

# DESIGN IN CONTEXT

GUIDELINES FOR INFILL DEVELOPMENT IN THE HISTORIC ENVIRONMENT



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The Royal Australian Institute of Architects (RAIA) and the Heritage Office thank the many heritage advisors and RAIA members who contributed to the ideas and examples shown in this document. The vision and support of the building owners and developers is also acknowledged.	<b>04</b>	<b>LEGISLATIVE FRAMEWORK</b>
<b>The Heritage Office is the NSW State Government authority on heritage matters and is responsible for administering the Heritage Act.</b>	<b>05</b>	<b>DEFINITIONS</b>
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<b>Copies of this document are available from the Heritage Office and the RAIA NSW Chapter Bookshop.</b>	10	03: Form
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LEFT The Hon. Diane Beamer MP

RIGHT Caroline Pidcock

The NSW Government is committed to the enhancement of our environment through the promotion of high quality design of new buildings. Recent government initiatives have sought to promote good design that is appropriate for its setting and environmentally sustainable.

Our understanding of what constitutes an appropriate solution to the design of new buildings to fill gaps in an existing historic context has become more sophisticated over the last 15 years. This coincides with growing awareness of the value of our heritage to the community and our built environment.

It is for this reason that the Royal Australian Institute of Architects NSW Chapter and the Heritage Office have revised *Infill: Guidelines for the Design of Infill Buildings*, originally produced in partnership in 1988.

The skill and creativity of our architects in New South Wales is demonstrated in this document, and it is also a testament to the vision and commitment of their clients. In some cases the examples shown have evolved through the input of the local council or the Heritage Council of NSW, who have worked with the designer to develop a solution that is more appropriate to its context. The case studies cited are new buildings that relate, and contribute positively, to their setting.

New buildings should enhance their context. Producing a high quality, new building in an established context is a challenge that I hope architects, developers and clients will relish.

**The Hon. Diane Beamer MP**  
**Minister for Western Sydney**  
**Minister for Juvenile Justice**  
**Assistant Minister for Infrastructure Planning**  
**and Natural Resources (Administration)**

One of the primary aims of the Royal Australian Institute of Architects is to advance architecture. This includes supporting our members to do their best work.

There are few more challenging design problems for architects than responding to an existing building or designing within a heritage context. This is especially true when there is a perception that the controls that come into play in such areas may prevent the creation of the heritage of tomorrow.

It is hoped that this document will reduce the controversy in many situations. It sets out guidelines that aim to provide parameters by which architects can contribute to the future in a creative and inspiring way, while ensuring the special qualities of a heritage place are retained.

The guidelines do not seek to exclude the extraordinary but to improve the ordinary. They encourage quality while demanding respect for the existing context.

An architect's responsibility is not just to the client. As professionals we are equally required in our work to consider the benefit to the community at large and to the environment. These guidelines aim to help by setting appropriate benchmarks and standards that can assist in the design approach. Interpreted in the spirit that they were written — that is, for guidance not prescription — they will 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 responded to the challenges of working in a heritage environment. They show how, with good guidance and creative responses, complex problems can be transformed into clever outcomes.

The cooperative relationship that the Royal Australian Institute of Architects NSW Chapter and the NSW Heritage Office have developed and explored during this project is exemplary, and a great tribute to the individuals involved. Their important work has set the groundwork for advancing architecture by protecting existing heritage and encouraging the heritage of tomorrow.

**Caroline Pidcock, FRAIA**  
**Immediate Past President**  
**Royal Australian Institute of Architects**  
**NSW Chapter**

**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.**

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

An important aspect of any good design is to understand the context of a place and respond to it. Heritage items are a response to their cultural, social, historical, political, economic and physical environments. Similarly, new development affecting an established and valued setting such as a conservation area should understand and respond to that place in a positive way that is of its own time.

The relationships between a building and its setting contribute to that place's special character. That setting can be a cultural, natural, urban, suburban or rural landscape. Depending on its design and position, a new building can have a beneficial or detrimental

effect on its setting or an adjacent valued building. Infill buildings should aim to provide continuity in the built form rather than seeking to create an iconic or individualistic building.

In shaping our built environment we have a responsibility to past, present and future generations. Infill work or design in a historic context links the past to the present and projects into the future. This is an exciting challenge and an opportunity for professional design teams to demonstrate their skills and artistry. Our greatest buildings are those that respond positively to their cultural and physical environment.

Despite improvement in the quality of new buildings in valued historic contexts, there is still misunderstanding about what is appropriate development in sensitive places. In response to the community perception that too much valued urban, suburban and rural fabric is being lost, planning policy has been developed to identify areas and places of special character



1



2

and quality. Legislation at national, state and local government levels attempts to encourage new development that positively contributes to the historic context and does not devalue it.

We now recognise that it is not necessary to prevent development in these areas in order to conserve them. Nor should new development directly copy the architecture of the existing buildings. At the same time, new development that makes no reference to the established and valued setting is unlikely to be approved. Both approaches can erode and detract from the historic context: the first through superficial echoing of architectural features, the second through disregard for the historic context.

New design should respond to its historic context through an understanding and informed analysis of its character and quality. This will include elements such as its grain, existing patterns of development, important views, scale, materials and building methods. As



3

a consequence, the resulting design should create new relationships between the building, its neighbours and its setting.

The replacement of intrusive or non-contributory items within conservation areas provides an opportunity to interpret that area's special character and qualities and enhance it. The various elements that contribute to an area's heritage significance can be the catalyst for a successful contemporary design.

Infill development can accommodate a rich variety of interpretations and expressions. Each place will require different solutions. These guidelines advocate that the use of the design criteria can result in a multitude of architectural outcomes. Some designers may adopt a more traditional or vernacular approach, others may wish to explore a highly contemporary solution. Both are equally valid. It is the quality of the response that is the key.

The Heritage Council of NSW and the Royal Australian Institute of Architects NSW Chapter believe that it is important to enable new ideas and responses to be developed and to facilitate a multitude of responses. The existing historic context is not a constraint but an opportunity to add something new that results in the whole being greater than the sum of the parts.

These guidelines are equally valid in responding to any area that has an established character worth retaining. They encourage new buildings that our generation can admire and enjoy — the heritage of the future.

1 :

The redevelopment of Walsh Bay, Sydney, is an infill project on a large scale. The new Wharf 6/7 was required to be sympathetic to the adjacent finger wharves in scale, form and character. It achieves this by emulating the envelope and form of the adjacent wharves. It responds to their character through the use of traditional and contemporary materials and the scale of the detailing.

2 :

This small infill project provided two detached houses to the rear of an existing bungalow in a suburban interwar conservation area. The developer used a form common to the area. The materials are similar to those within the conservation area but are detailed distinctively. The houses sit comfortably within the established streetscape but are clearly a late twentieth-century addition.

3 :

This new terrace by architect Alexander Tzannes in a typical inner city residential conservation area responds to both the single-storey and two-storey buildings to either side. It achieves this through aligning itself to the two-storey terrace but setting it back so it abuts the lower building more comfortably. The width of the site is broken up through the modelling of the façade. The proportions of the buildings also respond to the adjacent buildings. The rendered masonry is characteristic of the area. The roof and detailing refers to, but is subtly different from, the historic fabric.

## HOW TO USE THESE GUIDELINES

**THESE GUIDELINES PROVIDE INFORMATION ON THE LEGISLATIVE CONTEXT FOR INFILL DESIGN AND OUTLINE SIX KEY CRITERIA THAT ARE USED IN ASSESSING DEVELOPMENT APPLICATIONS FOR NEW BUILDINGS AFFECTING A HERITAGE ITEM OR WITHIN A CONSERVATION AREA. THEY ALSO PROVIDE INFORMATION ON HOW STATUTORY AUTHORITIES ASSESS THESE APPLICATIONS.**

Case studies are presented for a variety of common situations:



**Case Study 01:**  
Inner city urban conservation area of mixed character



**Case Study 02:**  
Inner city urban residential conservation area of uniform character but mixed scale



**Case Study 03:**  
House in a historic townscape context



**Case Study 04:**  
Dual occupancy in a suburban historic context of unified character



**Case Study 05:**  
Residential infill in a rural setting



**Case Study 06:**  
Residential/commercial building in a transitional context (main street to residential)



**Case Study 07:**  
Commercial building in an inner city urban conservation area of mixed character



**Case Study 08:**  
Commercial/residential building within an inner city conservation area of mixed character



**Case Study 09:**  
Public building within a CBD historic context



**Case Study 10:**  
Large scale infill on a site of mixed character

The purpose of the case studies is to illustrate how the design criteria work in practice. Each of the case studies demonstrates a respect for the building traditions of the past that have informed the new building, without restricting the application of modern technology and design.

The case studies celebrate the richness and diversity of good architectural solutions to the challenge of building anew in a treasured setting.

### LEGISLATIVE FRAMEWORK

The Heritage Council of NSW has endorsed the design criteria in these guidelines. They are, therefore, Heritage Council policy on new development in conservation areas or development affecting a heritage item of either local or state significance.

The Heritage Council will use these guidelines when assessing development applications:

- in conservation areas or precincts;
- within the curtilage of an identified heritage item;

- for development affecting an identified heritage item.

Local councils should use the guidelines for the same purpose.

Applicants should seek the advice of the local council's heritage advisor or planning staff at an early stage where new

development will affect identified heritage items, conservation areas or special character areas. The advice of the NSW Heritage Office should be sought at the earliest opportunity for proposals for new development affecting an item or proposals within a conservation area or precinct listed on the State Heritage Register.

## DEFINITIONS

### Amenity

The 'liveability' of a place that makes it pleasant and agreeable to be in for individuals and the community. Access to facilities and services impacts on a place's amenity. A building's amenity is affected by its features, access to sunlight and views and general design.

### Bulk

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

### Character

Character is defined by the combination of the particular characteristics or qualities of a place.



4 : This Broken Hill main street has a particular character derived from its consistent nineteenth-century architectural style, scale of buildings and use of materials.

### Conservation Areas

See Heritage Conservation Areas.

### 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.

### 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 on a local environmental plan.

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

The statutory framework managing land use and development in New South Wales.

### Form

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

### Grain

The pattern of the arrangement and size of the buildings on their lots and the subdivision pattern. This pattern or arrangement contributes to the texture of an area. *Fine grain* is the quality or fine texture resulting from small and frequent subdivisions.

### Heritage Act 1977 (NSW)

The statutory framework for the identification and management of heritage in New South Wales.

### Heritage Conservation Areas or Heritage Precincts

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

### Heritage Council of NSW

The NSW Government's statutory heritage advisory body established under the Heritage Act.

### Heritage item

A place, building, work, archaeological site or relic, garden or landscape, movable object or place of Aboriginal heritage significance identified on the State Heritage Register or on 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.



5 : Haberfield is a conservation area with a particular character resulting from the planning of the suburb combined with the architectural style of its buildings. The houses are single-storey, brick and stucco with slate or tiled roofs. The federation form, materials and detailing of the houses is specific to the period of construction and exhibits a particularly high degree of craftsmanship and quality.

### Infill

In the context of these guidelines, infill means a new building in an established and valued historic context. Good infill is 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. Infill buildings can provide functions and services that adjacent heritage buildings may find difficulty in accommodating without major change.

### Massing

The size and volume of a building.

### Scale

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

### Setbacks

The horizontal distance from the building to a prescribed boundary (such as a site boundary) or other relevant marker (such as the alignment of houses in a street).



6 : This Haberfield street shows consistent front and side setbacks that contribute to the character and integrity of the conservation area.

### Setting

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



7 : This historic homestead sits on the rise of a hill with views out across its farmland. The views from the house and across the landscape to the house contribute to the heritage significance of the place.

### State Heritage Register

The list of items of state heritage significance kept by the Heritage Council of NSW in accordance with the Heritage Act.

## DESIGN CRITERIA

### NEW DEVELOPMENT IN A CONSERVATION AREA, HERITAGE PRECINCT OR ADJACENT TO A HERITAGE ITEM SHOULD AIM TO MAINTAIN AND ENHANCE THE AREA'S DISTINCTIVE IDENTITY AND SENSE OF PLACE.

Design in a historic context or infill design aims to preserve the special qualities that give a place character in a way that respects the old while reflecting the new and meeting the amenity needs of its users. The Burra Charter – *the Australia ICOMOS charter for the conservation of places of cultural significance* – is the key document guiding conservation practice in Australia. It states that:

*Conservation requires the retention of an appropriate visual setting and other*

*relationships that contribute to the cultural significance of the place. New construction, demolition, intrusions or other changes which would adversely affect the setting or relationships are not appropriate. (Article 8)*

Designing in context does not mean imitation or following inflexible design rules. A wide range of solutions may emerge for any design problem after careful analysis of surrounding buildings and sympathetic interpretation of their design elements.

To achieve a successful infill design new development must be appropriate under the following design criteria:

01. character;
02. scale;
03. form;
04. siting;
05. materials and colour; and
06. detailing.



### 01. CHARACTER

All built environments have their own special character, but not all are valued as representing our history and culture. Changes to the built environment over time break the links between the past and the present and this frequently results in an environment without harmony or unity.

In contrast, places that are valued for their historic character convey a sense of continuity with the past. They may be places that developed over a relatively short time, so that the majority of the buildings are of a similar architectural style, such as Haberfield in Sydney or the late nineteenth-century residential areas of towns like Orange or Bathurst. They may be places that have responded to, or reinforced, locally distinct patterns of development over time such as The Rocks. They may be places that respond in a unique way to a distinctive landscape such as Castlecrag in Sydney.

These places are our heritage, places that we want to keep. But their historic character can be compromised by unsympathetic new development. That is why it is vital that new buildings harmonise with their surroundings.

Infill design requires careful analysis and evaluation of the historic context to identify the important elements of the overall heritage character. The character of a place is shaped by many contributing factors such as:

- the underlying natural landform;
- distinctive landscape elements;
- the date and style of the buildings;
- the scale and form of the buildings;
- street and subdivision patterns;
- setbacks of the buildings;
- materials, building techniques and details;
- views, vistas and skylines.

The character of an individual building or group of buildings is also shaped by the solid to void relationships, the play of light and shadow on the façades, and the proportions of openings.

Each of the other five criteria described in these guidelines contributes to the overall character but can be identified separately.

The following examples demonstrate where consistency of historic character has informed heritage significance.





15A



15B



15C



8



16A



16B



17

**8 :**

Contexts with repetitive roofs, façades and similarly proportioned openings, often in association with verandahs, create distinctive forms that are characteristic of a period of architecture.

**9 :****Federation suburban character**

Suburbs that were developed during the federation period are characterised by detached houses set well back from the street alignment and surrounded by gardens. Similar detailing, slate and terracotta steeply pitched roofs, decorative timber work and face brick within landscaped settings give these suburbs a distinctive pattern of development. The landscape setting can be an important part of the character.

**10 :****Colonial town character**

NSW colonial style is reflected in the character of this street. The buildings vary in scale and massing but are clearly linked by their common materials and details. Steeply sloping corrugated iron roofs, verandahs with unadorned timber detailing creating dark shadows, timber-framed windows and walls of face brickwork or timber create a distinctive character.

**11 :****Country town character**

Braidwood is a country town that typifies many small scale places that have a special character. The wide main street with its single and two-storey

Victorian shopfronts is greatly valued by the local community and the many visitors that come to experience its strong sense of place and character.

**12 :****Inner city character**

A typical inner city suburb that has a rich mixture of styles and development but with a definite character. The repetitiveness of the forms overlaid on the varied topography provides consistency yet variety.

**13A AND 13B :****Interwar suburban character**

Many suburban areas developed in the interwar period survive relatively intact. The Spanish Mission style of these suburban shops and flats has an imposing character and complements the domestic buildings around it.

The modest scale and detailing of these interwar bungalows provides coherence and design integrity to the streetscape.

**14A AND 14B :**

These Pettit and Sevitt houses, designed in the 1960s, are sited quite specifically, respecting their bushland setting and providing good solar access. The siting, form and materials determine the particular picturesque characteristics described as 'Sydney School'.

**15A, 15B AND 15C :**

This office building, designed by Tim Shellshear and Associates, Architects, is sited behind a row of

colonial buildings and has been carefully placed and detailed to harmonise with the streetscape. The siting of the building, which retained a long established gap in the street, retains important views to the existing buildings, a tree and archaeological remains. The building takes its mass and form from a former mill building on the site. The roofs are of a similar form and character and the materials have been selected to reference those already found on the site.

**16A AND 16B :**

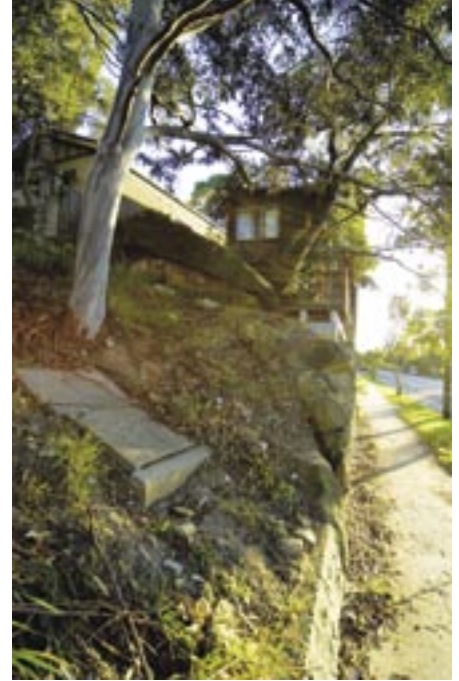
This new building, designed by Peter Armstrong, is to the rear of the Orange Court House and has adopted traditional Victorian building proportions to maintain the character of the monumental heart of the regional centre. The roof and the parapets are clearly related to the existing building on the left. By breaking the façade in the middle, the apparent width is reduced. Although modern materials are used, the building form and the proportions of openings such as doors, windows and verandahs fit comfortably with the existing buildings.

**17 :**

This building shows how easily the character of a street can be spoiled by a poor choice of infill design. The street was characterised by single-storey houses, gable and hipped roofs with timber details, timber fencing and dark coloured face brick walls. The new two-storey house has a shallow-pitched hipped roof, pale brickwork and matching fence and narrow-framed aluminium windows of horizontal proportions.



18A



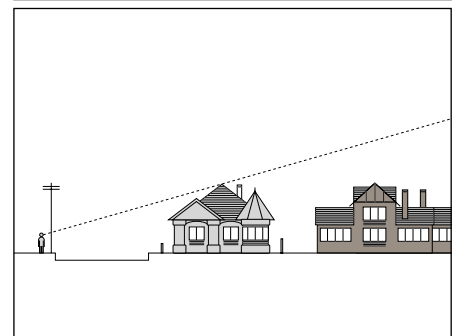
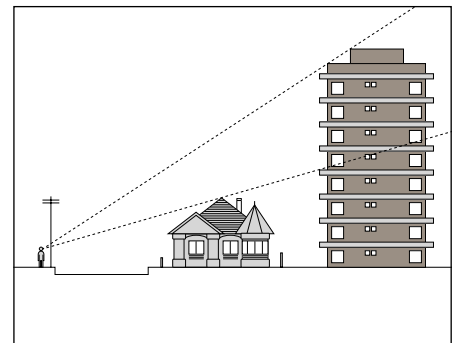
18B

## 02. SCALE

The scale of a building is its size in relation to surrounding buildings or landscape. Infill design should recognise the predominant scale (height, bulk, density, grain) of the setting and then respond sympathetically. The impact of an inappropriately scaled building cannot be compensated for by building form, design or detailing.

The grain, or pattern of arrangement and size of buildings in a precinct or conservation area, can be an important part of its character. The subdivision patterns and layouts of the streets provide the predominant scale and rhythm of building frontages. Any re-subdivision of lots within conservation areas should reinforce the townscape pattern. Where a subdivision pattern contributes to the significance of a conservation area, consolidation of lots within it will have a negative impact on the place.

Infill buildings that are of necessity larger than the surroundings can have their scale reduced by breaking long walls into bays, or by arranging openings in the walls so that their size and shape reflect the structure and openings of their neighbours. Where the scale of the roof is much larger than that of adjacent buildings, it may be broken up into smaller elements to reduce the bulk. Setbacks to upper levels can help to provide a transition between adjacent buildings of different scales.





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**18A AND 18B :**

This house designed by Woolley and Tonkin in Lilyfield is at the end of a street of mixed character that slopes down the hill. The house utilises the sandstone rock outcrop as a feature and accommodates it and the existing trees by being set back further than its neighbours. As it is a bookend to the street, it fronts the main address but also addresses the side street. The roof form relates to its neighbours when viewed from the most commonly seen vantage point, but from the front view it departs from traditional forms to admit northern light into the house.

**19 :**

The construction of unsympathetic new buildings at the rear of existing buildings can alter their massing and damage local character. The intrusion of such buildings will be limited if they cannot be seen from across the street.

**20 :**

The new auditorium at the Mint was included in the 2001 redevelopment program of this important public building. The new buildings, designed by fjmt Architects, have been carefully located on the site to complement the scale, proportions and geometric alignments of the existing buildings.

**21 :**

The infill supermarket in a historic town centre has introduced an alienating new character. The street was once a series of small scale, hipped roofed, highly decorated buildings with a pattern of vertical proportions. Now a long, horizontally proportioned façade has been introduced. Yet it would have been possible to break up the elevation into smaller bays to respond to the existing proportions and scale.



21



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**22 :**

This residential infill in Paddington derives its scale and form from its nineteenth-century neighbours, but is articulated in an early twenty-first-century manner. The character of the surrounding nineteenth-century terraces has been reinterpreted in the verandah details and the choice of materials.

23A



23B

24A

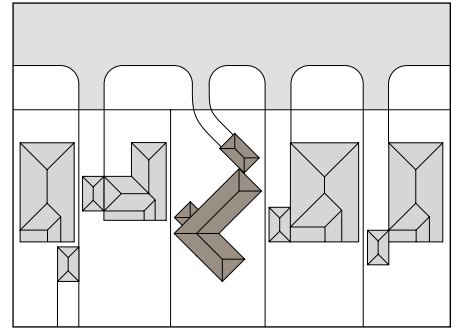


24B

25



26



### 03. FORM

The form of a building is its overall shape and volume and the arrangement of its parts. Infill design should be sympathetic with the predominant form of its neighbours. Where a building form is highly repetitive within an area, variations to this form appear discordant. For example, the form of a new house in the context of a conservation area of typical federation bungalows should not interrupt the cohesiveness of the streetscape.

The roofline may play an important part in determining neighbourhood character. Infill buildings should respond to, or reinforce, existing ridge or parapet lines, roof slopes and other features such as party walls and chimneys.

The treatment of the façade in terms of the proportion, material and number of openings affects how a new building relates to its neighbours. The form need not copy that of the neighbours but should relate to it positively.

#### 23A AND 23B :

This country town infill has taken its form from typical buildings found locally. Sited on a prominent corner, it makes reference to the scale and proportions of its main street neighbours and has also used local materials.

#### 24A, 24B AND 25 :

These inner city residential terraces respond to the scale and form of the industrial building opposite. The massing of the building, use of a parapeted roofline and the modulation of the façade all respond to the existing context but reinterpret it at a domestic scale.

#### 26 :

This diagram shows how easy it is to damage the quality of the streetscape by altering the setback or the orientation of a new building. The older buildings share a similar relationship to their front and rear boundaries.

### 04. SITING

New buildings in a valued historic context should add sympathetically to the local streetscape and the grain of the area. The qualities of the streetscape can be reinforced by conforming to existing front and side setbacks and the general location of new buildings on site and the complementary treatment of street edges. Fences should be related to those of adjacent properties.

Most older buildings are oriented to their street frontage. New buildings should not be oriented across sites in a manner that is contrary to the established pattern. Where the façades create a more or less continuous line, this pattern of setbacks should be repeated when new buildings are added. Similarly, garages and carports should not be permitted to break a consistent building line. The dominance of garages and outbuildings to the streetscape can be ameliorated by soft landscaping.

Where there is an established pattern of side setbacks that contribute to the character of the streetscape this should also be reinforced by new buildings. Building with minimum

27



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setbacks to the boundaries on both sides, where this is not the pattern, can increase the bulk of the building and have an obtrusive and unacceptable impact.

Where side access is available, garages and carports should be located behind the building line to minimise their impact on the streetscape. Where there is no side access, an unroofed hard-stand area at the front of the dwelling may be appropriate if it does not impact negatively on the streetscape.

In rural settings, waterfront properties or in areas of twentieth-century housing buildings may have been deliberately not orientated to the street frontage. In an area where the position of buildings on sites contributes to the area's significant character, new buildings should respond to their sites in a similar way.

This principle also applies to the rear of infill buildings. New buildings should conform to the predominant building alignment where it contributes to significance.

28



New buildings should allow for the retention of significant views and vistas to and from the building, a townscape or a landscape. Natural features of significance should be retained, such as natural foreshore features and mature trees. In the latter case, new buildings should be sited beyond the drip line.

Sites where significant archaeological remains are to be retained in situ may require innovative approaches to the new placement of buildings or structural systems. The early advice of the Heritage Office is essential in these instances.

**27 :**

The siting of the new Museum of Sydney responded to the existence of the remains of the colony's first government house. The museum was located to the rear of the site to retain the significant archaeological remains under the forecourt, some of which are visible through viewing windows. Part of the plan of the former government house building is interpreted in the pavement. The new low-rise building is sympathetic in scale to the adjacent terraces — a rare reminder of Sydney's earlier scale that provides a foreground to the dramatic tower behind. The sandstone cladding echoes the character of Bridge Street as a sandstone streetscape that includes the Chief Secretary's building opposite and the Lands Department building nearby.

**28 :**

The space between buildings is one of the most important distinctions between suburbs developed in different periods. These early federation houses are set wider apart on larger blocks than houses in more recently developed suburbs. Infill development should reflect the specific boundary setbacks in each locality. The character of this street is determined by the regular placement of the street trees, the wide footpath, front fences, manicured gardens and regular setbacks. Development should respect this arrangement and reinforce its existing character.

**29 :**

The new housing provided by Cox, Richardson and Taylor in 1983 in The Rocks, Sydney, took its lead from the typical terrace housing of the area. The fine grain of the area, provided by the narrow terrace blocks, scale of openings and verandahs was used to modulate the new houses. The modern houses provide for contemporary housing needs and use modern materials and detailing. The infill buildings sit comfortably within this highly sensitive historic environment.



30



31A



31B

## 05. MATERIALS AND COLOUR

Within a locality of consistent character there are usually predominant building materials, textures and ranges of colour, particularly in detail and decoration. Good infill buildings should recognise characteristic materials, textures and colours used locally and in adjacent buildings. These should be re-interpreted and incorporated as part of the new building.

Materials and colours of surrounding buildings need not be simply copied but used as a point of reference. Modern materials can be used if their proportions and details are harmonious within the surrounding historic context. Colour, texture and tonal contrast can be unifying elements.

The quality of new materials should be commensurate with those of the existing buildings.

### 30 :

This large housing development of the 1980s sits comfortably with the historic character of the area. A modern standard of accommodation is provided while respecting the historic character of the area. The housing uses complementary colours and textures and overall massing to blend with the existing street. Materials such as corrugated iron and brickwork and details such as parapets and simple verandahs are used as unifying elements.

### 31A AND 31B :

The new Sydney Theatre at Walsh Bay uses brick to relate to the Bond Store buildings adjacent and across the street. The form references that of the adjacent buildings, but departs from it to create a distinctive new public building in a precinct that is evolving from industrial warehouse water frontage to residential and public use.

### 32A, 32B AND 32C :

The character of new suburban development on what was once pastoral land associated with the historic property of Lanyon in the ACT has the potential to impact visually on the special visual qualities of the landscape. Thoughtful design and selection of materials, colours and landscape are important to retaining this visual quality. Breaking up roof forms, low-glare roof materials in darker, muted colours and subtle wall colours will assist in blending the houses with the landscape.

### 33 AND 34 :

These two beachfront houses, designed by Kevin Snell, sit on the edge of a national park. The buildings have been carefully designed to 'touch the ground' lightly and therefore minimise disturbance to the ecosystem. The buildings have also sought to 'blend' into the landscape. From a distance parts only of the buildings are seen and their colour helps them disappear into the surrounding melaleuca forest.



32A



32B



32C



33



34



35

## 06. DETAILING

Common details within an area establish neighbourly resemblance and contribute to its special character. Verandahs, chimneys and shutters, for example, are often distinctive features of nineteenth-century housing. The lack of details in many contemporary buildings can accentuate their difference within their historic context and disrupt the harmony of the area.

Details that contribute to the character of a conservation area or heritage item should be identified. They can inform or inspire the design of the new building. Modern details can reinterpret traditional details and create new relationships between new and old. Contemporary detailing of materials and junctions can provide levels of visual interest that contribute positively to the character of a place.

Landscape details such as fences, garden walls and planting treatments can play an important role in defining local character. New fences and walls should relate to adjacent properties. Where such features remain and contribute to the streetscape's heritage significance they should be retained.

Some areas have consistent planting schemes or plant types that contribute to their character. New planting schemes should recognise and reinforce their height, form and character.

New requirements for ecologically sustainable design such as solar panels and water tanks should be sensitively located and designed in a manner that does not intrude on the cohesiveness of the area.

### 35 :

The sophisticated detailing of the lower level façade of Harry Seidler's The Cove apartment building in the city responds to that of the adjacent warehouse buildings. The rhythmic arrangement of the pillars of the existing buildings is continued by the articulation of the concrete frame of the new building. The ratio of solid to void is reinterpreted with modern materials — concrete and glass — and the arrangement of horizontal and vertical elements.

## ASSESSING NEW DEVELOPMENT IN A HISTORIC CONTEXT

### THIS SECTION PROVIDES INFORMATION ON HOW STATUTORY BODIES ASSESS DEVELOPMENT APPLICATIONS FOR NEW BUILDINGS AFFECTING A HERITAGE LISTED CONTEXT.

Assessors take a number of aspects into account when appraising development applications. When assessing heritage impact the assessor will check that the development meets the design criteria outlined in these guidelines. Design quality will be an important element. Given that most heritage buildings and conservation areas have been listed for their historic and/or architectural (aesthetic)

significance, it is almost impossible to ignore design quality in the assessment process. Heritage assessment is often accused of being subjective, and to some extent there will be a subjective element to the process. It is possible, however, to define objectives for assessing development within an established and valued historic context. The design criteria put forward in these guidelines attempt to do this.

This checklist assists designers, applicants and assessors to determine whether the proposal is appropriate. It encompasses both the qualitative aspects of the design of the building and the quality of its contribution to its historic context.

### ASSESSING NEW DEVELOPMENT IN AN HISTORIC CONTEXT: CHECKLIST FOR APPLICANTS AND ASSESSORS

PART A: DOCUMENTS TO BE INCLUDED	APPLICANT'S CONFIRMATION	ASSESSOR'S COMMENTS
<b>Date of submission</b>		
<b>Statement of heritage impact statement (SOHI)</b> Include a statement of significance for any heritage item, precinct or conservation area affected by the new development  Respond to the design criteria described in <b>Design in Context</b> in graphic and written point form (see Part B of this checklist)		
<b>Site plan</b> Showing setting including adjacent properties, buildings, trees and structures such as fences 1:200 scale min.		
<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>Fencing details</b> 1:50 scale minimum		
<b>External materials and colours</b> Provide schedule and, where required, a sample board		
<b>Working model</b> 1:200 scale minimum		



**ASSESSING NEW DEVELOPMENT IN AN HISTORIC CONTEXT: CHECKLIST FOR APPLICANTS AND ASSESSORS**

<b>PART B:</b> <b>CHECKLIST FOR INCLUSION IN HERITAGE IMPACT STATEMENT: RESPONSE TO DESIGN CRITERIA</b>	<b>APPLICANT'S CONFIRMATION</b>	<b>ASSESSOR'S COMMENTS</b>
<p><b>01. CHARACTER</b></p> <p>Use annotated diagrams, photographs and/or sketches to describe the factors which contribute to the character of the historic context, including:</p> <ul style="list-style-type: none"> <li>• topography of site and its surroundings;</li> <li>• distinctive landscape elements and quality;</li> <li>• street and subdivision patterns;</li> <li>• date and style of built form;</li> <li>• figure/ground and figure/landscape qualities;</li> <li>• views, vistas and skylines;</li> <li>• local culture and traditions;</li> <li>• uses;</li> <li>• consistency or repetition of above factors.</li> </ul>		
<p><b>02. SCALE</b></p> <p>Annotate drawings, photographs of model or photomontages to describe the relationship between the proposed new development and the context, in terms of the following design criteria:</p> <ul style="list-style-type: none"> <li>• scale of buildings;</li> <li>• building and wall heights;</li> <li>• massing;</li> <li>• density — pattern of arrangement of buildings and size of buildings;</li> <li>• proportions;</li> <li>• rhythm of buildings and landscape;</li> <li>• floor-to-floor heights and relationship to ground or street plane;</li> <li>• modulation of walls, openings and roof planes in response to the scale of neighbouring buildings;</li> <li>• transition between different heights (for example, through the use of setbacks).</li> </ul>		
<p><b>03. FORM</b></p> <p>Annotate drawings, photographs of model or photomontages to describe the relationship between the proposed new development and the context, in terms of the following design criteria:</p> <ul style="list-style-type: none"> <li>• predominant form of neighbours;</li> <li>• roof form and skyline — ridge and parapet lines, roof slopes, punctuation by party walls, chimneys and lanterns or skylights;</li> <li>• proportion and number of openings;</li> <li>• solid to void ratios;</li> <li>• relationship between internal and external spaces.</li> </ul>		

## ASSESSING NEW DEVELOPMENT IN A HISTORIC CONTEXT

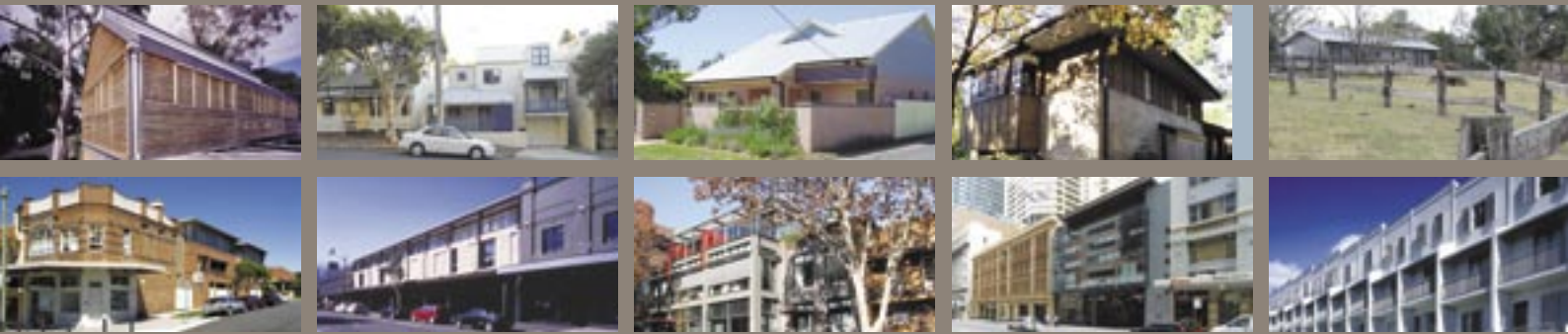
### ASSESSING NEW DEVELOPMENT IN AN HISTORIC CONTEXT: CHECKLIST FOR APPLICANTS AND ASSESSORS

<b>PART B:</b> CHECKLIST FOR INCLUSION IN HERITAGE IMPACT STATEMENT: RESPONSE TO DESIGN CRITERIA	APPLICANT'S CONFIRMATION	ASSESSOR'S COMMENTS
<p><b>04. SITING</b></p> <p>Annotate drawings, photographs of model or photomontages to describe the relationship between the proposed new development and the context, in terms of the following design criteria:</p> <ul style="list-style-type: none"> <li>• predominant setbacks — front, side and rear;</li> <li>• boundary walls and fences;</li> <li>• orientation and address of buildings;</li> <li>• location and dimensions of driveways and garages and design strategies to reduce their visual and physical impact on the streetscape;</li> <li>• retention of views and vistas to and from the new development, across townscape or landscape;</li> <li>• retention of natural features of significance;</li> <li>• retention of significant archaeological remains;</li> <li>• quality of spaces created between existing and new.</li> </ul>		
<p><b>05. MATERIALS AND COLOUR</b></p> <p>Annotate drawings, photographs of model or photomontages to describe the relationship between the proposed new development and the context, in terms of the following design criteria:</p> <ul style="list-style-type: none"> <li>• response to predominant materials, textures and colour palette — harmonious, complementary, contrasting;</li> <li>• commensurate quality of new materials;</li> <li>• qualities of light and shadow;</li> <li>• hierarchy of material use (for example, solid masonry base and lightweight upper levels);</li> <li>• relationship between skeleton or structure and skin.</li> </ul>		
<p><b>06. DETAILING</b></p> <p>Annotate drawings, photographs of model or photomontages to describe the relationship between the proposed new development and the context, in terms of the following design criteria:</p> <ul style="list-style-type: none"> <li>• response to distinctive details of neighbouring existing buildings — reinterpretation in contemporary materials, contrast;</li> <li>• relationship of new fences, garden walls, planting and landscape elements to important existing details;</li> <li>• unobtrusive design of new service elements, such as solar panels and water tanks.</li> </ul>		

# CASE STUDIES

THE FOLLOWING CASE STUDIES ILLUSTRATE A RANGE OF SITUATIONS THAT ARISE IN NEW SOUTH WALES. THEY INCLUDE URBAN, SUBURBAN, REGIONAL AND RURAL EXAMPLES, DOMESTIC, COMMERCIAL AND INSTITUTIONAL BUILDINGS, AND, IMPORTANTLY, A VARIETY OF ARCHITECTURAL APPROACHES TO THE CHALLENGE OF DESIGNING A NEW BUILDING IN AN ESTABLISHED AND VALUED HISTORIC CONTEXT. THE CASE STUDIES ALSO INVOLVE VARIOUS PROCESSES AND THESE ARE EXPLAINED IN THE TEXT.

THE FOLLOWING CASE STUDIES HAVE BEEN SELECTED TO ILLUSTRATE THE DESIGN CRITERIA IN PRACTICE.



- 01: House in an urban conservation area of mixed character
- 02: House in an urban conservation area of uniform character but mixed scale
- 03: House in a historic townscape context
- 04: Dual occupancy in a suburban historic context of unified character
- 05: Residential infill in a rural context
- 06: Residential/commercial development in a transitional context (main street to residential)
- 07: Commercial development in an inner city urban conservation area of mixed character
- 08: Residential and commercial development introducing new uses in an inner city conservation area of mixed character
- 09: A new public building in a CBD historic context
- 10: Master planning a site of mixed character within a conservation area of unified character

## 01

## HOUSE IN AN URBAN CONSERVATION AREA OF MIXED CHARACTER



LOCATION PLAN

### THE PROJECT

The project by Hayes de la Vega replaced a single-storey timber cottage in an urban environment with a larger, steel-framed timber three-bedroom house with study, three bathrooms and garage. The house is a modern interpretation of the timber shed that formerly stood on the site. It consists of a two-storey wing aligned to the southern boundary, a single-storey kitchen wing and a single-storey garage to the street enclosing a northern courtyard.

### THE SITE

The small (333 square metre) triangular-shaped, flat site is located in a conservation area of narrow, dead end streets with varied dwelling types from terraces and single-storey weatherboard cottages to 1970s masonry town houses. Adjacent to, and to the rear of, the site are single-storey timber cottages. Across the road is a series of narrow terrace houses. The site contained a 1915 timber single-storey cottage with an iron roof.

### THE CHALLENGES

The site is within a conservation area and so subject to a local development control plan. As it has a mixed character, however, there was licence to explore an innovative form, provide open space to the north of the site, and capture views to the city. Initially, a large number of neighbours objected to the height of the new dwelling.

### THE SOLUTIONS

The house is compact with rooms of modest size with minimum volumes. A sense of space and light is created by opening the rooms onto a northern courtyard. Various design techniques are used to minimise the impact of the height of the building, which was reduced in response to the neighbours' objections. The two-storey wing is located along the southern boundary to take advantage of falls across the site, and the single-storey garage is located adjacent to a single-storey cottage as a transitional element. Single and two-storey elements are separated by glass roofs. The steep rake of the roof is used internally to achieve additional space. Unpainted timber battens are used to clad the house relating to the adjacent timber cottages. They are intended to weather gently over time.

### THE LESSONS

The local development control plan established parameters for the design of a new dwelling and at the same time adequately provided for an innovative design approach. Skilful design provided a compact house for the family's needs on a very small site. The house provides a high level of amenity and addresses all the local council's requirements for an appropriate new building in the existing and valued historic context. The architects were appreciative of the transparent approvals process and the encouragement of the local council's heritage officer in pursuing a contemporary design approach.



### 36 :

The fall in the street assisted in providing the transition in scale and additional accommodation without overwhelming the adjacent houses.



**37 :**  
The new two-storey section of the house with timber cladding.



**38 :**  
The new house in context with its two-storey and single-storey neighbours.

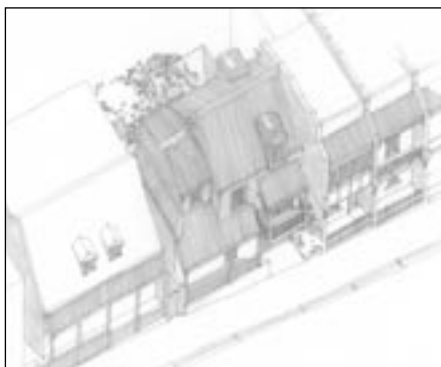
DESIGN CRITERIA	EXISTING CONTEXT	INFILL BUILDING
CHARACTER	<ul style="list-style-type: none"> <li>Mixed nineteenth and twentieth-century cottages, houses and town houses</li> <li>Urban residential</li> <li>Existing shed on site</li> </ul>	<ul style="list-style-type: none"> <li>Contemporary timber urban cottage</li> <li>Responds to various elements of the conservation area</li> <li>Reinterprets previous building on site</li> </ul>
SCALE	<ul style="list-style-type: none"> <li>Predominantly single-storey to the sides of the site and two-storey to the rear and opposite</li> <li>Street slopes — changes in level</li> </ul>	<ul style="list-style-type: none"> <li>Single-storey adjacent to single-storey neighbours</li> <li>Second-storey spaces incorporated into roof volume</li> <li>Garage as transitional element between single and two-storey adjacent buildings</li> </ul>
FORM	<ul style="list-style-type: none"> <li>Verandahs on some house fronts</li> <li>Variegated roof forms such as hips and gables</li> </ul>	<ul style="list-style-type: none"> <li>Gabled and hipped roof with raised ridge distinguishes new dwelling</li> <li>Garage as transitional element between single and two-storey adjacent buildings</li> </ul>
SITING	<ul style="list-style-type: none"> <li>Houses set to street frontages</li> <li>Limited side setbacks</li> <li>Small urban blocks and limited gardens</li> </ul>	<ul style="list-style-type: none"> <li>Observes local street and side setbacks</li> <li>Changes in level accommodates additional heights in new dwelling</li> </ul>
MATERIALS AND COLOURS	<ul style="list-style-type: none"> <li>Mixed — timber, brick and stucco walls</li> <li>Iron and tiled roofs</li> <li>Restricted colour palette</li> </ul>	<ul style="list-style-type: none"> <li>Unpainted timber reinterprets adjacent weatherboard cottages</li> <li>Iron roofing recognises local vernacular</li> </ul>
DETAILING	<ul style="list-style-type: none"> <li>Timber gable and verandah detailing of adjacent cottages</li> <li>Typical details of surrounding buildings provide texture</li> </ul>	<ul style="list-style-type: none"> <li>Simple, pared down details</li> <li>Unpainted timber battens respond to texture of surrounding weatherboards and contribute to their richness</li> </ul>

## 02

## HOUSE IN AN URBAN CONSERVATION AREA OF UNIFORM CHARACTER BUT MIXED SCALE



LOCATION PLAN



39

## THE PROJECT

This project, designed by Brian McDonald and Associates, was for a three-bedroom family house in a conservation area. The brief demanded through ventilation, winter solar access and privacy, plus off-street garaging and a rear courtyard.

## THE SITE

The site is located in the Balmain conservation area and is part of the close-grained building pattern of the slopes above Morts Bay. The housing is a mixture of single-storey cottages and two-storey terraces on small allotments. The subdivision of a large site created the vacant 132 square metre allotment. The street slopes down to the east, and the eastern boundary of the site is bound by the end wall of a two-storey rendered masonry terrace. On the western side is a weatherboard cottage with a first floor area within the roof.

## THE CHALLENGES

At the time of the development application there were few council development standards, such as floor space ratio controls, relating to single dwellings. The house area of 135 square metres was slightly over 1:1, which is consistent with housing in the locality. The small site meant that planning had to be very carefully considered and highly efficient.

Despite care taken to avoid impacts on privacy and over-shadowing, concerns raised by some neighbouring residents led to council opposing the application.

## THE SOLUTIONS

The design solution was to use the slope of the street to bring the single-storey verandah cottage form to the western upper side of the site against the existing timber cottage. The two-storey terrace form to the east is reflected in a projecting verandah that helps minimise the

visual impact of the garage door. The dormer window above the projecting verandah is in scale and aligned with the height of the parapet wall of the adjoining terrace. The building bulk steps down from two storeys to a single-storey verandah over the remainder of the street frontage, so that the building forms an interesting transition between the adjoining timber cottage and the two-storey terrace.

A central stair links rooms at half levels, eliminating the need for space consuming corridors, and also serving as a flue to draw air up and out through an opening at the top. A timber-slatted awning and a timber screen wall to the terrace off the living room create privacy and help prevent overlooking. The main living areas face north onto a small landscaped courtyard and have passive climate control for sun access in winter and exclusion in summer.

## THE LESSONS

Despite a supportive report for approval by council officers, due to the application's resolution of the site constraints, the proposal was refused council consent. An appeal was made to the Land and Environment Court where the careful attention to the design in context, avoidance of privacy impacts and overshadowing of neighbours, together with a comprehensive statement of environmental effects, resulted in its approval.

The project validates the modern approach within a traditional context. The house meets the planning controls and, as a result of thorough site and contextual analysis, has created a quality new house that contributes positively to the richly varied urban context. It effortlessly accommodates environmentally sustainable development principles within the sensitive setting.

39 :  
Axonometric of the house in its context.

40 :  
The streetscape is of mixed character with single-storey timber cottages and two-storey terraces.



40



41 :  
The new two-storey house makes the transition from single-storey to two-storey and accommodates off-street parking without the garage becoming a dominant element.

DESIGN CRITERIA	EXISTING CONTEXT	INFILL BUILDING
CHARACTER	<ul style="list-style-type: none"> <li>• Mixed nineteenth-century urban residential</li> <li>• Nineteenth-century timber two-storey cottages and workers houses</li> </ul>	<ul style="list-style-type: none"> <li>• Late twentieth-century reinterpretation of the traditional terrace cottage character and form</li> </ul>
SCALE	<ul style="list-style-type: none"> <li>• Single and two-storey set on bases responding to road slope</li> <li>• Small houses on small blocks</li> </ul>	<ul style="list-style-type: none"> <li>• Two storey — set above garage</li> <li>• Verandah elements break up scale and respond to adjacent buildings</li> </ul>
FORM	<ul style="list-style-type: none"> <li>• Typical two-storey terrace form with parapeted frontages</li> <li>• Gable roof forms</li> <li>• Verandahs on house fronts</li> <li>• Verandahs to street frontage</li> </ul>	<ul style="list-style-type: none"> <li>• Gable roof forms consistent with neighbouring houses</li> <li>• Verandahs reinterpreted</li> <li>• Garage within structure. Impact reduced by verandah above</li> </ul>
SITING	<ul style="list-style-type: none"> <li>• Houses to street frontage</li> <li>• No side setbacks</li> <li>• Limited outdoor spaces</li> </ul>	<ul style="list-style-type: none"> <li>• Observes local front, rear and side setbacks</li> </ul>
MATERIALS AND COLOURS	<ul style="list-style-type: none"> <li>• Rendered bases, brick, timber and stucco walls</li> <li>• Iron roofs</li> <li>• Painted surfaces provide variegated colour palette</li> </ul>	<ul style="list-style-type: none"> <li>• Solid masonry rendered base reinterprets bases to adjacent terraces and front fences of cottages</li> <li>• Iron roofing material consistent with adjacent houses</li> <li>• Painted timber responds to adjacent buildings</li> </ul>
DETAILING	<ul style="list-style-type: none"> <li>• Timber gable and verandah detailing</li> <li>• Banding of materials</li> <li>• Timber and masonry fences</li> </ul>	<ul style="list-style-type: none"> <li>• Painted timber consistent with context</li> <li>• Banding of materials echoes existing buildings</li> <li>• Modern detailing of traditional materials</li> </ul>

## HOUSE IN A HISTORIC TOWNSCAPE CONTEXT



LOCATION PLAN

**THE PROJECT**

The project, designed by Mark Golden of Mark G. Golden and Associates, was for a small residence in central Wagga Wagga. The couple relocated from the outer suburbs of Wagga Wagga following the departure of their now adult children.

**THE SITE**

The 372 square metre site was occupied by a decaying two-bedroom Californian bungalow within a conservation area. The severely dilapidated condition of the bungalow convinced the council to approve demolition. The site is on a typical flat block within the central residential area, characterised by single-storey early twentieth-century bungalows. One side of the site is bounded by a laneway. The street frontage is north facing. The neighbouring properties are brick, some face brick, some rendered, with either hipped or gabled roofs of predominately corrugated iron.

**THE CHALLENGES**

The initial proposal was for a two-storey dwelling. The local heritage advisor, however, was concerned that the increased scale of the building would impact on the coherence of the streetscape and appear too bulky on the small site. The brief initially included bed and breakfast accommodation, as well as providing a residence for the client. The challenge was to provide this accommodation on the small block in a building that was domestic in scale. As the site is located within a conservation area there are specific controls relating to form, scale and materials. The architect also had to satisfy various interest groups, including the local National Trust and homeowners group, that the new dwelling was a sympathetic addition to the streetscape.

**THE SOLUTIONS**

By remodelling the internal planning of the proposal the accommodation requirements could be enclosed within the large roof space. Dormer windows were initially incorporated within the main roof to provide minimum headspace. During the design phase the brief changed due to the client's circumstances, resulting in the deletion of the upper bedrooms including the dormer windows. The external building form, however, changed little as a result of these design amendments.

The external masonry finishes are pre-coloured render applied as bagging. Iron roofing, typical of the precinct, in a gabled form relates to the adjacent housing. Timber detailing to the gables is a twentieth-century interpretation of the previous bungalow on the site and adjacent houses. The brick and wire fence is a simplified modern version of early twentieth-century suburban fences found on the street.

**THE LESSONS**

The project provided a new dwelling that was simple in form and related in scale and materials to the surrounding houses. Despite the deletion of the upper floor bedrooms from the final proposal, the project illustrates that it is possible to provide upper level accommodation in a new building that does not impact on the coherence of the single-storey scale of the streetscape.

**42 :**  
Streetscape showing single-storey historic cottages set in established gardens with low front fences.

**43 :**  
The new house with its steeply pitched roof is consistent with the typical cottages and bungalows in the street.







44 :

Setting the fence back gave some of the garden over to the street and enabled the fence to provide additional privacy, as well as sight lines for pedestrians crossing the laneway.

DESIGN CRITERIA	EXISTING CONTEXT	INFILL BUILDING
CHARACTER	<ul style="list-style-type: none"> <li>• 1890s to early 1920s bungalows</li> <li>• Mature gardens</li> <li>• Front fences and gates of various periods</li> </ul>	<ul style="list-style-type: none"> <li>• Reinterprets early twentieth-century bungalow through new form, details and materials</li> </ul>
SCALE	<ul style="list-style-type: none"> <li>• Single-storey on flat sites</li> <li>• Small cottages</li> </ul>	<ul style="list-style-type: none"> <li>• Single-storey scale consistent with conservation area</li> </ul>
FORM	<ul style="list-style-type: none"> <li>• Typical cottage forms</li> <li>• Hipped and gabled roofs</li> <li>• Verandahs on house fronts</li> </ul>	<ul style="list-style-type: none"> <li>• Gabled roof can accommodate attic storey</li> <li>• Roof forms reinterpreted</li> <li>• Building form reiterates cottage form</li> </ul>
SITING	<ul style="list-style-type: none"> <li>• Front gardens — houses aligned</li> <li>• Side setbacks</li> <li>• Deep blocks</li> </ul>	<ul style="list-style-type: none"> <li>• Observes typical local front, side and rear setbacks</li> </ul>
MATERIALS AND COLOURS	<ul style="list-style-type: none"> <li>• Mixed — brick, timber and masonry</li> <li>• Iron and terracotta tiled roofs</li> <li>• Painted timber variegated colour palette</li> <li>• Mature gardens and trees to front side and rear</li> <li>• Timber and wire fences</li> </ul>	<ul style="list-style-type: none"> <li>• Rendered masonry reinterprets adjacent buildings</li> <li>• Iron roof slightly varied to adjacent houses with timber detailing</li> <li>• Timber painted details to gable</li> <li>• Masonry rendered fence and wire reinterprets adjacent fences in a new form</li> <li>• Trees retained</li> </ul>
DETAILING	<ul style="list-style-type: none"> <li>• Timber gable and verandah detailing</li> <li>• Banding of materials</li> <li>• Detailing of timber fences and green hedges</li> </ul>	<ul style="list-style-type: none"> <li>• Painted timber used to gable ends</li> <li>• Fence reinterprets adjacent details</li> </ul>

## 04

## DUAL OCCUPANCY IN A SUBURBAN HISTORIC CONTEXT OF UNIFIED CHARACTER



LOCATION PLAN

### THE PROJECT

The project designed by Rena Czaplinska-Archer was within a conservation area of typical 1920s Californian bungalows. The dual occupancy project provided two additional dwellings to the rear of a large block adjacent to a public access way.

### THE SITE

The site is to the rear of a large suburban block fully visible from the side public access way. It falls towards the front and across the block. The conservation area has a unified character of single-storey brick bungalows with terracotta-tiled roofs, timber windows and recessed verandahs or entrance porches. The existing house and those around it are set in established gardens with large trees.

### THE CHALLENGES

The site is clearly visible from the street, from the existing house and from the public way alongside. The council did not favour dual occupancy and the site is within a conservation area. The site also had to provide parking for the two new dwellings. The architecture was required to be sympathetic to the existing house, the adjacent houses and the streetscape generally. Achieving privacy for the new and older dwellings was also a challenge.

### THE SOLUTION

The location of the car parking at ground level, integrated into the building form, took advantage of the sloping site and removed the necessity for open car space. Elevating the houses also took advantage of the views through the trees and assisted in providing privacy. The buildings relate in scale and form to the surrounding bungalows. The proportions of solid to void, the window and door openings and the materials are similar to, but subtly different from, the adjacent houses. Timber walls are subservient to the brick bungalows. The roof tiles are slightly different but similar in colour and texture. It is a design attuned to the landscape.

The buildings were designed on energy efficient principles to maximise solar access.

### THE LESSONS

The project illustrates that it is possible to provide contemporary houses that meet modern requirements in a manner that acknowledges and takes delight in their environment. The quality of the design and the new relationships it creates are highly successful. The restricted budget demonstrates what is possible with creativity and insight. The result is quiet, respectful but joyful.

### 45 AND 46 :

The new houses stand on a base which provides for the car parking beneath. The roofs are consistent with the adjacent houses in terms of pitch and material.



45



46



**47 :**  
Streetscape showing the typical interwar bungalows set in established gardens that characterise the conservation area. The houses are of brick, with tiled roofs and simple detailing.



**48 :**  
The palette of materials and neutral colours makes the houses relate to, but differ subtly from, the existing house.

DESIGN CRITERIA	EXISTING CONTEXT	INFILL BUILDING
CHARACTER	<ul style="list-style-type: none"> <li>• 1920s Californian bungalows</li> <li>• Mature gardens</li> </ul>	<ul style="list-style-type: none"> <li>• Responds to character through scale, form, materials and details</li> <li>• Modern interpretation of early twentieth-century character in a solid suburban dwelling with a hint of the Japanese influence common in houses from the 1920s</li> </ul>
SCALE	<ul style="list-style-type: none"> <li>• Predominately single-storey set on bases responding to road slope</li> <li>• House to front of block set on elevated block with garage beneath</li> </ul>	<ul style="list-style-type: none"> <li>• Two-storey dwelling above garage with a strong base, similar in scale to adjacent house</li> </ul>
FORM	<ul style="list-style-type: none"> <li>• Hipped and gabled roofs with wide eaves</li> <li>• Verandahs to house fronts</li> <li>• Variegated roof forms</li> </ul>	<ul style="list-style-type: none"> <li>• Hipped roof, wide eaves and horizontal proportions tie in with surrounding bungalows</li> <li>• Verandahs reinterpreted</li> </ul>
SITING	<ul style="list-style-type: none"> <li>• Front gardens — houses aligned</li> <li>• Side setbacks</li> <li>• Deep blocks</li> </ul>	<ul style="list-style-type: none"> <li>• Observes local side setbacks</li> </ul>
MATERIALS AND COLOURS	<ul style="list-style-type: none"> <li>• Sandstone bases, brick and stucco walls</li> <li>• Terracotta tiled roofs</li> <li>• Restricted colour palette</li> <li>• Mature gardens and trees to front, side and rear</li> </ul>	<ul style="list-style-type: none"> <li>• Solid masonry rendered base reinterprets adjacent buildings</li> <li>• Grey concrete shingle tiled roof of similar texture to that of adjacent houses</li> <li>• Timber used unpainted</li> <li>• Trees retained</li> </ul>
DETAILING	<ul style="list-style-type: none"> <li>• Timber gable and verandah detailing</li> <li>• Banding of materials</li> <li>• Timber fences and green hedges</li> </ul>	<ul style="list-style-type: none"> <li>• Unpainted timber used</li> <li>• Banding of materials</li> </ul>

## RESIDENTIAL INFILL IN A RURAL CONTEXT



49

49 :

Axonometric of the site showing the new building in relation to Rouse Hill House and the outbuildings.

50A :

Rouse Hill House with the 1813–15 stone two-storey section with brick wing to the rear.

50B :

The outbuildings on the estate from the rear of Rouse Hill House with the new caretaker's residence behind the water tower.



50A

## THE PROJECT

The project was to design a new caretaker's residence to replace a temporary building within a sensitive rural heritage curtilage. The residence also needed to incorporate the farm manager's office and an accessible public toilet for visitors. The caretaker oversees the security and care of the site for the Rouse Hill Estate, which is both a house museum and a working farm. Design 5 Architects designed the building for the Historic Houses Trust of New South Wales, a state government agency with responsibility for the care and presentation of a number of key historic properties.

## THE SITE

The site of the new dwelling is within the curtilage of a State Heritage Register cultural landscape. This landscape includes the 1813–15 two-storey stone house with brick wings and a verandah, and a collection of outbuildings of timber slab and brick with iron roofs. The complex is prominently sited on top of a hill within a remnant agrarian landscape with views to the Blue Mountains.

## THE CHALLENGES

The siting of the new building had to provide good surveillance and security for the main house and outbuildings, but not intrude on the visual relationships between buildings and major views to and from the site. To one side of the main house is a significant garden and to the other a collection of important outbuildings.

Because of the coherence of the cultural landscape, the client wanted the new building to be visually discrete and befitting its status. The client also required the building to utilise the language of the existing buildings on the site, but in a contemporary manner. The new building was to be a harmonious insertion into the cultural landscape.

The building had to be low maintenance, low energy and use passive means of cooling.

## THE SOLUTIONS

A thorough analysis of the site's heritage significance was undertaken including key view lines, archaeological potential and the relationships between functional groupings of buildings within the precinct. Principal surveillance sight lines were also established. This analysis identified the most suitable siting for the building.

A long narrow building with a gabled roof form was chosen, which was consistent with other outbuildings nearby. A curved ridgeline subtly distinguishes the new building from its immediate neighbour — an 1820s timber slab wool shed with simple gabled roof — and also enables the ridgeline to be kept below a critical view line to the wool shed from the northwest. The ridge form and detailing provide ventilation into the building.

The building is a lightweight structure that sits on piers above the ground to enable access to the archaeological remains that were predicted to be found on this site. The services are slung underneath the building, which avoids trenching for the same reason. Timber and corrugated iron, referenced from the site, is used to provide the lightness required.

The building is clad in alternating panels of plywood and corrugated iron, inspired from the materials already found on site. Plywood, rather than timber slab, is used to articulate it as modern material. This articulation of the façade responds to the texture or fine grain of the site by breaking down the mass and adding richness. The addition of the corrugated steel water tanks assisted in contextualising the building and reducing its mass.

## THE LESSONS

The project was greatly influenced by the informed and intelligent client who demanded best practice in heritage terms and a contemporary building of its own time. This was secured by constantly reassessing the outcome against the objectives throughout the project. During construction, for example, after a glazed and vented spinal ridge was framed up, it was considered that its visual impact on the view lines was unsympathetic, so it was redesigned. As a result a glazed section of the ridge was deleted and the ridge lowered.



50B



**51 :**  
The new house adjacent to the existing shed.



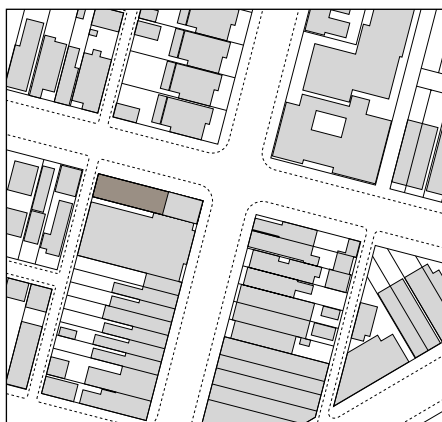
**52 :**  
The new house from the south paddocks, looking up the hill, with Rouse Hill house in the background.



**53 :**  
The new house settles neatly into the existing landscape with its ensembles of sheds, outbuildings and timber fences. The language of the building is similar but more refined than the other outbuildings.

DESIGN CRITERIA	EXISTING CONTEXT	INFILL BUILDING
CHARACTER	<ul style="list-style-type: none"> <li>• Early farmstead and outbuildings dating from early nineteenth-century</li> <li>• Mixed character of buildings according to function</li> <li>• Rural setting</li> </ul>	<ul style="list-style-type: none"> <li>• Rural outbuilding — fits within complex hierarchy by being subservient to the main house but more refined than farm outbuildings</li> <li>• Late twentieth-century Australian vernacular</li> </ul>
SCALE	<ul style="list-style-type: none"> <li>• Main house two-storey</li> <li>• Outbuildings single-storey of various sizes</li> </ul>	<ul style="list-style-type: none"> <li>• Responds to typical single-storey scale of outbuildings</li> <li>• Length broken up by elements and details</li> </ul>
FORM	<ul style="list-style-type: none"> <li>• Simple geometric form to main house</li> <li>• Sheds and other outbuildings typically rectangular in plan and with gabled roofs — some open and some walled</li> <li>• Verandah on house front</li> </ul>	<ul style="list-style-type: none"> <li>• Uses simple rectangular form of outbuildings</li> <li>• Gabled roof with raised ridge for light and to distinguish as new</li> <li>• Verandahs reinterpreted</li> <li>• Form broken up by elements such as water tank and cladding details</li> </ul>
SITING	<ul style="list-style-type: none"> <li>• Main house on prominent position on the hill top</li> <li>• Outbuildings located to the south</li> </ul>	<ul style="list-style-type: none"> <li>• Cottage located carefully for surveillance and so as not to impede critical views</li> </ul>
MATERIALS AND COLOURS	<ul style="list-style-type: none"> <li>• Hierarchy of materials from stone main house to brick and timber for outbuildings</li> <li>• Iron roofs</li> <li>• Outbuildings have limited colour palette</li> </ul>	<ul style="list-style-type: none"> <li>• Timber and iron uses language of site but modern versions of the local vernacular</li> <li>• Colour palette neutral within existing context</li> </ul>
DETAILING	<ul style="list-style-type: none"> <li>• Early nineteenth-century detailing of main house</li> <li>• Outbuildings are rural vernacular</li> </ul>	<ul style="list-style-type: none"> <li>• Simple details belie date of new building and place it within the hierarchy — below the main house but above the outbuildings</li> <li>• Details provide texture, break up form and scale and interpret traditional vernacular</li> </ul>

## RESIDENTIAL/COMMERCIAL DEVELOPMENT IN A TRANSITIONAL CONTEXT (MAIN STREET TO RESIDENTIAL)



LOCATION PLAN

### THE PROJECT

The project, designed by Robert Creed Architects, is a mixed-use residential and commercial development in Stanmore on the city fringe. It comprises two commercial units addressing the main commercial street (Percival Road) in a historic corner building with traditional shopfronts, and a new building with six residential units that address the more domestic character of Myrtle Street.

### THE SITE

The site is at the rear of a corner block, behind a corner shop with a second-storey former residential level dating from the early twentieth-century. The new building fronts the side street. A notable feature of the site is the strong character of the surrounding streetscape. The site is within a local conservation area.

Percival Road is characterised by a series of Edwardian shopfronts running down to the railway station, and Myrtle Street is comprised predominantly of Edwardian cottages. The commercial shopfronts are of brick and render with decorative features. The cottages along Myrtle Street are predominantly brick with terracotta tiled roofs.

Immediately behind the site is an over-scaled apartment building.

### THE CHALLENGES

The main constraint on the site was the need to retain solar access to the large apartments to the rear of the site. This influenced the roof design of the infill building and how the units were set forward. The architect also had the opportunity to minimise the impact of the apartment building behind by screening part of its bulk and using the infill development as an intermediate-sized mass between the large apartment block and the cottages in Myrtle Street.

The client was anxious that approval for the development be gained as smoothly as possible.

### THE SOLUTIONS

The architect was very familiar with the site's context before involvement with the project and had previously worked on similar developments with the client in the area. A comprehensive site analysis was undertaken including measured drawings of the existing building and an examination of historic photographs.

The architect was involved in the development from pre-purchase stage and met with the local council at an early stage to negotiate acceptable development of the site.

The commercial use of the corner shop building on Percival Road was maintained and the use of the new building in Myrtle Street reflects the residential use of the cottages that characterise Myrtle Street. The infill development also emphasises and extends the address of the site to Myrtle Street, which previously seemed more like the backyard of the corner building.

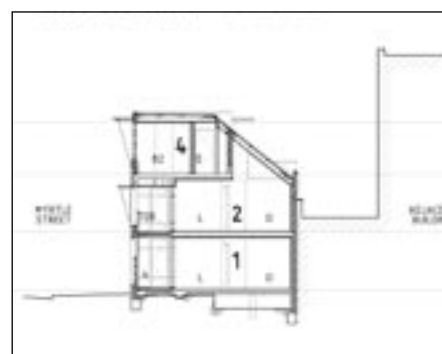
The infill in Myrtle Street is respectful of, and referential to, the historical corner building while clearly articulating the new building through its massing, architectural detailing and use of materials. The difference between the old and the new buildings reflects the different commercial and residential uses of the development.

### THE LESSONS

The main lesson learned from this project was the advantage of early consultation with the local council. The contemporary infill building is clearly articulated from the old buildings, while respecting its character. The use of brick is in harmony with the existing surrounding buildings. The separation of the old and new buildings through a recessed area assists in articulating the new building. The reinforcement of decorative bandings in the new building responds to the decorative character of the old building and creates a relationship between them. The proportions of the openings are not the same but are similar and help the new building to sit comfortably in the streetscape.



54A



54B

54 :

A) The new building takes the existing buildings' scale and form as a reference point, and, by using similar materials, reinvents a contemporary response.

B) Rear section.



55A



55B

55 :  
The new building in its context  
A) the high street with its two-storey shops, and  
B) the adjacent residential streetscape.



56  
The new building is notably contemporary but relates well not only to its immediate neighbours but to others in the vicinity.

DESIGN CRITERIA	EXISTING CONTEXT	INFILL BUILDING
CHARACTER	<ul style="list-style-type: none"> <li>• Early twentieth-century commercial, suburban main street of consistent character</li> <li>• City fringe suburban, late-nineteenth-century residential streetscape of consistent character</li> </ul>	<ul style="list-style-type: none"> <li>• Contemporary low-rise commercial and apartment building, mixed use responds to the context's typical uses</li> </ul>
SCALE	<ul style="list-style-type: none"> <li>• Two-storey parapeted commercial precinct</li> <li>• Single-storey, high-roofed dwellings</li> </ul>	<ul style="list-style-type: none"> <li>• Two-storey parapet continued to allow solar access to adjacent apartments and provide coherence with commercial building</li> <li>• Details used to respond to existing building scale</li> <li>• Openings proportioned to relate to existing building proportions</li> </ul>
FORM	<ul style="list-style-type: none"> <li>• Consistent parapet alignment to commercial street frontage</li> <li>• Attached commercial buildings</li> <li>• Hipped roof forms to residential street, single residences</li> </ul>	<ul style="list-style-type: none"> <li>• Parapet lines continued around corner respond to commercial functions but with residential use. Parapets resolved with contemporary form and materials in response to existing adjacent parapets</li> </ul>
SITING	<ul style="list-style-type: none"> <li>• Commercial buildings to street frontage — attached</li> <li>• Houses with consistent front and side setbacks in small gardens</li> <li>• Small housing lots</li> </ul>	<ul style="list-style-type: none"> <li>• Observes commercial street frontage</li> </ul>
MATERIALS AND COLOURS	<ul style="list-style-type: none"> <li>• Brick banding with stucco</li> <li>• Timber windows and joinery</li> </ul>	<ul style="list-style-type: none"> <li>• Modern brickwork of similar texture and colours</li> <li>• Banding of adjacent building reinterpreted and sight lines observed</li> <li>• Glazing and parapet complements adjacent building in a skilful and contemporary way</li> </ul>
DETAILING	<ul style="list-style-type: none"> <li>• Parapet detailing</li> <li>• Banding of materials</li> <li>• Timber joinery and fenestration</li> </ul>	<ul style="list-style-type: none"> <li>• Openings detailed to respond to, but not mimic, adjacent building</li> <li>• New materials and modern details used to create texture and respond to scale</li> </ul>

## COMMERCIAL DEVELOPMENT IN AN INNER-CITY URBAN CONSERVATION AREA OF MIXED CHARACTER



LOCATION PLAN

### THE PROJECT

The retail and commercial building at 490 Crown Street — designed by Alexander Tzannes Associates in association with Peter Reed and Associates — consists of three components: the Clock Hotel, which is a listed heritage item, an old warehouse and a new infill building located between them. It was developed as a syndicate investment by Philip Bartlett of P. and J. Projects. The architects prepared guidelines for the project in advance of the development application. On approval of the development application the site was divided and the Clock Hotel was sold. The guidelines ensured that the site was responsibly developed in an architecturally sympathetic manner despite the detailing of the Clock Hotel being undertaken by a different design team.

### THE SITE

The development addressed a major thoroughfare in the nineteenth-century inner city historic context of Surry Hills. To the west and south of the site are two three-storey nineteenth-century terraces with commercial shop fronts. To the east are a residential neighbourhood and a pedestrian lane. To the north are a park and historic industrial buildings that have been converted to new uses.

The area is a conservation area with a character of mixed nineteenth-century masonry buildings, predominantly two and three-storey in height.

### THE CHALLENGES

Prior to the master planning process, development on the site had been halted for about 10 years by community opposition due to previous inappropriate proposals for the site. The new development proposal included the conservation of the heritage buildings and the insertion of a new commercial building that addressed the community concerns but also proved viable and attractive to the developer. The decision was made to retain the warehouse to complete the two masonry bookends to the site. The development had to minimise overshadowing on the narrow rear lane and terraces behind.

### THE SOLUTIONS

The project team of architect, developer, project manager and consultants worked closely with the community to develop design concepts that emphasised the conservation of the significant buildings whilst providing a commercial return.

The new building along Crown Street follows the height and street alignments of the existing buildings between which it sits. In particular, the horizontal lines of the parapet, lintel, cornice and street awning of the warehouse to the south carry through into the new building and define its three storeys.

Above the street level awning, the second level wall is in the same plane as the adjacent warehouse and is composed of a series of sliding, louvred shutters in front of a glazed

wall. The pattern of shutters, which reveals only discreet areas of glazing, recalls the proportions of solid to void of its neighbours. At the upper level a finely detailed steel-framed and balustraded verandah runs the length of the building. The verandah reads as a deeply shadowed recess and contrasts with the unadorned masonry plane of the high parapet wall of the warehouse.

The building grid repeats the traditional terrace width of the buildings opposite. The development is set back from the rear lane to provide solar access to the terraces behind and reduce the impact of the scale in relation to these smaller building forms.

Ecologically sustainable development initiatives include the centralisation of lifts and central light wells, as well as sun shading devices to the western façade, minimal air-conditioning and the use of a night purge system.

The unobtrusive and low key contemporary design and detailing provide a rhythmic transition along Crown Street from the relative plainness of the warehouse at the southern end of the block to the more highly articulated Crown Hotel at the northern end.

### THE LESSONS

The building skilfully follows existing heights and alignments to create a confident new building using contemporary materials, construction techniques and details. The new design acknowledges the essential qualities of the existing context — the horizontality and planar expression of the existing buildings and a limited palette of materials.

Discreet modulation of the principal façade plane by light and shade and texture creates a comfortable fit with the adjacent buildings, without using the same materials or construction methods. Furthermore, although the panels of louvres, glass and wire balustrade are not exactly the same proportions as those of the existing buildings, they are akin in size, scale and proportion.

Whilst respecting the important contextual alignments and qualities, the new building achieved 30 per cent more floor space than was indicated by the numerical controls for the site. This was achieved without significant objection from the local community. The long-running concerns about the development of the site were solved through skilful and thoughtful design that understood and responded to its context. The development has made a significant contribution to enlivening this part of the inner city.

57A AND 57B :  
Crown Street: the streetscape opposite  
the new building.

57A



57B







58



59

**58 :**  
The Clock Hotel, with the new building recessed to the main building line, forms part of the continuous street wall.

**59 :**  
The new development from the rear, showing how it steps down to the rear lane.



60

**60 :**  
The new building 'book-ended' by the existing hotel to the left and the warehouse to the right.

DESIGN CRITERIA	EXISTING CONTEXT	INFILL BUILDING
CHARACTER	<ul style="list-style-type: none"> <li>Mixed character: typical nineteenth-century urban commercial and residential terrace buildings including corner hotel building</li> <li>Busy main street frontage and narrow lanes to rear</li> </ul>	<ul style="list-style-type: none"> <li>Is coherent with nineteenth-century character but in a new manner</li> <li>Reinforces existing mixed character by reiterating form, scale and proportions</li> </ul>
SCALE	<ul style="list-style-type: none"> <li>Two-storey terraces opposite and to rear lane</li> <li>Three-storey buildings adjacent</li> <li>Awnings to commercial buildings adjacent and opposite at first floor level</li> </ul>	<ul style="list-style-type: none"> <li>Three-storey to fit within scale of existing buildings that bookend the new building</li> <li>Third-storey set back at rear to act as transition between existing terraces and new building</li> <li>Typical terrace width repeated in new building's grid</li> <li>Level one awnings, parapet and cornice lines reiterated in new building to create a strong relationship between new and old</li> </ul>
FORM	<ul style="list-style-type: none"> <li>Terraces are typical scale and form with simple roof forms and strong wall-to-street frontage</li> <li>Commercial bookend buildings with strong parapeted skyline</li> </ul>	<ul style="list-style-type: none"> <li>Form takes its cue from the adjacent buildings and those around it. The building form continues the existing forms</li> <li>Parapet line continued and articulated in a contemporary manner as a new building</li> </ul>
SITING	<ul style="list-style-type: none"> <li>Buildings aligned to street frontage, and occupy whole site</li> </ul>	<ul style="list-style-type: none"> <li>Observes local setbacks</li> <li>Upper level to rear lane set back to improve solar access of terraces opposite and address difference in scale</li> <li>Louvres re-establish adjacent verandah/plane of building</li> </ul>
MATERIALS AND COLOURS	<ul style="list-style-type: none"> <li>Brick and rendered walling</li> <li>Timber and wrought iron detailing and verandahs</li> <li>Iron and slate roofing</li> <li>Various colours</li> </ul>	<ul style="list-style-type: none"> <li>Rendered masonry to main structure</li> <li>Timber and steel used for modern details adjacent to hotel verandah</li> </ul>
DETAILING	<ul style="list-style-type: none"> <li>Restricted detailing to existing warehouse building</li> <li>Typical Victorian detailing to hotel and terraces houses opposite</li> </ul>	<ul style="list-style-type: none"> <li>Modern detailing used in new elements that perform similar roles to the historic buildings</li> </ul>

## RESIDENTIAL AND COMMERCIAL DEVELOPMENT INTRODUCING NEW USES IN AN INNER CITY CONSERVATION AREA OF MIXED CHARACTER



LOCATION PLAN

### THE PROJECT

The project involved a new commercial office and retail ground floor building in inner city Pyrmont. The building was designed by Allen Jack + Cottier for Bulawayo Holdings and was completed in 2002.

### THE SITE

The context is varied in use, scale and materials, including late-Victorian and early twentieth-century face brick stores and warehouses, late-Victorian stucco terraced houses, recent warehouses, recent commercial buildings and contemporary apartments and conversions. The site contained a car park and a 1947 warehouse building that was retained and adaptively re-used.

### THE CHALLENGES

The mixed character of the area, with its varied residential, commercial and light industrial character, variety of building types and materials and awkward juxtapositions of scale, provided a mixed but challenging context. The local council considered it was vital for the new building to act as a transition between the scale of a row of terraces to the north and the three-storey commercial building on the other side. The transitional character of the new building was to be evident from both the front and side of the building. Immediately opposite the site is a historically significant wool store.

### THE SOLUTION

The project recycled the existing warehouse and integrated it with a new three-storey building on the site of the car park. The building was constructed to the boundary on the street frontages to reinforce the pattern of existing development.

The new building respects the scale of the smaller adjacent buildings to the rear and side of the development by setting back the main façade so the parapet line is broken. The northern façade is set back approximately the width of a terrace house, which serves to fragment the scale when viewing the elevation adjacent to the terrace houses. Level two is further set back on the street frontages, the setback being disguised within the steel pergola.

The new building responds to the vertical rhythm of the terrace houses. A concrete structural frame was used with balustrades, louvres and awning details to articulate the façade and create bays of a similar width to the terrace houses. The details add a level of visual complexity in a contemporary manner that is compatible with the existing level of detailing of many of the buildings in the conservation area.

Passive sun control devices such as operable louvres and light shelves were employed, with smaller openings to the north to control solar access.

The use of materials and detailing is different from the surrounding buildings and clearly contemporary. The new building is robust and articulated, which resonates with the industrial heritage of the area.

### THE LESSONS

By stepping the façades of the building it was possible to provide the necessary transition between the differing scale of the adjacent buildings. The building is clearly contemporary, but responds successfully to the scale, form and detailing of the conservation area. The use of a variety of materials provides a richness and texture that refers, but does not copy, the older buildings in the vicinity.



61 :  
The new building from the rear with the old wool store visible at the end of the lane.



62 : The building in its streetscape context.



63 :  
Section.



64 :  
The building site between existing terraces and a nondescript warehouse. It provides a transition between these but responds to the industrialised buildings of the area.

DESIGN CRITERIA	EXISTING CONTEXT	INFILL BUILDING
CHARACTER	<ul style="list-style-type: none"> <li>Mixed character including late nineteenth-century and early twentieth-century inner city residential terraces, warehouses and commercial buildings</li> </ul>	<ul style="list-style-type: none"> <li>Responds to mixed character in a quiet and neutral way, reinforcing scale and proportions of existing buildings</li> <li>Mixed use echoes mixed use of area</li> </ul>
SCALE	<ul style="list-style-type: none"> <li>Adjacent buildings — large scale three-storey warehouses</li> <li>Two-storey terraces to other side</li> </ul>	<ul style="list-style-type: none"> <li>Main façade is set back to break parapet line</li> <li>Northern elevation adjacent to terrace houses set back width of a terrace house to fragment scale</li> <li>Structural grid is based on terrace house width of the area</li> </ul>
FORM	<ul style="list-style-type: none"> <li>Simple geometric block-like forms of warehouse</li> <li>Typical terrace form</li> </ul>	<ul style="list-style-type: none"> <li>Simple block form with structural grid</li> <li>Setbacks and screening used to create transitions between new and existing adjacent buildings</li> </ul>
SITING	<ul style="list-style-type: none"> <li>Existing buildings mixed — some set to street frontage, others set back</li> <li>Rear lane mixed — wool store to street, housing with small rear yards</li> </ul>	<ul style="list-style-type: none"> <li>Observes street frontage to front and rear to reinforce existing street patterns</li> <li>Side setback provides rear access to underground parking</li> </ul>
MATERIALS AND COLOURS	<ul style="list-style-type: none"> <li>Brick, rendered masonry, concrete</li> <li>Iron roofs</li> </ul>	<ul style="list-style-type: none"> <li>Concrete and steel used as structural frame, glazed bricks and stucco reinterpret adjacent historic materials with a twist</li> </ul>
DETAILING	<ul style="list-style-type: none"> <li>Large scale robust industrial details to wool store and factory buildings, typical terrace house details to houses</li> </ul>	<ul style="list-style-type: none"> <li>Modern details to building relate to proportions of surrounding buildings such as openings</li> <li>Modern louvres and screens relate to, but do not copy, the rhythm of the adjacent verandah</li> <li>Bold and robust handling of materials and details responds to semi-industrial character of the area</li> </ul>

## A NEW PUBLIC BUILDING IN A CBD HISTORIC CONTEXT



LOCATION PLAN

**65A :**  
The building sits in a mixed context of nineteenth-century to late twentieth-century buildings.

**65B :**  
The new building with the existing fire station adjacent.



65A



65B

### THE PROJECT

The project, in the City of Sydney, involved the conservation of the original 1887 fire brigade building, adaptive re-use of the 1912 addition, construction of a covered courtyard behind these buildings, demolition of a factory fronting Castlereagh Street and construction of a new building on this site. The NSW Government Architect with architects Lindsay Clare and Kerry Clare has created a new complex which continues the site's use by the NSW Fire Brigades but accommodates the modern requirements of a fully functional fire station.

### THE SITE

The original three-storey masonry building fronting Castlereagh Street was designed by the Colonial Architect, James Barnet, and completed in 1887. The building was extended by Spain Cosh and Minnet in 1912 following the demolition of two cottages. The 1912 extension is an addition of a similar scale and in the style, materials and detail of the 1887 façade. Various later changes to the site have occurred over time to facilitate the operational needs of the Fire Brigade, including the demolition of the terraces to the rear of the site fronting Bathurst Street.

The site is in the inner CBD, opposite buildings of similar scale and character but surrounded by much later and larger buildings.

The site is listed as a heritage item on the State Heritage Register and the City of Sydney's local environmental plan.

### THE CHALLENGES

The continued use of the site by the NSW Fire Brigade, the buildings' aesthetic and streetscape qualities and the significance of their early fabric were identified as important heritage values. The challenge was to integrate the various components of the site to provide a modern, fully operational and efficient fire station. Conservation works were needed to the 1887 building, and the 1912 building needed adaptation to provide for updated functions.

The new building was required to provide for new operational needs of the Fire Brigade and those functions that could not be provided in the existing buildings without major intervention in the significant fabric.

The original building was designed to accommodate horse-drawn fire trucks. The later addition provided for minor changes in technology that occurred in the 25 years since the original building's construction. In contrast, there was a marked difference between building technologies in 1912 and 2000, and the expectations of a modern, functionally and environmentally efficient fire station. Large span

openings, for example, were not anticipated in either the 1887 or 1912 buildings. The challenge was how to maintain continuity when the function and the city environment have changed so markedly.

The initial response to the proposal by the Heritage Office, Sydney City Council officers and the National Trust was that the contemporary glass façade treatment would contrast too markedly with the solid masonry of the existing buildings. The architects were required to provide detailed documentation of the proposal for assessment purposes at the development application stage.

### THE SOLUTION

The solution was a contemporary glass-clad building, L-shaped in plan, which provided an internal courtyard. The fire appliances are located in the new building, which provides space for higher vehicles; the courtyard facilitates the larger turning circles of the modern fire appliances. The new building was designed to operate effectively with natural light and ventilation within the inner city location. To achieve this, a double-skin façade to Castlereagh Street was devised.

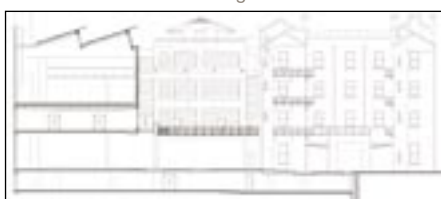
The interrelationship of the 1887 and 1912 structures with the new L-shaped wing is complex, as the latter encloses the rear of the heritage buildings and creates quite a deep plan arrangement for the naturally ventilated spaces.

The solution for this project developed from analysis and examination of the existing infill guidance that recommended that the masonry façade with standard openings be reinterpreted. Detailed presentations to the Heritage Office early in the design process enabled the regulatory authorities to fully understand the architect's environmental response to the new context and why this alternative approach was valid. Following this meeting the proposal was supported as an appropriate interpretation and response to the historic context. Subsequent discussions and negotiations with the National Trust and Sydney City Council's Heritage Department gained their support and the development was approved.

The solution challenges the normal pre-conception that a glass façade would not be acceptable within a historic context that is predominantly masonry with punched openings. The glass screen, with the pattern of openings behind, provides a level of decorative detail appropriate to the original building and reminiscent of the masonry building's rhythm of solid to void. The base and top section of the new structure relate to the scale of its neighbour. Contemporary details and markers were used to create new relationships with the key architectural elements of the heritage building.



66A : Elevation to Castlereagh Street.



66B : Section through the site.



67 : The model of the site illustrates how the new building works in relation to the interior court.



68 : The interior court.

**THE LESSONS**

The extension to the fire station in Castlereagh Street is exemplary in its use of a glazed façade and its subtle treatment of bays that relates to the consistent historic context of Castlereagh Street buildings.

Early consultation with the approval authorities and thorough explanation of the issues meant that a non-standard solution could be fully understood before the development application was submitted. The architect’s re-interpretation of the existing building in a contemporary

manner was refined during this process through open discussion between the architect and the authorities.

The new complex of buildings retains the continued use of the site by the NSW Fire Brigade but provides for the significant technological changes to its operational requirements that have occurred since the late nineteenth-century. The evolution of the site over the last 125 years to meet these needs has also retained the two heritage buildings. It has also added a new, high-quality building

to the ensemble, reinforcing the scale and character of the existing buildings and the streetscape. It provides for modern functional requirements in a way that does not diminish the significance of the heritage buildings.

This case study shows that it is possible to achieve a highly contemporary, non-standard solution that meets the broader aims and objectives of the criteria for good design in an historic context.

DESIGN CRITERIA	EXISTING CONTEXT	INFILL BUILDING
CHARACTER	<ul style="list-style-type: none"> <li>Highly mixed CBD varying between nineteenth-century commercial buildings and twentieth-century office buildings</li> </ul>	<ul style="list-style-type: none"> <li>Contemporary new building with its own character that responds to existing context and skilfully sits quietly within it</li> </ul>
SCALE	<ul style="list-style-type: none"> <li>Mixed scale from four to five- storied adjacent buildings to nearby high-rise</li> </ul>	<ul style="list-style-type: none"> <li>Follows scale of adjacent building to street although is deeper in plan</li> </ul>
FORM	<ul style="list-style-type: none"> <li>Adjacent existing fire station of robust simple rectilinear form with parapeted roofline</li> <li>Solid façade with wide openings to street level and smaller punched regular openings above</li> </ul>	<ul style="list-style-type: none"> <li>Continues existing fire station form following parapet line and solid wall with large street level openings</li> <li>Glass screen reiterates solid form to street but proportions of openings behind relate to those of the existing buildings</li> </ul>
SITING	<ul style="list-style-type: none"> <li>Buildings to street frontage with courtyard behind</li> </ul>	<ul style="list-style-type: none"> <li>Follows siting to streetscape of existing buildings</li> </ul>
MATERIALS AND COLOURS	<ul style="list-style-type: none"> <li>Rendered masonry, mixed colour palette</li> </ul>	<ul style="list-style-type: none"> <li>Inverts solid walling by use of glass screen with openings behind</li> <li>Steel used as detailing element exposing structure</li> </ul>
DETAILING	<ul style="list-style-type: none"> <li>Nineteenth-century rich detailing with articulated parapet, decorated window surrounds and emphasised cornice lines</li> <li>Vertical emphasis provided through articulated structure</li> </ul>	<ul style="list-style-type: none"> <li>Pared down detailing that responds to level of detailing of existing buildings using contemporary means and materials</li> <li>Cornice lines responded in articulation of floor plates through the glass screen</li> </ul>

## MASTER PLANNING A SITE OF MIXED CHARACTER WITHIN A CONSERVATION AREA OF UNIFIED CHARACTER



LOCATION PLAN

### 69A AND 69B :

The rear of the new terrace reiterates the typical terrace house in a contemporary manner that provides good solar access and improves the amenity of the traditional model.



69A



69B

### THE PROJECT

The project involved the redevelopment of the former Royal Women's Hospital in Paddington to residential apartments and terrace houses. A master plan for the site divided it into seven precincts and the developer, Stockland Trust Group, employed Allen Jack + Cottier (AJ+C) as one of three firms of architects engaged on the project. AJ+C designed 21 Torrens title terraces on either side of a new central road, Flinton Terrace.

### THE SITE

The site contains a range of buildings and elements, some with heritage significance and listed on the local environmental plan. These include the Gynaecology Building on the eastern side of the site, the gatehouse on Young Street and the distinctive tall chimney, which is also a landmark in the local area.

The context of the site is the Paddington terrace house landscape, with its repetitive form and character typical of Victorian terrace houses, interspersed with shops and pubs along Glenmore Road and Oxford Street. This nineteenth-century pattern of development is a distinctive subdivision pattern that has created the characteristic fine grain of the area.

The significant hospital buildings are much larger than the surrounding housing and positioned deep within the site. There is not, therefore, a strong relationship with the fine grain of the edges of the site, nor a strong visual connection to the historic streetscapes characteristic of the Paddington Conservation Area.

### THE CHALLENGES

The project aimed to provide high quality housing within the adapted heritage buildings and new housing that responded both to the industrial scale and character of the site and the very different scale and character of the adjacent terraces. The proposal also had to provide a new urban design solution that created strong new relationships with the adjacent housing and, at the same time, retain the site's industrial character as well as its new function as a residential precinct.

There was considerable community input into the planning and design of the development. The heritage value of the area demanded a high degree of public scrutiny. Paddington has a well-recognised sense of place that is enjoyed by residents and visitors alike. Previous proposals for the site had failed as they did not recognise the unique character of the place and did not provide a solution that reinforced that character in a way that was palatable to the community.

### THE SOLUTIONS

AJ+C developed a particular contemporary interpretation of the traditional terrace house form for each of the two precincts they were involved in. The new houses reflect the traditional width, height and massing of nearby nineteenth-century terraces, reinforcing the precinct's grain, scale and form. The houses are orientated east-west to maximise sun penetration to the front of the houses and to their rear courtyard gardens. They have split-level cross-sections following the fall of the land, creating a sequence of well-lit airy rooms with three-metre high living spaces.

In the second precinct the houses are L-shaped around a north-facing courtyard with a single-storey rear wing. The rear skillion roofs are steeply pitched to the north, providing privacy from adjacent houses and to catch winter sun.

Parking in the area is problematic and this was solved by raising the houses off the ground with the garages beneath the living spaces. This adds to the privacy of the living spaces above.

The predominant use of masonry in the area is reinterpreted in modern versions of rendered block work. The traditional detailing of the area is reinterpreted through the use of verandahs and shutters that use modern materials and detailing.

### THE LESSONS

The master plan for the area identified the important contributors to the local character that are treasured by residents and the broader community, such as the fine grain provided by the subdivision pattern, form, scale and detailing.

The new houses reinterpret the traditional vernacular of terraced housing, being arranged in rows with mirrored forms and capturing the repetitive nature of Paddington's streetscapes and roofscapes. But the new houses improve on the traditional versions through their east-west orientation, with living areas and outdoor areas all placed to ensure a maximum of northern light and solar access.

Although the houses are inspired by the terrace tradition they do not mimic it, but provide a recognisably contemporary addition to the neighbourhood.



70 : The existing former hospital buildings and the new apartment block with the rear of the terraces in the foreground.



71 : The new development in its context with the typical Paddington terraces behind.



72 : The new terrace streetscape

DESIGN CRITERIA	EXISTING CONTEXT	INFILL BUILDING
CHARACTER	<ul style="list-style-type: none"> <li>Nineteenth-century inner city terrace houses to site edge</li> <li>Nineteenth and twentieth-century hospital site with prominent chimney</li> </ul>	<ul style="list-style-type: none"> <li>Responds to character by reiterating the typical terrace house scale, form and materials, thereby retaining the consistent fine grain of the area</li> </ul>
SCALE	<ul style="list-style-type: none"> <li>Two-storey terraces</li> <li>Up to five-storey hospital building, landmark chimney stack</li> </ul>	<ul style="list-style-type: none"> <li>Houses follow traditional terrace house scale by reiterating width, height and massing</li> <li>Sloping terrain used to lift terraces up half a level and provide parking beneath</li> </ul>
FORM	<ul style="list-style-type: none"> <li>Terraces with typical rectilinear volume with pitched roof, planar form broken by front verandahs, consistent height and width responding to terrain</li> <li>Former hospital site: large scale building with robust rectilinear form, long verandah, uniform openings</li> </ul>	<ul style="list-style-type: none"> <li>Reiterates typical terrace house form but reinterpreted to provide modern living requirements</li> </ul>
SITING	<ul style="list-style-type: none"> <li>Terraces run north-south following hillside: houses to street front, small rear yards</li> <li>Hospital buildings run at an angle and sited across the hill perpendicular to residential streets</li> </ul>	<ul style="list-style-type: none"> <li>Site planned to alter residential pattern but relates to it in grain to allow improved solar access of houses</li> <li>Large scale apartment buildings follow industrial building's siting</li> </ul>
MATERIALS AND COLOURS	<ul style="list-style-type: none"> <li>Terraces have consistent palette of materials including sandstone bases, brick and stucco walls, slate, iron and terracotta tiled roofs, iron balustrades to verandahs</li> <li>Former hospital buildings are of brick</li> </ul>	<ul style="list-style-type: none"> <li>Solid masonry rendered base reinterprets adjacent buildings</li> <li>Iron roofing is consistent with adjacent existing housing</li> <li>Limited palette of materials — rendered masonry, consistent colouring, steel and glass verandahs</li> </ul>
DETAILING	<ul style="list-style-type: none"> <li>Typical nineteenth-century terrace house details with decorative ironwork</li> <li>Pared down industrialised detailing to former hospital buildings</li> </ul>	<ul style="list-style-type: none"> <li>Simple pared down modern detailing to new terraces</li> </ul>

The case studies indicate that it is possible to achieve high quality, well-designed buildings that respond and contribute to the historic environment. All these examples demonstrate a good understanding by the designer of the unique and often unified character and qualities of the site that have made it worthy of heritage listing.

What is clear from the examples is that there are different issues to be considered at each site. The relative importance of the criteria outlined in the guidelines will vary in response to the particular qualities or constraints of different sites.

In nearly every case study the importance of early and creative consultation between the architect and the statutory authority is emphasised. It is also demonstrated that the statutory authorities play an important role in achieving high quality in the built environment. High standards can help in achieving a quality environment.

Infill buildings can successfully provide for new modern demands within the context of the historic environment. Understanding and being sympathetic to heritage buildings, materials and settings does not prevent good modern architecture. In fact it demands it. New architecture can complement existing heritage buildings or conservation areas by following historic character, by adapting it or by contrasting with it.

The design criteria outlined in this brochure are a guide to people interested in or designing a new building in an established and valued historic context. 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 topics outlined in this brochure. In addition it may be useful to look out for good new work in your area and find out the names of the architects, builders and tradespeople involved.

Key organisations and contacts include:

- Heritage advisors and planning officers of your local shire or municipal council;
- New South Wales Heritage Office  
3 Marist Place, Parramatta 2150  
Telephone (02) 9873 8500  
[www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au);
- Royal Australian Institute of Architects  
NSW Chapter  
3 Manning Street, Potts Point 2011  
Telephone (02) 9356 2955  
[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);
- Australian Institute of Landscape Architects  
(NSW Group)  
PO Box 655, Lane Cove 2066  
[www.aila.org.au](http://www.aila.org.au)



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**69B** Bart Maiorana

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**THE FOLLOWING DOCUMENTS ARE REFERRED TO IN THE TEXT OR PROVIDE INFORMATION ON THE DESIGN OF NEW BUILDINGS IN A VALUED HISTORIC CONTEXT. ADDITIONAL REFERENCES ARE PROVIDED ON THE HISTORIC ENVIRONMENT, ARCHITECTURAL CHARACTER, HISTORY AND CONSERVATION.**

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