CASE STUDY

The Gantry, Camperdown

New life for old factories
The Gantry is enriched by retaining the heritage structures along the main street frontage of the project.
Image: Martin Mischkulnig.

Urban renewal of a former industrial site for residential uses, featuring adaptive re-use, new buildings, and a delightful communal courtyard

QUICK FACTS

APARTMENT BUILDING TYPE:
Hybrid

LOCATION:
Camperdown, NSW, Urban

COUNTRY:
Gadigal

LOCAL GOVERNMENT AREA:
Inner West Council

ZONING:
General Business 3 (A), Residential 2 (C)

APPLICABLE CONTROL:
2002 Residential Flat Design Code (RFDC)

CLIENT:
City Freeholds

PROCUREMENT:
Design and construct with architectural services throughout

PROJECT DATA:
Site area 9,903 m^2
Floor space ratio 2.29:1 (on 3(A) zoned land) and 1.66:1 (Residential 2(C) zoning)
191 apartments
(127 x 1B, 52 x 2B, 12 x 3B)
3 retail/commercial units
2–6 storeys
300 car parking spaces
195 bicycle parking spaces
(191 for residents)

SITE DENSITY:
193 dwellings/ha

YEAR:
Completed 2013

PROJECT TEAM:

ARCHITECT
Bates Smart

LANDSCAPE ARCHITECT
Aspect Studios

TOWN PLANNER
Ethos Urban

HERITAGE
OCP Architects

CIVIL ENGINEER
Acor Consultants

STRUCTURAL, HYDRAULIC, ELECTRICAL AND MECHANICAL ENGINEER
AECOM

ELECTRICAL ENGINEER
S4B Studio

MECHANICAL ENGINEER
Edwards & Vickerman Consulting Engineers

BUILDER
Parkview Constructions

AWARDS:

2014 AIA NSW, Residential Architecture – Multiple Housing, Aaron Bolot Award

2014 AIA National, Residential Architecture – Multiple Housing, Commendation

2014 Marrickville Council, Marrickville Medal for Conservation

NSW GOVERNMENT

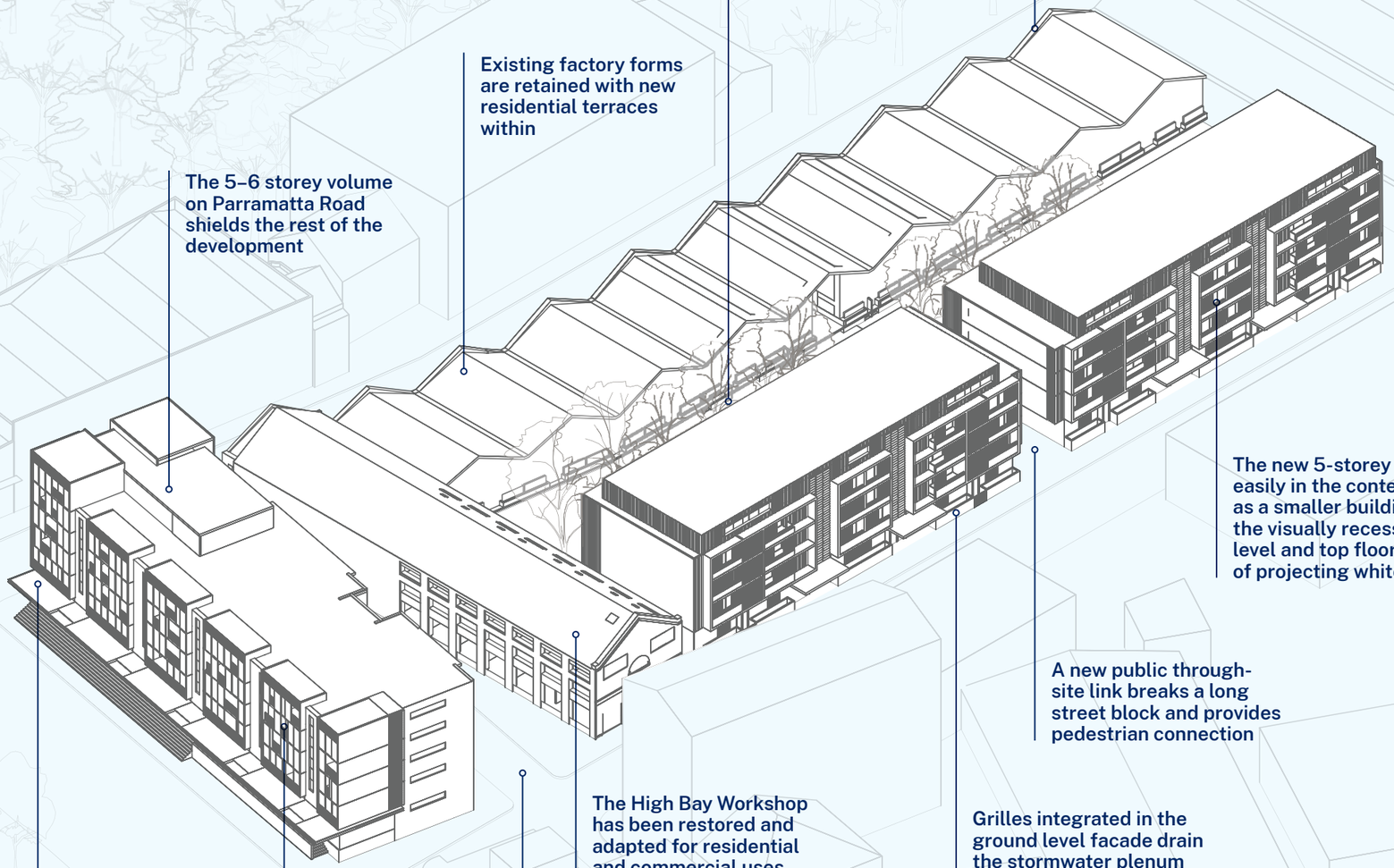
Expertly handled, this mixed-use urban project serves as an example of the design quality and outcomes that can be achieved by market development.

Retaining the heritage brick facades enriches the precinct as well as the dwellings

A well-planted communal space complements the public park opposite and provides residents with alternative outdoor space

Existing factory forms are retained with new residential terraces within

The 5–6 storey volume on Parramatta Road shields the rest of the development



The new 5-storey form fits easily in the context, reading as a smaller building with the visually recessive ground level and top floor either side of projecting white balconies

A new public through-site link breaks a long street block and provides pedestrian connection

Grilles integrated in the ground level facade drain the stormwater plenum between the basement and the ground floor

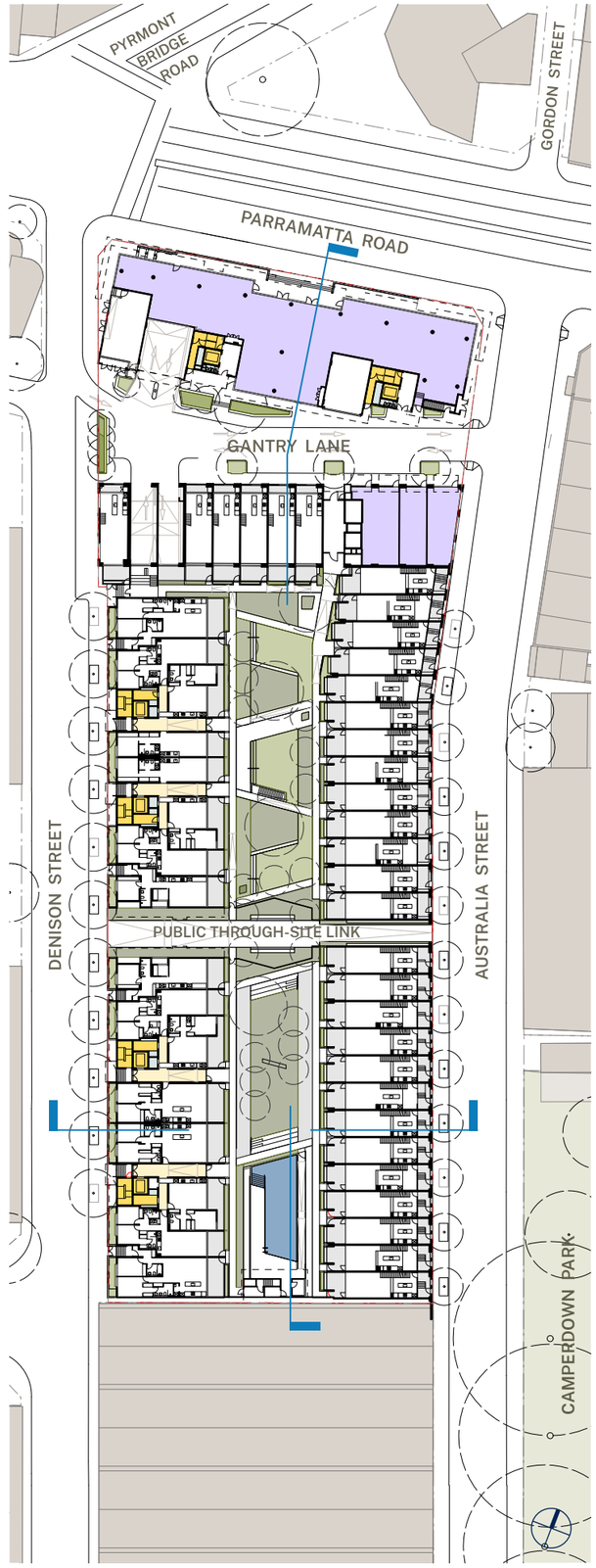
The High Bay Workshop has been restored and adapted for residential and commercial uses

A new lane extends an existing lane to the west

An awning and raised retail provides additional buffer for the apartments above

Parramatta Road apartments feature balconies with operable glazing to shut off noise and pollution

Axonometric view from the north-west
Image: Bates Smart, MAKO Architecture.



Ground floor plan

10 25 50M

Site section
The north–south section, along the length of the site and through the courtyard, demonstrates the efforts in basement planning to achieve deep soil for significant planting.


Image: Martin Mischkulnig.

The Gantry is a complex mixed-use residential project of rare conceptual clarity, with a varied collection of buildings each responding to particular conditions coming together as a cohesive composition.

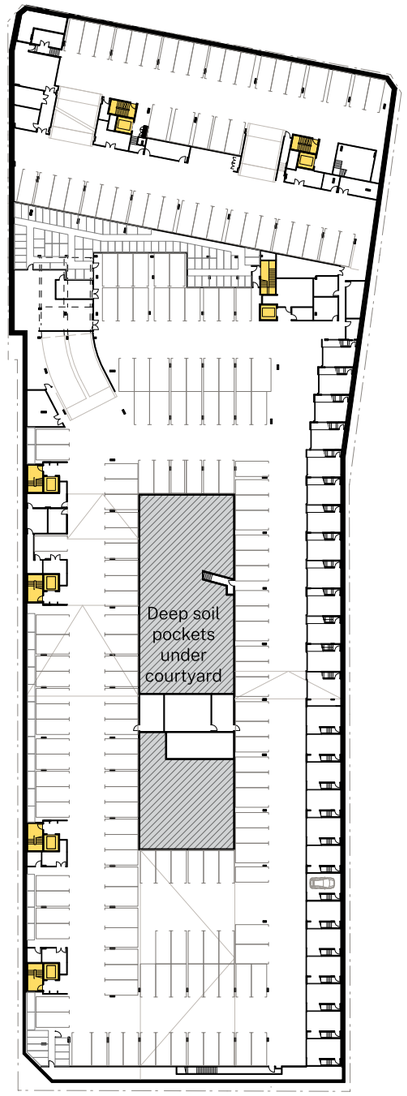
This project demonstrates how to achieve high-quality outcomes for market-driven residential development. The site layout is clear and uncompromising, the architecture simple and calm, and materials are cost-effective but well-composed.

On a former light-industrial site in an inner-ring suburb, the Gantry incorporates 2 new cross-site connections to augment the public realm and improve connectivity. Gantry Lane extends the local street pattern from the west, and a new mid-block pedestrian through-site link increases the walkability of the neighbourhood and activates the site. The link is generous in width and lined with heritage interpretation, seats and landscaping, offering a comfortable place to pause and appreciate the courtyard.

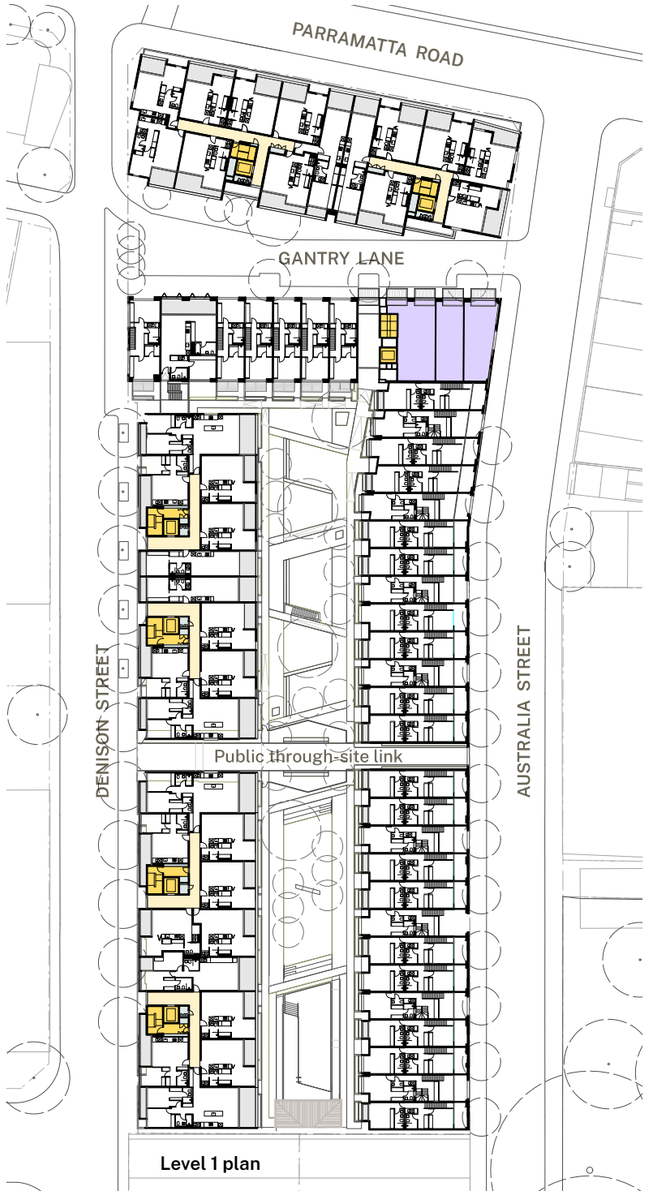
Along the eastern Australia Street frontage, the long, distinctive facade of the former motorcar workshops has been carefully restored. The striking gabled parapet line with large semi-circular vents and brick string coursing continues to define the streetscape. Two and three-storey terraces are inserted behind and connect through to the communal courtyard. The original High Bay Workshop at the northern end has been adapted for both residential and commercial use.

On the other side of Gantry Lane, a mixed-use 5–6 storey apartment building fronts busy Parramatta Road, acting as an acoustic shield for the development behind. A ground floor commercial tenancy with an awning further distances upper residential levels from the road.

Residential lobbies are accessed from the lane. The upper-level apartments facing the road respond to the challenge of having their sun and outlook coming from the same direction as noise and pollution by having enclosed balconies with solid balustrades and operable glazing, forming ‘wintergardens’.



Basement 1 plan



Level 1 plan

Factory form
The terrace apartments sit within the volumes of the former factories. The sunken courtyard (photographed here before the landscaping was established) serves double duty as both communal space and on-site detention. Image: Brett Boardman Photography.

10 25 50M

New to go with the old

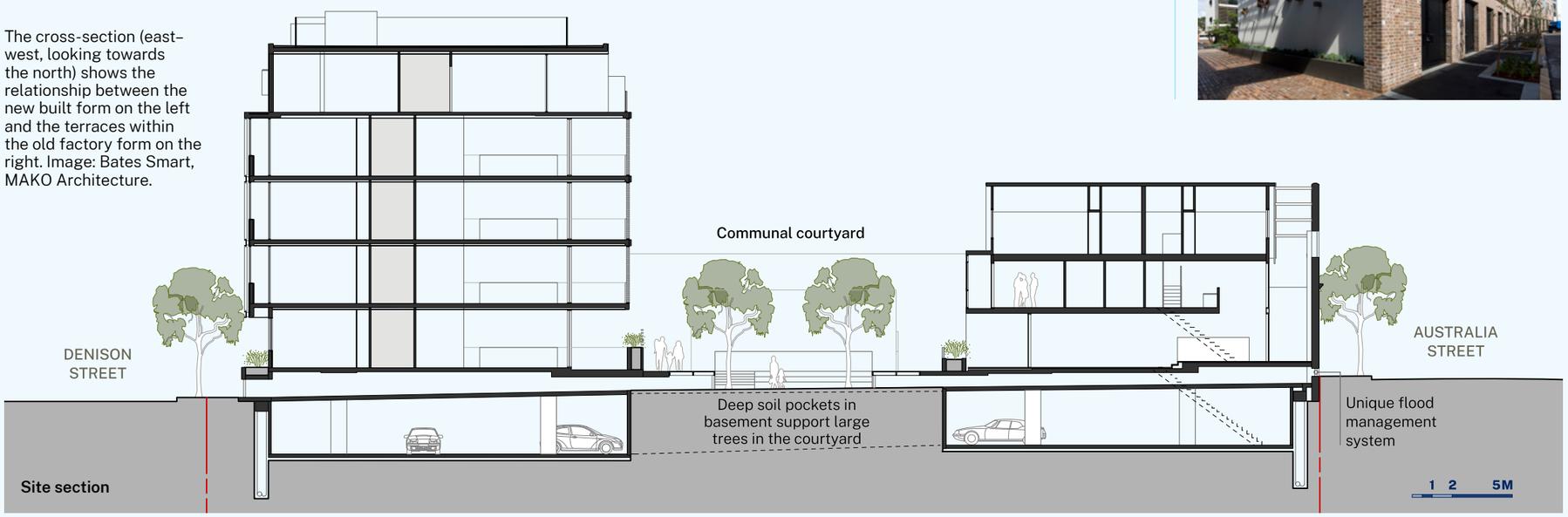
Two 5-storey buildings to either side of the through-site link define the Denison Street edge of the site. The strong composition of the facade starts with a base of face brick at ground level. The 3 levels above have projecting white-painted concrete balconies, while above them the top floor recedes visually through being clad in darker-coloured metal sheeting. Solid balustrade upstands and a combination of fixed and operable louvred screens provide apartments with privacy from the street and protection from low afternoon sun. On the courtyard side, units become more open for solar access and views, with increased glazing and large balconies with glass balustrades. Each building has 2 lift cores, increasing the number of dual-aspect units (for natural cross-ventilation) and reducing the number of units having to share each floor. Entrance lobbies run cleanly through the building to provide glimpses of the courtyard beyond. Thinner building footprints allow standard-sized apartments to be wider than usual, permitting generous living room widths and some interesting plan variations with kitchens coming forward to occupy space on external facades.

The Gantry admirably incorporates new elements of public realm, integrates existing built fabric, and delivers considerable communal open space while achieving excellent residential amenity on an inner-city brownfield site with a plethora of environmental constraints.

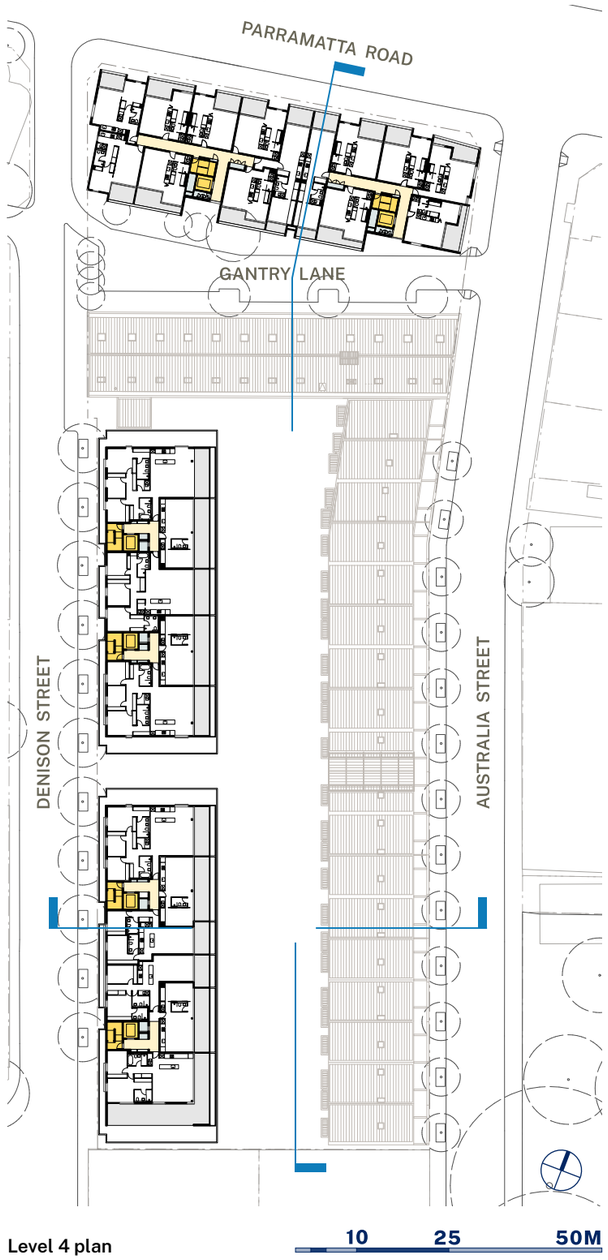
Commercial frontage
The wintergardens above ground floor retail.
Image: Brett Boardman Photography.

Publicly accessible
The through-site link bisects a long street block and allows the public to appreciate the heritage features of the site, originally a ceramics factory.
Image above: Martin Mischkulnig. Image below: Brett Boardman Photography.

The cross-section (east–west, looking towards the north) shows the relationship between the new built form on the left and the terraces within the old factory form on the right. Image: Bates Smart, MAKO Architecture.



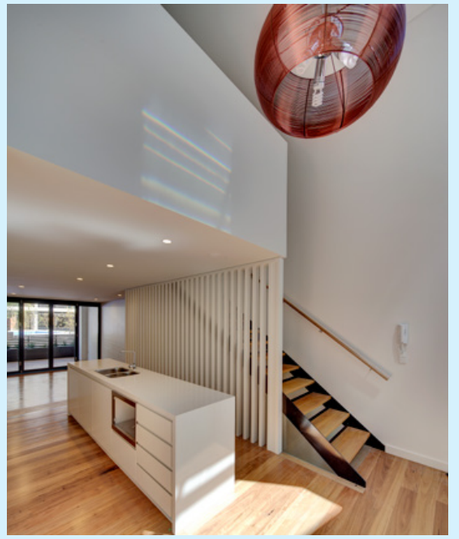
Site section



Level 4 plan

High Bay Workshop
From Denison Street, the original brick warehouse is separated from the new structures on either side by an entry link and laneway. Image: Brett Boardman Photography.

Living heritage
Terrace apartments behind the retained Australia Street brick facade. Images: Brett Boardman Photography.



Inventive interiors
A small study in 1-bedroom apartments provides flexibility when working from home is required. Image: Katherine Lu.

High Bay Workshop

The volume of the tallest, northernmost bay of the old workshops is retained in full with its walls and roof faithfully rebuilt to their original detail where required. New openings within the logic of the existing structure accommodate windows and balconies for the dwellings within. Lower floor 2-storey apartments front Gantry Lane, 2-storey cross-through loft apartments above are accessed via lift and gallery. The lift lobby crosses through the building and provides direct access to the courtyard.

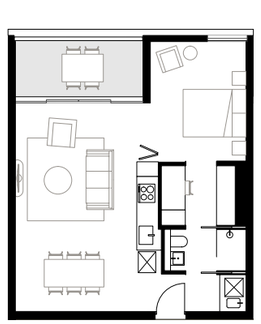
Terraces

Behind the brick wall of the former factory, 3 terraces are inserted within each gabled bay. The central one has 3 residential levels where the additional height is allowed by the ridge, and access to a 'private' garage. The 2 either side are double storey. Each terrace is designed with a small entrance court open to the sky, providing a moment of transition between the public street and the private dwelling. The rear of the balconies defines an edge of the communal courtyard which can be accessed via individual gates.

'New' apartments

Compact 1-bedroom apartments within the 5–6 storey building facing Parramatta Road are designed to be able to be 'walked around', with the bedroom having a folding door to the living room and the wet area having 2 doors. Part of the walk-through robe can be used flexibly as a study space if desired. Apartments in the Denison Street building have wider frontages due to the thinner building section, at 15 m or less glass-to-glass for cross-through apartments, while 2 and 3-bedroom apartments feature living/dining rooms across the apartment width.

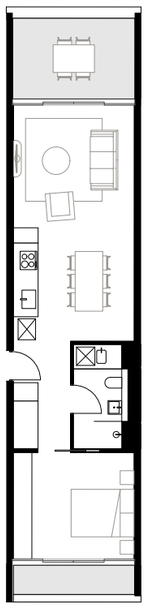
A diversity of housing options is contained within the development, from 1-bedroom units, through to 2-storey loft apartments, to 3-storey terraces.



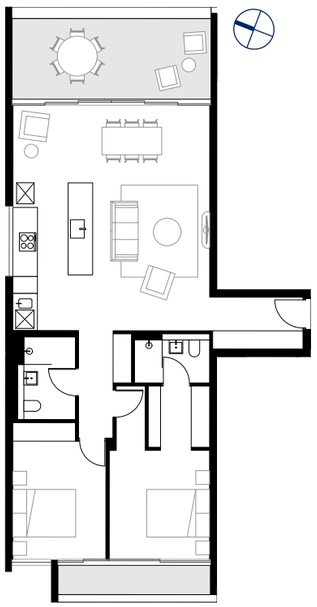
1 bedroom
57 m² + 8 m² private open space

1 2 5M

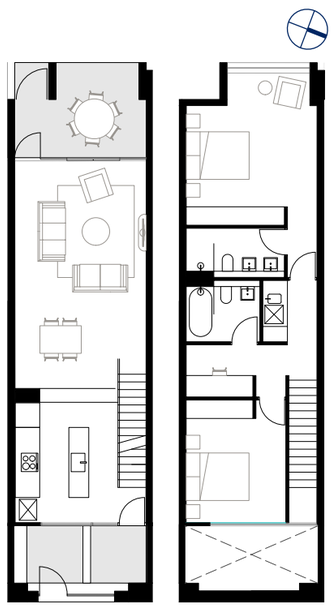
Typical apartment plans
This scale bar applies to all plans. The north point shown on each plan is correct for that instance.



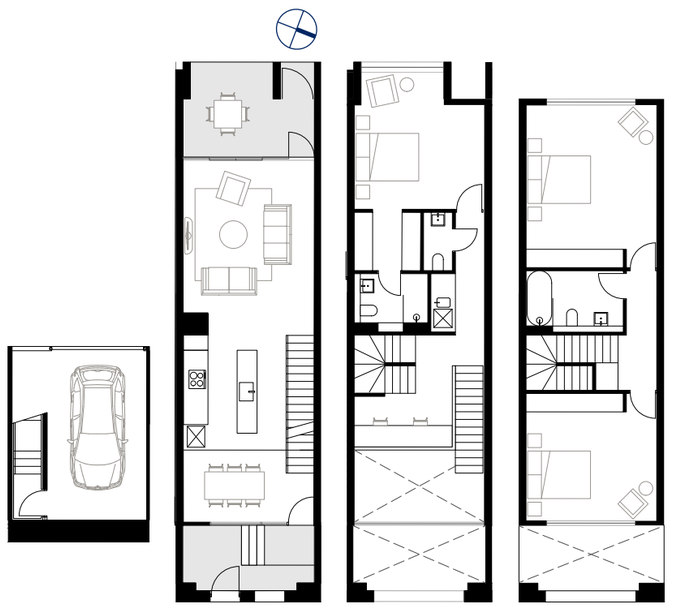
1 bedroom
59 m² + 15 m² private open space



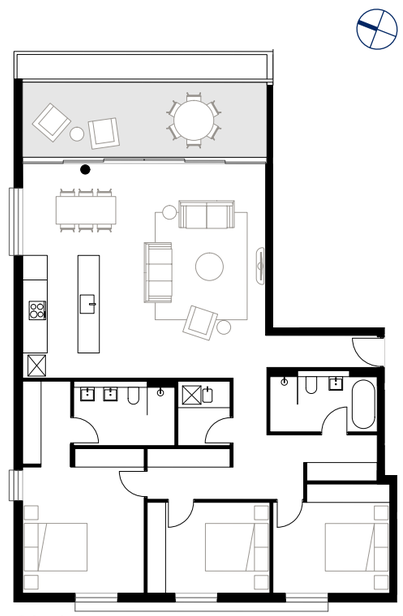
2 bedroom
102 m² + 22 m² private open space



2 bedroom 2-storey terrace
106 m² + 25 m² private open space



3 bedroom 4-storey terrace (including garage)
161 m² + 24 m² private open space



3 bedroom
128 m² + 15 m² private open space

LINE OF SIGHT TO THE APARTMENT DESIGN GUIDE (ADG)


Image: Martin Mischkulnig.

ADG 3D COMMUNAL AND PUBLIC OPEN SPACE OBJECTIVE 3D-1:
An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping

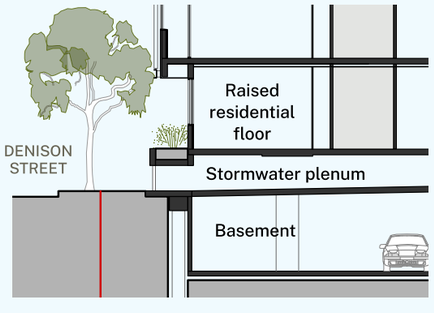
The buildings combine to delineate an impressive linear courtyard which is the central focus of the development. Although long, the space is divided by the public through-site link and then further broken up laterally into smaller areas by changes in level and landscaping. A communal pool occupies the southernmost end of the courtyard. An effective deep soil area, achieved through 'quarantining' central areas of the basement parking level, allows for significant canopy tree planting between opposing buildings. The communal space can be accessed immediately from the facing ground floor apartments, and effective passive surveillance is provided from balconies on upper levels, as shown in the image above.


Image: Martin Mischkulnig.

ADG 4V WATER MANAGEMENT AND CONSERVATION OBJECTIVE 4V-3:
Flood management systems are integrated into site design

Management systems are carefully considered and integrated not only in the site planning but also in detail design. An innovative stormwater plenum running between the basement car park and ground floor slab allows surface water to flow across the site beneath the buildings, dealing with the heavy overland flows that impact Australia Street. Floodway grilles are discretely integrated into building facades (see photo above and right). A sunken portion of the courtyard accommodates any additional stormwater retention required. Tanks beneath the through-site link store rainwater collected from roofs to be re-used for landscape irrigation, toilet flushing and car washing.

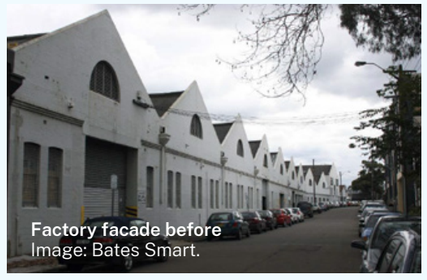
Denison Street section
Grilles to 'drain' the stormwater plenum are integrated into the facade, and the raised ground floor achieves plenum clearance but also provides privacy for residents.
Drawing: Bates Smart, MAKO Architecture.

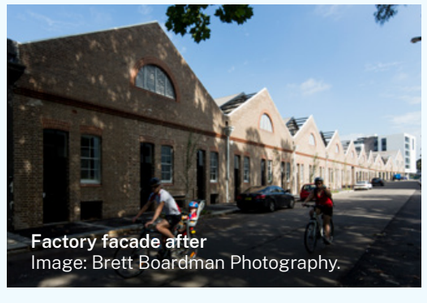


ADG 4R ADAPTIVE RE-USE OBJECTIVE 4R-1:
New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place

The project is an intelligent example of how existing built fabric can be integrated into new projects to maintain a good relationship with the surrounding context and create built form variety within a development while still achieving significant yield. The quality of the intervention and the distribution of new built structure on the site is masterful. The scale of the development as perceived from the public realm seems entirely appropriate to each environment. Certainly the retention of the brick factory facades along Australia Street goes a long way to enriching this precinct and retaining something of the former industrial character, and the dwellings within also benefit from a more instant sense of place.

Wherever possible, demolished building material was re-used within the design as landscaping elements, rather than removed as waste. Steel trusses were salvaged and used as an attractive open roof structure spanning the through-site link; rescued bricks are upcycled as paving for pathways. These elements lend a rich character to the external shared spaces and add to the interpretation of previous uses of the site.


Factory facade before
Image: Bates Smart.


Factory facade after
Image: Brett Boardman Photography.


Neighbourhood feels
The retention of heritage fabric enriches the project and the street. Image: Martin Mischkulnig.