been no adverse impact on the nationally significant farm complex. The external shed dimensions remained intact after it was adapted. The visitor centre enables more people to understand Tocal and rural life from the 1820s to contemporary times.

Key features of the project include:

- introduction of a mezzanine floor to increase capacity;
- installation of north facing glass windows to improve comfort and increase energy conservation;
- development of a double-skin external wall and roof construction to incorporate thermal and acoustic insulation, while maintaining the original framework and cladding;
- excavation and use of a basement for amenities and an additional display area;
- use of recycled materials and traditional techniques in construction;
- introduction of a ramp access and a toilet for people with disabilities; and
- potential to install a lift to provide access to other levels.

### THE SITE

The hay shed was probably built just after 1907 to store the loose hay grown on the flats. It was carted up to its site using a horse and wagon and is an integral part of the farm complex. Over its life it has been used to store hay along with machinery and pumpkins. As the hay shed was located away from the main farm complex, it remained under-used for much of the 20th century. The roof had been replaced in the

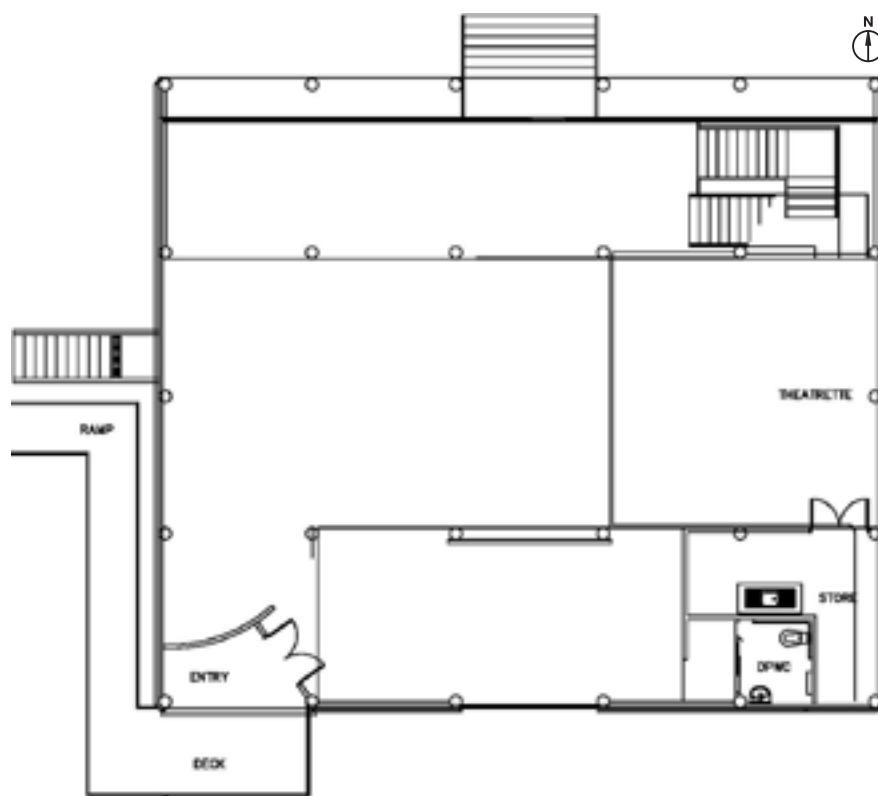
A double-skinned wall and roof cladding were developed to introduce thermal and acoustic insulation into the building, while retaining the appearance internally and externally of corrugated iron.

### THE LESSONS

The shed had to embody some of the essential elements of Australian rural history, but also be a quality building, consistent with the other buildings on the homestead site and at the College. The client, project director and architect had a unified vision of a high quality and durable facility, using the best possible materials and tradespeople.

The converted shed won the 2007 Ten Carat Award for Best Wedding Reception – Hunter Valley.

Cost effectiveness was paramount during the design and development of the project. Cost estimates were prepared at the beginning of the project and used to guide project expenditure. The long-term investment in a durable and sustainable facility was also recognised as a priority.



The ground floor of the hay shed following the adaptation.

ADAPTATION PRINCIPLES		ASSESSMENTS
Understand significance		<ul style="list-style-type: none"> <li>• An overarching conservation management plan informed the site masterplan</li> <li>• Individual buildings and elements had conservation management strategies to inform development applications</li> </ul>
New use to be appropriate to heritage significance	Retain use when significant  New uses to be compatible	<ul style="list-style-type: none"> <li>• While the barn use was redundant, other farm buildings in the precinct were retained in agrarian use</li> <li>• The new use provides facilities to support the visitor and tourism function of the homestead complex</li> </ul>
Level of change to be appropriate to significance	Minimise impact on significant fabric  Conserve significant interiors	<ul style="list-style-type: none"> <li>• The barn form, character and envelope are unchanged, and significant fabric has been conserved</li> <li>• The recent roof was replaced with original material</li> <li>• Significant interior fabric has been conserved</li> <li>• Double-skinned wall and roof lining have provided an energy efficient interior</li> <li>• Materials have been recycled and new materials sourced locally</li> </ul>
Provide for reversibility and future conservation		<ul style="list-style-type: none"> <li>• The new use does not prevent future reconversion to barn</li> </ul>
Conserve relationship between significant setting and views		<ul style="list-style-type: none"> <li>• Minimal external changes and new work did not affect the setting or views</li> </ul>
Provide for long-term management and viability		<ul style="list-style-type: none"> <li>• The new use provides a viable use for the building within a larger complex of buildings and helps to support the overall complex</li> </ul>
Reveal and interpret heritage significance		<ul style="list-style-type: none"> <li>• Significant elements and fabric have been conserved, new works sustained traditional practices associated with farm buildings – using local material and trades</li> </ul>



## D

## LOCAL CHURCH AND CHURCH HALL TO RESIDENTIAL: TOXTETH CHURCH, GLEBE



66 :  
The former Toxteth Church and hall now accommodates two residences.



67 :  
The Toxteth Church prior to adaptation.



68 :  
Open plan living areas are located on the free-standing mezzanines.



69 :  
New glazed pavilions provide additional spaces.

### THE PROJECT

A former church and church hall were adapted as two residences. The principal elevations, roofs and overall forms of the buildings were retained and conserved. Mezzanines were inserted and pavilions added at the rear, creating light-filled contemporary spaces with cross ventilation. The new lightweight structures are steel and glass, and make a distinctive modern statement, compared with the original stone and brick structures.

The new design incorporates disabled access, with the potential for future lifts. The specially designed roof and gutter system collects rainwater for large underground water storage tanks, which act as heat banks. The water is reticulated throughout to the bathrooms and laundries, which have dual plumbing for tank and mains water supply.

### THE SITE

The church and hall are located in the Toxteth Estate conservation area. The site is orientated north-south and has rear lane access. The streetscape of predominantly Victorian houses has a mixed residential character, with single and two-storey terraces and some single dwellings.

### THE CHALLENGES

The buildings were empty and vandalised for many years and required extensive conservation work. Innovative architectural planning was required to retain the character of the buildings, especially internally. The church and hall are listed as heritage items on the local environment plan, which has heritage incentives permitting use beyond the zoning restrictions. Council queried the proposed residential use of buildings zoned for ecclesiastical use, which led to an extended approvals process.

### THE SOLUTIONS

Open-plan living areas are located on the free-standing mezzanines, with bedrooms below. This preserves the overall volumes and intricate joinery of the roof and ceiling structures. New glazed pavilions provide additional spaces, which are separated from the original church and hall by courtyards. The rear elevations allow maximum winter sun penetration and natural air movement, which reaches all parts of the existing church and hall.

The new work is supported by a steel structure independent of the historic church and hall, ensuring the work is totally reversible in the future. The design of the cruciform-shaped steel columns reduces the apparent bulk, and achieves a sense of lightness. Careful planning and site works preserve mature trees on the site.

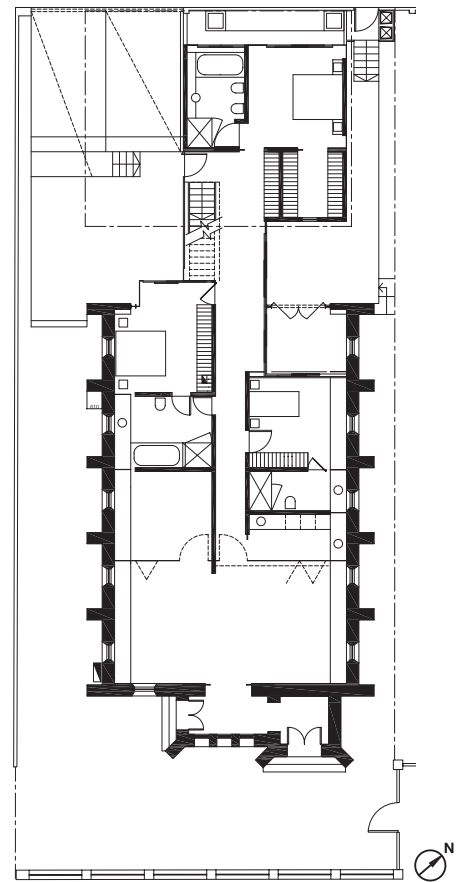
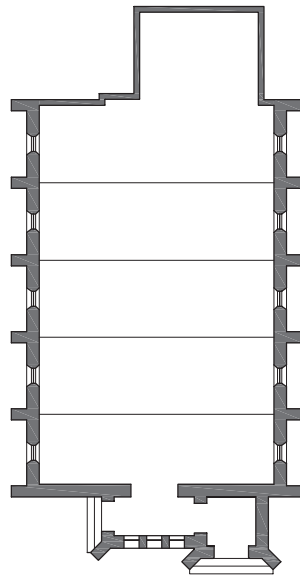
### THE LESSONS

The combination of architectural skills in heritage conservation and contemporary design has conserved the heritage buildings. At the same time, it has achieved an integrated and innovative adaptive reuse which, over time, has been accepted by the local authorities and local residents.

The conversion was a finalist for the Greenway Award in the 2007 RAIA NSW Chapter Awards.



70 :  
The rear elevations allow maximum natural air movement.



Left: Toxteth Church prior to adaptation.

Right: Toxteth Church showing the adaptation to a residence, ground floor plan.

ADAPTATION PRINCIPLES		ASSESSMENTS
Understand significance		<ul style="list-style-type: none"> <li>● A thorough significance analysis of the fabric was undertaken by the architect</li> </ul>
New use to be appropriate to heritage significance	Retain use when significant  New uses to be compatible	<ul style="list-style-type: none"> <li>● New use as residential does not preclude future public functions for the building</li> </ul>
Level of change to be appropriate to significance	Minimise impact on significant fabric  Conserve significant interiors	<ul style="list-style-type: none"> <li>● Significant fabric led the design solution and was revealed and conserved</li> <li>● Interior features were conserved and used as features in new design</li> </ul>
Provide for reversibility and future conservation		<ul style="list-style-type: none"> <li>● New work was inserted in a way that reveals the building's form and fabric, and can be removed easily without requiring reconstruction</li> </ul>
Conserve relationship between significant setting and views		<ul style="list-style-type: none"> <li>● The relationship between the building and the street was conserved in the new design, including the design of new entry</li> </ul>
Provide for long-term management and viability		<ul style="list-style-type: none"> <li>● The new use secures the building use in an ongoing way</li> </ul>
Reveal and interpret heritage significance		<ul style="list-style-type: none"> <li>● Significant features and architectural elements provided inspiration for the new design</li> </ul>

## E

## INNER CITY INDUSTRIAL SITE TO OFFICES: THE BUSHELLS BUILDING, THE ROCKS

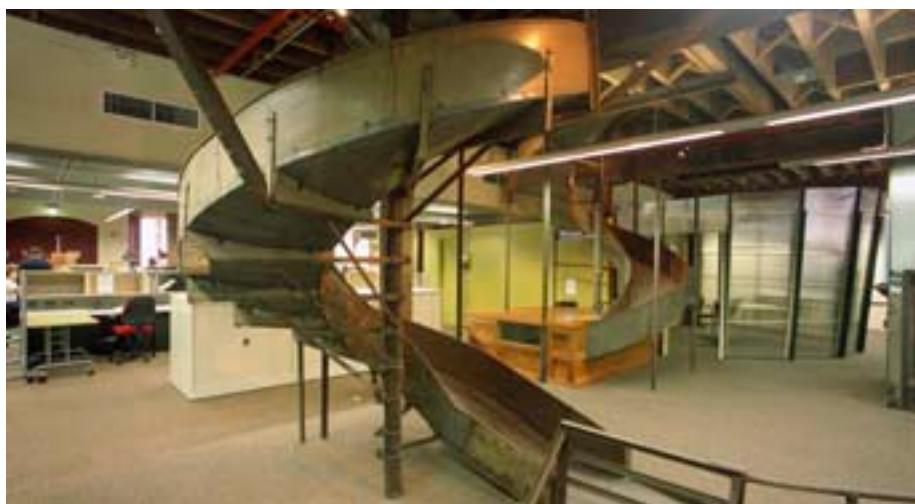


71 :  
The Bushells Building with its repainted façade and reinstated signage.



72 :  
The Bushells Building was previously used for tea manufacture.

73, 74 :  
The surviving industrial artefacts provide an intriguing insight into the past process of tea manufacture.



73 :

### THE PROJECT

This former factory building was adapted to modern offices in a way that preserves the structural clarity of the warehouse spaces, conserves and incorporates a number of significant artefacts, and provides a rewarding and unique work environment. The building had been vacant from 1975 until 1999.

Detailed study was undertaken to insert the new elements sensitively, and to protect, conserve, and interpret the existing features of the building and its associated artefacts. Modern services and amenities were introduced; windows were reglazed for acoustic and smoke sealing purposes; the southern light-well was enclosed and new passenger lifts and access bridges in a multi-storey foyer/atrium were provided, as well as a new, fully-complying fire stair.

### THE SITE

The Bushells Building is a landmark within the historic Rocks area of Sydney and is listed on the State Heritage Register. It was designed by renowned architects HE Ross & Rowe in 1923 and is one of a number of significant city buildings by this firm. The building is important because of its industrial character and its historical association with the Bushells Company, once synonymous with Australia's cultural identity through prolific and successful marketing campaigns over the last century. Bushells maintained the same use for the building from 1923 to 1975 and it retains many of its industrial manufacturing features.

The building is important because it helps us understand the development of local industry in Sydney. It contains rare evidence of this form of manufacture and food production, which historically occurred within the industrial fringe of Sydney's Central Business District. It also provided jobs for both men and women, predominantly from The Rocks area, for over 50 years.

### THE CHALLENGES

There were several challenges associated with the adaptation and compliance with the Building Code of Australia. They included the introduction of new services to meet modern office standards — lifts, air conditioning, fire services and protection, fire stairs and acoustic separation — in an expressed timber structure with timber floors.

A large number of industrial artefacts, which contributed to the building's significance, had to be meaningfully incorporated into the design. There were also contamination issues, such as lead paint, asbestos, asbestos cement and kalsomine paint. Conservation work was also necessary to the building's exterior. The design also had to be flexible to meet the possible needs of future tenants.

### THE SOLUTIONS

Works including the repainting of the façades, repair of brickwork and windows, and reinstatement of Bushells signage, which contributes to the building's landmark status. Within the building the painted masonry walls, timber columns and exposed timber beams and joists have been retained, as have the tea handling equipment, spiral chutes, hoppers and various types of lift. These surviving industrial artefacts provide an intriguing insight into the past process of tea manufacture. Some tea hoppers, and the former lift enclosures, now house storage areas and small meeting rooms.

A new partition system preserves the special qualities of the open plan floor space, while still allowing appreciation of the artefacts, timber structure and natural light. New electrical and computer services have been introduced within a raised floor structure, while the mechanical plant is located around the periphery of the building and above a central access spine, retaining the expression of the significant timber ceilings.

Three new lifts have been integrated into the southern light well, avoiding alteration to the interior while providing a handsome atrium space. The new entry foyer at the south-east corner of Harrington Street provides direct access to the atrium. Bridges constructed of glass and steel cross the atrium, connecting each floor to the lifts. The lightweight construction of the bridges allows light to penetrate through the light well, maintaining the quality of space throughout. There are six floors of open plan office space — each level is approximately 1000 square metres in area.

The overall roofscape has been retained with minor modification. The mechanical plant equipment has been concealed by a new louvred roof to the 'temple tower', which once housed a water tank.



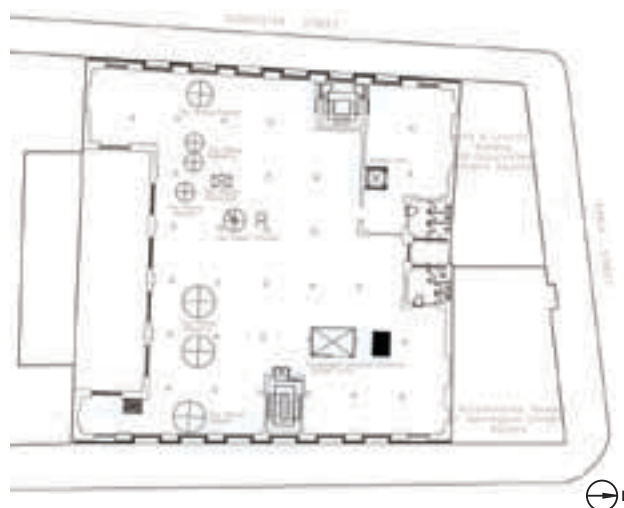
### THE LESSONS

The project benefited from an owner/developer that recognised the value of adapting the building. Skilled design professionals were involved throughout who understood the significance of the building, and were able to balance the need for conservation and their client's aspirations by finding creative solutions to very difficult problems. Working with an enthusiastic contractor, who rose to the challenge of working sympathetically with an existing building, rather than seeing the building as an impediment, was also an important factor in the project's success.

The project was awarded the Master Builders Association Excellence in Construction Merit Award for the Restoration or Renovation of an Historic Building and the UNESCO Award for conservation and adaptation in 2001 and was highly commended for both the Australian Property Institute Award for Best Development (heritage refurbishment) and the Property Council of Australia Rider Hunt Award for conservation and adaptation in 2002.



74 :



Top: Section showing the building's adaptation for offices.

Below: The ground floor plan showing its former use.

ADAPTATION PRINCIPLES		ASSESSMENTS
Understand significance		<ul style="list-style-type: none"> <li>● A conservation management plan identified significance and guided the works</li> </ul>
New use to be appropriate to heritage significance	Retain use when significant  New uses to be compatible	<ul style="list-style-type: none"> <li>● The new use as offices has retained the building's spatial qualities and its remnant artefacts</li> </ul>
Level of change to be appropriate to significance	Minimise impact on significant fabric  Conserve significant interiors	<ul style="list-style-type: none"> <li>● Significant features and artefacts were conserved, including a landmark sign</li> <li>● Interior features have been conserved; modern partition and raised floor systems provide necessary services without compromising the interior spaces</li> </ul>
Provide for reversibility and future conservation		<ul style="list-style-type: none"> <li>● The partition system and services can be removed</li> </ul>
Conserve relationship between significant setting and views		<ul style="list-style-type: none"> <li>● Landmark signage has been retained</li> </ul>
Provide for long-term management and viability		<ul style="list-style-type: none"> <li>● The new use and its overall management system provide for holistic building management</li> </ul>
Reveal and interpret heritage significance		<ul style="list-style-type: none"> <li>● Significant building fabric has been conserved and remnant artefacts and signage retain the historic character of the building and reveal and interpret its former use</li> </ul>

## F

## DEFENCE BUILDINGS TO SYDNEY HARBOUR FEDERATION TRUST OFFICES: GEORGES HEIGHTS



75 :  
The Sydney Harbour Federation Trust office at Georges Heights.



76 :  
The former hospital building in use.



77 :  
The original colour scheme for the interior of the hospital buildings was used.

### THE PROJECT

A group of former WWI hospital buildings was adapted by the Sydney Harbour Federation Trust as part of an overall plan for a headland park extending from Rawson Oval to Middle Head.

Three former hospital buildings were converted into a linked office space and headquarters for the Sydney Harbour Federation Trust. A majority of later infill structures was demolished, leaving one small section with a clerestory roof. The area was converted into a central kitchen/eating/social space connected to a sheltered outdoor courtyard.

### THE SITE

The former hospital buildings are located on the sloping ridge line of the Middle Head peninsula and are on the Commonwealth Heritage List. They sit on a prominent knoll on the ridge-line, with excellent views to the east across Sydney Harbour. Two of the buildings were part of a 1915 Army Auxiliary hospital and are considered rare.

All three buildings had been converted to other uses by the Army over time.

### THE CHALLENGES

The challenge was to retain the character of the original hospital buildings, and the separate quality and simple hut-like character of all three buildings, while linking them to create office space and meeting rooms. Accretions had to be removed to interpret the original army hospital and kitchen, and engineering works had to comply with current standards. Asbestos sheeting on roofs and internal linings had to be removed, but rare, early exterior asbestos sheeting was retained and repaired.

### THE SOLUTIONS

The site was the subject of a conservation management plan. Because the Sydney Harbour Federation Trust is the landowner, consent authority and developer a fully integrated outcome was achieved.

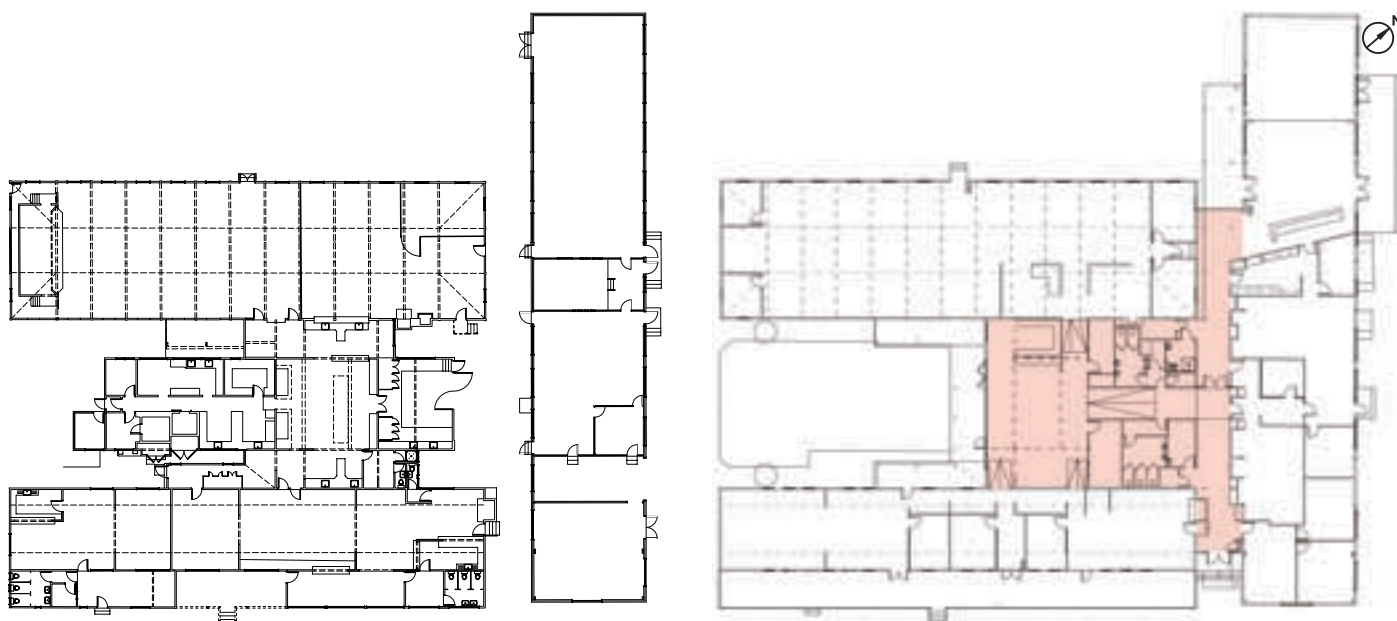
During the conversion of the three buildings Lobb Lane was reinterpreted as an internal access/gallery space, glazed at both ends. Ramps were designed internally to link the different floor levels subtly. New elements were introduced, such as the entrance canopy and ramp. Although complementary, they are clearly distinguishable as new work. Under-floor strengthening and additional wall bracing were introduced to meet structural requirements. The new steel support for the clerestory is clearly and simply expressed. The restrained landscaping to Irving Place interprets the footprint of the previously demolished kitchen block and incorporates water tanks linked to toilets and garden watering. The original colour scheme for the interior of the hospital buildings was reused. It was determined by paint ladders left on display. A central circular air conditioning duct was located in the upper part of the cathedral ceiling space. Skirting ducting supplies wiring to individual desks. Loudspeakers on the roof of Building 29 have been retained, and roof ventilators replaced to match the missing originals.

### THE LESSONS

The contracts for re-roofing and asbestos removal would have been more effectively handled as an integral part of the office conversion project, rather than undertaken as separate contracts.



78 :  
During the adaptation, a central kitchen/eating/social space was created, connected to a sheltered outdoor courtyard.



Above: The buildings prior to adaptation.

Right: The plan shows the linking of the three buildings for office space.

ADAPTATION PRINCIPLES		ASSESSMENTS
Understand significance		<ul style="list-style-type: none"> <li>A conservation management plan (CMP) for the precinct identified significance and policies to guide adaptation</li> </ul>
New use to be appropriate to heritage significance	Retain use when significant  New uses to be compatible	<ul style="list-style-type: none"> <li>New uses for administration purposes entail minimal impact on the spaces</li> </ul>
Level of change to be appropriate to significance	Minimise impact on significant fabric  Conserve significant interiors	<ul style="list-style-type: none"> <li>The original fabric has been retained wherever possible. Areas of greater impact have been concentrated in areas of lesser significance. Asbestos in internal walls &amp; ceilings has been removed, but the external wall cladding retained</li> <li>The removal of false ceilings and later internal partitioning and the replacement of some windows and joinery to match the originals has revealed the interior character of the army hospital</li> </ul>
Provide for reversibility and future conservation		<ul style="list-style-type: none"> <li>Reversibility has been incorporated in different degrees according to heritage significance</li> <li>Connecting links to the office complex could be removed to revert to three separate buildings. A maintenance program for the continued conservation of buildings has been implemented.</li> </ul>
Conserve relationship between significant setting and views		<ul style="list-style-type: none"> <li>The relationship between the original building groupings and access roads and the surrounding open space has been carefully maintained, with restrained new landscaping that includes interpretation of the sites of the former important buildings</li> </ul>
Provide for long-term management and viability		<ul style="list-style-type: none"> <li>The Trust structure allows for overall site and tenant management. Tenant fit-outs are approved by the Trust to achieve compliance with the CMP guidelines</li> </ul>
Reveal and interpret heritage significance		<ul style="list-style-type: none"> <li>Conservation work has revealed the original volumes and character of the Army hospital buildings</li> <li>Further interpretation will be provided at the site</li> </ul>





## COMMERCIAL BUILDING TO REGIONAL ART GALLERY: SULLY'S EMPORIUM, BROKEN HILL



79 :  
Broken Hill Regional Art Gallery.



80 :  
The building was previously a mining hardware store.

### THE PROJECT

The Broken Hill Regional Art Gallery was adapted from a near ruinous former mining hardware building in the main street of Broken Hill. The project was carried out in three stages as funding became available. The building now exhibits the extraordinary art of the Broken Hill region, including contemporary art and the local council collection, which dates from the council's establishment in 1886. Interpretation was added to tell the history of the building and the story of the development of Sully's Emporium as an important mining enterprise. Local artists, the council and tourists share the use of the building. It has become a unique visitor experience, enhancing Broken Hill's appeal as a tourist destination.

### THE SITE

Sully's Emporium is located within the Argent Street Conservation Area and is included on the State Heritage Register. It has a characteristic streetscape of shopfronts with verandahs and buildings with rear lane access. The building was constructed in two sections. A two-storey stone building with a shopfront with a cellar, and upper gallery, was erected in 1889, to the design of Adelaide architect George Abbott; the contractors were Walter & Morris, also of Adelaide. In 1894, two adjacent shops were added, with a cellar and offices above, to create an elaborate unified façade with a single storey verandah. The firm had a livery and blacksmith's shop in the rear yard.

### THE CHALLENGES

The building had deteriorated significantly and was being vandalised. It was structurally sound, but the open section of the 1889 part of the building retained original, damaged balustrading, which was neither safe nor of regulation safety height. Careful joinery work reused original components to meet the correct

safety height. The two sections of the building were not internally linked at the first floor level, but this was resolved and a lift was added at the rear of the complex. The installation of air conditioning was a major design challenge and expense, because of visibility issues and the location of ducts.

### THE SOLUTIONS

The building was adapted to display the art works. The ground floor incorporates an entry and exit and shop within the former office area of the building. Sections of original shop joinery were retained and conserved. The original curved roof on the first floor was lined, while still exposing the significant 1889 light metal truss. This provided insulation for the climate control required for the art works. Former offices on the first floor of the 1894 section were amalgamated to provide additional gallery space. The lath and plaster walls, which were in poor condition, were removed. The original staircase frieze was retained, and a new complying timber stair installed. Corrugated iron — a widely used material in Broken Hill — was used for the new rear toilet and lift extension, clearly distinguishing it from the early masonry section of the building.

### THE LESSONS

Despite a lack of finance or an agreed use, Broken Hill City Council was committed to retaining this significant main street building. By undertaking the work in stages, funding became available from a variety of sources. However, the project was always constrained by a limited budget. Flexibility in the architectural services provided was essential, so that solutions could be accommodated within changing funding conditions. The design approach allowed for contemporary design elements to sit comfortably with the important heritage qualities of the building.

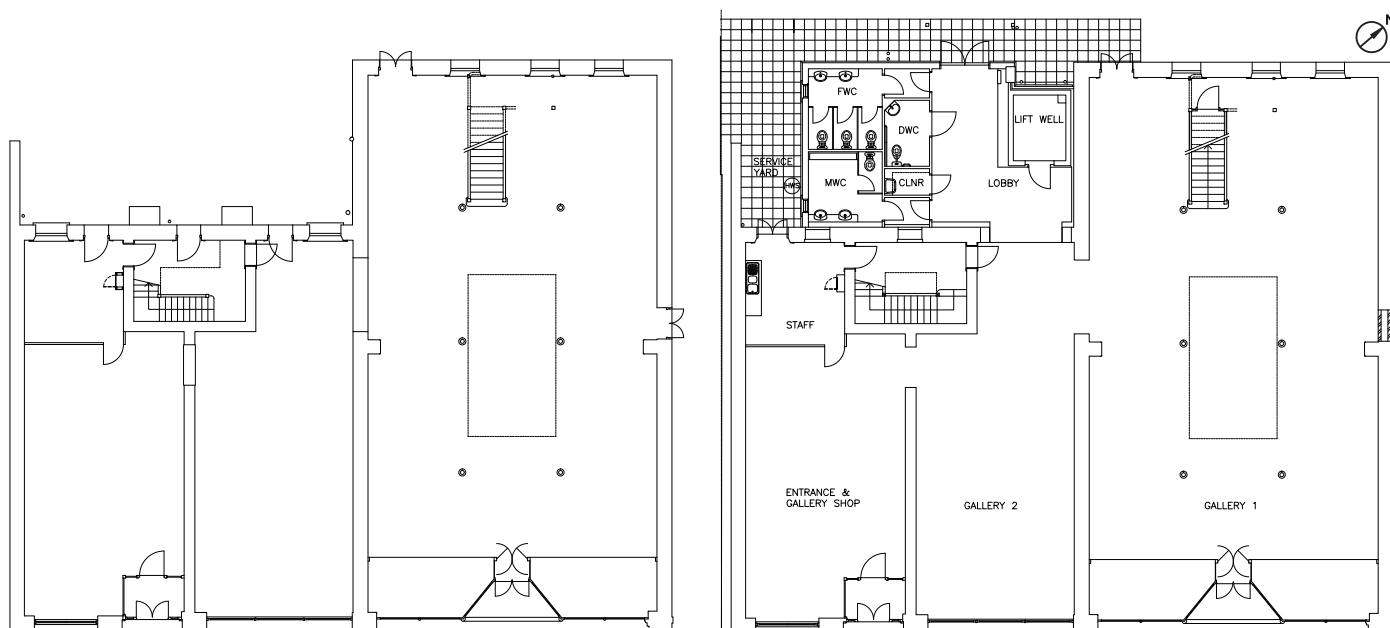


81 :  
The ground floor incorporates the new entry/exit and shop.



82 :  
The original curved roof has been lined, while still exposing the significant 1889 light metal truss.

The conversion won the Australian Property Institute Savills Heritage Award and the Corporate/Government category of the EnergyAustralia National Trust of Australia (NSW) Heritage Conservation Award in the Built Heritage for projects over \$500,000 category in 2005.



Above: Ground floor plan prior to adaptation.

Right: Ground floor plan showing the shop and gallery spaces and rear extension.

ADAPTATION PRINCIPLES		ASSESSMENTS
Understand significance		<ul style="list-style-type: none"> <li>A thorough significance assessment and fabric analysis was undertaken by the architect and used to guide the works</li> </ul>
New use to be appropriate to heritage significance	Retain use when significant	<ul style="list-style-type: none"> <li>Some commercial use has been retained in the gallery use</li> </ul>
	New uses to be compatible	<ul style="list-style-type: none"> <li>The gallery use retains some commercial functions and provides public access to the building</li> </ul>
Level of change to be appropriate to significance	Minimise impact on significant fabric	<ul style="list-style-type: none"> <li>Significant fabric was carefully conserved; the new use demanded only a light touch</li> <li>A new complying stair complemented and supplemented the original stair, which was retained</li> </ul>
	Conserve significant interiors	<ul style="list-style-type: none"> <li>Interior features that survived were retained, such as internal office joinery and gallery balustrading</li> </ul>
Provide for reversibility and future conservation		<ul style="list-style-type: none"> <li>New works have been simply undertaken, minimising their impact on the building fabric. Future works will expand the gallery facilities in a separate but linked building.</li> </ul>
Conserve relationship between significant setting and views		<ul style="list-style-type: none"> <li>The streetscape character and verandah were conserved early on in the project to attract interest in the building and draw attention to its significance</li> </ul>
Provide for long-term management and viability		<ul style="list-style-type: none"> <li>The gallery use provides ongoing viability for the building, which has become an important local cultural facility</li> </ul>
Reveal and interpret heritage significance		<ul style="list-style-type: none"> <li>The light touch of the conservation works and architectural intervention has let the building 'speak for itself' by conserving significant features and not introducing new elements that obscure original features</li> </ul>

# H

## THE MINT: COINING FACTORY TO HISTORIC HOUSES TRUST HEAD OFFICE AND LIBRARY, MACQUARIE STREET, SYDNEY



83 :  
The new headquarters of the Historic Houses Trust.



84 :  
The former sandstone Coining Factory buildings of the Royal Mint.

### THE PROJECT

The surviving structures of the sandstone Coining Factory buildings of the Royal Mint, Sydney (1855-1926) were adapted for use as the new head office of the Historic Houses Trust (HHT). The buildings had served as government offices and law courts from 1927-1997 and had been left vacant and partially demolished. The conservation and interpretation of these significant but neglected buildings has provided a viable new use, public access and new areas of public open space. The project aimed to combine the best of conservation theory and practice with the best of contemporary architecture.

While most of the office facilities were to be provided within the adapted Coining Factory, new buildings were also necessary. These were carefully located on vacant areas of the site. They do not re-create the form of earlier demolished historic structures, but are contemporary in design. The intention of the HHT was twofold: there should be no confusion between the heritage fabric and the new fabric, and the adaptation should create a lively and busy precinct that expressed the organisation's commitment to conservation excellence and to contemporary architecture and programming.

### THE SITE

There are two structures on the Mint site — the Mint offices on Macquarie Street (originally the south wing of Governor Macquarie's General or 'Rum' Hospital, constructed from 1811-1816) and behind this, the Coining Factory (constructed in 1854 for the Royal Mint). Located in the most important civic precinct of Sydney, these buildings have a remarkable history of use and adaptation over nearly 200 years. They served as the assistant surgeon's residence, military hospital, dispensary and infirmary for the poor, the Royal Mint, government offices, law courts and museum.

The site is included on the State Heritage Register and the buildings are listed on Schedule 1 of the Central Sydney Heritage Local Environmental Plan.

### THE CHALLENGES

The site was the only area on the eastern side of Macquarie Street not developed — the 'missing piece' in one of the most important historic civic precincts of Sydney. Used as temporary accommodation for government departments and law courts for almost 50 years, the Coining Factory had been partially demolished during the 1960s. Remaining structures suffered from rising and falling damp and termite damage. The extent of surviving original interior finishes and fabric was unknown, as 20th century additions obscured the majority of the interiors. This 20th century fabric also contained hazardous material such as asbestos products and lead paint. Documentary research, confirmed by site surveys, indicated the presence of mercury contamination and hydrocarbons.

To ensure the long-term conservation of the site, the surviving industrial interiors were to be adapted to modern office uses, with minimal interference to the fabric. To meet the requirements of head office accommodation, new buildings were also to be constructed within this historic precinct.

### THE SOLUTIONS

Before the project commenced a considerable amount of time was spent establishing the approach and identifying issues, risks and opportunities. A team of highly qualified practitioners was appointed following a rigorous selection process. A clear project structure was also established from the beginning.

The brief clearly articulated the HHT's requirements — the best of conservation practice combined with the best of contemporary architecture. This philosophy was reinforced during the course of the project.

Following commencement of the preliminary design work documentary analysis and physical investigation of the site was undertaken. Twentieth-century additions to the buildings were documented and carefully removed, to reveal as much as possible of the surviving original structures. At the same time, an archaeological program was undertaken. This site investigation was linked to remediation and reduced the risk of discovering significant archaeological remains or hazardous materials.

The design for the new buildings evolved out of the symmetry of the original buildings, and the relationship of the site to Macquarie Street and the Domain. The new structures were carefully located to complement the proportions and geometric alignments of the existing buildings. They are clearly articulated and distinguishable from the older fabric, and their character and form relates to their location and associated immediate heritage context. The new structures also protect the surviving historic fabric.



85 :  
Within the existing building, the large industrial spaces were re-established to reveal the original pre-fabricated cast iron structures, masonry and painted walls.

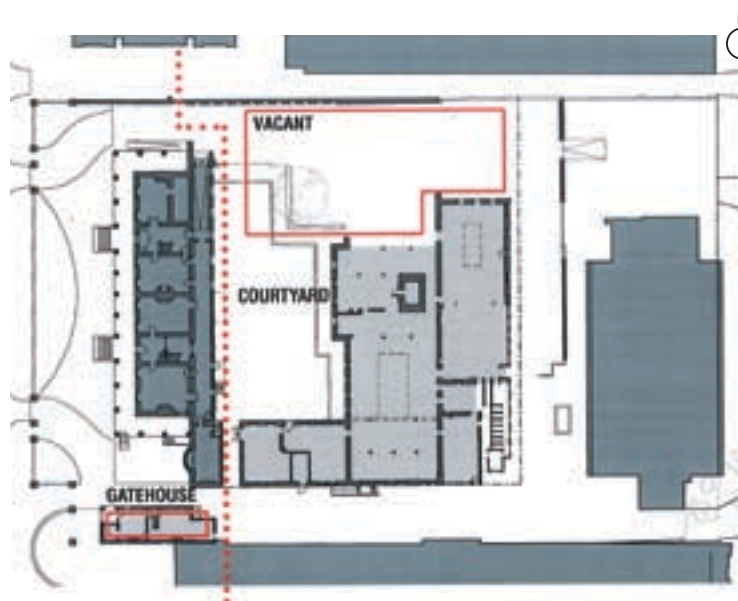


Within the existing buildings, the large industrial spaces were re-established to reveal the original pre-fabricated cast iron structures, masonry and painted walls. Original doorways, windows and skylights were re-opened to return light to the buildings and new floors, and openings and services were carefully located to preserve existing fabric with its evidence of use and adaptation. Archaeological elements were also incorporated into the new interiors.

### THE LESSONS

A rigorous selection process established a team of highly qualified consultants to undertake the brief and accept the conceptual framework with enthusiasm. The thorough investigation of the surviving structures and archaeological evidence of the site at the start of the project reduced the risk of unexpected discoveries. Indeed, it resulted in the integration of historic building fabric and archaeological elements into the design of the new office spaces.

The Mint project received both the Royal Australian Institute of Architecture's Sulman Award and the Greenway Award in 2004. At the time the judges commented that 'The whole ensemble is given cohesion through carefully modulated scale and proportion, juxtapositions of materials, light and shade, old and new, inside and out. A 19th century walled factory has been transformed into a 21st century campus.'



Top: The ground floor plan showing the layout of buildings prior to adaptation.

Below: The plan showing the adaptation of the former Coining Factory building for office space and the new building.

ADAPTATION PRINCIPLES		ASSESSMENTS
Understand significance		<ul style="list-style-type: none"> <li>The conservation management plan was allowed to evolve as the site investigation and analysis proceeded, informing the design process</li> </ul>
New use to be appropriate to heritage significance	Retain use when significant	<ul style="list-style-type: none"> <li>The new use continues a 200 year history of the site's use as public offices</li> </ul>
	New uses to be compatible	<ul style="list-style-type: none"> <li>Continues history of changing use and adaptation of site buildings and enhances public access/interpretation</li> </ul>
Level of change to be appropriate to significance	Minimise impact on significant fabric	<ul style="list-style-type: none"> <li>The thorough site analysis undertaken before detailed design and documentation enabled the conservation and integration of significant fabric</li> </ul>
	Conserve significant interiors	<ul style="list-style-type: none"> <li>Original fabric was revealed and preserved within the new spaces and structures</li> <li>Significant fabric was protected but not obscured by new structures and work</li> <li>The energy efficient 'tempered air' ventilation system minimised changes to the interior environment</li> </ul>
Provide for reversibility and future conservation		<ul style="list-style-type: none"> <li>The majority of new work sits separately from the heritage fabric, providing for future change or reversibility with minimal impact</li> </ul>
Conserve relationship between significant setting and views		<ul style="list-style-type: none"> <li>The scale and form of the new buildings has enhanced the nature and use of the central courtyard of the site, and strengthened the relationship of the site as a whole to both Macquarie Street and the Domain</li> </ul>
Provide for long-term management and viability		<ul style="list-style-type: none"> <li>The overall design concept separated public and cultural activity areas from head office and business areas, allowing these operations to run independently and concurrently, thus increasing options for use and long-term viability</li> </ul>
Reveal and interpret heritage significance		<ul style="list-style-type: none"> <li>The new use has provided for the conservation of historic buildings and fabric, and public access and site interpretation through displays, signage and public activities, without the cost of full museum infrastructure</li> </ul>

## RAILWAY WORKSHOP BUILDING TO HEALTH AND WELLNESS CENTRE: THE FORUM HEALTH AND WELLNESS CENTRE, NEWCASTLE



86 :  
The Forum Health and Wellness Centre.



87 :  
The interior of the building when it was known as Civic Railway Workshop Block A.

### THE PROJECT

An historic railway workshop building was adapted for The Forum Health and Wellness Centre, owned by University of Newcastle Sport. The concept of 'a building within a building' was adopted, maintaining a strong axis through the building and retaining existing openings and part of a former platform to interpret the previous use.

### THE SITE

The building known as Civic Railway Workshop Block A (the former Permanent Way Store or Perway Building) is on the State Heritage Register. It is located between Workshop Place and Harbour Square at Harbourside in Newcastle. It appears as a combination of heritage railway and contemporary buildings within the Honeysuckle urban regeneration area's contemporary streetscape. The workshop building is of simple form and is constructed of brick.

### THE CHALLENGES

The challenge was to maintain the sense of scale and size of the internal volume, and to interpret the building's previous use. The brief, for large open spaces and acoustic and visual separation between uses within the building, created a potential conflict with the heritage values of the building. Any new additions were to be clearly discrete from the heritage building, with little impact on the public domain.

### THE SOLUTIONS

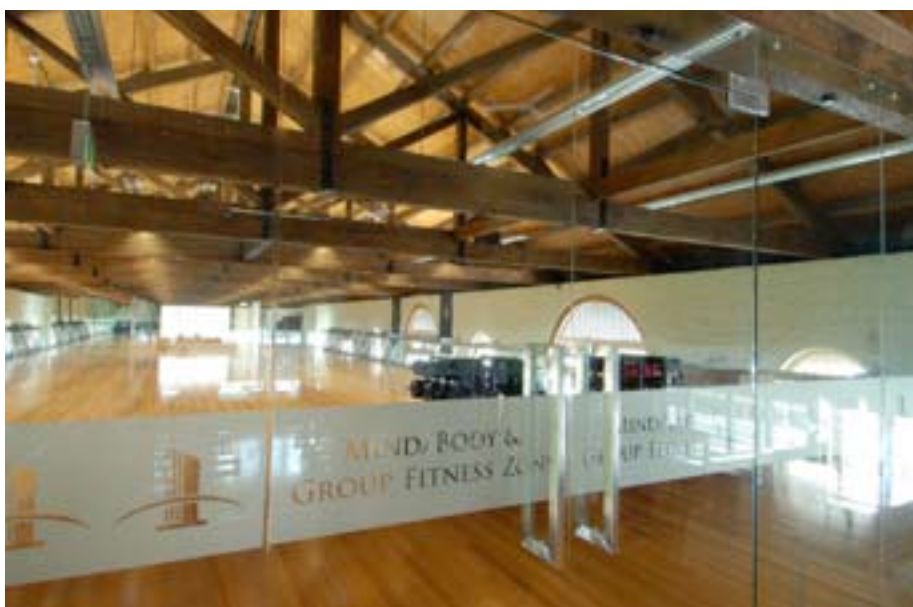
The concept of 'a building within a building' kept new internal structures independent of the existing fabric, allowing the new development to maintain a minimum and reversible impact on the significant fabric of the building. Spatial and acoustic requirements were met by separating the aerobics area on a mezzanine over the equipment areas in the main body of the building. The mezzanine structure does not touch the external walls, and infilling with clear glass maintains the sense of scale, while achieving acoustic separation. New additions to the rear of the building, housing the new changing room areas, are clearly discrete from the heritage building.

### THE LESSONS

The design and execution of the facility required the co-operation of the Heritage Office, Newcastle City Council and the Honeysuckle Development Corporation within a tight time frame. The tight brief and budget guided the design resolution of the building and its spaces. Since opening in late 2006, the centre has been a great success with over 3000 memberships sold to date, out-performing its business plan.

The project won the Babcic Construction Heritage Award and the Andrews Neil Peoples Choice Award in the 2007 RAIA Lower Hunter Urban Design Awards.

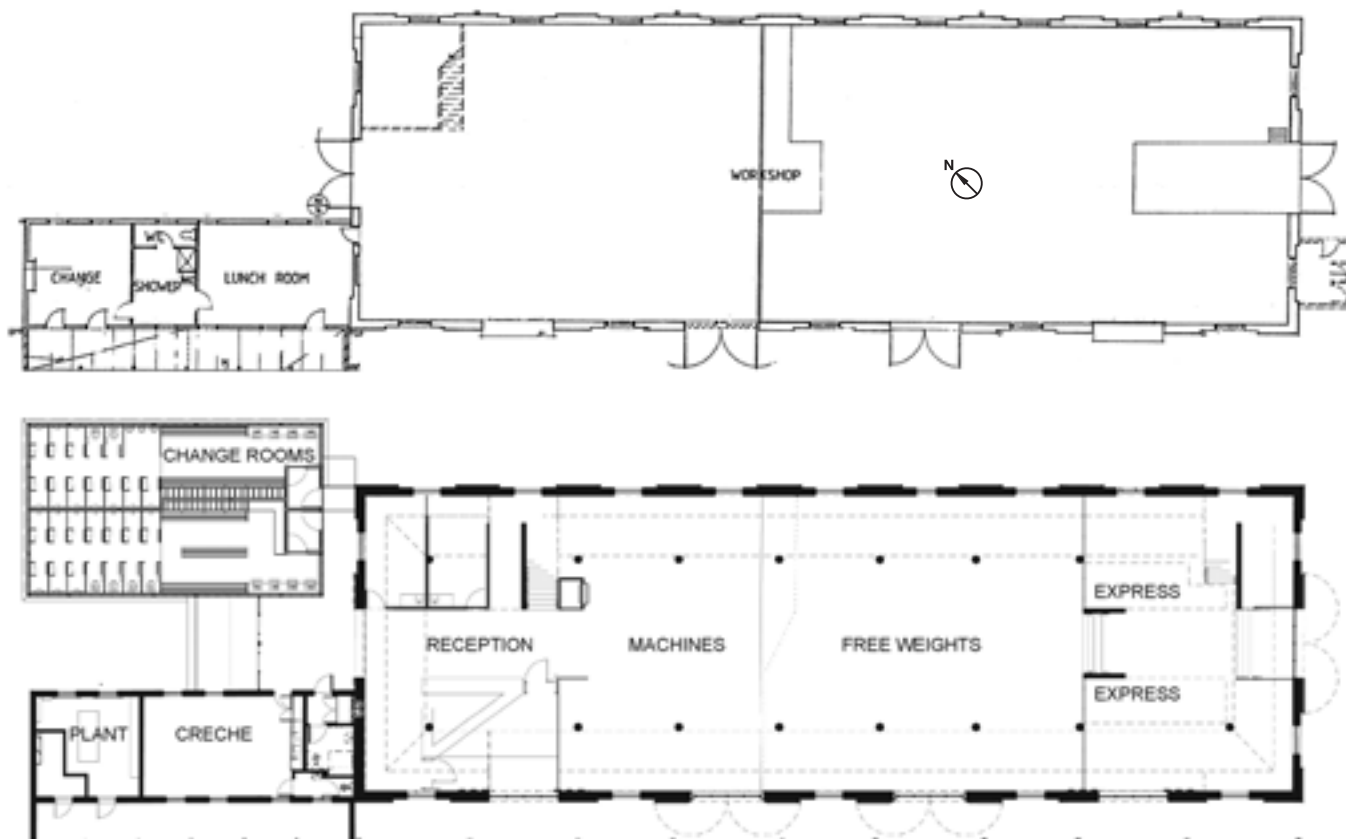
88, 89 :  
The mezzanine structure does not touch the external walls, and infilling with clear glass maintains the sense of scale and achieves acoustic separation.



88 :



89 :



Top: Plan showing the building's former use as a railway workshop.

Below: Plan showing the layout of the new centre.

ADAPTATION PRINCIPLES		ASSESSMENTS
Understand significance		<ul style="list-style-type: none"> <li>• An overarching conservation management plan informed the site masterplan</li> <li>• Individual buildings and elements had conservation management strategies to inform development applications</li> </ul>
New use to be appropriate to heritage significance	Retain use when significant  New uses to be compatible	<ul style="list-style-type: none"> <li>• Health centre use demands were compatible with the former workshops use</li> </ul>
Level of change to be appropriate to significance	Minimise impact on significant fabric  Conserve significant interiors	<ul style="list-style-type: none"> <li>• Main building features were conserved in the adaptation</li> </ul>
Provide for reversibility and future conservation		<ul style="list-style-type: none"> <li>• The industrial building is now part of a major regeneration area that has been converted to mixed and residential uses. The new use is an insertion into the building and can be removed later if required</li> </ul>
Conserve relationship between significant setting and views		<ul style="list-style-type: none"> <li>• The building's character and role within the revived precinct retains it as an important urban feature</li> </ul>
Provide for long-term management and viability		<ul style="list-style-type: none"> <li>• The new use provides for the future viability of the building in a single ownership</li> </ul>
Reveal and interpret heritage significance		<ul style="list-style-type: none"> <li>• The design of the health club reveals the building features and uses them to drive design character</li> </ul>



## J

## WAREHOUSE TO HOTEL COMPLEX: GEORGE PATTERSON HOUSE, SYDNEY



90 :  
George Patterson House now accommodates hospitality venues and a boutique hotel.



91 :  
The building damaged by fire in 1996.

92 :  
The modern fabric has been successfully incorporated into the heritage space.

93 :  
Missing sections of the pressed metal ceilings were reconstructed to reinstate the sense of quality and grandeur in the public spaces.

### THE PROJECT

Two buildings — substantially damaged by two simultaneous fires on 2 January 1996 — have been retained, conserved and adapted for a hospitality venue, including a boutique hotel in the CBD. The 1996 fire focussed public attention on the loss of heritage buildings in the city, prompting Sydney City Council to require the adaptation rather than demolition of the buildings.

In 1998 a prominent entrepreneur purchased the site with the aim of retaining and celebrating the significance of the building, including its disastrous fire. This required an innovative approach to the treatment of the original fabric.

The building was adapted to accommodate a series of bars and function spaces accessible from George Street, a boutique hotel in the former warehouse section off Tank Stream Way, and a nightclub in the lower ground and basement levels.

The missing sections of the building were reconstructed in an interpretive way, retaining evidence of the fire on the façades, and in the central glass roofed garden bar area.

All service and access facilities for the bars and function rooms were housed in a new ten-storey building immediately to the north, to allow the original showroom spaces and the large hole created by the fire to be retained as single open spaces. The new building houses lifts, fire stairs, kitchens, loading dock, offices and a penthouse.

### THE SITE

The building was designed in the Queen Anne Revival style and built between 1892-1895 for Holdsworth MacPherson & Co. hardware merchants and ironmongers, as a conjoined showroom and warehouse with a water tower at the junction. At the time of its construction it was considered the grandest emporium of its period.

There were six levels of showrooms and offices fronting George Street, plus a lower ground and basement off Bridge Lane. The adjacent warehouse was of seven levels, with a lower ground floor, and fronted Bridge Lane and Tank Stream Way. The site is surrounded by streets and narrow lanes.

Subsequently, four floors were removed from the George Street end and two from the east end. The fire in the centre of the building created a large void down to ground level.

The site was not listed by Sydney City Council at the time of the fire in 1996, but had been proposed for listing, generating much debate.

### THE CHALLENGES

The severe fire damage required a prospective owner/developer with more than the usual imagination and commitment. The building had been without weather protection and exposed to extensive water damage. Even elements in sound condition could not meet current loading codes.

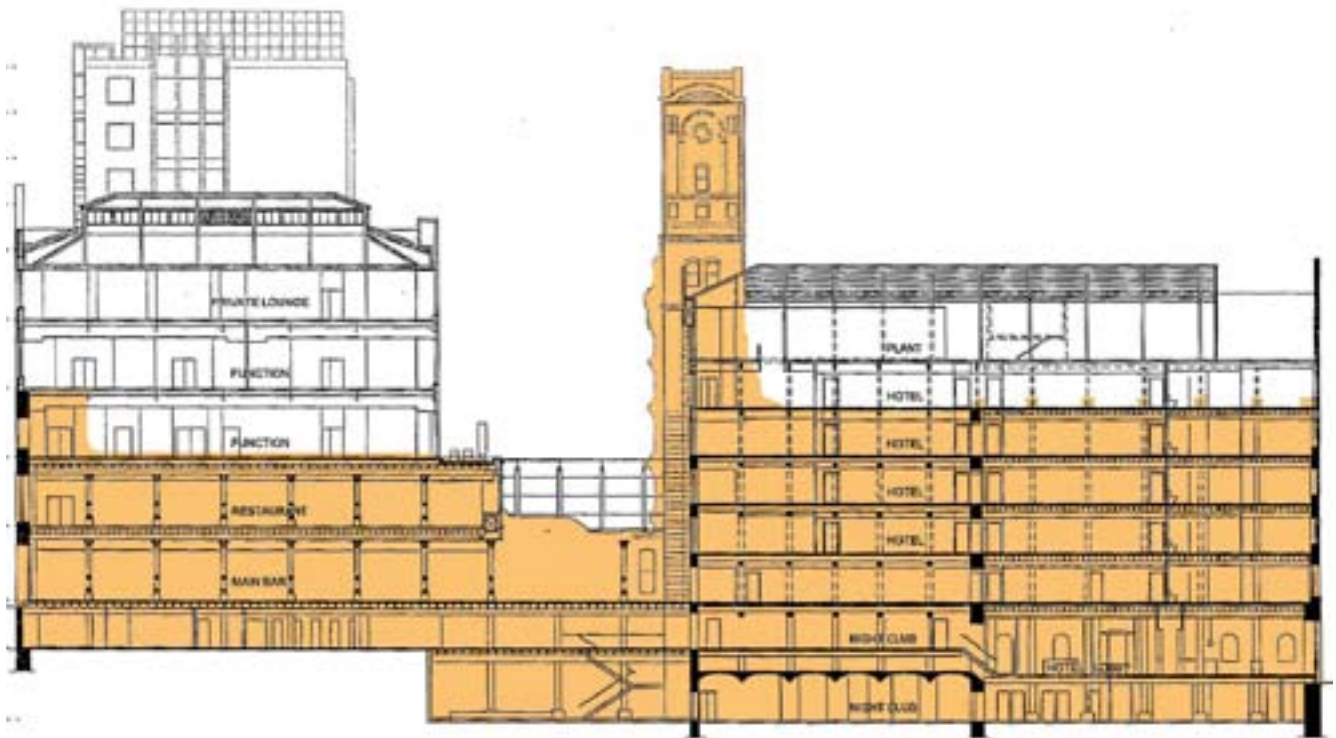
### THE SOLUTIONS

The structural inadequacies of the timber joists were resolved by adding a concrete slab above the existing floors. This allowed the joists and flooring to remain exposed from the underside.



92 :

Extent of original fabric shown coloured.



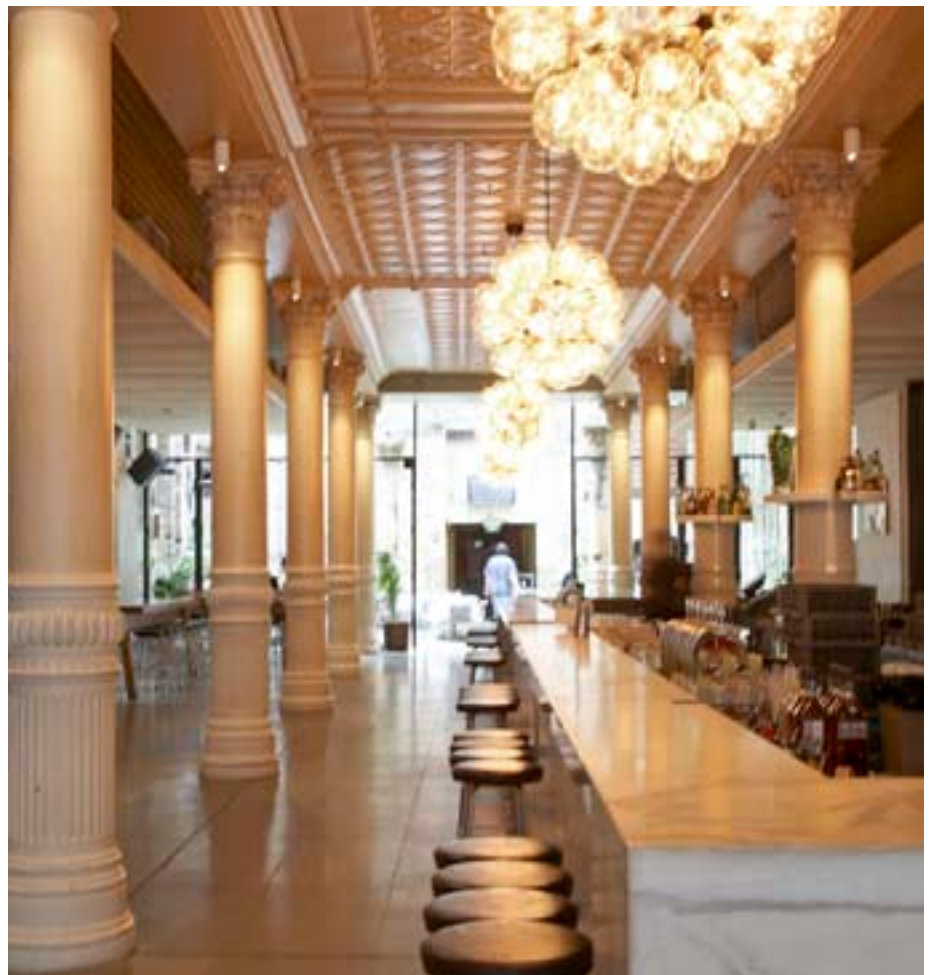
The brick walls were extended to approximate their original height to house the reconstructed spaces, incorporating modern steel windows, in the same manner as the earlier work below. A bright red brick line was used to separate the old and new work, which marked the extent of the surviving sections of the building. Original sandstone elements were reproduced in render, while projecting cornices were executed in prefabricated GRC.

The original surviving spaces were used as the basis and inspiration for the new work, particularly the interior design, finishes and furnishings. In all but the service areas, the existing spaces and in many cases also their finishes have been retained as the signature or identity of the space.

The original showroom spaces, with their cast-iron columns and elaborate pressed metal ceilings, were retained as single large spaces, by housing all service areas and vertical access at the George Street end, in a new building immediately to the north of the existing building.

Missing sections of the pressed metal ceilings were reconstructed to reinstate the sense of quality and grandeur in the public spaces.

The central section, which was gutted by fire, was roofed over in glass, creating a unique and exciting sunlit atrium space in the midst of the building. The evidence of the fire is preserved and protected here and is clearly the inspiration for the space.





## GEORGE PATTERSON HOUSE (CONTINUED)

The boutique hotel has been fitted out in the manner of luxurious New York style warehouse apartments. Services were run within false ceilings in corridor and service spaces, while the original structure remains exposed in bedrooms and public spaces.

The hotel entry off Bridge Lane uses a modified loading dock, retaining the original timber doors either side of a highly finished modern entry door, signalling the modern style and luxury of the interior.

The Tank nightclub located in the basement retains the decayed and ruined finishes of this space and contrasts with new elements — bathrooms, bars, lounges, DJ booth and stairs. These are clearly modern and clean, but retain and respect the 'rawness' presented by the earlier elements and surfaces.

The demolished upper levels of the George Street façade were re-interpreted with new masonry, but rebuilt one floor lower.

Internally, the pressed metal ceilings were repaired or reconstructed and elsewhere the timber framing and joists were left exposed in hotel rooms and public spaces.

### THE LESSONS

The client's enthusiasm and commitment to the adaptive re-use of the fire damaged ruin was crucial. Without their support throughout the execution of the project much of the original fabric, and hence the identity of the place, would have been lost.

The honesty and design quality of the new work retains the integrity of the surviving elements, and provides them with an appropriate and elegant context and, most importantly, a viable use which celebrates their survival.

The finished project interprets the significance of the place and its unique identity so that there is little need for the more conventional forms of interpretation, such as signage.

Public access to the buildings from the surrounding lanes has re-activated these underused spaces and integrated the project back into the historic patterns and finer grain of the city's public spaces. This is a process which will evolve further, but the project has clearly re-established the viability of the public use of these narrow lanes.

The project won an Interior Architecture Award in the 2001 RAI NSW Chapter Awards.

ADAPTATION PRINCIPLES		ASSESSMENTS
Understand significance		<ul style="list-style-type: none"> <li>• A study was done prior to the fire to establish the heritage significance of the building</li> <li>• Another analysis of heritage significance followed after the fire</li> </ul>
New use to be appropriate to heritage significance	Retain use when significant  New uses to be compatible	<ul style="list-style-type: none"> <li>• Key fire-damaged spaces were left to reveal the story of the site</li> <li>• The existing spaces and, in many cases, their finishes have been retained as the signature or identity of the space</li> <li>• The eastern end of the original showroom wing, which suffered the most fire damage has been retained as an open space, complete with its fire damaged finishes. This space and the basement below are now signature spaces for the identity of the place.</li> <li>• The new use encourages public visitation and celebration of the spaces.</li> <li>• In all spaces the qualities and character of the original or damaged space determined or inspired the character and finishes of the new use and fit-out</li> <li>• All service areas required for the public function areas were located in the adjacent new building</li> </ul>
Level of change to be appropriate to significance	Minimise impact on significant fabric  Conserve significant interiors	<ul style="list-style-type: none"> <li>• All repair and stabilisation work to the remaining fabric was done using traditional materials and techniques</li> <li>• Some reconstructed elements were carried out using modern materials</li> <li>• Significant sections of the fire damaged interiors were conserved, including finishes</li> </ul>
Provide for reversibility and future conservation		<ul style="list-style-type: none"> <li>• Wherever possible, existing structure and elements were left in place, with new elements and services fitted around them</li> </ul>
Conserve relationship between significant setting and views		<ul style="list-style-type: none"> <li>• The adaptive reuse and redevelopment has created one of the most popular gathering places in Sydney</li> <li>• The project has re-enlivened the narrow lanes that were once an important and active part of the city</li> </ul>
Provide for long-term management and viability		<ul style="list-style-type: none"> <li>• The site has a mix of viable new uses</li> </ul>
Reveal and interpret heritage significance		<ul style="list-style-type: none"> <li>• The finished project interprets the significance of the place and its unique history and identity</li> </ul>



## HERITAGE-LED URBAN REGENERATION: REVITALISATION OF A GOVERNMENT HEALTH FACILITY TO RESIDENTIAL, COMMERCIAL AND HEALTH FACILITIES, PRINCE HENRY AT LITTLE BAY



94 :  
One of the 1914 Flowers Wards was conserved and adapted for a museum.



95 :  
Prince Henry Hospital was historically important because of its treatment of infectious diseases.



96 :  
Aerial view showing the Prince Henry Hospital site.

### THE PROJECT

The former Prince Henry Hospital site has been redeveloped for a variety of uses including residential, commercial, health and community facilities. This highly sensitive coastal site has natural, geological, landscape, archaeological, Aboriginal, built and social heritage values that are recognised by its listing on the State Heritage Register. A conservation management plan for the site recognised the need to approach the site as a cultural landscape, and also identified significant elements of the site. A masterplan identified qualitative and quantitative principles of approach, identified elements to be demolished, and established uses across the site. The developer, Landcom, tendered specific precincts to a number of developers, who submitted development applications for their projects.

### THE SITE

The site encompasses approximately 84 hectares of coastal land and includes two golf clubs. There are two cemeteries outside the boundary, linked historically to the site. It is bounded by a main arterial road to the west and the coast to the east. To the north and south are areas containing eastern suburbs banksia scrub, an endangered ecological community.

The hospital dates from the 1880s and is historically the most important hospital for infectious diseases in NSW. The spectacular coastal location, the layout and setting of the landscape, the buildings and their past functions and the significance of individual elements make it an extremely important site.

It has significant natural landscape features consisting of rocky headlands, a beach, pockets of eastern suburbs banksia scrub and a nationally significant geological outcrop, some 20 million years old. There are also precincts of archaeological significance.

The cultural plantings and layout of the site are of heritage significance in their own right. The site is also of Aboriginal heritage significance because of the number of artefacts and relics on the site and the ongoing association with

Aboriginal people through to the present.

The hospital has great social significance to medical practitioners and health workers, and has played a significant role in the historical development of health care in Australia. There was already a small museum run by the Prince Henry Trained Nurses Association on the site.

### THE CHALLENGES

These multiple layers of heritage significance presented a number of challenges for the developer. Landcom, however, was very committed to ensuring the heritage of this place was well managed and that the development provided long-term sustainable solutions to the conservation and future management of the site as a whole. Best practice in all aspects of the project, including design quality and sustainability, were also aims of the development.

It was important to recognise from the early planning stages that the site already had a strong urban design character of its own, derived from its historical development. The alternative of razing the site and creating a new urban realm would have destroyed the multiple layers of heritage significance, as well as resulting in community opposition and an inferior development.

Contamination from the previous hospital function was a major problem, which could not be economically or practically resolved, leading to the demolition of some of the heritage items. The costs of decontamination escalated considerably during the project, putting pressure on the conservation aspects of the project.

Council engineers were not prepared to relax their standards for some aspects of the public domain such as the roadways, resulting in some road widening, and the loss of characteristic sandstone kerbing in the historic precinct.

# K

## LITTLE BAY (CONTINUED)

### THE SOLUTIONS

The approach to the development of the site was agreed with the statutory authorities at the beginning. A conservation management plan was prepared at the outset of the project to identify important elements of the site and ensure informed planning decisions. It identified the various types of heritage significance on the site.

The Heritage Office required information that was balanced against the level of approval required at each stage of the project. This informed a masterplan for the site, providing common understanding and certainty about how the development would proceed for the developer, the community and statutory authorities.

Various sections of the site were then tendered. The masterplan identified which buildings could be demolished, those to be adaptively reused, building envelopes for infill buildings, and specified appropriate uses across the site. It retained some health-care facilities on the site, continuing the significant relationship between the site and its previous health-care functions.

More detailed conservation policies were then prepared by the developers for each precinct. The pattern of early consultation with the authorities helped in managing difficult areas. Development applications for each section were then prepared. Some exemptions from further Heritage Council of NSW approval were provided where sufficient detail had been given at masterplan stage. This allowed development to be accelerated at later stages.

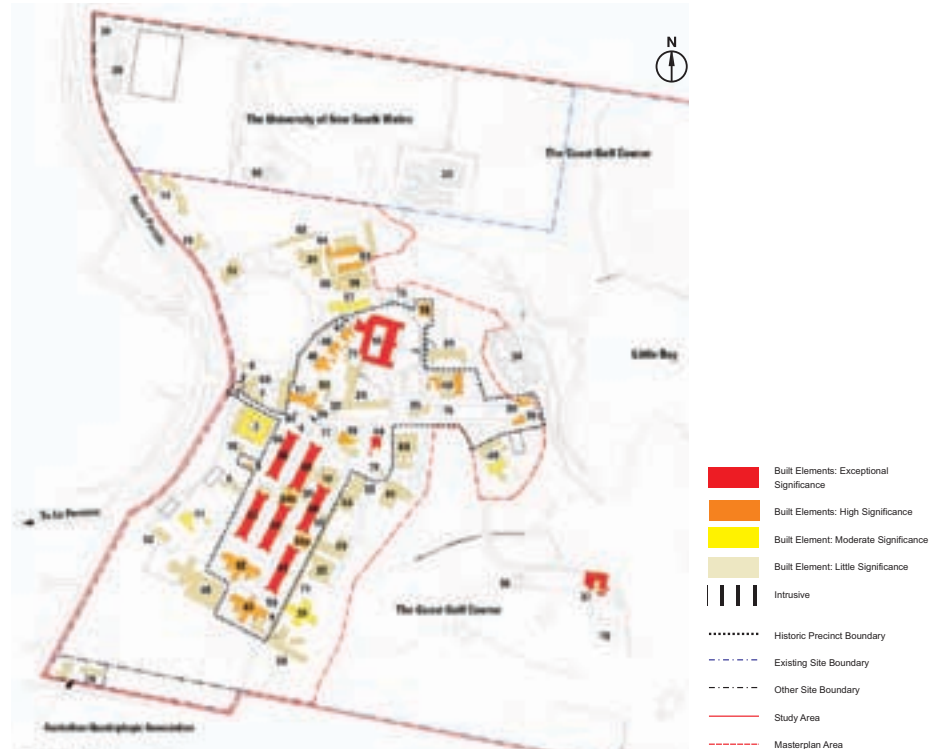
Landcom conserved one of the 1914 Flowers Wards early in the project. This became a museum run by the Prince Henry Trained Nurses Association, which has had a long involvement with the site. The roofs of all the Flowers Wards buildings were also repaired. This gave the community and the marketplace confidence that the heritage buildings would be conserved, helping to attract developers to the project.

The developer formed a design review panel to guide decision-making on urban design and the architectural design of individual buildings. The Heritage Office also provided dedicated officers to meet the demands of the lengthy approvals process.

Landcom is establishing a reserve trust to control and manage the land and buildings that remain in public ownership, including the on-site community groups. The ongoing costs of the trust will be met by the NSW Government.

There is a community management scheme for the entire Prince Henry Hospital site which recognises the need for site management where there are several owners, and special environmental qualities. It protects the interests of landowners and the local environment.

The community association has the responsibility for maintaining Prince Henry's community assets, such as the water sharing scheme, some landscape areas, private roads, and the entire communications network.



Top: Prince Henry Hospital Masterplan showing the relative significance of built elements.

Above: Prince Henry Hospital Redevelopment Masterplan.

**THE LESSONS**

The project demonstrates the benefit of a holistic approach to heritage management. It is vital in such projects that discussions take place early to provide certainty as early as possible to minimise development risk. Good groundwork also ensures there is consistent decision-making by the various statutory authorities, and provides for community and developer confidence in the planning process.

Clear client vision, good consultants, established working relationships between heritage authorities, and a pragmatic approach by heritage authorities, were important ingredients for the project's success.

The Prince Henry development has won a number of housing, planning and design awards:

Urban Development Industry Association (UDIA) – Winner for Concept Design (2003)

Planning Institute of Australia (PIA) NSW Division – Commendation for Excellence in Planning for Urban Design Plans and Ideas (2003)

Sustainable Water Challenge Water Sensitive Urban Design Award – Winner (2003)

Housing Industry of Australia (HIA) Greensmart Water Efficiency Housing – Winner (2005)

UDIA Marketing – Winner (2005)

HIA NSW Special Purpose Housing – Winner (2005)

HIA Special Purpose Housing – Winner (2006)



97 : One of the conserved Flowers Wards.

ADAPTATION PRINCIPLES		ASSESSMENTS
Understand significance		<ul style="list-style-type: none"> <li>• An overarching conservation management plan informed the site masterplan</li> <li>• Individual buildings and elements had conservation management strategies to inform development applications</li> </ul>
New use to be appropriate to heritage significance	Retain use when significant  New uses to be compatible	<ul style="list-style-type: none"> <li>• Health care facilities and community uses were retained in some areas of the site</li> <li>• Museum and chapel uses continued following the development</li> <li>• Public access to the site and its beaches was retained and additional public uses were provided</li> <li>• Wards and nurses' accommodation were converted to residential suites incorporating the structural and service capacities of the existing buildings</li> <li>• New functions were provided in new buildings</li> </ul>
Level of change to be appropriate to significance	Minimise impact on significant fabric  Conserve significant interiors	<ul style="list-style-type: none"> <li>• Appropriate changes were identified in the masterplan, conservation management plan (CMP) and conservation management strategies (CMSs)</li> <li>• Identified in CMSs</li> <li>• Flowers Ward 1 was conserved as a representative building from the site's period of greatest heritage significance</li> </ul>
Provide for reversibility and future conservation		<ul style="list-style-type: none"> <li>• Heritage significance was set in the CMP and CMSs and linked to masterplan controls</li> <li>• Prime areas of eastern suburbs banksia scrub were conserved for regeneration</li> <li>• The highly significant geological site has been conserved with limited physical access for specialist groups with interpretation provided</li> </ul>
Conserve relationship between significant setting and views		<ul style="list-style-type: none"> <li>• The setting has been recognised as integral to the site's heritage significance</li> <li>• Road layouts and landscape features and plantings influenced new design</li> <li>• Views were conserved, limiting new building locations and heights</li> </ul>
Provide for long-term management and viability		<ul style="list-style-type: none"> <li>• The Reserve Trust and community management schemes provide overarching management frameworks for the public domain areas and holistic heritage management in the long term</li> </ul>
Reveal and interpret heritage significance		<ul style="list-style-type: none"> <li>• Heritage significance drove urban design and design solutions for the site and the location of buildings and new uses</li> <li>• Interpretive facilities have been provided in museum</li> <li>• An interpretation plan was developed for the site and integrated into the masterplan</li> <li>• Each element/project includes interpretive measures</li> </ul>



## LESSONS FROM THE CASE STUDIES

The case studies indicate that it is possible to successfully conserve and reuse heritage buildings to achieve high quality sustainable places that respond and contribute positively to the environment and still retain their heritage values. They demonstrate a good understanding by the design teams and associated consultants of the unique and often unified character and qualities of the existing buildings or sites, which have made them worthy of heritage listing.

What is clear is that issues will be different for each site. The relative importance of the principles outlined in these guidelines will vary, depending on the particular qualities or constraints of different sites.

Modern demands can be accommodated when existing buildings or sites are adapted for a new use. Understanding and being sympathetic to heritage buildings, materials and settings does not prevent good contemporary architecture. In fact it demands it. New architecture can complement heritage buildings or conservation areas by reflecting their historic character, by adapting it or by contrasting with it.

In nearly every case study, the importance of early and creative consultation between the client, architect and the statutory authorities is emphasised. It demonstrates that statutory authorities can play an important role in achieving high quality outcomes in the built environment. Adapting, promoting and negotiating high standards will ultimately contribute to a better quality environment.

## FURTHER ADVICE

The adaptation principles outlined in this booklet are a guide for people designing changes to existing buildings and sites, and for authorities assessing such proposals. For those wishing to pursue these concepts in greater detail, there are a number of organisations in New South Wales that can provide further assistance. There are also numerous publications that are related to the issues canvassed in this booklet. In addition, it may be useful to look out for good new work in your area, and to find out the names of the architects, builders and tradespeople involved.

Key organisations and contacts include:

- Heritage advisors and planning officers at local councils
- The Heritage Office, NSW Department of Planning, 3 Marist Place, Parramatta, 2150 Telephone: (02) 9873 8500 [www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au)
- The Heritage Councils Fire, Access and Services Advisory Panel and the Technical Advisory Panel, which can be contacted through the Heritage Office.
- Royal Australian Institute of Architects, NSW Chapter, 3 Manning Street, Potts Point, 2011 Telephone: (02) 9246 4055 [www.architecture.com.au](http://www.architecture.com.au)
- The National Trust of Australia (NSW) Observatory Hill, Sydney 2000 Telephone: (02) 9258 0123 [www.nationaltrust.org.au](http://www.nationaltrust.org.au)
- Engineers Australia/Engineering Heritage Australia, 11 National Cct, Barton ACT 2600 Telephone: (02) 6270 6530 Facsimile (02) 6273 2358 [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
- Australian Association of Consulting Archaeologists Inc., Box 214, Holme Building, University of Sydney, Sydney NSW 2006 Email: [secretary@aacai.com.au](mailto:secretary@aacai.com.au)
- Australasian Society for Historical Archaeology Inc., Box 220, Holme Building, University of Sydney NSW 2006 Email: [secretary@asha.org.au](mailto:secretary@asha.org.au)

## REFERENCES

The following documents are referred to in the text or provide information on the adaptation of heritage buildings and sites. Additional references are provided on the historic environment, architectural character, history and conservation.

Archer, C, *Tocal Visitor Centre: New use for an old shed*. CB Alexander Foundation, Tocal, 2002.

Australia ICOMOS, *the Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*, Australia ICOMOS, Melbourne, 1999.

## REFERENCES

Brand, S, *How Buildings Learn: What Happens After They're Built*, Penguin, New York, 1994.

Burke, S, & Moore, R, *Conservation Area Guidelines*, Heritage Office, Department of Planning, Sydney, 2007.

CABE, *Creating Excellent Buildings, A Guide for Clients*, CABE, London, 2003. Available online at [www.cabe.org.uk](http://www.cabe.org.uk)

Cramer, J & Breiting, S, *Architecture in Existing Fabric: Planning Design Building*, Birkhauser, Basel, 2007.

English Heritage, Royal Institute of Chartered Surveyors, British Property Federation, Drivers Jonas, *Heritage Works: the use of historic buildings in regeneration*, English Heritage, London 2005. Available on line at [www.english-heritage.org.uk](http://www.english-heritage.org.uk)

English Heritage, *Regeneration and the historic environment: heritage as a catalyst for better social and economic regeneration*, English Heritage London, 2005. Available on line at [www.english-heritage.org.uk](http://www.english-heritage.org.uk)

Evans, I. *Restoring Old Houses, a guide to authentic restoration*, Macmillan, Melbourne, 1979.

Heritage Office, *RAIA Design in Context: Guidelines for infill development in the historic environment*, NSW Heritage Office, Sydney, 2005.

Kerr, J.S, *The Conservation Plan, A Guide to the Preparation of Conservation Plans of European Cultural Significance*, 5th Edition National Trust of Australia (NSW), Sydney, 2004.

Jahn, G, *A Guide to Sydney Architecture*, The Watermark Press, Sydney, 1997.

Latham, D, *Creative re-use of buildings* Volumes 1 & 2, Donhead, Shaftesbury, 2000.

NSW Department of Planning, *Getting the Details Right: Restoring Australian Houses 1890s-1920s*, Flannel Flower Press, Yeronga, QLD 1989.

Robert, P, *Reconversions = Adaptations: New Uses for Old Buildings*, Editions Montieur, Paris, 1989.

Rypkema, D, *The Economics of Historic Preservation: A Community Leader's Guide*, National Trust for Historic Preservation, Washington DC, 2005

Rypkema, D, *Feasibility Assessment Manual for Reusing Historic Buildings*, National Trust for Historic Preservation, Washington DC, 2007

Thiebaut, P, *Old Buildings Looking for New Use: 64 Examples from Europe*, National Book Network, Kustantaja, 2007.

## CASE STUDY CONSULTANTS

### EGAN STREET

**Architects:** Mackenzie Pronk Architects, Julie Mackenzie, Shack Design & Kieran McInerney, architects in association

**Structural Engineer:** Richard Green, Taylor Thompson Whitting Pty Ltd

**Fire Engineer:** Jason Jeffres, Defire

**Acoustic Engineer:** Jason Cameron, Acoustic Studio

**Hydraulic Engineer:** Andreas Heintze, Warren Smith & Partners

**Heritage Architect:** Julie Mackenzie

**Sustainable Design Consultant:** Shack Design

**Builder:** John Pullan, W.F. Pullan & Sons

### BABWORTH HOUSE

**Architect:** Conybeare Morrison

**Structural Engineer:** RJ Pearce & Associates

**BCA:** Trevor H Howse & Associates

**Acoustics:** Acoustic Logic Consultancy

**Surveyors:** Clement & Reid

### TOTAL

**Architect:** Eric Martin & Associates (Eric Martin and Nicholas Goodwin)

**Builder and Project Manager:** Abmalid – Rod Morris

**Structural:** Northrop Consultants: Bryan Cossart

**Mechanical:** Marline Newcastle Pty Ltd: Brian Hunt

**Electrical:** Marline Newcastle Pty Ltd: Neil Thonton

### TOXTETH

**Architect:** Otto Cserhalmi & Partners Pty Ltd

**Project Manager:** Alex Cserhalmi

### BUSHHELLS

**Architect:** Tanner Architects

**Building contractor:** AW Edwards Pty Ltd

**Structural Engineers:** Taylor Thomson Whitting Pty Ltd

**Electrical and Mechanical Services Engineers:** E. Shelmerdine & Partners

**Hydraulics and Fire Services:** LHO Group  
**Lifts and Acoustics:** Bassett Consulting Engineers Pty Ltd

**Fire Engineering:** Dr Victor Shestopal

**Archaeologist:** Edward Higginbotham

### SYDNEY HARBOUR

#### FEDERATION TRUST

**Architect:** Johannsen + Associates and Sydney Harbour Federation Trust

**Construction Manager:** Coleman + Fairburn

**Heritage Architect:** Sydney Harbour Federation Trust

**Structural Engineer:** Birzulis Associates

**Landscape Architect:** Sydney Harbour

Federation Trust

**Electrical Engineer:** Northrop

**Hydraulic Engineer:** Northrop

#### SULLY'S EMPORIUM

**Architect:** Elizabeth Vines, McDougall & Vines Conservation and Heritage Consultants

#### THE MINT

**Architect:** fjmt Architects (Francis-Jones, Morehen Thorp). Richard Francis-Jones principal design architect

**Conservation Architects:** Clive Lucas, Stapleton & Partners Pty Ltd

**Archaeologists:** Godden Mackay Logan

**Mechanical Engineers:** Steensen Varming

#### FORUM HEALTH AND WELLNESS CENTRE

**Architect:** Jon Webber – buzacott webber Pty Ltd

**Electrical:** Electrical Projects Australia

**Engineering:** Lindsay & Dynan

**Hydraulics:** McCallum Hydraulics

**Acoustic:** Spectrum Acoustics

**Access:** Lindsay Perry

**Heritage:** John Carr

**Compliance:** Davis Langdon

**Quantity surveyor:** Wise & Horton

**Builder:** Graph Building

#### GEORGE PATTERSON HOUSE

**Conservation and adaptation works, George St and Tank Stream Way façades:**

Design 5 – Architects

**New work, except George St. and Tank**

**Stream Way façades:** Crone Partners

Architecture Studios Pty Ltd

**Interior Designers:** SJB Interior Design, Hecker Phela

#### PRINCE HENRY HOSPITAL

**Project Development Managers:** Landcom

**Project Management:** Cadence Australia

**Urban Designers & Architects:** PTW

**Urban, Community & Traffic Planning**

**Consultants:** Gary Shiels & Associates

**Heritage Consultants:** Godden Mackay Logan

**Interpretation Consultants:** Musecape

**Engineering, Survey, Infrastructure & Water**

**Quality Testing:** Connell Wagner

**Geotechnics, Groundwater, Contamination &**

**Remediation:** Douglas Partners

**Community Consultation:** Brian Elton & Associates

**Landscape, Fauna & Flora:** EDAW

**Landscape Architects:** Ladd-Hudson Architects

## PHOTOGRAPHS

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### COVER

Left to right  
Nathanael Hughes  
Otto Cserhalmi & Partners Pty Ltd  
Nathanael Hughes  
Broken Hill City Council  
John Gollings

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Office of the Minister for Planning  
Broken Hill City Council  
John Gollings

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Heritage Office  
RAIA (NSW)

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1 Susan Macdonald  
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4 City of Sydney Council  
5 Michael Bradfield for Buildcorp

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**D** Otto Cserhalmi & Partners Pty Ltd  
**E** Ray Joyce for Tanner Architects  
**F** Sydney Harbour Federation Trust  
**G** Broken Hill City Council  
**H** John Gollings  
**I** Adrian Boddy  
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19 Sinclair Croft, Bathurst Regional Council

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21A Martin van der Wal for Sydney Harbour Foreshore Authority  
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54 Chris Fortescue for Casula Powerhouse Arts Centre

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