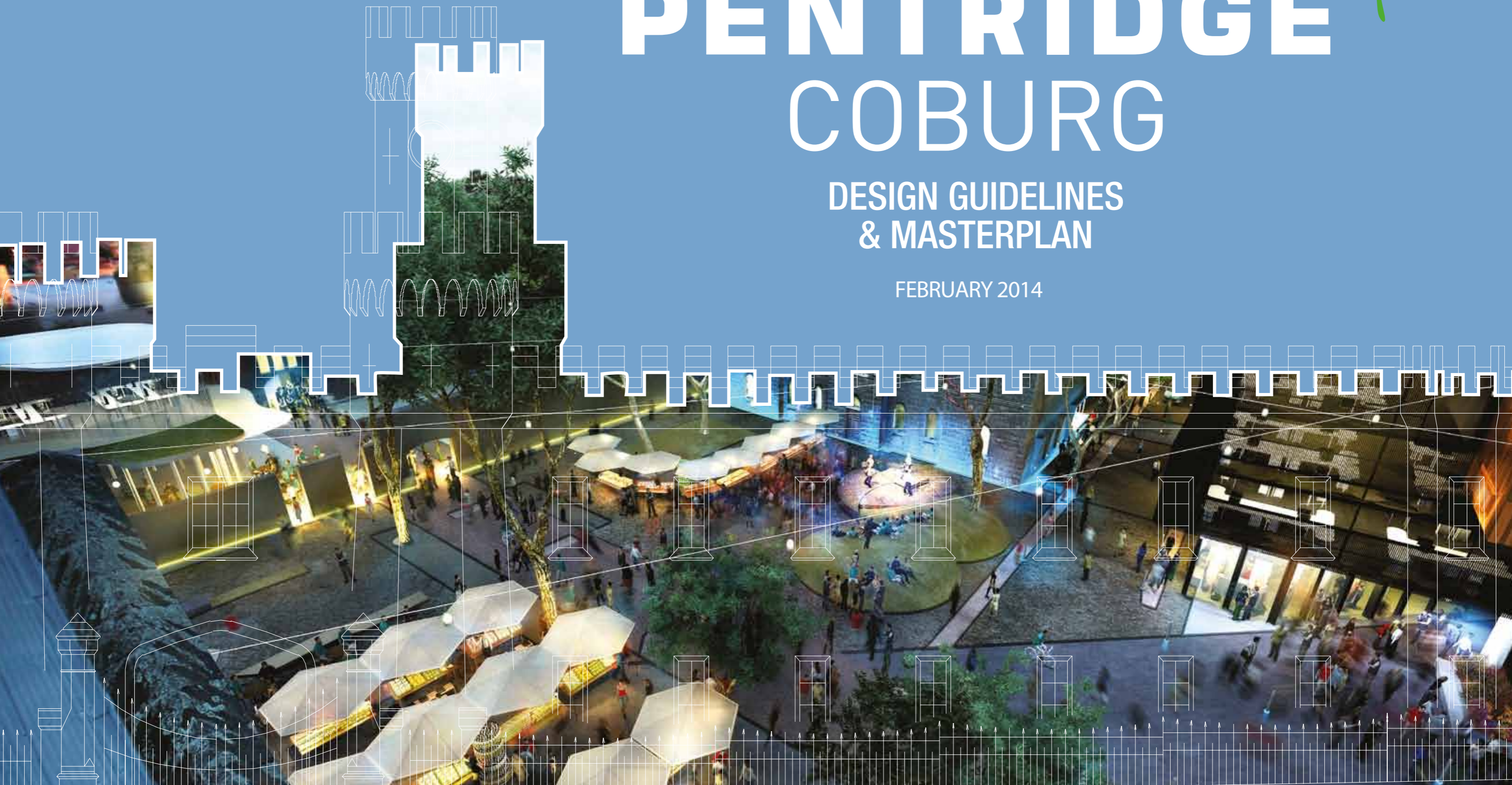




PENTRIDGE COBURG

DESIGN GUIDELINES
& MASTERPLAN

FEBRUARY 2014



The Pentridge Coburg brand proudly embraces the site's past by retention of the bold and powerful brand name Pentridge; it reinforces the context of its urban renewal through the acknowledgment of Coburg; and looks expectantly to the future through repetitive references to new life. As per the proposed Masterplan and Design Guidelines for the redevelopment of the site, Pentridge Coburg is vibrant, colourful and exciting.



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A PAU JAR GROUP AFFILIATE

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5 February 2014

The Hon. Matthew Guy MLC
Minister for Planning
1 Spring Street
MELBOURNE VIC 3000

Dear Minister Guy

PENTRIDGE COBURG 2014 DESIGN GUIDELINES AND MASTERPLAN

Shayher Properties Pty Ltd is proud to issue the 2014 Design Guidelines and Masterplan for Pentridge Coburg. The Design Guidelines and Masterplan represents the consolidated outcome of consultation with key stakeholder authorities.

Shayher Properties wishes to thank the following stakeholder authorities who have contributed towards the preparation of the document:

- Department of Transport, Planning and Local Infrastructure
- Heritage Victoria
- Moreland City Council

We look forward to the next stage of consultation in the implementation phase of the project on a stage by stage basis. With each stage of implementation, we come closer towards the realisation of a vision for the creation of a vibrant, diverse and sustainable urban community within a revitalised Coburg.

Yours sincerely,

Anna Martiniello
Senior Development Manager

shayhergroup
A PAU JAR GROUP AFFILIATE

Contour*
Town Planners

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NHArchitecture

Table of Contents

Vision

1.0 Introduction

2.0 Pentridge Site

3.0 Urban Context Analysis

- 3.1 Coburg Activity Centre and Site Analysis
 - 3.1.1 Existing Surrounding Land Use Analysis
 - 3.1.2 Heritage and Built Form
 - 3.1.3 Infrastructure Linkages
 - 3.1.4 Approaches and Edge Conditions
 - 3.1.5 Topography and Vegetation
 - 3.1.6 Sustainability Analysis
- 3.2 Summary of Site Opportunities
- 3.3 Metropolitan Linear Activity Centre Comparison

4.0 Design and Masterplan Response

- 4.1 Heritage and Built Form
 - 4.1.1 Urban Design Principles
 - 4.1.2 Heritage and Built Form Principles
 - 4.1.3 Staging Plan
 - 4.1.4 Heritage and Architectural Response
- 4.2 Land Use and Precincts
 - 4.2.1 Overall Land Use Vision
 - 4.2.2 Public Exchange Activities
 - 4.2.3 Residential Component
 - 4.2.3 Retail and Commercial Component

- 4.3 Development and Land Use Schedule
- 4.4 Landscape
- 4.5 Public Realm
- 4.6 Sustainability Principles
- 4.7 Internal and External View Analysis
 - 4.7.1 External View Analysis
 - 4.7.2 Internal View Analysis
- 4.8 Access and Mobility
- 4.9 Shadow Studies

5.0 Key Planning, Heritage and Urban Design Guidelines

APPENDIX A Heritage Considerations (Bryce Raworth Heritage Consultant)

APPENDIX B Sustainability Considerations (Ark Resources)

APPENDIX C Traffic and Transport Considerations (GTA Consultants)

APPENDIX D Landscaping Considerations (Aspect Studios)

Economic Impact Assessment (Deep End Services) is provided as a separately bound document.

0. vision



Vision for Pentridge

Valad Property Group brought together leading consultants to masterplan what will become an internationally recognised example of the adaptive reuse of a former prison complex. The Shayer Group has now purchased the site and intend on implementing the vision for the site, with some amendments to the 2009 masterplan.

The Masterplan is seeking to create a vibrant and sustainable urban hub, a place for the shared use of its residents and workers, the neighbouring community and tourists. To ensure the ongoing success of Pentridge and its broad convenience function, a diverse range of commercial and community uses are anticipated. The renewed life within the prison will be expressed through the careful placement of contemporary architecture adjacent to historically significant Pentonville prison model buildings. These old and new elements will combine to facilitate a major urban renewal project that will complement other development contemplated by the Central Coburg 2020 Structure Plan.

The public realm will be enlivened through the active integration of the proposed uses, within both new buildings and restored heritage prison buildings.

The range of activities expected in and adjacent to the public realm, both permanent and temporary, will generate one of Melbourne's memorable urban experiences.

Development Outcomes

The Piazza will be the focus of the 'Piazza Precinct', its expansive scale - a memory of the former parade ground. The formidable former gaol life will be celebrated at the arrival point and central destination for visitors. The Piazza's destination focus will be reinforced by the connection to the proposed pedestrian and bicycle path, Warders Walk, originating in Central Coburg. The Piazza has the capacity to accommodate a range of public events and become an important civic space for the City of Moreland. Activities envisaged range from outdoor cinemas, cultural markets and festival events. The perimeter of the Piazza will be dominated by the existing bluestone buildings, supporting a combination of retail uses, food and beverage outlets, serviced accommodation and permanent residents.

To the north of the Piazza Precinct, is the 'Mixed Use' Precinct in the former women's prison section; the restored A Division building is a central focus. The major building adjacent A and H Division, in the heart of Pentridge, incorporates a consolidation of diverse commercial, community and residential activities. Community uses, such as childcare, community halls and artist studios, are anticipated within the heritage building. The multiplicity of building users share a permeable network of laneways and arcades that interchange with the adjoining piazza and courtyards.

The other two precincts within the Masterplan are the 'Coburg Lake Precinct' and the 'Sentinel Precinct'. These are principally residential uses and have been arranged to accommodate a range of different housing formats including 1, 2, 3 bedroom apartments, terrace homes and home-offices. Quality and diversity in architectural design is promoted by establishing clear building identities in both scale and address.

Pentridge will seek to deliver successful affordable housing outcomes with recognised and experienced partners, in particular:

- Affordable housing that will cover many tenures; community rental, private rental, innovative financing, low cost purchase and purchase. This will allow access to a range of household types and incomes.
- Integrated affordable housing that will deliver a diverse community which in the long term will be a 'high quality sustainable community', creating integration in an economic, social and physical sense.
- High quality homes that will deliver diversity and provide for housing choices to the community.

This commitment is feasible at and subject to the scale, height and density contemplated by the Masterplan.

Environmental Outcomes

Underpinning the Masterplan is the concept of environmental, economic and social sustainability. Consistent with this concept, the Masterplan makes significant contribution to:

- Improving the character of the built environment and public spaces in Coburg;
- Encouraging best practice building design that seeks to reduce greenhouse emissions;
- Promoting sustainable use of natural resources;
- Developing whole of site solutions for water and energy use;
- Better integrating land use and transport planning by delivering an intensity of development that provides options for choice of travel;
- Supporting the long term protection of one of Melbourne's most important heritage complexes through an appropriate intensity of development; and
- Providing new employment opportunities through the proposed mix of uses.

Heritage Outcomes

From an urban design perspective, the complexity of the new architecture interspersed with the historically significant retained bluestone buildings, will create a new identity for Pentridge. This identity will be characterised by a program of conservation works (outlined as part of any planning permit application) associated with the retained buildings and ensuring design excellence for all new buildings. The proposed redevelopment of Pentridge will provide contemporary architectural outcomes for the proposed buildings which will be designed and sited to respect the existing heritage elements, both buildings and walls, which characterise the site. Interpretive displays and public art throughout the site, including within the public realm, will explore the cultural history of Pentridge as a Prison environment and pay tribute to the lives spent within the walls. Consistent with the principles of good urban design, the Masterplan provides public access and integrates the new development with the surrounding neighbourhood. A series of new and legible access connections are provided by the Masterplan and identified views framed.

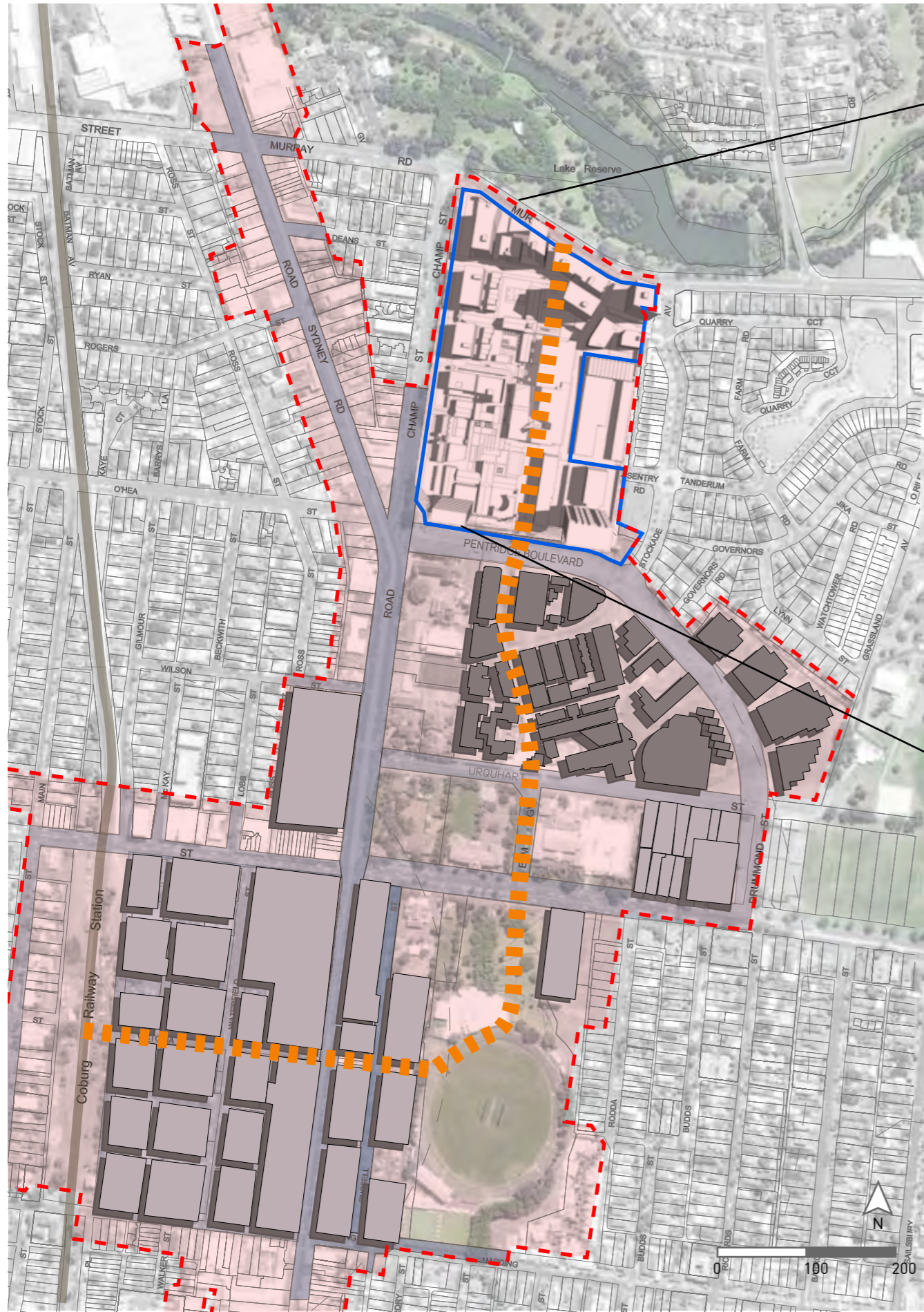


Figure 0.0a Context Diagram

- Pentridge Village
- Coburg Initiative
- Coburg Activity Centre
- Pedestrian Link
- Pentridge Site Boundary

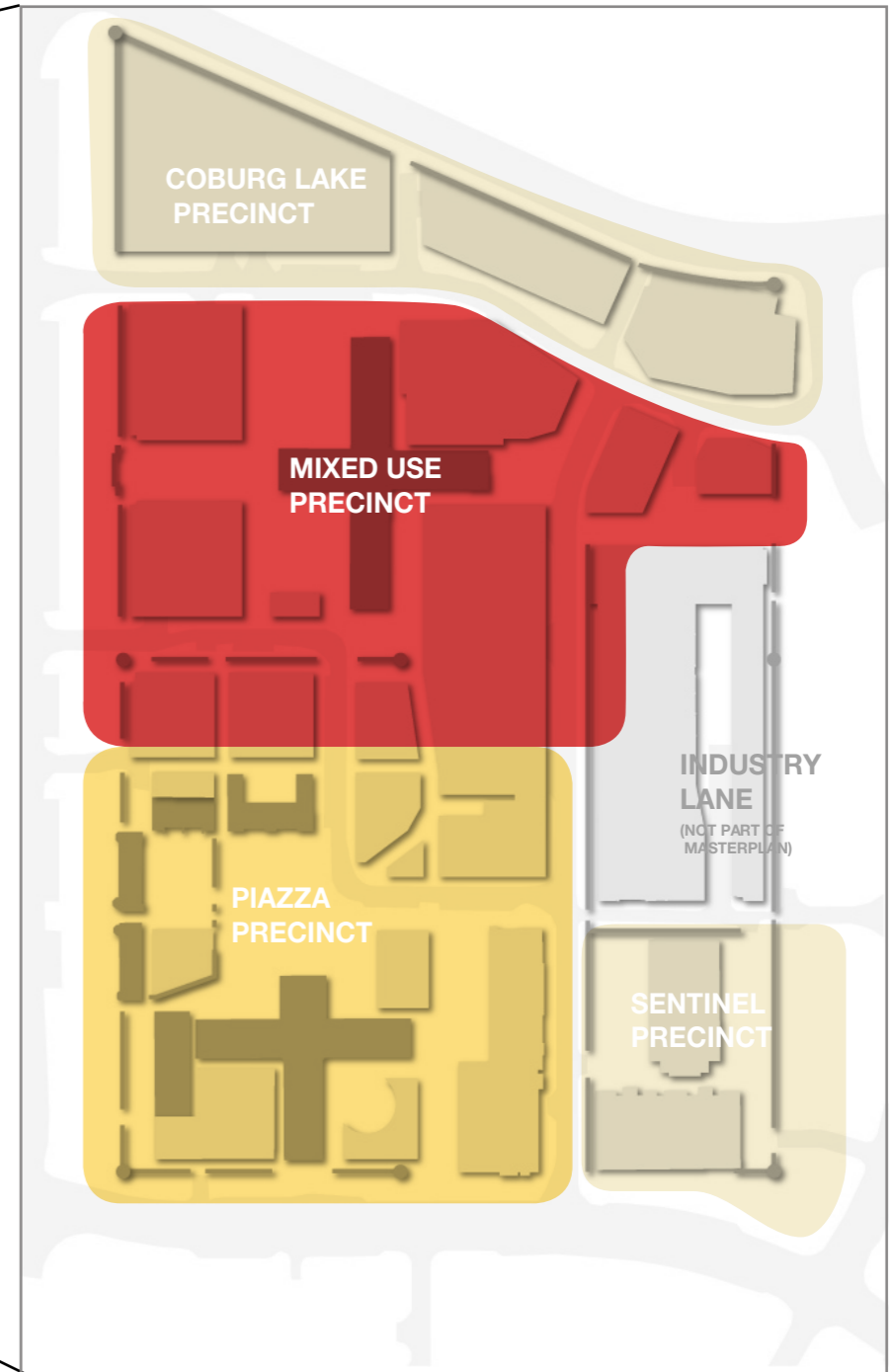


Figure 0.0b Pentridge Precinct Diagram



1. introduction

The Development of Pentridge

Shayer Group has acquired the Pentridge site, and in accordance with the preceding 'Vision Statement', it proposes to develop Pentridge into a vibrant and sustainable mix of retail, commercial, entertainment, leisure / tourism and residential uses.

Infill development opportunities of this magnitude are rare in an activity centre context, and the vision for the site has been developed following a rigorous analysis of the site's heritage significance and all other opportunities and constraints, and this analysis has led to the preparation of this Design Guidelines and Masterplan document.

The Design Guidelines and Masterplan document will provide a planning, heritage and urban design framework that will guide an investment of →\$1.0 billion within a 8-10 year development time frame for the site. The guidelines and Masterplan are not mandatory requirements, instead, the guidelines and Masterplan are a high level document, and detail for individual proposals will be required as part of future planning permit applications.

The Design Guidelines and Masterplan 2014 will supersede the previous document that was prepared by the previous owner and endorsed by Moreland City Council in August 2009.

The redevelopment seeks to deliver an internationally recognised example of the adaptive reuse of a former prison complex and in terms of development, the built form outcome will comprise insertions of contemporary architecture juxtaposed with the existing historically significant buildings.

The preparation of the Design Guidelines and Masterplan has been a collaborative between the following planning and design professionals:

NH Architecture	Masterplanning Architects
Contour Consultants	Town Planners
Bryce Raworth	Conservation Consultant
GTA Consultants	Traffic and Transport Engineers
Aspect Studios	Landscape Architects
Ark Resources	Sustainable Development Consultants
Deep End Services	Economic Analysts
UrbanXchange	Development Managers in Affordable Housing

The purpose of the Pentridge Masterplan and Design Guidelines 2014 document is to set the framework for the ongoing development of the Pentridge site over the next 8 to 10 years. The document provides the framework for responding to a changing context and remaining open to the opportunities that present themselves with changes in technology, social values and theories, and market expectations; it is not intended to be prescriptive in matters of detail. The detail will be resolved in consultation with the authority stakeholders at the relevant permit application stage. Whilst every effort has been made to coordinate the contents of this document, minor anomalies may become evident. To facilitate the interpretation of the document the following order of precedence is offered to overcome any inconsistencies in detail:

1. NH Architecture: Fig 4.1.2g - Masterplan Building Envelope
2. GTA Consultants: Fig 4.8b - Site Access and Movement Strategy
3. Aspect Studios: Fig 4.4a - Pentridge Landscape Masterplan



ADMINISTRATION CLOCK TOWER



2. pentridge site

Pentridge Site

The Pentridge site has an area of approximately 6.5 hectares, and is the north-western precinct within the former Coburg Prison Complex. The history of 'Pentridge' is well documented, and the Victoria Heritage Registration notes:

The former HM Prison Pentridge is of historical and social significance as the largest prison complex constructed in Victoria in the nineteenth century, which operated as the central establishment in the wider prison system from the 1860s. The complex of buildings, which remains on site, demonstrates a number of phases in the development of the penal system, including the separate system, which dominated penology in Victoria in the nineteenth century. Pentridge is also significant in the history of child welfare in Victoria. It was the location of reformatories for both girls and boys established following the findings of the Stawell Royal Commission of 1870. The prison complex includes a purpose-built reformatory of 1875 (G Division), constructed as the Jika Reformatory for Protestant Girls, which operated between 1875 and 1893. The former HM Prison Pentridge is of architectural importance as most of the major elements of the nineteenth century complex survive and are largely intact, and together clearly demonstrate the planning and functioning of the prison in the nineteenth century and the main functional elements of the separate system. The range of cell blocks, workshops and other buildings, the relatively dispersed layout of the buildings and the large scale of the site as a whole contrast with other nineteenth century prisons in Victoria and demonstrate the unique character of Pentridge as the principal penal establishment for long-term prisoners within the nineteenth century Victorian prison system. The planning of A, B and D Divisions are representative examples of the overwhelming influence and continuing development of British planning models and the separate system on prison design in Australia from the 1830s until the end of the nineteenth century. F Division is a rare surviving example of early nineteenth century prison and hospital design. The former prison is of aesthetic and architectural significance because of the monumental scale and austere Classical style of the remaining nineteenth century prison buildings. The complex of buildings and walls are important for their expression of the requirements of containment and order and are typical of other prison buildings constructed in Victoria in the 1850s and 60s. The grim and imposing bluestone walls and towers are important landmark features. The original ventilation systems in A, B and D Divisions and the surviving original cisterns and other elements of the water supply system in B Division are of technological significance. The apparently intact thermo-ventilation system in B Division is of particular significance.

From a localised perspective, Pentridge is generally bound by Murray Road and the Coburg Lake Reserve to the north, the Pentridge Village Development to the east and south-east, the proposed Pentridge Boulevard alignment and institutional uses to the south and Champ Street and older housing stock to the west.

In a location sense, Pentridge is part of and supports the functioning of the Coburg Principal Activity Centre, which is approximately 9 km north of Melbourne's Central Business District. In addition to its proximity to Melbourne's CBD, Coburg's planning attributes include a town centre with a cosmopolitan mix of retailing, excellent public transport services in the form of heavy rail, tram and bus services, the City of Moreland civic precinct, public open space and surrounding and interspersed residential development.

'Central Coburg 2020' is Moreland Council's Structure Plan for the Coburg Principal Activity Centre and the vision for Central Coburg as set out in the Structure Plan states:

Central Coburg develops as the prime shopping, living, employment and activity precinct in Moreland. The centre is transformed into an attractive system of streets and spaces. Central Coburg becomes a sought-after living environment, offering a range of housing choices, including high density housing. Most people arrive at the centre on foot, by bike or by public transport. The provision of a range of services enables people to conduct a number of different activities based on the one trip. Central Coburg is linked with networks of green space.

The redevelopment of the Pentridge site is consistent with and will contribute to the achievement of this important vision for Central Coburg.



Figure 2.0a DIVISION A CHAPEL



Figure 2.0b Pentridge 1995



Figure 2.0c Former Administration Building

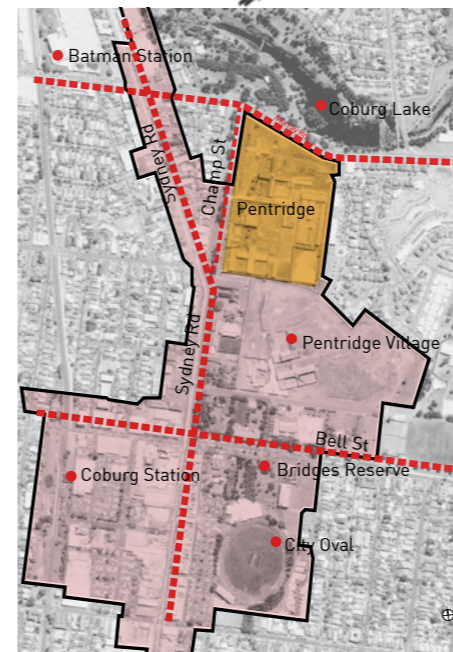


Figure 2.0d Local Location

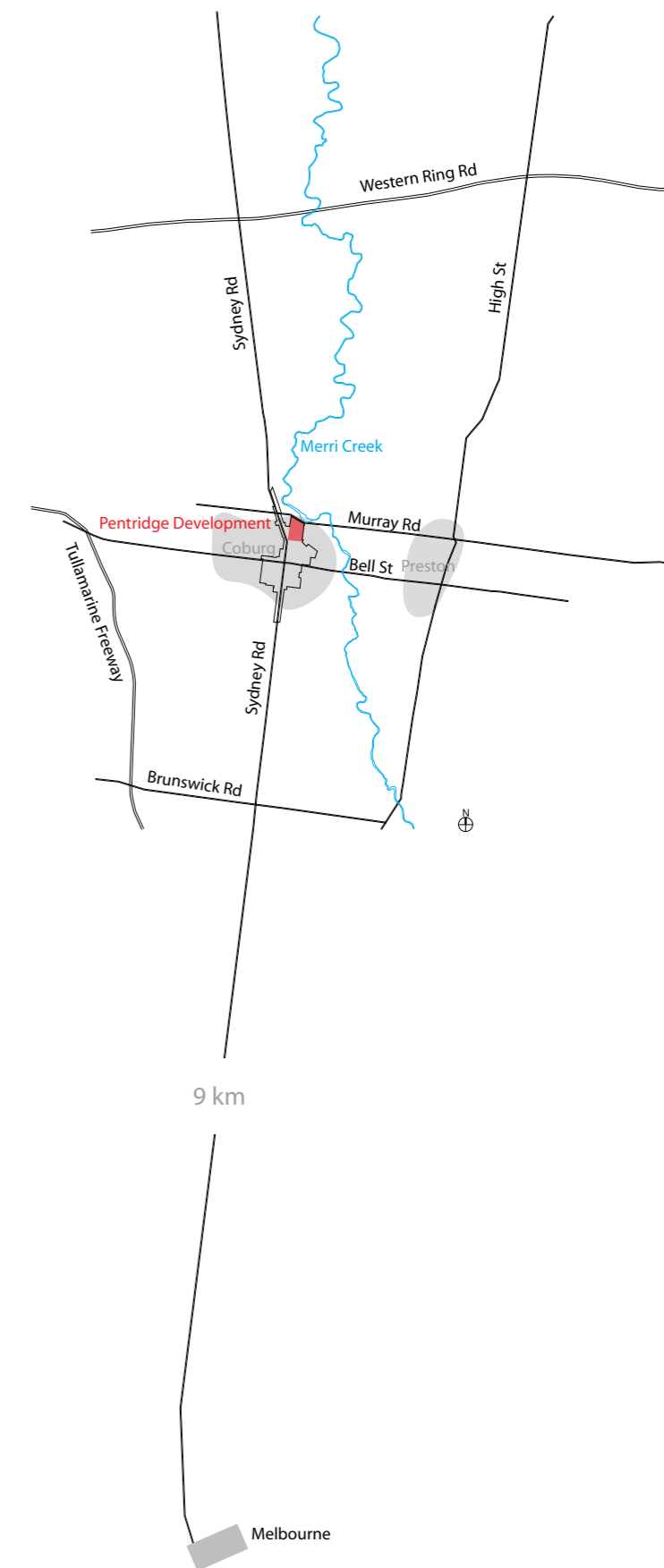
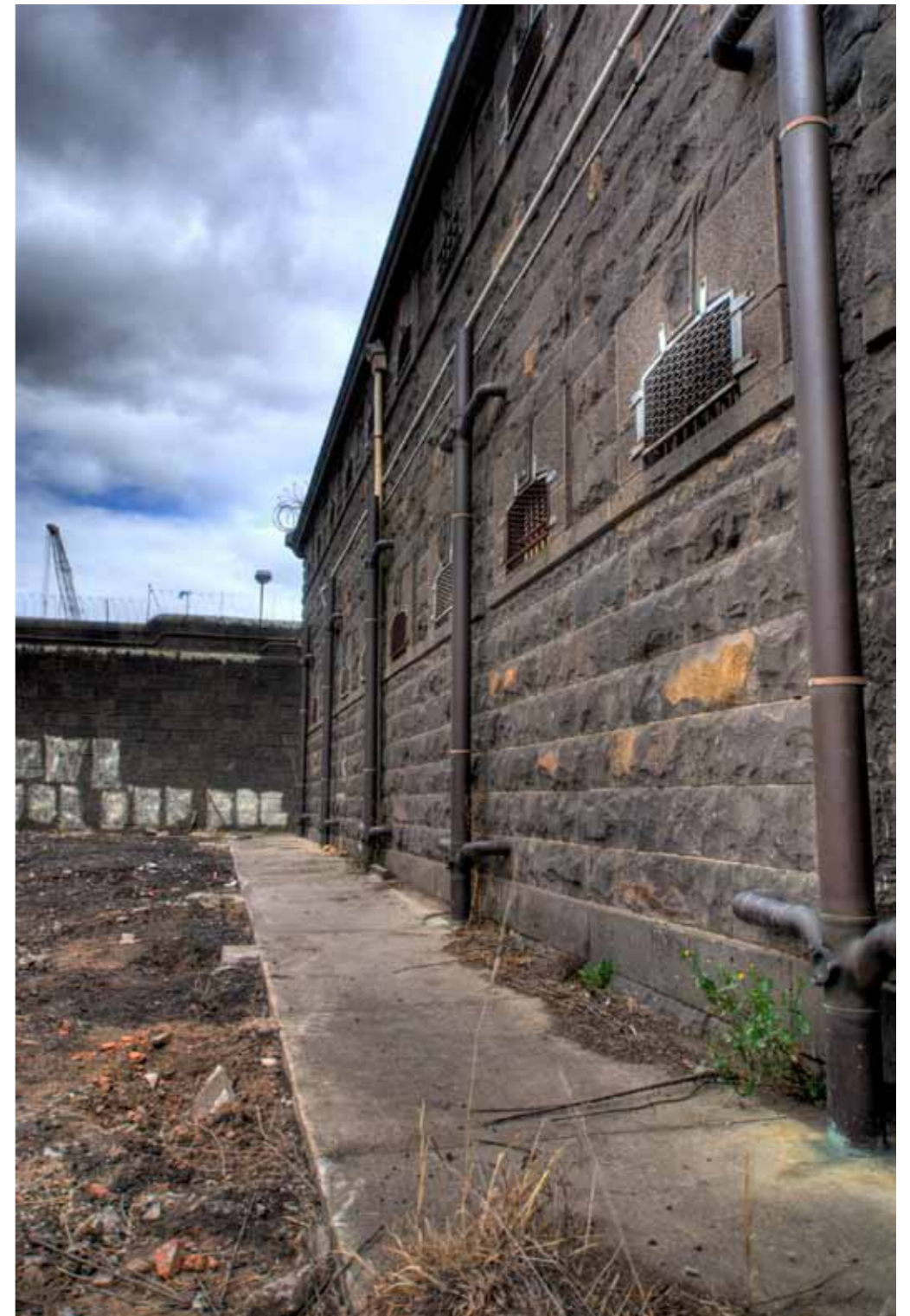


Figure 2.0e Regional Location



DIVISION WALL

3. urban context analysis

This section of the Design Guidelines and Masterplan identifies and explains the existing urban context framework within which the Pentridge site is located.

3.1 Coburg Activity Centre and Site Analysis

3.1.1 Existing Surrounding Land Use Analysis

Pentridge is surrounded by a range of land uses as illustrated in Figures 3.1a, 3.1b, 3.1c.

The land uses include:

- Commercial uses along the Sydney Road spine, including south of Bell Street the 'core' retail area of the Coburg Principal Activity Centre;
- Community / institutional uses including the City of Moreland's civic precinct on Bell Street east of Sydney Road, Schools including Coburg High School, Coburg Public School, St. Pauls Catholic School, King Kitalid Islam College and the Holy Trinity Anglican Church;
- Large public open space reserves including Coburg Lake Reserve, Jackson Reserve, Brosnan Community Park and Bridges Reserve;
- Residential development including older housing stock and the larger infill residential subdivision of the eastern part of the former Coburg Prison Complex.
- Residential and home office development within the Industry Lane development to the immediate east.
- Development within the Pentridge Village site to the south/south-east of the site with proposed and approved development including buildings of 8 storeys, 10 storeys and 16 storeys.

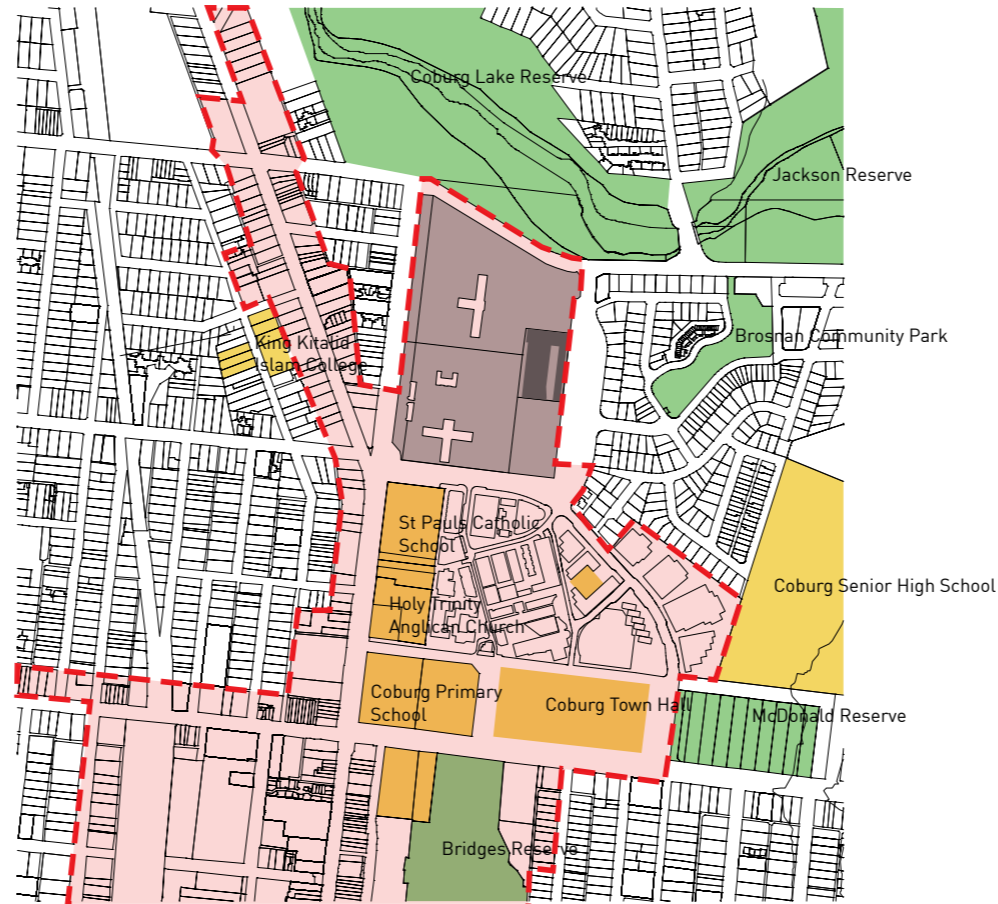


Figure 3.1a Existing Land Use - Community and Open Space

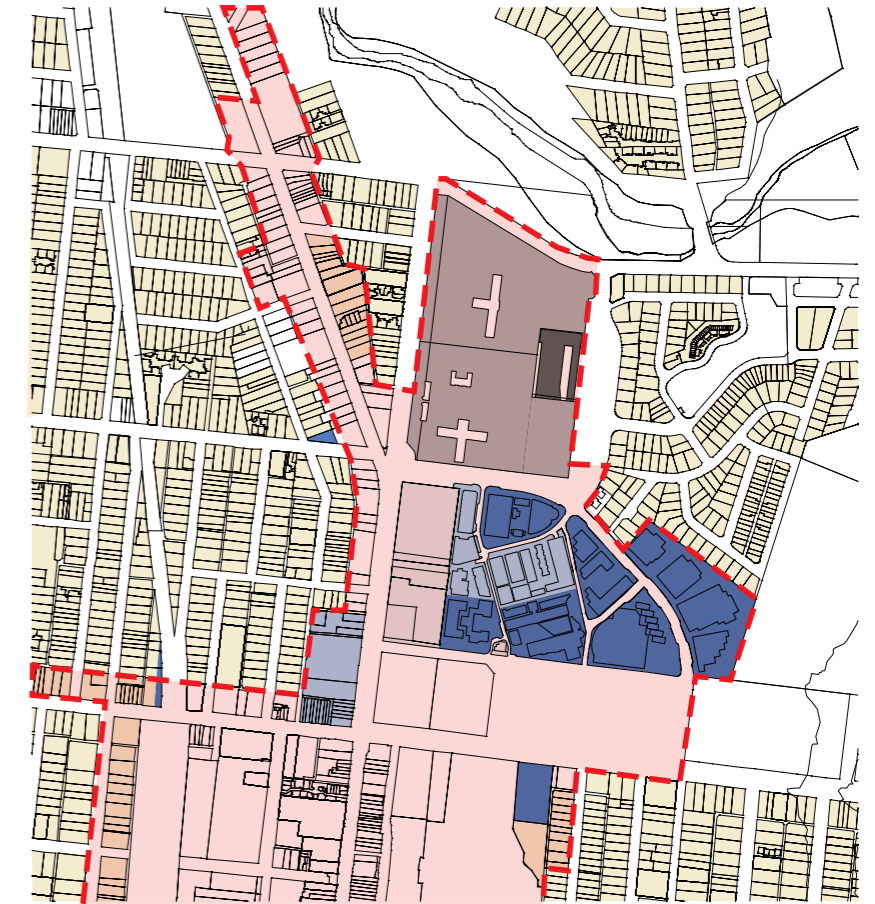


Figure 3.1c Existing Land Use - Residential Uses

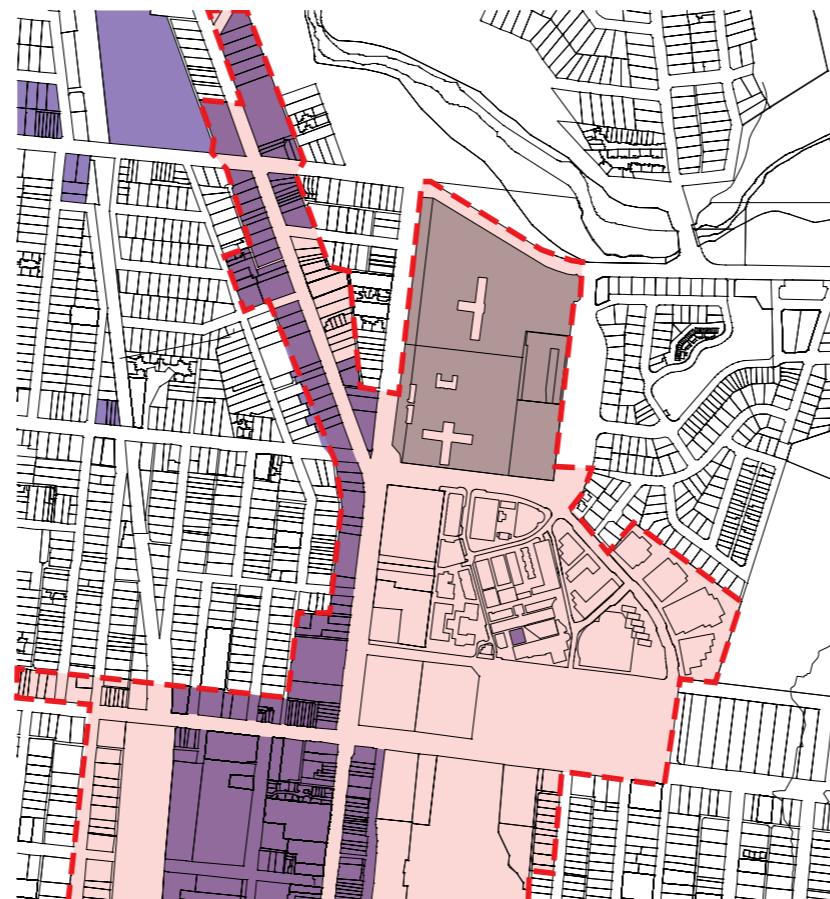
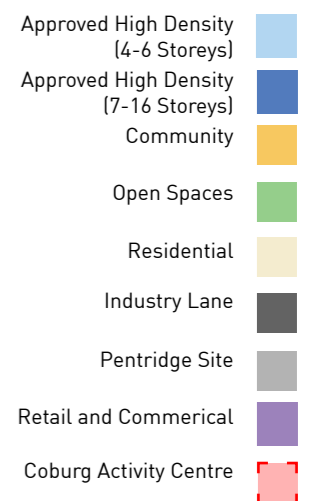


Figure 3.1b Existing Land Use - Retail and Commercial



3.0 Urban Context Analysis



Figure 3.1d Existing Pentridge Site



Figure 3.1e Coburg Lake Reserve



Figure 3.1g St Paul's Catholic Church



Figure 3.1f Central Coburg - Sydney Road



Figure 3.1h Murray Road Residential

3.0 Urban Context Analysis

3.1.2 Heritage and Built Form

Built Form Heritage

The existing built form that characterises the Coburg Principal Activity Centre is proposed to undergo significant change. This change is encouraged through the Coburg 2020 Structure Plan, which contemplates throughout the Activity Centre increased densities more typical of an inner urban activity centre context, and as part of that increase in densities, increased building heights are proposed.

Coburg 2020 built form objectives for Pentridge Redevelopment seek to ensure new development respects and enhances the valued elements of the built heritage; encourage flexibility in building form to accommodate changing future uses; and ensure building design and constructions methods recognise and respond to the mixed-use nature of the area.

Coburg 2020 identifies that 'Development of the former Pentridge Prison complex will create a new and vibrant precinct with a range of building heights up to 15 storeys and a mix of contemporary buildings and adaptive reuse of the historically significant former prison buildings to accommodate a wide range of retail, commercial, tourist, entertainment and residential uses.'

As this new built form character evolves, important heritage assets will be respected and act as landmarks providing a contrast to the new building typologies, and the juxtaposition of significant heritage buildings and inserted contemporary forms and architecture will create a unique sense of place and integrate with the desired future character for Coburg.

Cultural Heritage

An Archaeological assessment is being undertaken:

- Establish the archaeological values at the site;
- Map and report on the archaeological resource including attributing significance; and
- Devise a management matrix and appropriate strategies to ensure legislative compliance within the development framework.

The historical association of the Native Police with the early Pentridge Stockade in the early 1850's means that the location of the Stockade is a registered Aboriginal Place. There is no evidence that physical remains of the Native Police exist at the site, however, the site has significant associative value to the Woi wurrung people, who today are represented by the Wurundjeri Tribe Land & Compensation Cultural Heritage Council.

The Wurundjeri Tribe Land & Compensation Cultural Heritage Council will be kept informed of the progress and results of the Archaeological assessment.

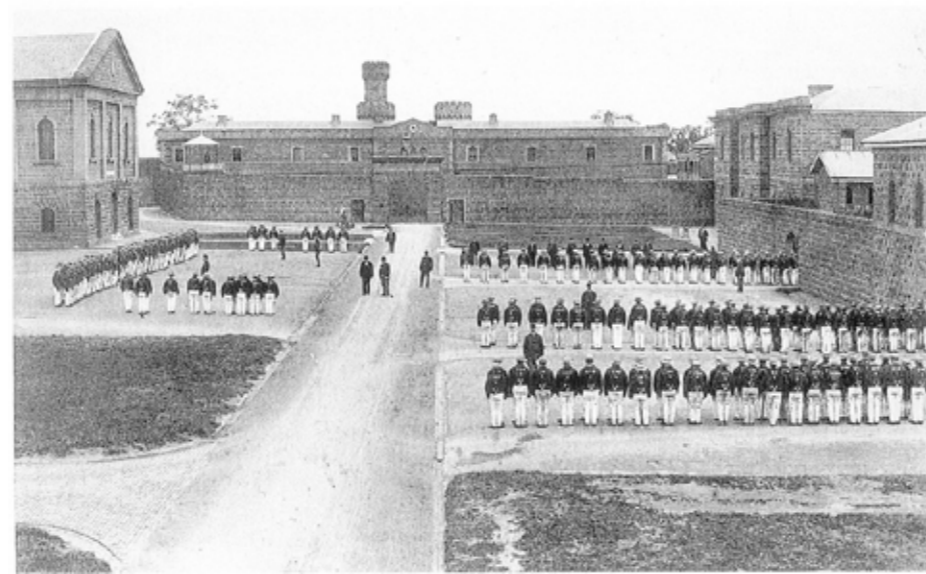


Figure 3.1.2a Pentridge Square - Muster of Prisoners C.1900



Figure 3.1.2b Exercise Yard



Figure 3.1.2c Typical Cell

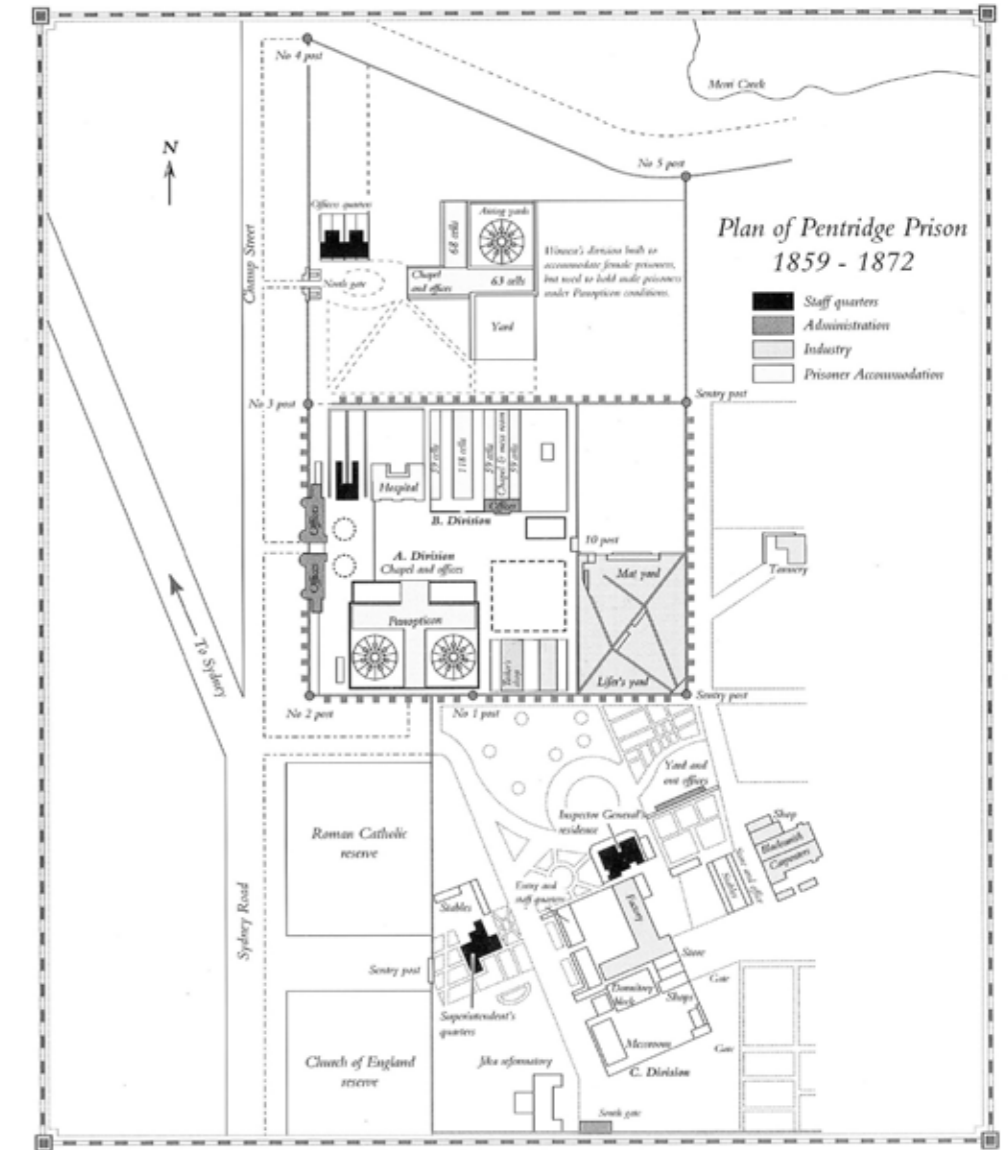


Figure 3.1.2d Pentridge 1859-1872



Figure 3.1.2e Champ St Elevation Montage

3.0 Urban Context Analysis



Figure 3.1.2e Existing Landmarks identified in CC2020



Figure 3.1.2f Pentridge - Heritage Overlays



Figure 3.1.2g Building Heights (CC 2020, City of Moreland)

- Activity centre boundary
- 11 metres maximum built height (3 storeys) – refer to precinct plans and controls regarding front and rear setbacks etc
- 14.5 metres maximum built height (4 storeys) – refer to precinct plans and controls regarding front and rear setbacks etc
- 18 metres maximum built height (5 storeys) – refer to precinct plans and controls regarding front and rear setbacks etc
- 21.5 metres maximum built height (6 storeys) – refer to precinct plans and controls regarding front and rear setbacks etc
- Three-storey podium along street boundary. Clear setback of storeys above the podium. (Contemporary three storeys equals two storey traditional.) Refer to precinct plans and controls regarding setbacks etc
- Two-storey podium along northern side of Victoria Street allowing for winter sun to public space. Refer to precinct plans and controls regarding setbacks etc
- Landmark building (maximum storeys)
- Separate master plan is being prepared. Also refer to guidelines for Precinct 8 and 9
- Preserve character of free standing buildings in open space. Refer to Precinct 8 guidelines
- Built height subject to Rescode. Also refer to relevant precinct guidelines
- Free standing buildings in heritage and open space areas



Catholic Church

Holy Trinity Anglican Church

Urquhart St

Coburg Primary School

Bell St

3.0 Urban Context Analysis

3.1.3 Infrastructure Linkages

The existing transport infrastructure provides an outstanding opportunity to improve the integration between land use and transport planning, and Figures 3.1.3a, 3.1.3b, 3.1.3c, 3.1.3d illustrate existing road, public transport, bicycle and pedestrian infrastructure respectively.

Road network access will be to the major road network of Sydney Road, Bell Street, Champ Street and Murray Road via the new Pentridge Boulevard connection with a series of internal roads and lanes designed to service the development.

Public transport access is to be encouraged given the existence of various options including train, tram and bus. This includes pedestrian access to Coburg and Batman Stations across Sydney Road, as well as orientating access from Pentridge to the tram stop on Sydney Road and bus stops on Champ Street and Pentridge Boulevard.

From a pedestrian perspective, an outcome of the closed nature of the former prison environment towards the adjoining community has restricted pedestrian access through the surrounding neighbourhood, however the Coburg Structure Plan proposes a clear network of pedestrian thoroughfares that improve pedestrian permeability through the activity centre, and paramount to achieving this outcome as illustrated in Figure 3.1.3d is the Warders Walk pedestrian spine, and there is the ability for this route to extend into and through Pentridge.

Bicycle access can also be promoted through sensitive design of shared paths consistent with the approach adopted for pedestrians, supplemented by the provision of bicycle end of trip facilities in the various land uses within Pentridge, particularly the retail and commercial uses. All residential dwellings should also be provided with bicycle parking to encourage use.

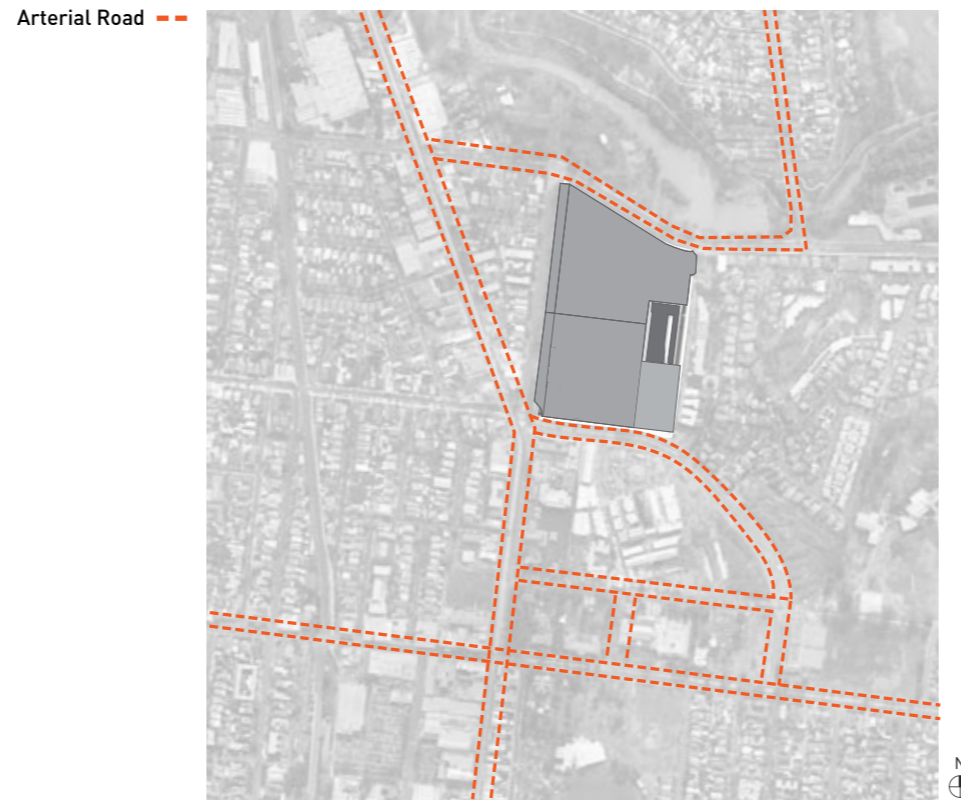


Figure 3.1.3a Existing Arterial Roads

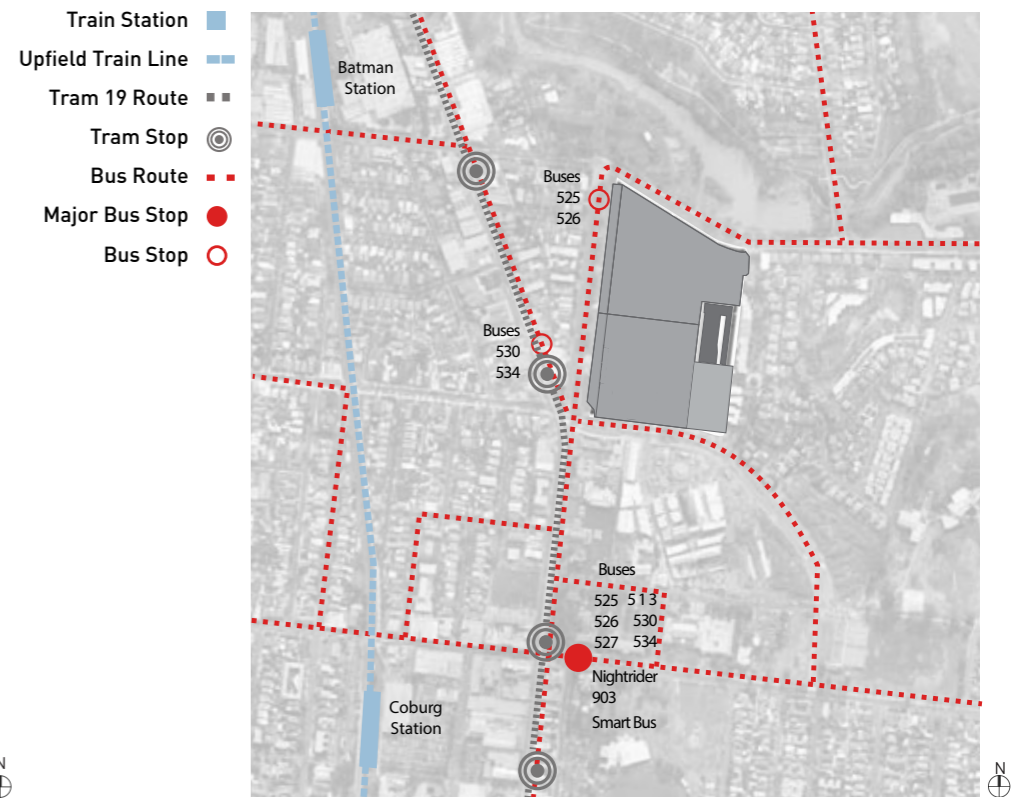


Figure 3.1.3c Existing Public Transport



Figure 3.1.3b Existing Bicycle Network

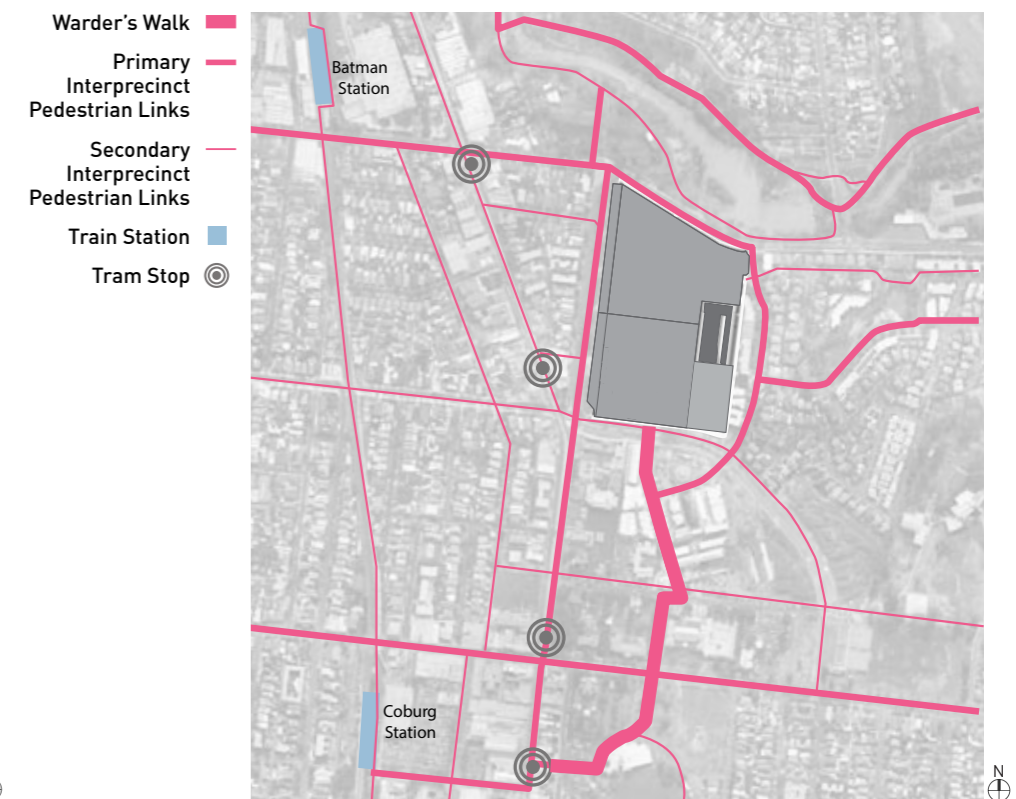


Figure 3.1.3d Existing Pedestrian Links

3.1.4 Approaches and Edge Conditions

As illustrated in Figure 3.1.4a and 3.1.4b, the key approaches to the Pentridge site are:

1. Murray Road near the Champ Street intersection from the north-east with the corner watch tower marking the corner, and the curved alignment of the perimeter wall when approaching from the north-east along Murray Road;
2. Champ Street with existing perimeter wall;
3. Champ Street Administration building entrance;
4. O’Hea Street towards the former gatehouse buildings and perimeter walls from the west, which share the view cone with the adjacent institutional buildings.
5. Sydney Road from the south, as identified in the Coburg Structure Plan, with institutional buildings in foreground and the former gatehouse buildings visible in the distance. The stand of mature trees including pencil pines and eucalypts also characterise this approach;
6. The proposed Warders Walk from the south towards the retained chimney and QM building;
7. Pentridge Boulevard from the south-east approach with views to the perimeter walls and other landmark structures within the site;
8. Stockade Avenue existing entry through perimeter wall;
9. Murray Road and Stockade Avenue intersection with watch tower marking the corner.

In terms of edge conditions, the Pentridge site is dominated by the bluestone perimeter walls, pierced only by a limited number of vehicle entries, although these entries do create opportunities to penetrate the former prison complex environment and encourage unencumbered public access.

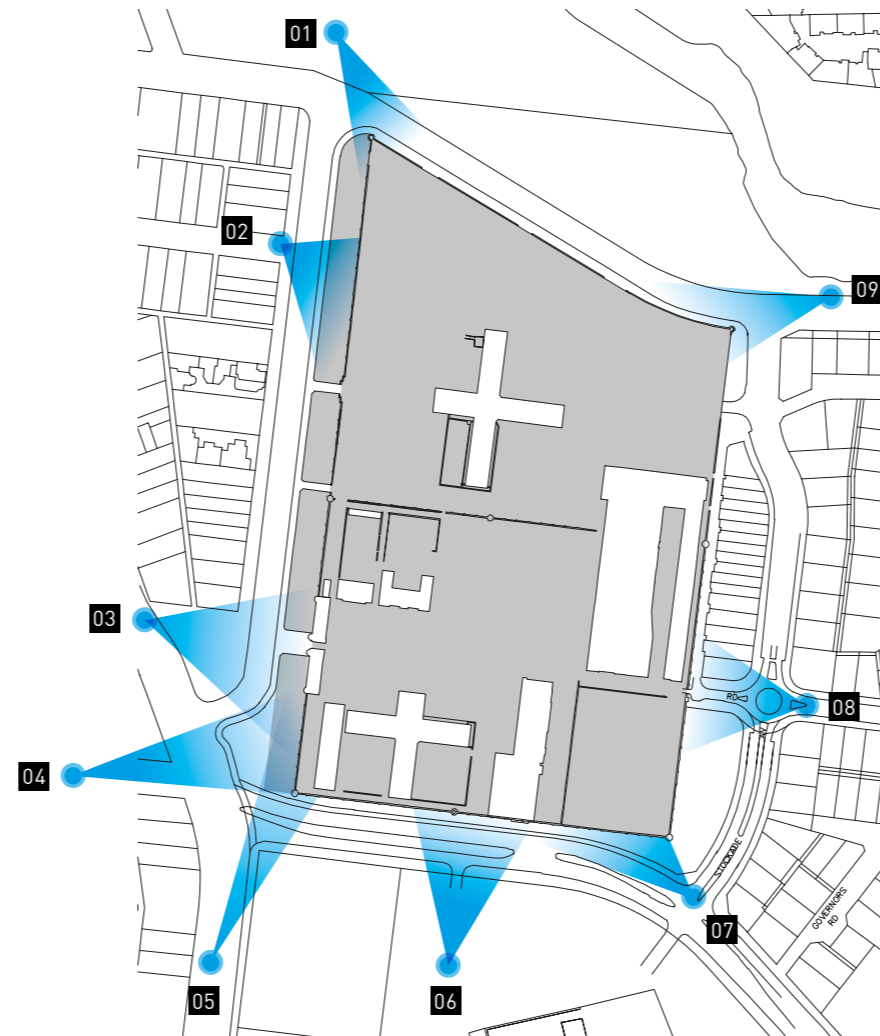


Figure 3.1.4a Key Approach Views

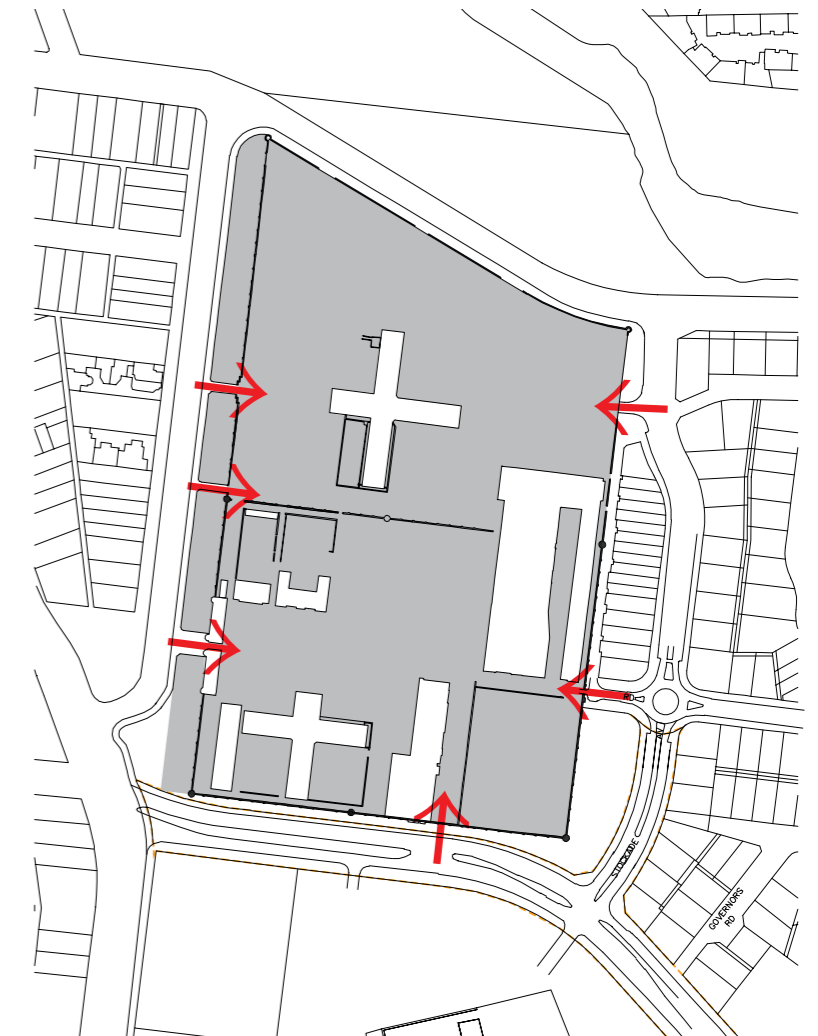


Figure 3.1.4b Existing Site Access for vehicles and pedestrians



Figure 3.1.4 [01] Murray Road



Figure 3.1.4 [02] Champ Street



Figure 3.1.4 [03] Champ Street Entrance



Figure 3.1.4 [04] Cnr Pentridge Boulevard & Sydney Road



Figure 3.1.4 [05] Sydney Rd View



Figure 3.1.4 [06] Pentridge Boulevard

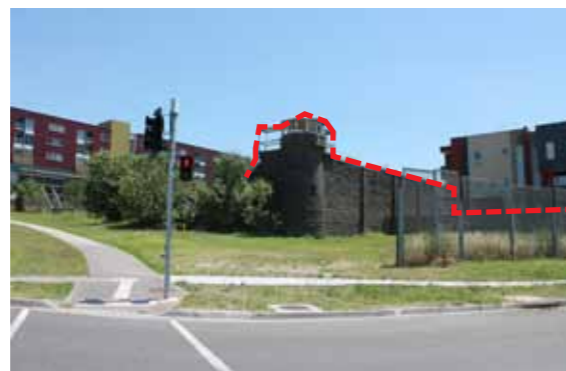


Figure 3.1.4 [07] Cnr Pentridge Boulevard & Stockade Ave



Figure 3.1.4 [08] Stockade Avenue



Figure 3.1.4 [09] Cnr Murray Road & Stockade Avenue

3.0 Urban Context Analysis

3.1.5 Topography and Vegetation

The parent landscape of the Pentridge site would have been dominated by the Merri Creek, running to the east and north of the site. The site itself, located above the immediate creek valley, would have formed part of a relatively simple undulating landform sloping generally towards the Creek.

While the site in its current form has been substantially modified, it continues to demonstrate the general nature of the parent topography, showing considerable change in level from its southern boundary with an approximate level of 65.5 AHD, down to a level of approximately 52.00 AHD on its northern boundary on Murray Road. The modifications to the original topography have, however, seen the site being divided topographically into two halves. The southern half, between the southern boundary and the central east-west bluestone wall is relatively flat, with an average fall of less than 2.0 m across a distance of almost 170m (i.e. an average grade of approximately 1:85). North of this wall however, the site falls approximately 8 – 9 m over a distance of approximately 140 m. The impact of this topography is that the southern half of the site presents the opportunity for public spaces on relatively flat topography, while the variable topography of the northern half presents the opportunity for buildings of varying heights on variable topography.

In regard to vegetation, the original pre-settlement vegetation associated with the Pentridge site would have consisted of the Plains Grassy Woodland EVC, characterised by open woodland of mainly River Red Gum trees with a simple grassy understorey. With development however, this vegetation community has long since been removed and replaced in private gardens, road reserves and open space areas with an exotic mix of mainly European tree species, with some more recent planting of non-indigenous Australian species.

Vegetation on the Pentridge site itself is minimal, and as with its surrounding context, it consists of non-indigenous planted trees mainly associated with buildings. Since these trees exist as specimens, rather than as components of avenues or masses, their potential in the development of the Masterplan is limited to focal trees within smaller scale courtyard spaces. The obvious contrast is the lineal avenue of River Red Gums which exists along the eastern edge of Champ Street, providing a visually interesting counterpoint to the otherwise dominant bluestone wall on the western boundary of the site, and providing a strong visual link along Champ Street, from Sydney Road to Murray Road. Interestingly, while these Red Gums have been planted, they would have formed the primary tree species within the original vegetation community of the site.



Figure 3.1.5a Topography



Figure 3.1.5b Eucalyptus on Champ St



Figure 3.1.5c Coburg Lake to the north



Figure 3.1.5d Peppercorn Trees on Urquhart St

3.1.6 Sustainability Analysis

The Central Coburg 2020 Structure Plan sets out a vision for sustainable development based on a triple bottom line approach which requires social, environmental and economic issues to be considered and addressed in an integrated manner in new development.

The scale and location of the Pentridge site together with the mix of uses envisaged in the Coburg Structure Plan provides a rare opportunity to deliver superior triple bottom line outcomes.

In terms of social sustainability the mix of uses and integrated nature of the development offers the opportunity to create a neighbourhood that:

- Encourages social interaction and improves social cohesion;
- Is based around an interconnected street network that reduces dependence on cars, improved connection and viability of public transport and specifically aims to attract a high level of use by pedestrians, cyclists by creating safe and vital spaces;
- Provides on-site employment opportunities through a combination of uses;
- Builds upon the heritage assets to generate a sense of place through design; and
- Creates a safe and secure public realm by creating streets and footpaths that are well used and under constant neighbourhood surveillance.

Environmentally sustainable design opportunities are based on the dual objective of minimising the use of natural resources and reducing greenhouse emissions from buildings and transport throughout the life of the development. Key environment objectives to be explored in the redevelopment of this site include:

- Minimise greenhouse emissions associated with building and transport energy use;
- Manage solar access and wind to public open spaces to enhance amenity and function throughout the year;
- Minimise greenhouse emissions associated with energy systems and energy supply;
- Achieve sustainable water cycle management; and
- Reduce the use of material resources during construction and throughout occupancy.

The effective management of solar access and prevailing winds across the site will determine the amenity and comfort of public spaces and the inherent energy efficiency of buildings on the site and is critical to achieving good greenhouse outcomes.

Solar studies demonstrate the orientation, topography and distribution of heritage remnants provides for excellent passive design principles to be applied. Intelligent use of these principles will contribute towards a significant reduction in energy consumption. Refer Figure 4.1.6b.

The elevated position of the site in addition to the unobstructed low level grain to the north, west and south exposes Pentridge to the prevailing winds. The design of outdoor public spaces will be required to accommodate this condition and a suitably qualified wind engineer will be consulted to assist the design team.

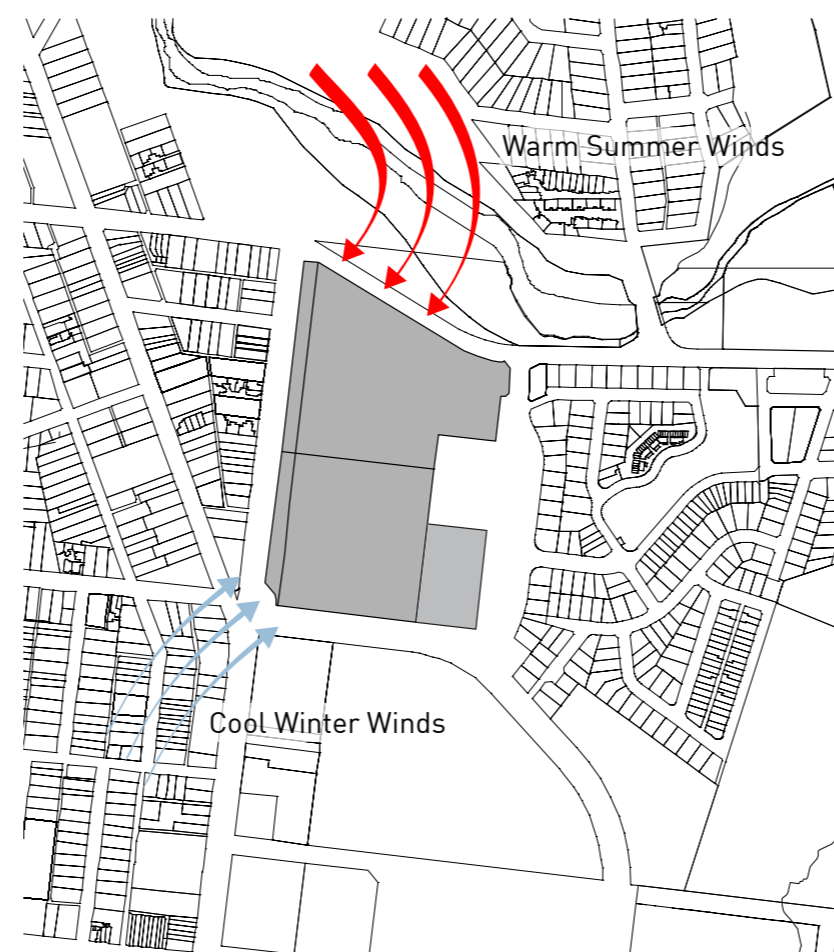


Figure 3.1.6a Wind Environment

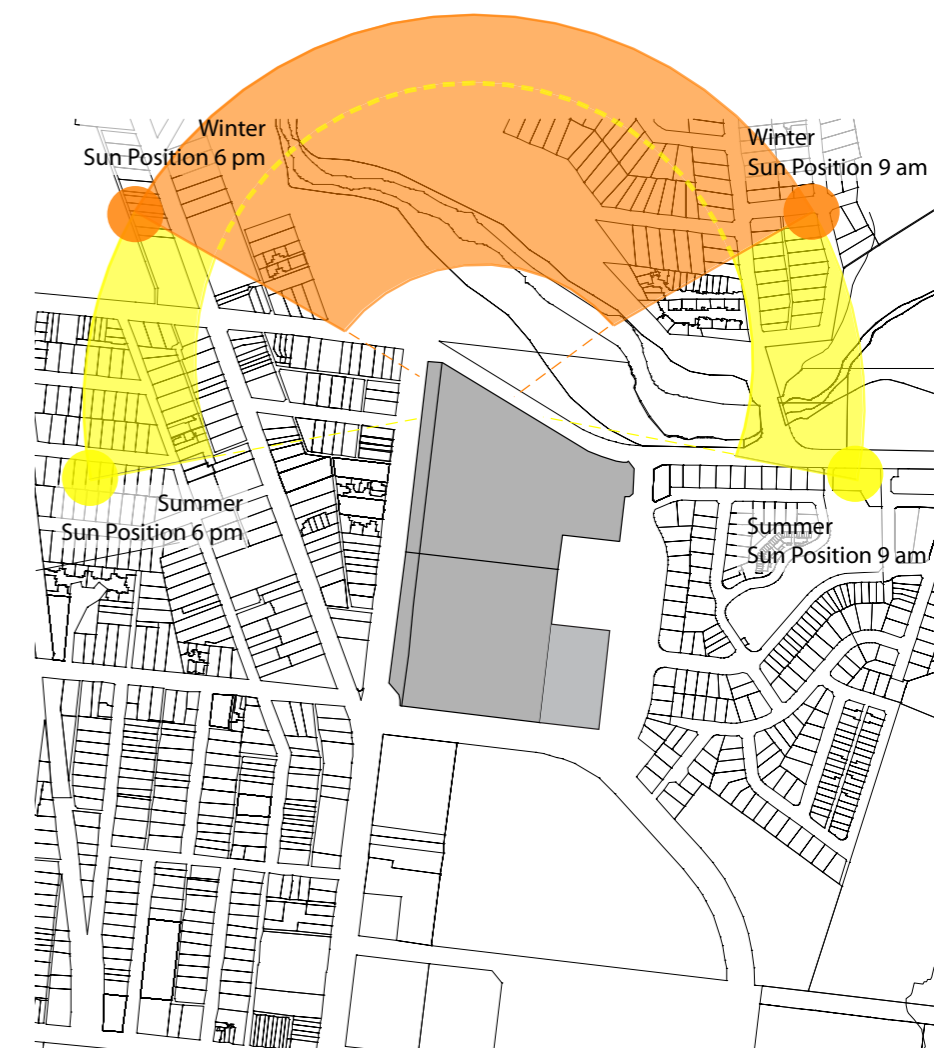


Figure 3.1.6b Solar Access

3.0 Urban Context Analysis

3.2 Summary of Site Opportunities

The key regeneration opportunities identified in the urban context include:

- The Pentridge site is part of the Coburg Principal Activity Centre, as acknowledged in the Coburg Structure Plan;
- The planning policy support, and generally the ability to assist in achieving the outcomes envisaged by the Coburg Structure Plan outcomes;
- The state significant historical context of Pentridge Prison and the heritage value of the existing buildings and bluestone walls;

- Excellent public transport and the ability to better integrate transport and land use planning;
- Being a major infill development project, and the density increases that are proposed, providing a financial investment that will assist with the long term viability of existing heritage assets;
- The opportunity to pursue best practice sustainable development initiatives;
- The tourism initiatives and the increased visitation to Coburg;

- Retail formats which take advantage of the character of Pentridge and improve the retail offer for Coburg complementing the retail core;
- The potential to create a sustainable 'urban village model' where the concept of live, work and play is embraced; and
- The long range and intimate views to and from the Pentridge site.

These opportunities and the heritage context of the site are illustrated in Figures 3.2a and 3.2b.

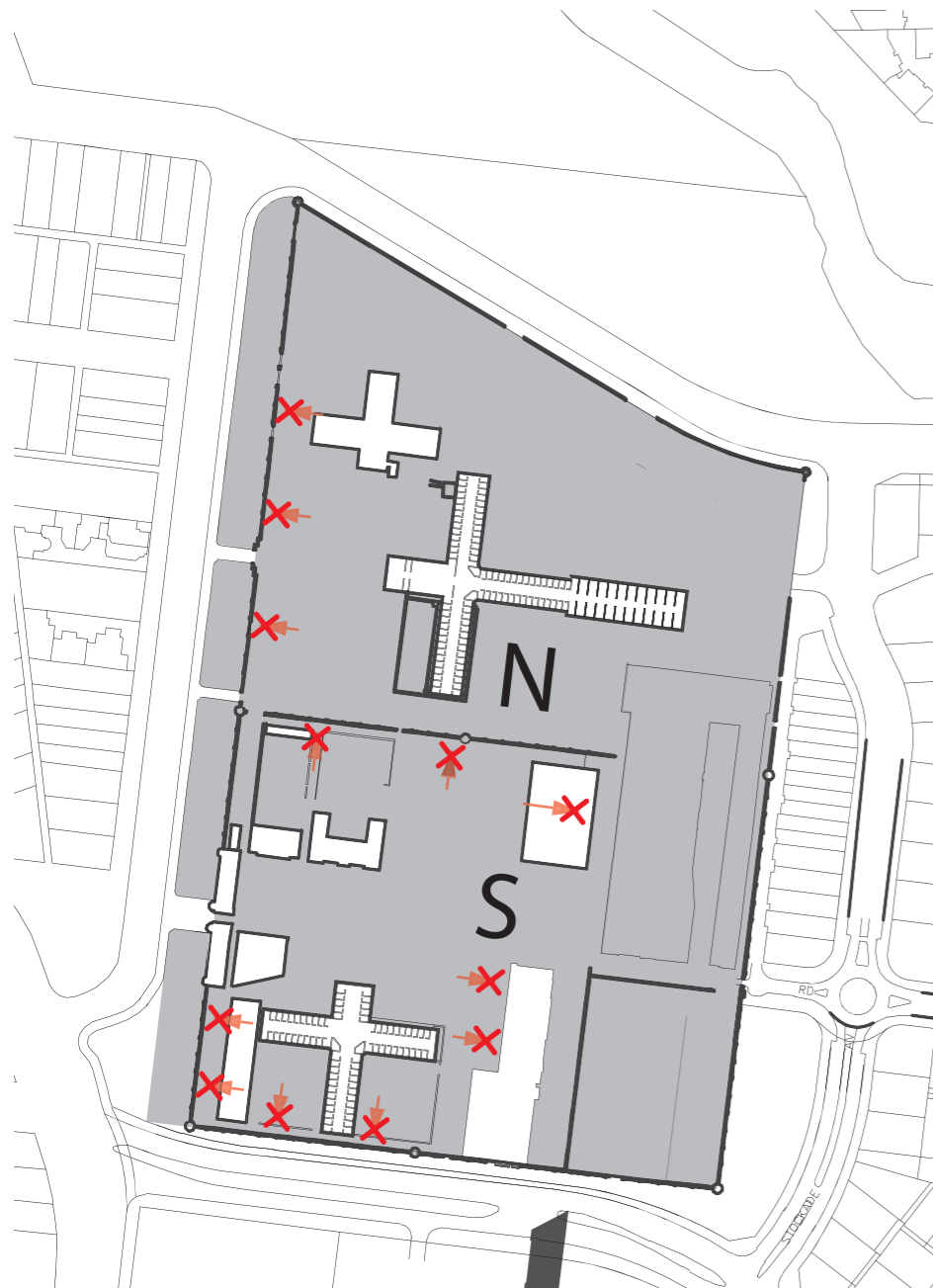


Figure 3.2a Heritage Context

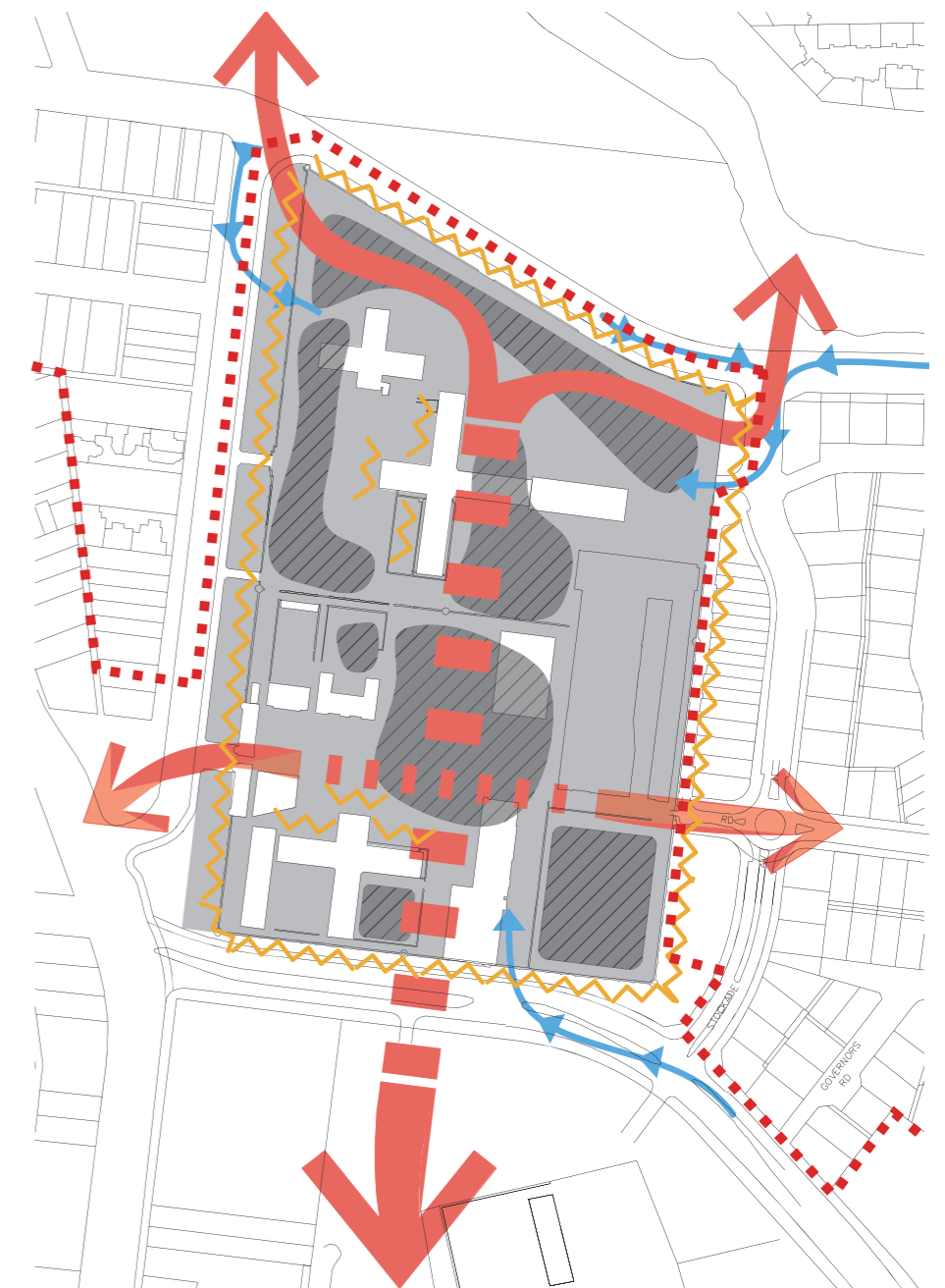
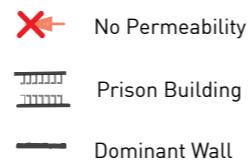
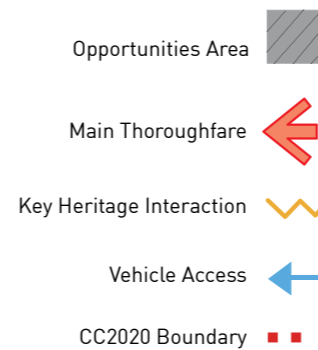


Figure 3.2b Opportunities Diagram




3.3 Metropolitan Linear Activity Centre Comparison

The concept of linear 'High Street' commercial development, exercised through retail land uses, are an important growth pattern of Melbourne. Sydney Road is such an example and importantly the extension of the Coburg Principal Activity Centre to the north to include the Pentridge site is akin to other large renewal projects in Melbourne such as Church Street/Chapel Street (Richmond to Windsor) and High Street (Northcote to Preston). Chapel Street is of particular relevance to Pentridge in the Como Central section north of Toorak Road intersection. The catalyst development in the late 1980's proceeded the substantial mixed use high density construction adjacent.

Figures 3.3a and 3.3b provide a comparison of Sydney Road to these existing examples, and in all of these examples, large scale infill developments have emerged from the original commercial corridors, similar to the relationship of the Pentridge site to Sydney Road/ Champ Street.

It is also relevant that these 'High Streets' are experiencing something of a renaissance, and this revitalisation process is being fuelled by a range of demographic factors. The northern end of Sydney Road, which is focused on the core area of the Coburg Principal Activity Centre extending through to the Pentridge site, presents the same revitalisation opportunity, refer Fig 3.3c.

Coburg Activity Centre 

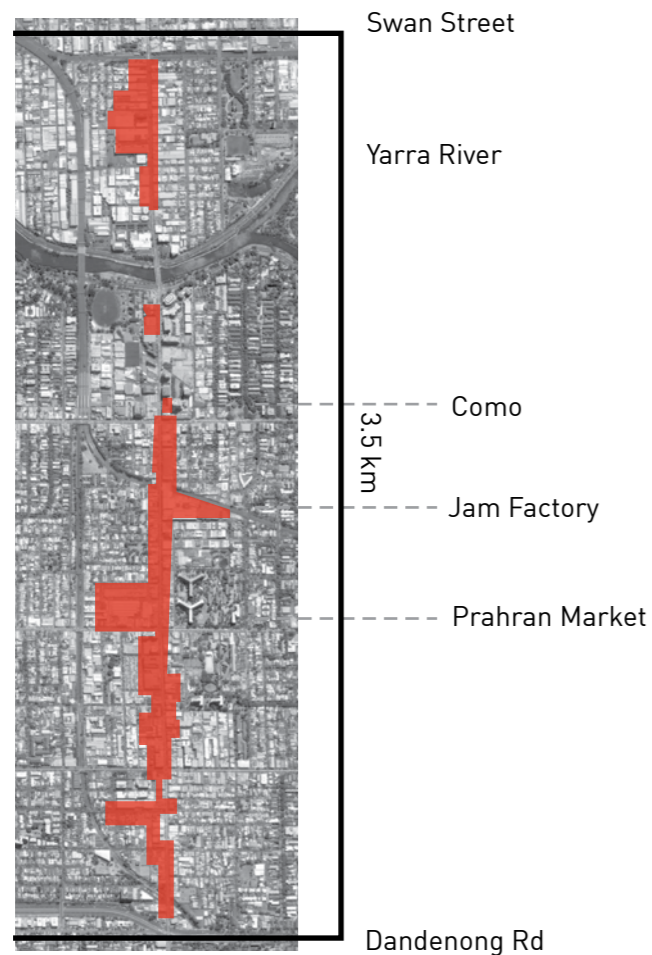


Figure 3.3a Chapel St, Sth Yarra and Prahran

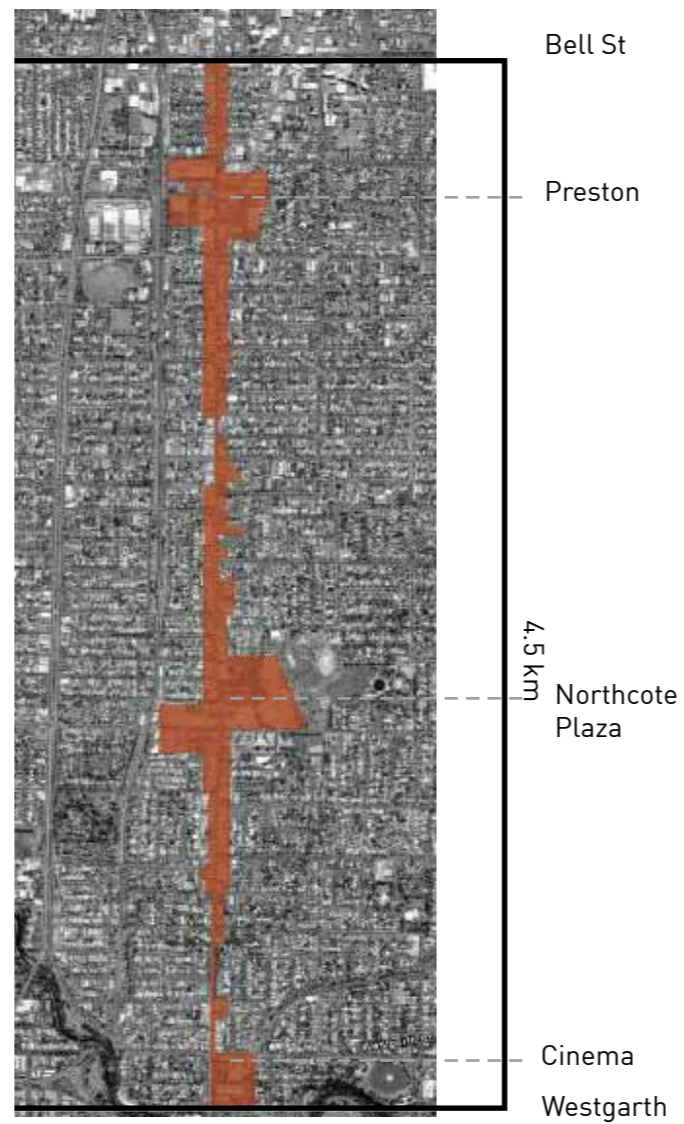


Figure 3.3b High St, Northcote and Preston

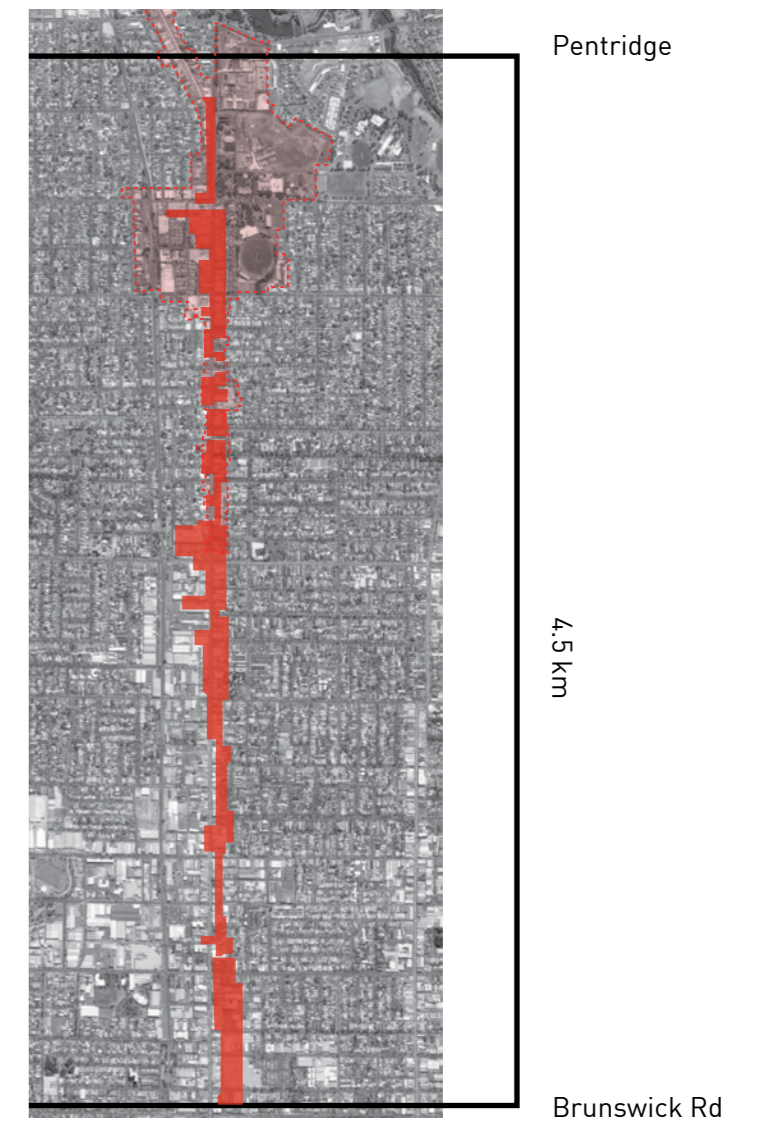
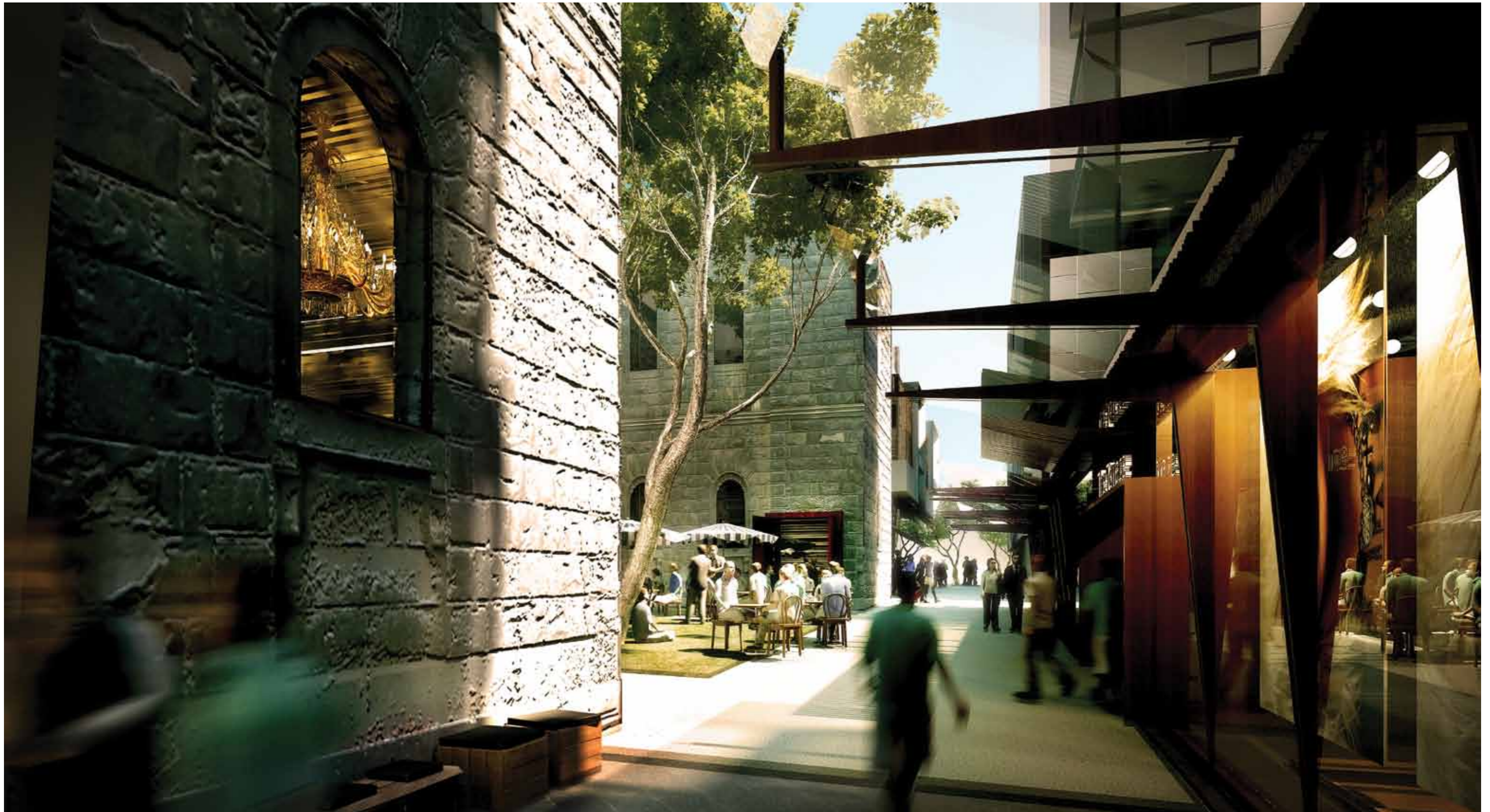


Figure 3.3c Sydney Road, Brunswick and Coburg



4. design and masterplan response

This section of the Design Guidelines and Masterplan draws on the urban context analysis to provide a design response for the redevelopment of Pentridge. It is acknowledged that development in accordance with this Masterplan will require relevant permits from the Responsible Authority and Heritage Victoria, as defined by the relevant planning and heritage policy and legislation.

4.1 Heritage and Built Form

4.1.1 Urban Design Principles

The overall planning/urban design principles for redevelopment of the Pentridge site include:

- Achieving a density of development that is sustainable having regard to physical, social and economic considerations, including ensuring the long term retention of important heritage assets; and
- Achieving a density of development that is consistent with planning policy having regard to the site's activity centre context and the ability to integrate land use and transport planning.

The urban design principles that underpin the proposed masterplan are:

- Maintaining the significance of the recognised heritage assets within the site, including perpetuating the proportions of the former parade ground to create a high quality civic quality urban space;
- Creating opportunities for viable re-use of the heritage buildings;
- Creating a functional, high quality built form and public realm;
- Allowing building heights within the site that ensure marker buildings are provided to improve internal legibility and to create visual interest when viewed from outside the perimeter walls;
- Providing varied building height profiles along the external edges as a contrast to the perimeter walls;
- Creating internal vistas focussed on the B Division and the A and H Divisions buildings;
- Creating openings in the perimeter walls to generally improve permeability through the site, and use openings to facilitate external views to important heritage assets that will increase visitation;
- Generally creating a permeable site plan that has a hierarchy of public spaces and thoroughfares, and ensure these public areas are activated through building design;
- Ensuring building heights do not compromise access to sunlight for public spaces;
- Allowing for optimal building footprints having regard to future architects being able to incorporate sustainable design initiatives;
- Promoting high quality contemporary design solutions that create a contrast with the heritage assets, respect the appearance / character of the heritage setting and incorporate best practice environmentally sustainable initiatives;
- Using urban art to add interest and vitality to publicly accessible areas, with a particular emphasis on art which provides insight into the former penal history of the site;
- Ensuring that the site is publicly accessible through the network of spaces and through the use of commonly recognisable public infrastructure (e.g. seating, lighting), with the exception of part of the retail at certain times of the day/night; and
- Providing opportunities to showcase environmentally sustainable design outcomes in the public realm.

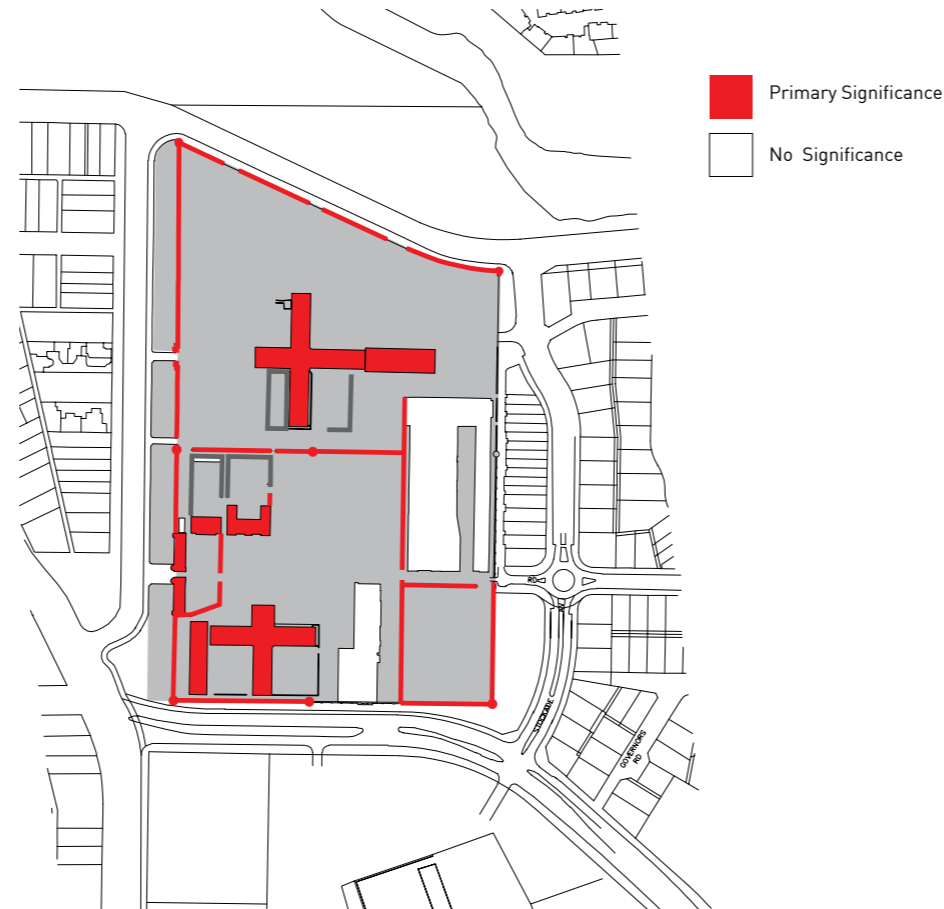


Figure 4.1a Heritage Significances

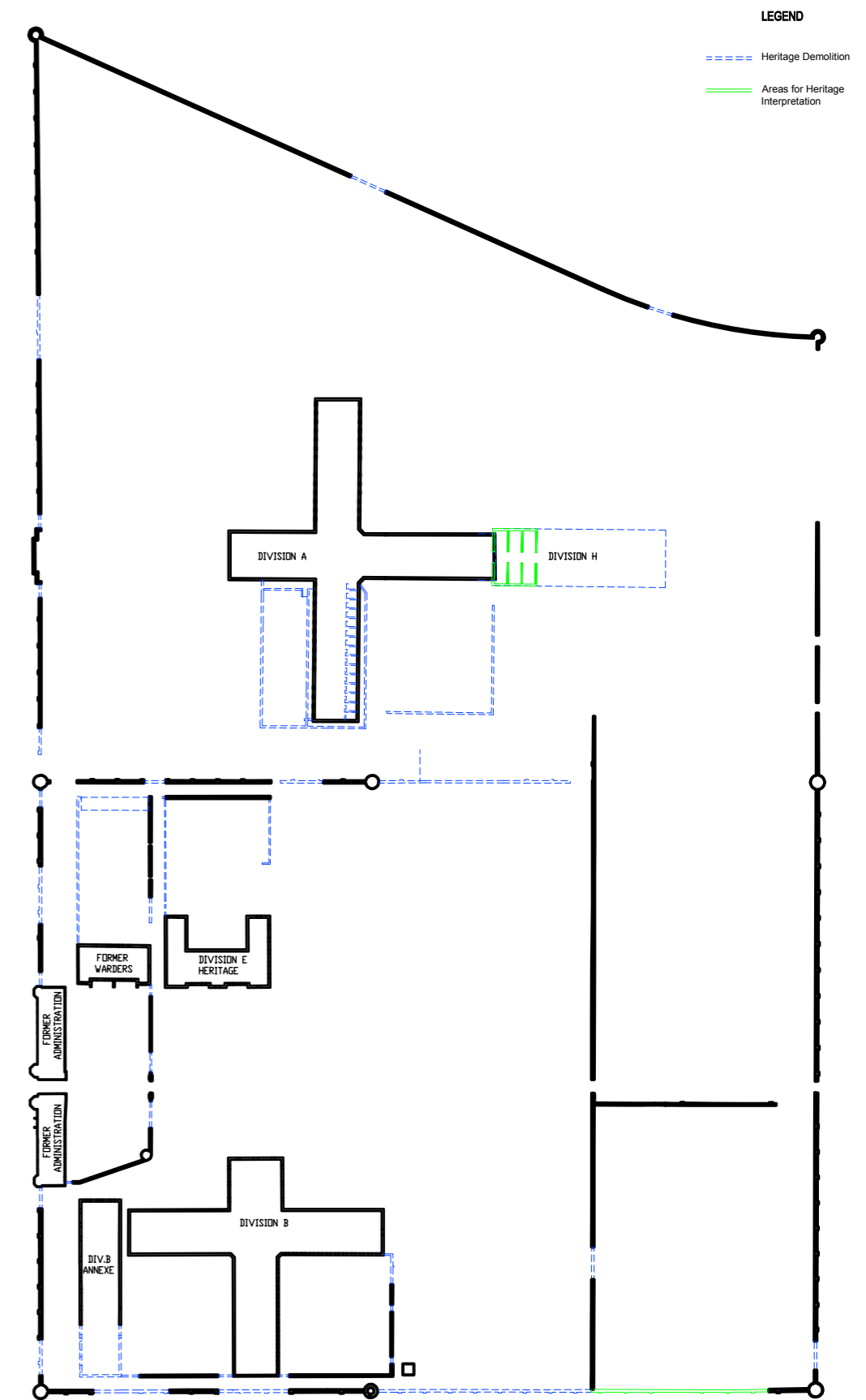


Figure 4.1b Heritage Retention Plan

4.0 Design and Masterplan Response

4.1.2 Key Site Planning Considerations

The redevelopment of the Pentridge site has been carefully composed based on a series of key site planning design decisions which combine to produce the overall site planning strategy and built form response.

1. Heritage Retention

The heritage significance of the Pentridge Prison site is recognised as a place of State significance on the Victorian Heritage Register (H1551); by the National Trust of Australia (Vic); and under the Moreland Planning Scheme. In accordance with these heritage listings the key heritage buildings and perimeter bluestone walls are to be retained as shown in Fig 4.1.2a.

2. Public Realm

In developing the open space and public realm of Pentridge, there are a number of key objectives which have been considered.

The public realm should:

- Complement the retained heritage buildings and perimeter walls.
- Be integrated, so that a network of linked spaces, of diverse character, is created;
- Be inviting and legible at the interface with its boundaries, so that visitors are encouraged to explore its spaces and activities;
- Be attractive and comfortable, with spaces that are accessible and safe with high levels of amenity and a human scale;
- Have regard to appropriate surveillance and safety needs;
- Be easily navigated, so that clear movement routes are provided for vehicles and pedestrians;
- Be interactive with the ground level of all buildings;
- Be respectful of heritage, so that existing buildings and other structures are well presented and incorporated into the design of spaces and movement corridors;
- Provide opportunities for urban art, particularly that which reflects the site's penal history.

Refer to Fig. 4.1.2b

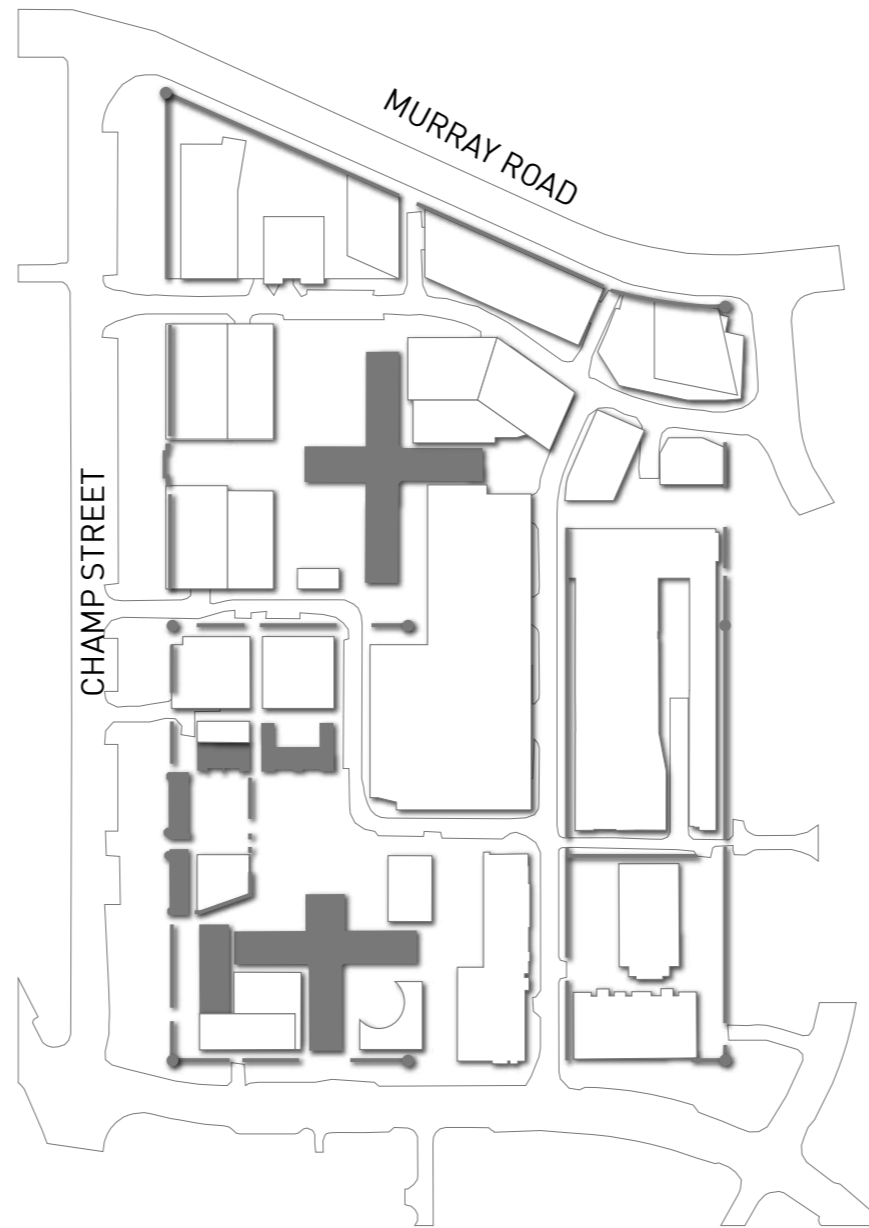
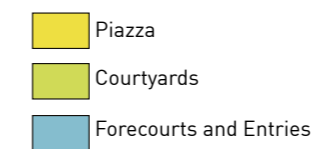


Figure 4.1.2a Retention of Heritage Buildings



Figure 4.1.2b Designation of Primary Public Realm Spaces



Note: Figure 4.1.2a to 4.1.2f are diagrammatic representations of the masterplan building envelope plan Fig 4.1.2g.

3. Permeable and Legible Movement

Following retention of the significant heritage buildings/structures, and the establishment of the network of open space, determining the preferred movement system has been the priority. Specifically, the movement system, for pedestrians, bicycles and vehicles has been structured through the Masterplan and is described in Figure 4.1.2c. The pedestrian pathways are based upon various movement networks including external links through the site, existing laneways between buildings, linear streets for building address and smaller links through buildings to further enhance the multiplicity of experiences.

A system of internal private roads provides linkages to the external public road network. These internal roads provide residents, workers and tourists with access to the variety of land uses proposed within Pentridge. These internal roads have varying functions including allowing bicycle and pedestrian permeability through and around the site. The roadway which traverses the northern edge of the Piazza space is intended to provide low level vehicular interaction with and observation of the Piazza space whilst primarily being regarded as a shared zone welcoming non-structured bicycle and pedestrian activity along and across this shared zone road.

Entrances to the site aim to link with the surrounding road network, optimise access and circulation from the surrounds and link with surrounding public transport nodes.

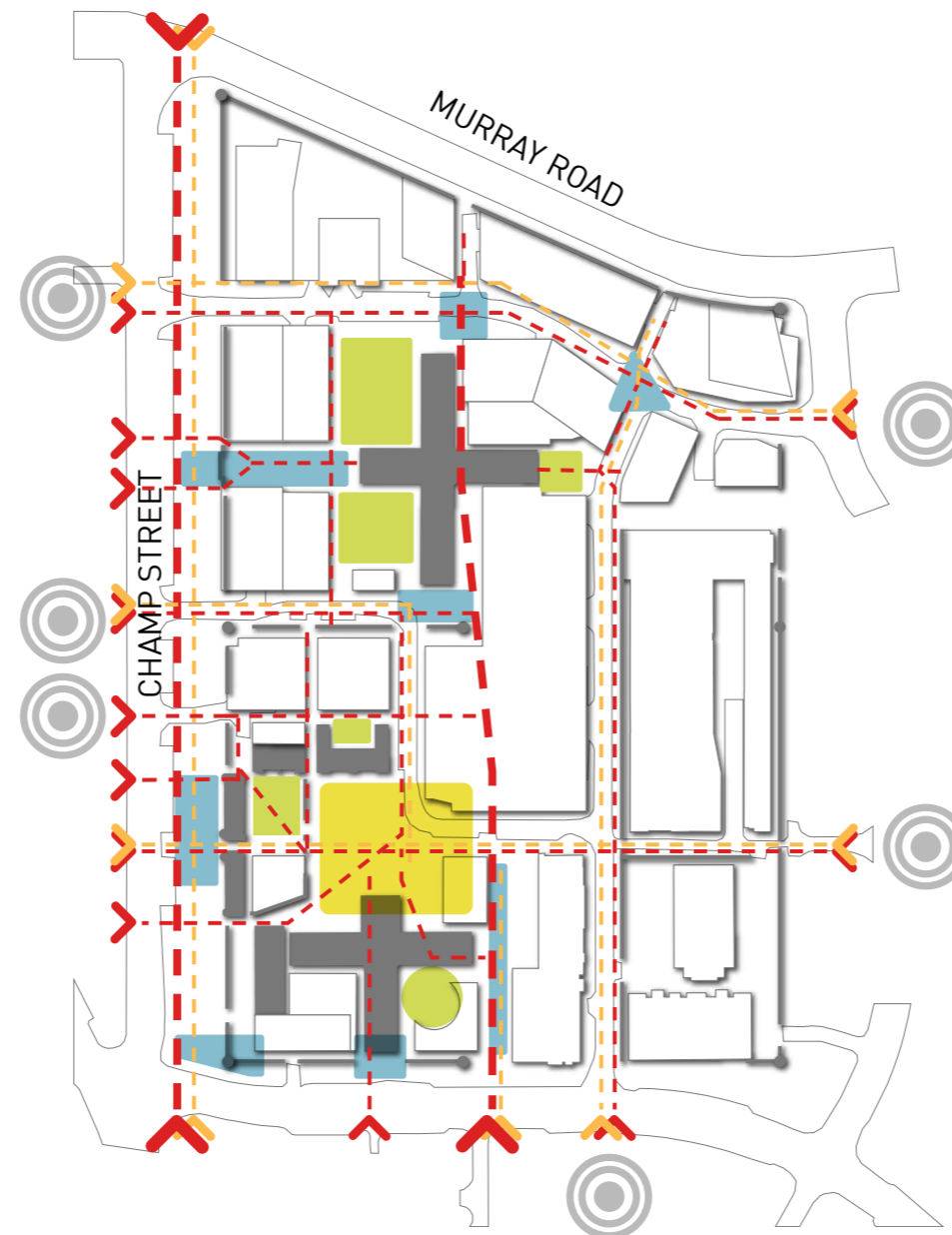


Figure 4.1.2c Creation of a Permeable and Legible Movement Network

- Piazza
- Courtyards
- Forecourts and Entries
- Laneways
- Pedestrian Access into site
- Bicycle Access into site
- Vehicle Access into site

Note: Figure 4.1.2a to 4.1.2f are diagrammatic representations of the masterplan building envelope plan Fig 4.1.2g.

4.0 Design and Masterplan Response

4. Arrangement of New Buildings

Once the heritage assets, key open space areas, and the movement system broadly form the urban structure for the site, the opportunities for new infill buildings becomes evident. Within these areas, it is then necessary to determine the spatial arrangement and typologies for new buildings and their overall scale.

In response, the arrangement of new buildings within the site has sought to:

- Complement the heritage assets on site;
- Enhance and protect the public realm;
- Enhance key views to and within the site; and
- Ensure no unreasonable amenity impacts on the surrounds.

Rejuvenating the former prison complex with the introduction of new building formats and uses has been widely recognised as the most practical means for integrating the site into the adjoining community.

The siting and massing of new buildings within this revised Master Plan has sought to push the taller building heights away from the main Piazza area, towards the northern edge of the site. This 'opens up' the space around the most important part of the site from a heritage perspective, being the Piazza Precinct where a high proportion of heritage buildings, including the former B Division, former E Division and the Piazza (former Mustering Yard) is located, and distributing building scale to the less sensitive northern edge of the site.

The siting of new buildings and design of the movement network has also created a legible hierarchy of publically accessible spaces located adjacent to or surrounding the heritage assets. These include the large ceremonial Piazza space between Division B & E; the courtyard gardens around Division A; the forecourt/entries around the Administration A and B Division Building.

The existing views to the site are of a foreboding and consistent prison wall along the northern boundary. To integrate the site with the broader Activity Centre and optimise views to and from the Coburg Lake, a simple strategy of contrasting the continuous wall line with a varied built form layout and design is proposed. This provides a 'framing' of the large open space area to the north in a manner seen in examples of other large scale urban parks around the world; and provides for interaction between the site and its surrounds. Opportunity for clear differentiation of architectural language in the design of each building and its interaction with the wall is a sought after outcome.

Marker buildings are proposed adjacent to the four corners of the site to strongly identify the north and south extent of Pentridge. These structures act as markers to draw people into the site to experience Pentridge and will assist the legibility of the original prison domain.

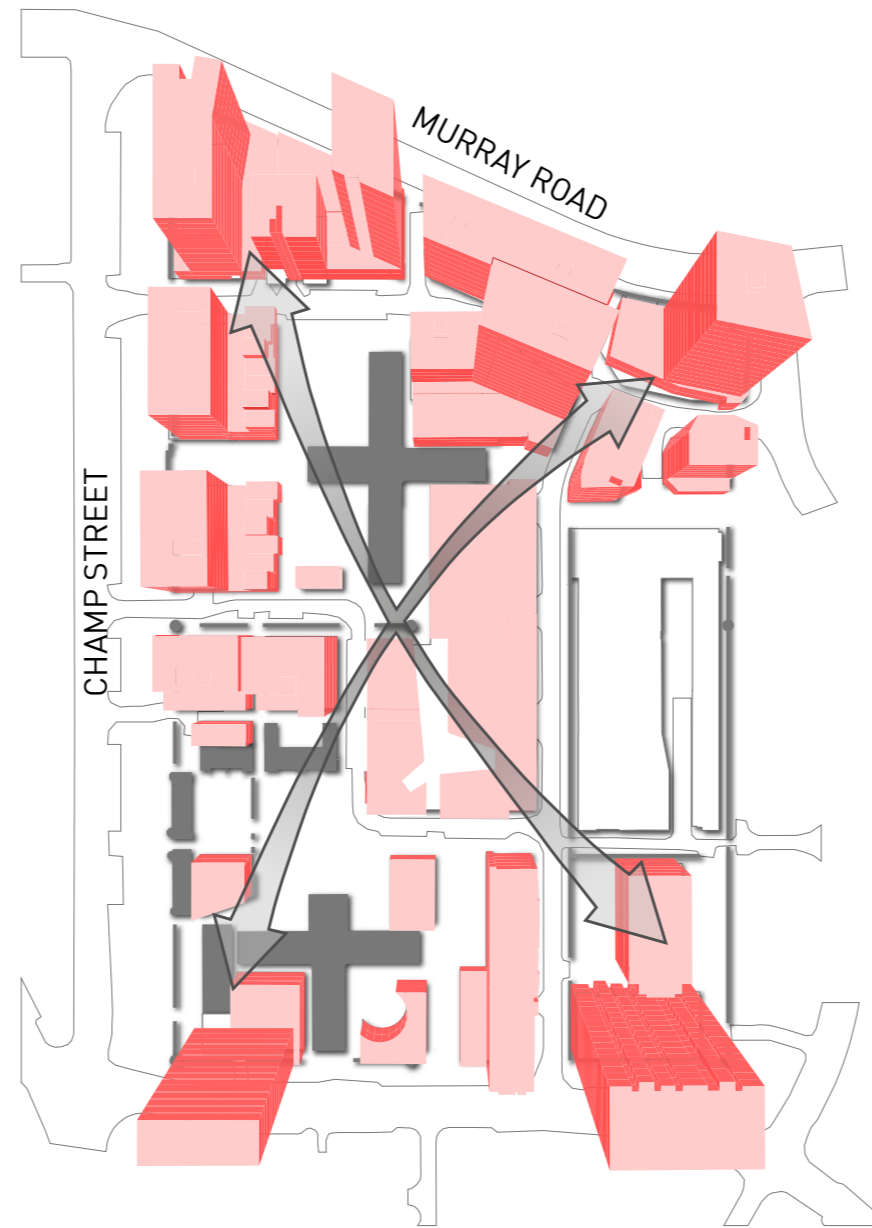


Figure 4.1.2d Arrangement of Buildings to complement Heritage Buildings

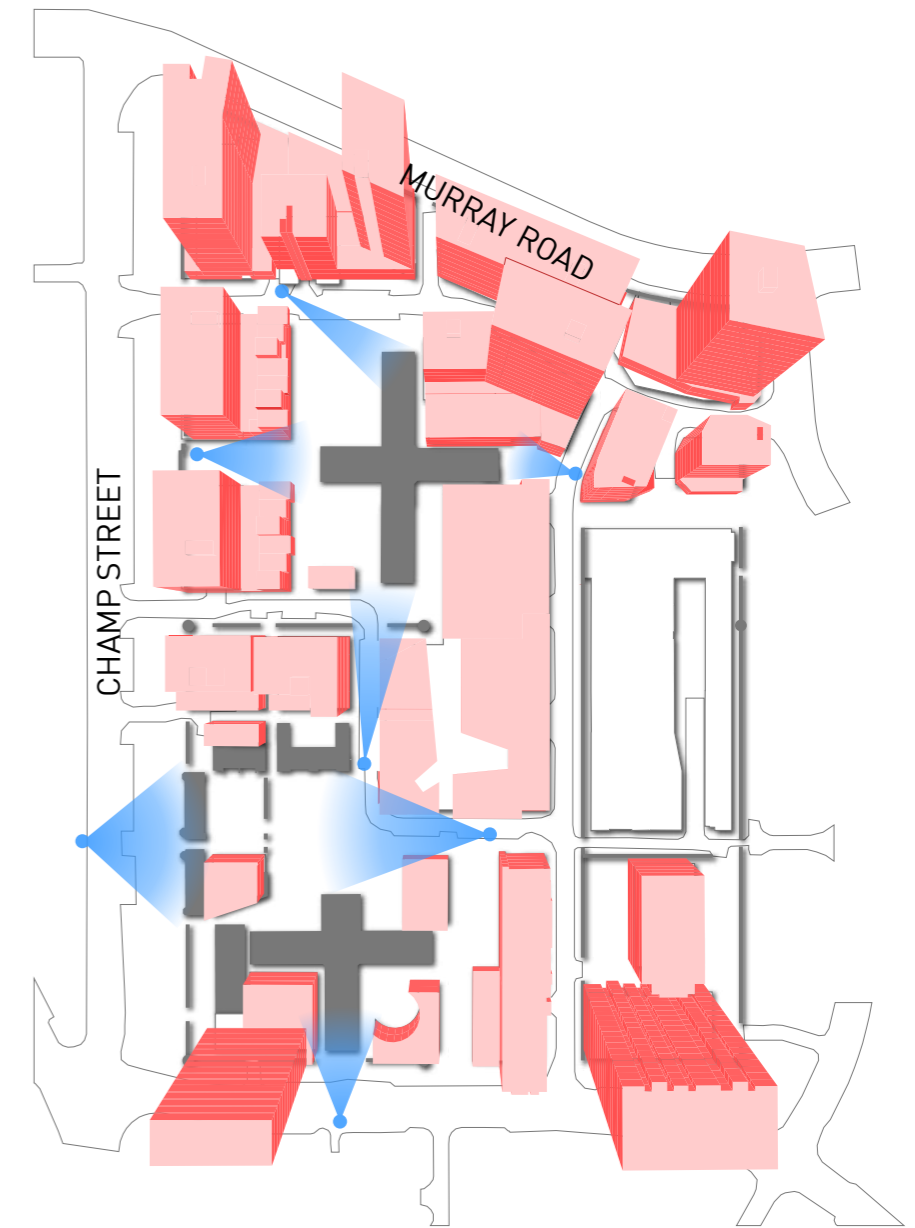


Figure 4.1.2e Arrangement of Buildings having regard to Key Views, External Amenity and the Public Realm

Note: Figure 4.1.2a to 4.1.2f are diagrammatic representations of the masterplan building envelope plan Fig 4.1.2g.

The Champ Street boundary of Pentridge is approximately 350 metres in length and includes the significant Administration gate and the former women's prison gate. The Masterplan seeks to provide an appropriate level of built form activity around the wall to demonstrate the extent of community and uses which are intended to exist within Pentridge. The Champ Street elevation demonstrates how the layering of built form which is proposed deeper into the site will, at the extremities of the site, provide an understanding of the depth of buildings and activities which continue into the heart of the site. This layering is further evident in the east-west diagrammatic section in Figure 4.7.1d which illustrates the layering of height from Champ Street through the site.

The Pentridge Boulevard approach comprises a number of significant entries into the site, in particular Warders Walk. The larger built form along this southern boundary of the Pentridge site improves legibility of this boundary and highlights the significant entry role from Bell Street approaches (refer Figure 4.1.2h).

In siting and designing the new building, regard has also been had to the immediately surrounding land use and development. Along the western side of Champ Street (eastern edge of the site) there is low scale residential housing. Design measures to address this interface have included the retention of the existing walls with new openings; retention of existing street trees and provision of new planting; and setting back of new buildings along Champ Street with garden interfaces at the street edge.

Creation of connections by breaking through the western wall is also proposed, to improve visual and spatial permeability to the established surrounding area.

The shadow diagrams demonstrate that there will be no unreasonable shadow impact to existing dwellings at the September equinox.

In determining what are appropriate heights, it is also relevant to pursue a scale of buildings that is commensurate with other development within higher order activity centres throughout metropolitan Melbourne and to respond to the scale of buildings approved within the surrounding area including the approved Air Apartments (19 levels) and Division B building (up to 18 levels) within the Pentridge Coburg site.

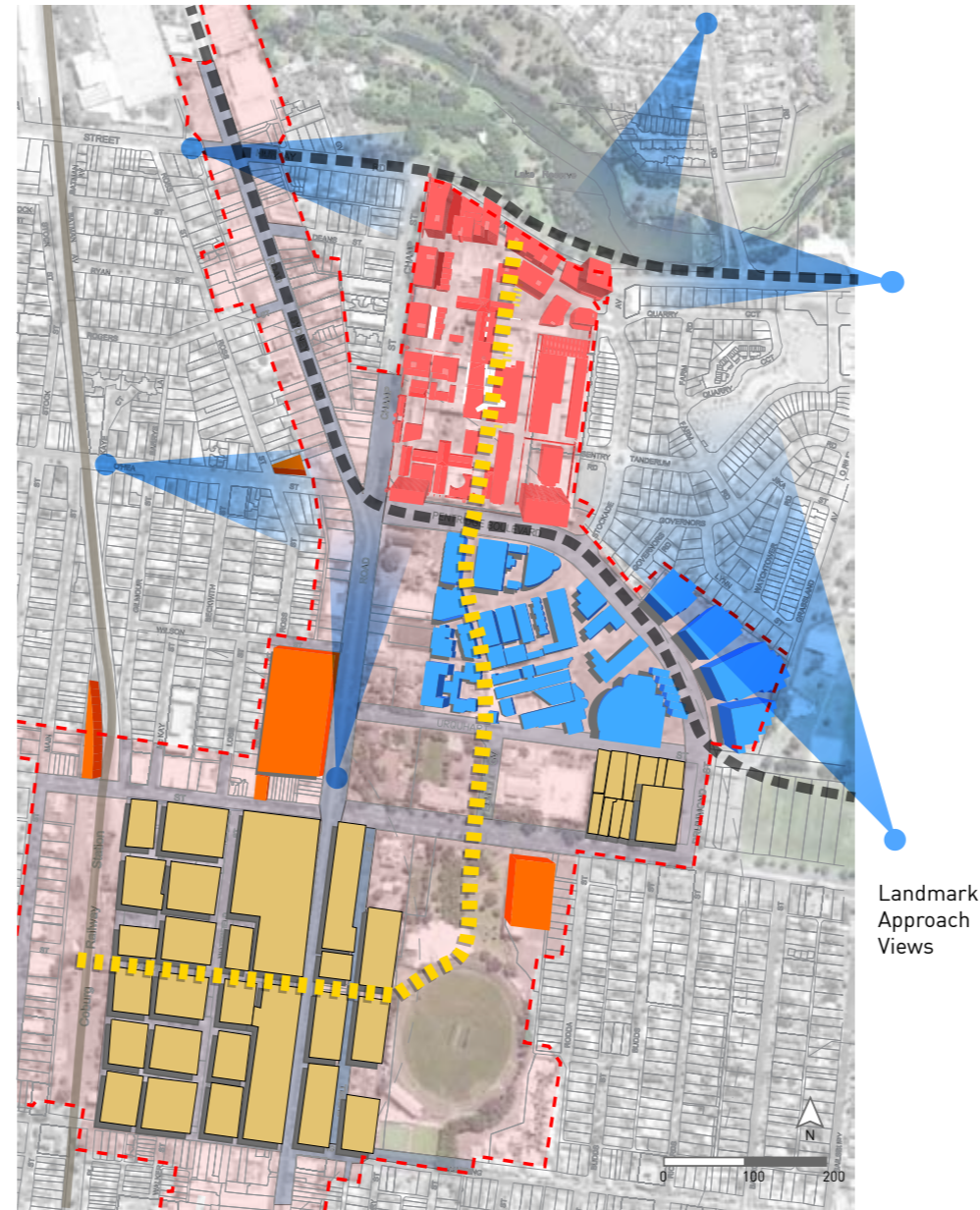


Figure 4.1.2f Built Form Comensurate to Higher Order Activity Centre

- Pentridge Village
- Coburg Initiative
- Pentridge Site
- Surrounding Approved High Density (4-16 Storeys)
- Coburg Activity Centre
- Pedestrian Link

Note: Figure 4.1.2a to 4.1.2f are diagrammatic representations of the masterplan building envelope plan Fig 4.1.2g.

4.0 Design and Masterplan Response

Masterplan Building Envelope

The adjoining diagram describes the arrangement of building footprints and heights across the site. These envelopes reflect the external facade line of buildings, the future architectural design may vary the exact position of these envelopes. Architectural features, balconies, environmental components and roof plant have not been allowed for in these building envelopes. Due to the undulating ground plane the height (number of levels) is measured from a relative ground position nominated on the plan.

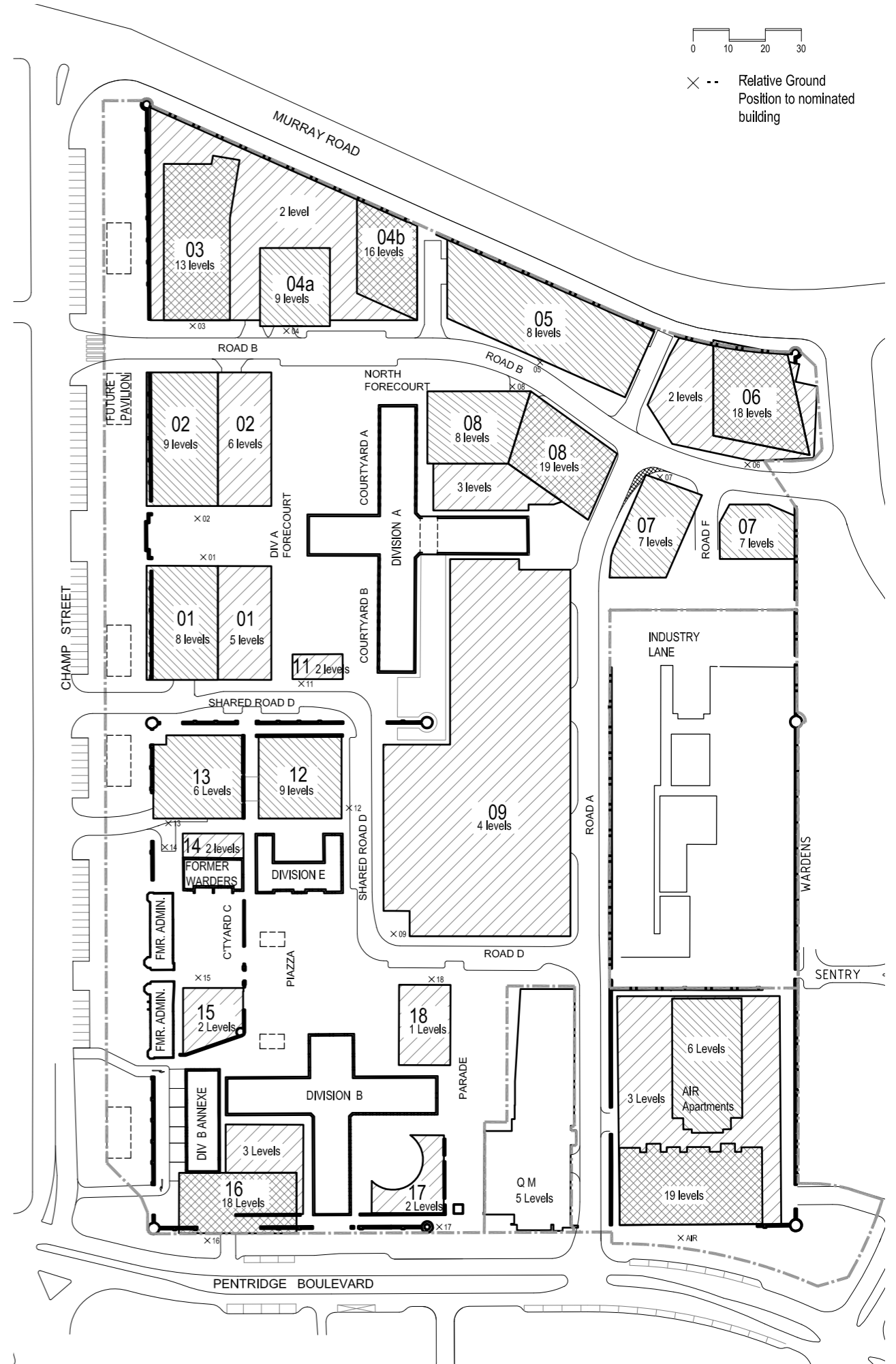


Figure 4.1.2g Masterplan Building Envelope

Masterplan Building Envelope - Elevations
Refer Figure 4.1.2g for plan reference.

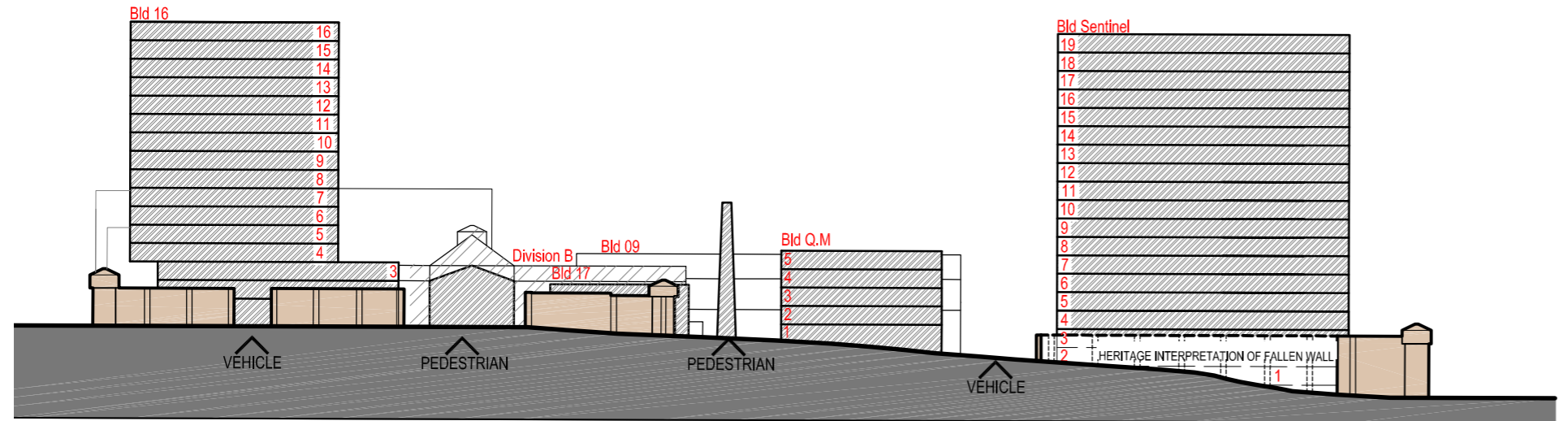


Fig 4.1.2h Pentridge Boulevard Elevation

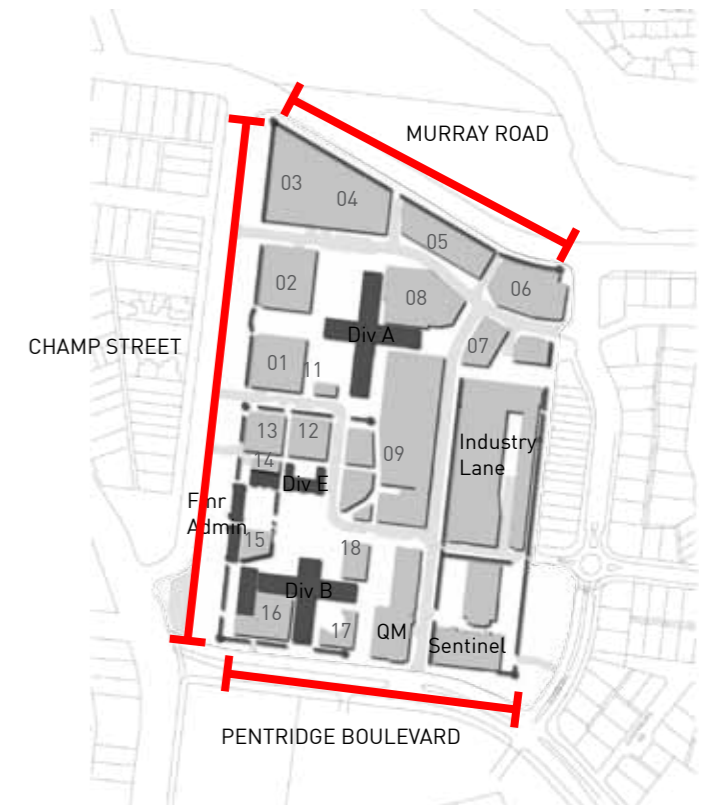


Figure 4.1.2k Location Plan

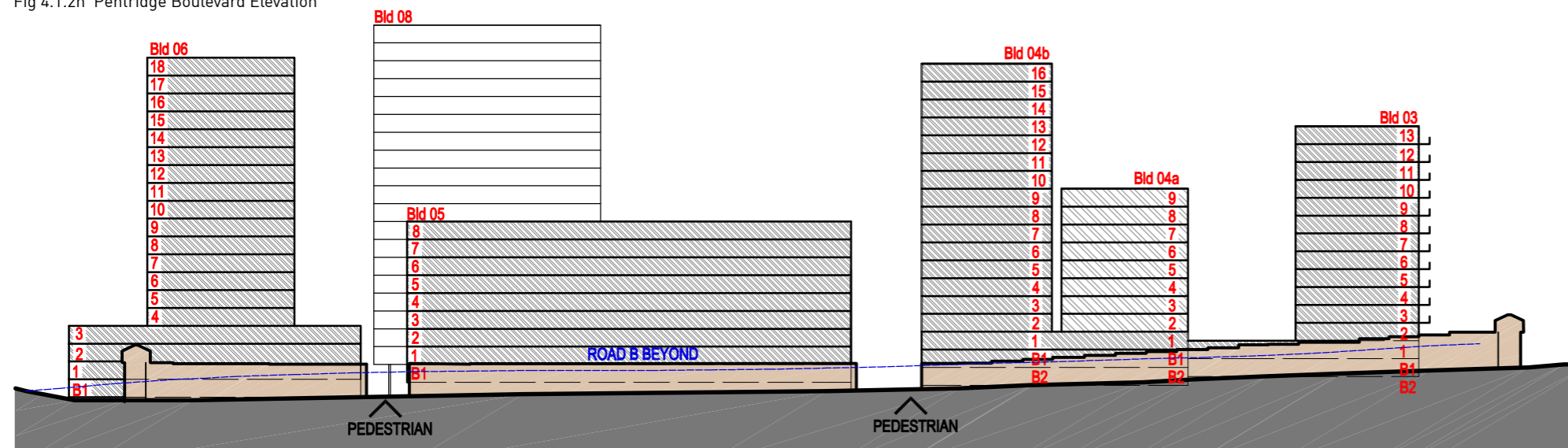


Fig 4.1.2i Murray Road Elevation

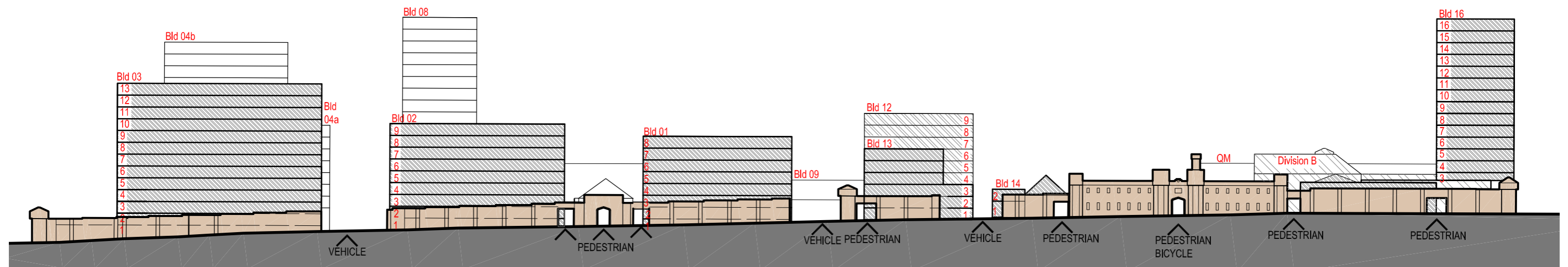
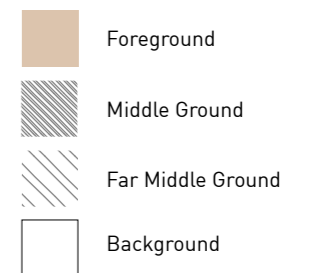


Fig 4.1.2j Champ Street Elevation



4.0 Design and Masterplan Response

4.1.2 Heritage and Built Form Principles

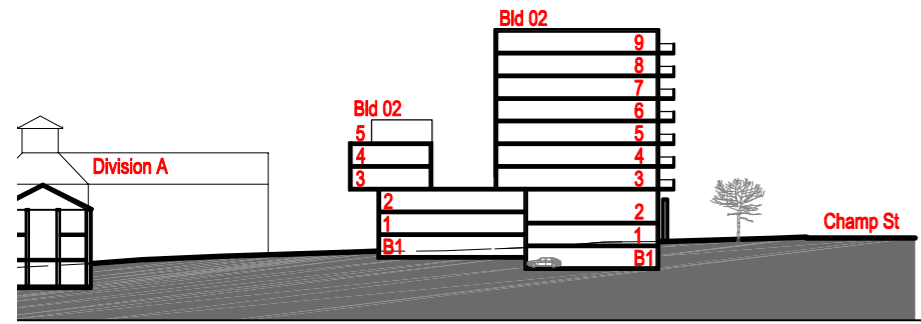


Fig 4.1.2l Section AA

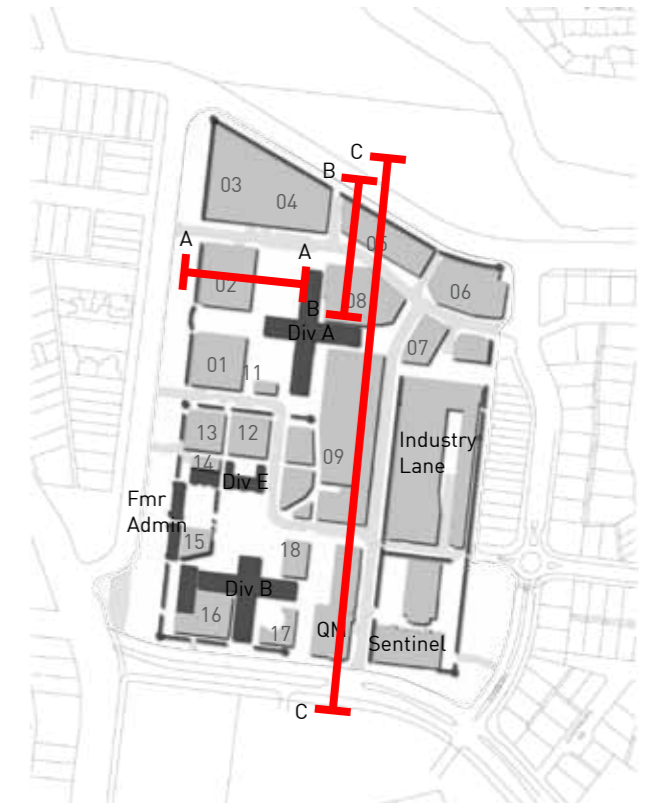


Figure 4.1.2o Location Plan

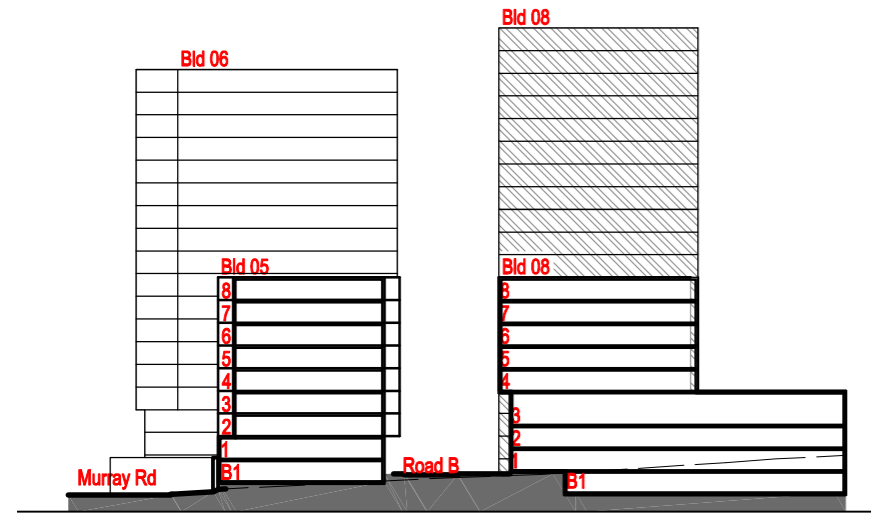


Fig 4.1.2m Section BB

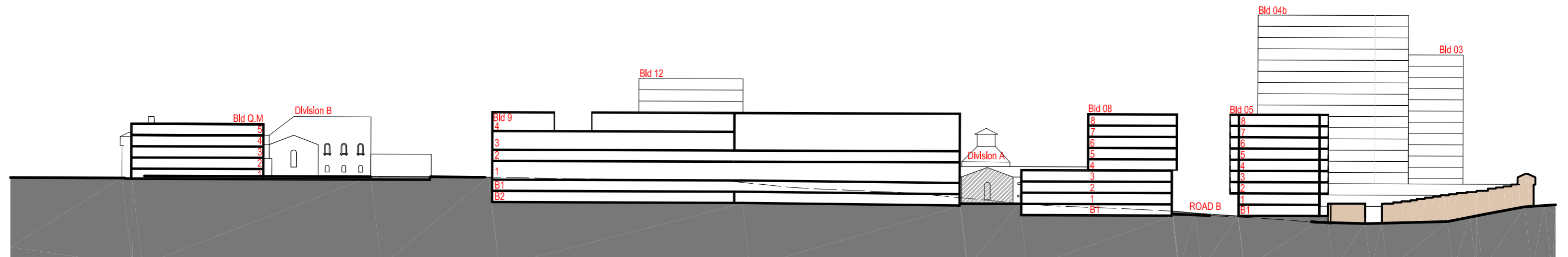


Fig 4.1.2n Section CC

Building Design Guidelines

This table provides general design guidelines expressing the built form expectations for the proposed new buildings.

GENERAL DESIGN GUIDELINES	(GENERALLY APPLICABLE TO ALL NEW BUILDINGS)
DG01 Frontages	A combination of active and semi active street frontages facing public realm spaces. To avoid the privatisation of the public realm consider the incorporation of a combination of screens, grade differentiation, balconies, pergolas and setbacks between public spaces and private residential uses on ground level and first floor.
DG02 Heritage Response	New buildings should achieve articulated engagement and architectural responsiveness to retained heritage walls and buildings. Refer to built form massing principles in 4.1.4
DG03 Screening	Minimise exposed carpark and roof plant generally, where sightlines from public spaces are apparent they should be treated with high quality architectural screens. Where private residential balconies have air-con plant it should be screened.
DG04 Apartment amenity	Clearly identify pedestrian entrances into buildings and locate within sightlines to primary pedestrian routes. Where possible allow for natural daylight and ventilation into circulation spaces of residential buildings. Seek to reduce the majority of internal corridor lengths of apartment buildings to 25m from vertical circulation cores.
DG05 Loading	Mitigate the visual and noise impacts from loading areas to key public realm areas. Incorporate a central management system for waste removal and loading. Where possible enclose back of house areas within buildings, alternatively provide architectural screens.
DG06 Privacy and solar amenity	Building separation should provide high privacy and solar amenity, buildings over 9 levels should have the majority of apartments with primary outlook separation of min 20m width.
DG07 Typology	Vary the impact of the substantial new building within Pentridge through the provision of varied uses at street level and where there are concentrations of residential buildings provide diverse typologies (apartment mix and building scale/assembly).
DG08 Scale	Internally the site masterplan has established primary public spaces adjoining key heritage buildings. Building massing should respond as per the individual building guidelines and seek to include a range of typologies from stepped transitions to contemporary wall edge. The perimeter of the site includes a number of marker buildings with a broader neighbourhood identity.



Figure 4.1.2p Clear address inserted into converted industrial building



Figure 4.1.2q Herzoq de Meuron, Paris Layered and kinetic facade elements.



Figure 4.1.2r Adjacent 30 The Bond, Sydney.



Figure 4.1.2s Victoria St Housing, Jackson Clements Burrows. Articulated and responsive large scale housing.



Figure 4.1.2t MCR & NHArchitecture, QV2. Sculptural urban scaled form responding to civic context.



Figure 4.1.2u Neutlings Riedijk, Borneo Sporenburg Articulated wall design and public realm interface.


















Figure 4.1.2v Mancuriam Way, Manchester, Urban Splash. Accommodating contemporary workspace requirements with heritage.

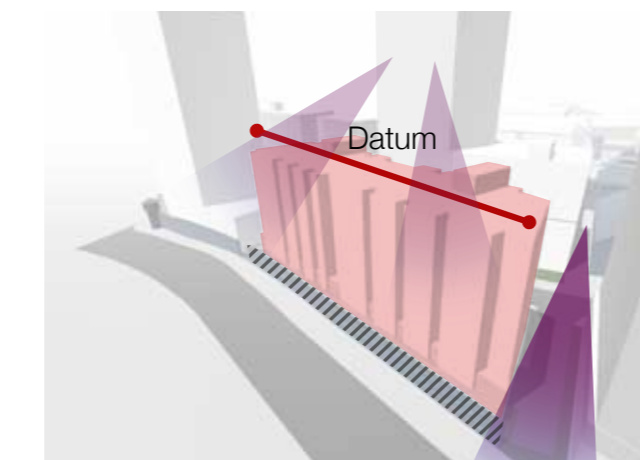
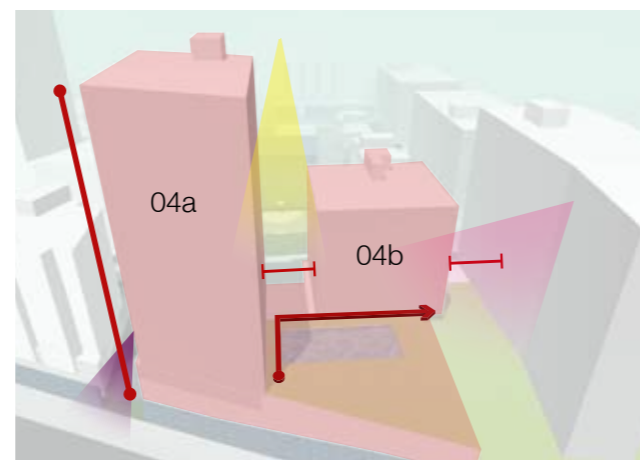
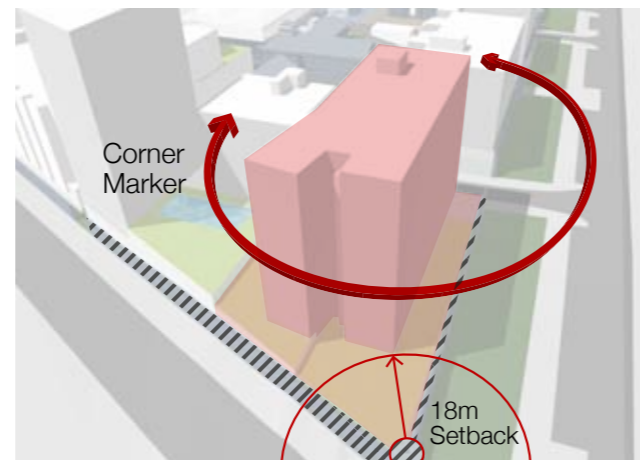
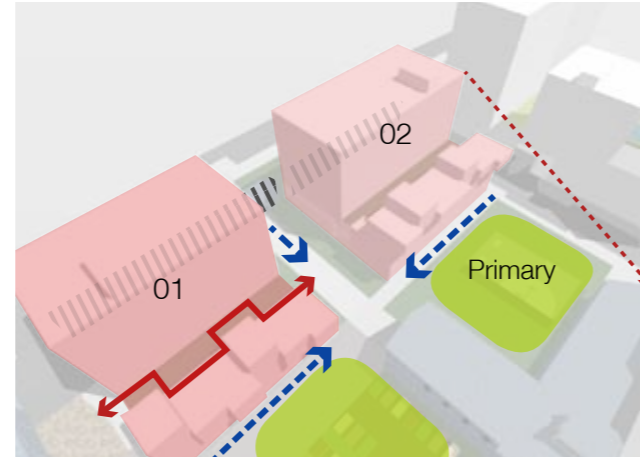


Figure 4.1.2w Riverland bar, 6 Degrees.

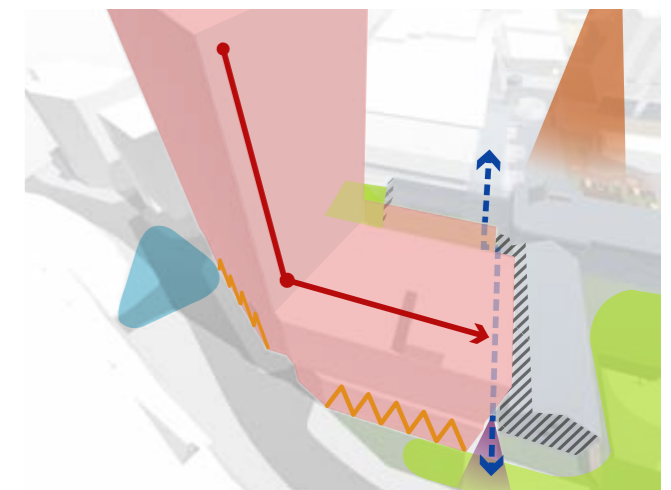
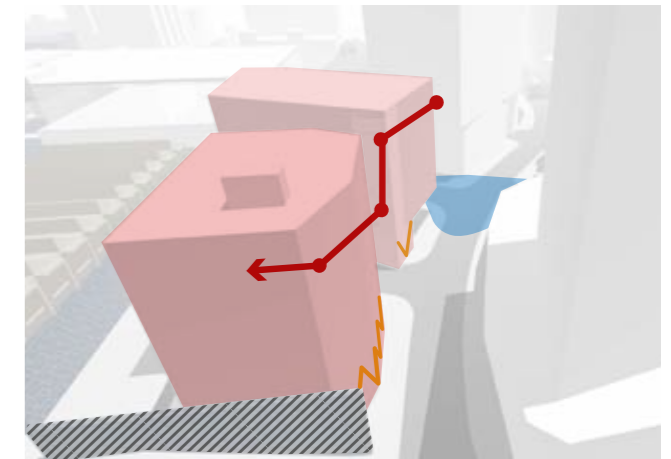
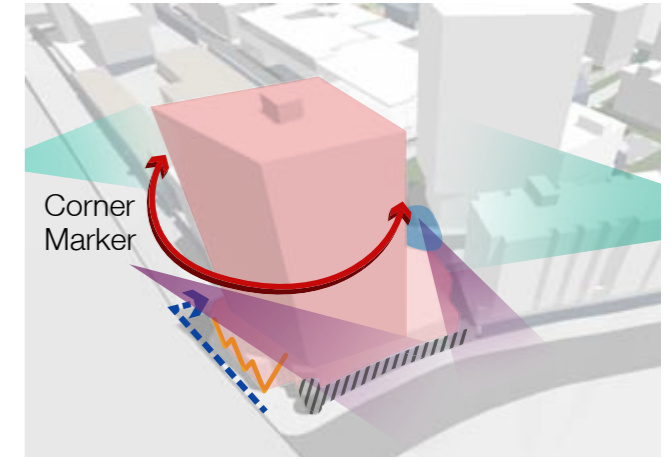
4.0 Design and Masterplan Response

BUILDING REFERENCE	DESIGN GUIDELINES
Building 1 & 2	<p>Privacy between residential dwellings to Courtyard A and B should contribute to public use of spaces.</p> <p>Prominent site address and forecourt spaces adjoining shall be a primary consideration in the architectural response.</p> <p>Encourage active public use of linear nature strip along Champ Street and engagement with heritage wall, refer to diagram 4.1.4m</p> <p>Stepped scale to complement Div A ridge height. Varied upper building profile adjacent Courtyards in contrast to existing institutional scale refer 4.1.4u. Transition of building transparency with greater privacy adjacent to the parks.</p>
Building 3	<p>Prominent corner address to Murray Road and adjoining heritage watchtower requires high quality design response. A landmark opportunity site.</p> <p>Carpark podium to be concealed behind heritage walls.</p> <p>Setback from watchtower to allow clear Coburg Lake views from Champ Street approach.</p>
Building 4a & 4b	<p>Podium terraces and vertical edge building within Murray Road streetscape, refer 4.1.4l. Carpark podium to be generally concealed behind heritage walls, high quality architectural screens are required where visible from Coburg Lake Park. Garden terrace to provide high quality roofscape outlook. .</p> <p>Encourage active public use of Warders Walk axis on east façade.</p> <p>Base / Tower hierarchy to respond to heritage built form refer 4.1.4a.</p> <p>Building separation to secondary outlook shall be 9m min, solar access to Courtyard A to be optimised.</p>
Building 5	<p>Horizontal building within Murray Road streetscape, refer 4.1.4l. Explore the opportunity to include a finer rhythm in the facade design, to north and south elevations. Base / Tower hierarchy to respond to heritage built form adjoining wall refer 4.1.4a where practical.</p> <p>Encourage active public use of Warders Walk axis on west façade and recognise the axial sightline to Coburg Lake.</p> <p>Carpark podium to be generally concealed behind heritage walls, the building above the wall requires a high quality design response. Large NNE façade to be leveraged for maximum passive solar design opportunities. Roofscape to respond to apartment outlook from adjoining taller buildings.</p>

- Heritage Interface 
- Massing 
- Scale 
- Pedestrian Access 
- Skyline Profile 
- Solar Access 
- Roofscape 
- Heritage View 
- Park View 
- Forecourts and Enries 
- Courtyard 
- Piazza 
- High Activity 
- Medium Activity 
- Low Activity 

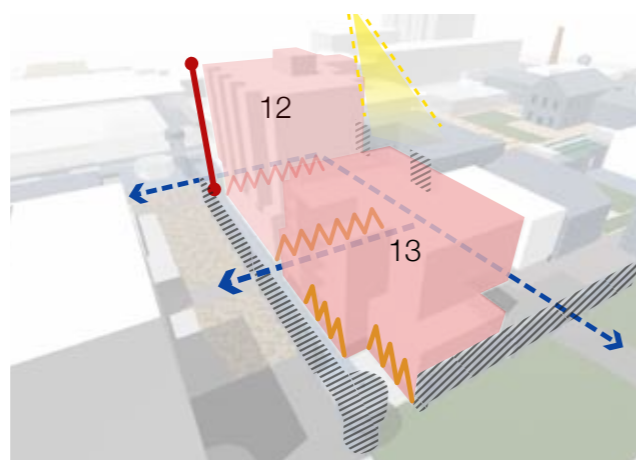
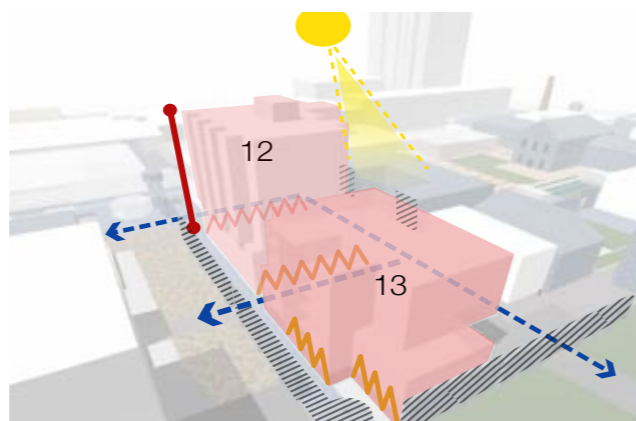
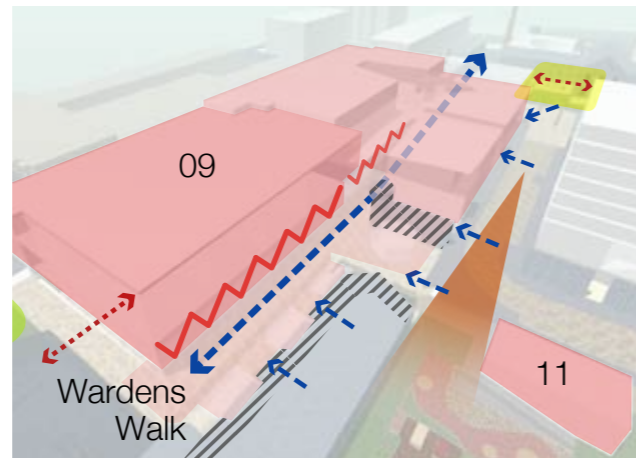
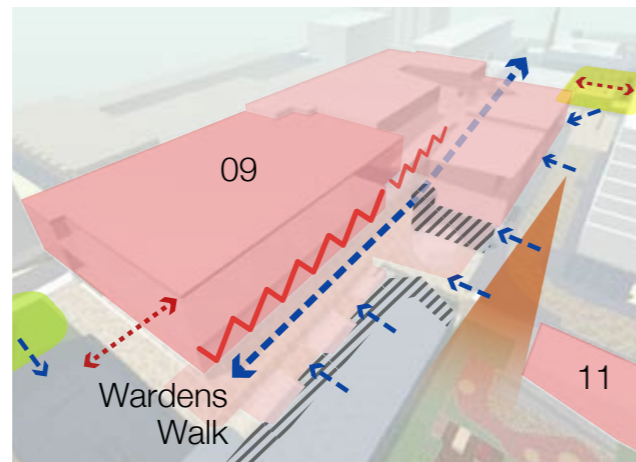


BUILDING REFERENCE	DESIGN GUIDELINES
Building 6	<p>Prominent corner address, curved Murray Road and adjoining heritage watchtower requires high quality design response.</p> <p>Base / Tower hierarchy to respond to heritage wall refer 4.1.4l.</p> <p>Important sightlines from the north – south streets Stockade Ave and Road A to Coburg Lake tree canopies to be maintained.</p> <p>Significant skyline views should inform the upper building profile.</p> <p>Carpark podium and building near heritage walls, requires a high quality design response. Street frontage onto Stockade Ave should include public address such as lobby or office use. Provide a high amenity pedestrian access into the site at this location.</p> <p>Forecourt at intersection of Road A & B should have an active response to street frontage.</p>
Building 7	<p>The West Block and East Block that make up Building 7 are located alongside the existing heritage bluestone wall and entry from Stockade Avenue. Basement car parking should take advantage of the natural fall of the site and minimise excavation. Multiple parking entries can be explored. Available bluestones could be considered in sections of the carpark side walls to reflect heritage interpretation.</p> <p>Modern and articulated facades with expressive balconies should demonstrate a clear presence when entering the site. A combination of one, two and three apartment options should be considered. Living areas should take advantage of the Northern fenestration.</p>
Building 8	<p>Articulated massing to setback from Div A cruciform and allow northern views of roof lantern. Views from key Pentridge open places require high quality design response to west and south elevation.</p> <p>Base / Tower hierarchy to respond to heritage buildings refer 4.1.4u where practical.</p> <p>Encourage active public use of Warders Walk axis on west façade and recognise the axial sightline to Coburg Lake. The walk should be assisted by passive surveillance from Bldg 09 where practical.</p> <p>Forecourt at intersection of Road A & B should have an active response to the street frontage. The adjoining Division H Courtyard shall become a heritage interpretation site, a high quality architectural response is required to adjoining facades.</p> <p>Carpark podium to be generally concealed behind heritage buildings, or occupied uses.</p>

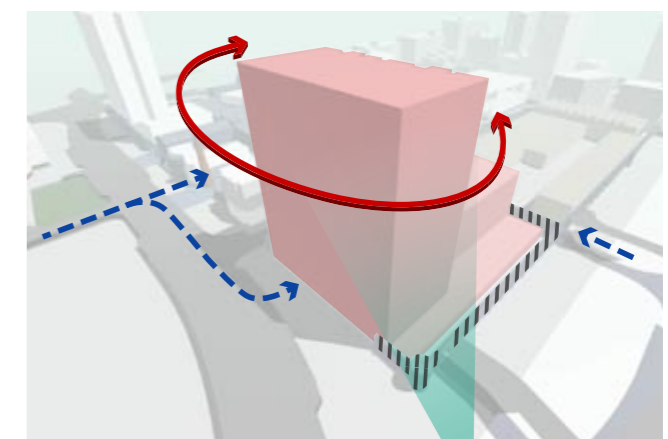
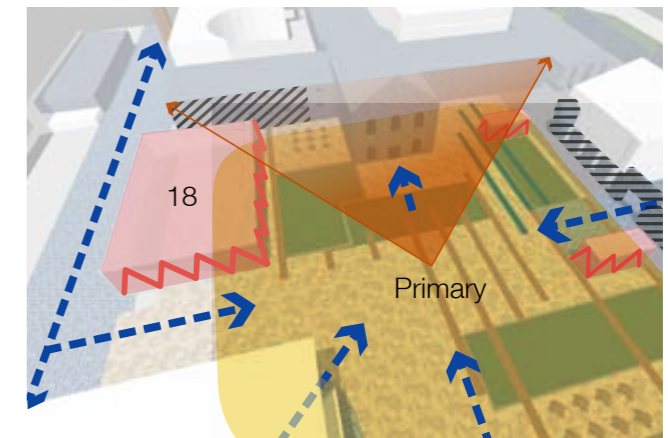
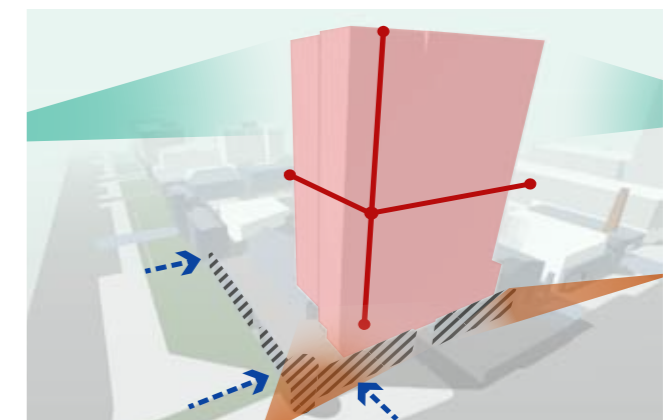
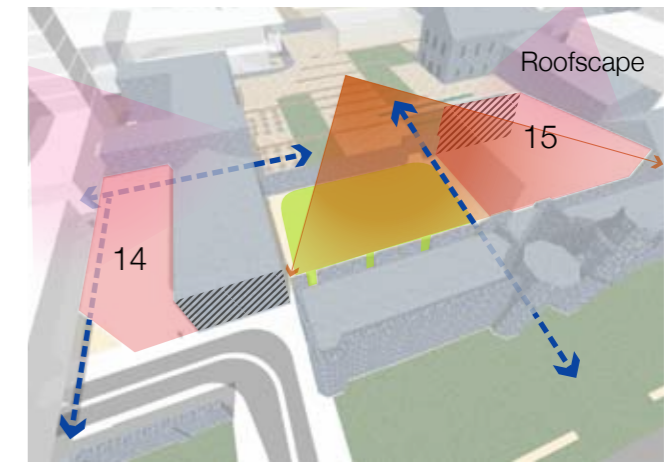


4.0 Design and Masterplan Response

BUILDING REFERENCE	DESIGN GUIDELINES
Building 9	The Wardens Walk public pathways to be highly activated. Managed public access through laneway system will be part of the Pentridge management plan. Arcades to be designed with regard for optimum natural ventilation and lighting opportunities. Upper level use lobbies to be integrated into the public pathways. Public access locations to Bldg 09 should enhance engagement with sites identified by the heritage interpretation masterplan. Scale of Bldg 09 to generally be comparable to the roof lantern of Div A. The south west corner should be scaled to complement Div E and consider a response to its morphology. Seek to incorporate a diversity of upper level uses such as office, cinemas. Encourage the shared accessibility of the public parking facility for wider Pentridge visitors. Integrate loading facilities within building envelope to minimise impact upon residents.
Building 11	Uses to encourage public use of the surrounding public spaces. Low rise transparent pavilion architectural language to be incorporated, in contrast to Heritage bluestone buildings. Consider integration or responding to adjoining interpretation memorial archway. Ground contour change to be incorporated into the combined high quality architectural and landscape design encouraging pedestrian amenity and interest. Building to support use of Courtyard B – passive pursuits Local Park refer page 54. Roofscape to respond to apartment outlook from adjoining taller buildings.
Building 12	Vertical corner marker at central circulation nexus and original prison operation. This visible corner address requires a high quality design response. Ground level activation to elevations where practical, in particular where primary pedestrian thoroughfares are noted. Base/tower to respond to varied heritage walls and buildings adjoining (north & south). Opportunity for mixed use activity within building. Northern laneway to either have good surveillance from Building 12 or heritage interpretation operation. Provide midday solar access at Equinox into Division E courtyard. Possible upper level link to adjoining buildings to provide improved commercial flexibility.
Building 13	Ground level activation to elevations where practical, in particular where primary pedestrian thoroughfares are noted. Base/tower to respond to heritage walls and buildings adjoining (north & west). Opportunity for mixed use activity within building. Northern laneway to either have good surveillance from Building 13 or heritage interpretation operation. Possible upper level link to adjoining buildings to provide improved commercial flexibility. Encourage active public use of linear garden along Champ Street and engagement with heritage wall, refer to diagram 4.1.4m.



BUILDING REFERENCE	DESIGN GUIDELINES
Building 14 & 15	Ground level activation to north façade. Replace existing lightweight addition with contemporary high quality architecture (Bldg14). Bldg 14 extension in conjunction with modifications to the Former Administration Building (in accordance with CMP) to encourage a new public operation fronting Courtyard C. Where necessary replace existing brick fabric with contemporary high quality architecture. Courtyard C to be assisted with enhanced surveillance from Building 15 internal spaces. Roofscape to respond to apartment outlook from adjoining taller buildings. Roofscape to respond to apartment outlook from adjoining taller buildings.
Building 16	Marker building within site requires high quality design response. A new landmark opportunity for Coburg. Significant skyline views should inform the upper building profile. Base/tower to respond to heritage walls and buildings adjoining refer 4.1.4u. Visible full height facades from Champ St / Pentridge Boulevard to promote welcome and visitor interest into the site. Concealed private carpark within Heritage walls or inhabited uses. Encourage safe pedestrian access to perimeter wall spaces.
Building 17, 18 & Pavilions	Ground level activation to north and part east façade, encourage sightlines. Possible upper level link to Division B Building. Parade Ground to be assisted with enhanced surveillance from Building 17 internal spaces. Ground level activation to all façades. Pavilion architecture in response to heritage interpretation plan of exemplary quality. Bldg 17 subject to Archaeological investigation and management plan.
Air	This was a previously approved apartment development which no longer meets the current market trends and demands. This significant corner site faces Pentridge Boulevard and showcases the existing heritage walls. Consideration should be given to multiple parking entries to take advantage of the natural fall of the site and minimise excavation. Multiple towers should be considered over the basement car park and offer a better spread of apartments in terms of numbers per building and provide better orientation options in regards to lighting and possible views. A landscape garden could also be considered on the roof of the car park and provide recreation / play areas, eloquent paths and covered ways, connecting the tower entries and various spaces. Each tower should be interactive, however, demonstrate its own unique aesthetic presence.



4.0 Design and Masterplan Response

Heritage Significance Summary

Heritage Features*	Heritage Significance	Significance within Masterplan
A Division H Division	<ul style="list-style-type: none"> One of the largest permanent cell blocks constructed at Pentridge. Originally constructed c1860-65 to accommodate female prisoners. Originally built on a T-shaped plan (south wing was constructed c1891-9 along with 16 labour yards and central walkway to the east). Substantially intact in plan form and fabric – most later alterations and additions are reversible (apart from loss of the exercise yard and their perimeter walls). Another 8 labour yards were subsequently added to the east of the earlier labour yards. All 24 labour yards were renamed H Division in 1958. Important example of the breadth and high standard of output from the Public Works Department. 	<ul style="list-style-type: none"> Provides a community hub function in addition to providing commercial uses. Provides an active edge of a different extent to all facades of the building. Accommodates the Warders Walk extension. Panopticon intersection space for public and residents. Provides an urban discovery precinct for the experience and interpretation of the existing heritage buildings.
B Division	<ul style="list-style-type: none"> Primary significance as one of the initial buildings constructed for the new 'model' prison in c1858-9. First of the cell blocks constructed at Pentridge to embody the planning principles of the separate system. Important element facing the main parade ground. Thermo-ventilation system and the water supply cisterns and other elements of the water supply system are relatively rare examples of such systems among Victorian prisons and are of technological significance. Survives largely intact. 	<ul style="list-style-type: none"> Provides opportunity for a heritage interpretation facility and other uses which activate the internal space of the building. Characterises the Pentridge entry as experienced from the south façade. Allows for the introduction of localised activity at the northern façade of the building at its interface with the Piazza (former parade ground). The east courtyard provides opportunity for a publicly accessible area and heritage experience of the south side of the building, with the west courtyard providing a built form where its greater height is setback from the heritage building.
Annexe B Division	<ul style="list-style-type: none"> Primary significance. Former kitchen among the buildings constructed during the 1870s expansion of the prison and represents a significant expansion of the initial kitchen facilities at Pentridge. The c1923 extension to the south of B Annexe is of no significance. 	<ul style="list-style-type: none"> Actively reused as a single volume building. Deletion of the extension south of the Annexe.
Division E	<ul style="list-style-type: none"> Primary significance as one of the initial buildings constructed for the new 'model' prison in c1859. Originally a hospital, converted to E Division in 1960. Integral part of the buildings that face the main parade ground. Form and internal planning are characteristic of mid-nineteenth century military hospital buildings. 	<ul style="list-style-type: none"> Actively reused 2 level building with abuttal to the Piazza. Allows for the introduction of localised activity at the southern façade where it interacts with the Piazza and provides an intimate courtyard space abutting its northern façade.
Former Warders Building	<ul style="list-style-type: none"> Primary significance as one of the initial buildings constructed for the new 'model' prison in c1858-9. Integral part of the buildings that originally faced the main parade ground. 	<ul style="list-style-type: none"> Provides a 2 level building which interfaces with the courtyard area to the rear of the former Administration buildings and frames the primary pedestrian entry to the site through the existing main gates. Intended to abut a new 2 storey building on its northern façade.
Former Administration Buildings	<ul style="list-style-type: none"> Primary significance as one of the initial buildings constructed for the new 'model' prison in c1859. Main public symbol of Pentridge Prison since first constructed. Castellated Tudor style of the front elevation is unusual in Victoria for its picturesque Regency character. Externally, remains largely intact. 	<ul style="list-style-type: none"> Retains the main entry gates to the prison complex and allows for a pedestrian experience through these buildings into the Piazza space. Provides a prominent east-west address to site. Provides an actively reused 2 level building.
Bluestone Walls	<ul style="list-style-type: none"> Provide significance, constructed during the 1850s and 1860s, as the early walls enclosing the 1858-9 Pentridge Prison complex. Most of these walls are substantially intact to their original state with the exception of the wall along the north side of the proposed Pentridge Boulevard, which has partially collapsed. Walls which are in proximity of the Piazza and the former Administration building, constructed c1886, are of primary significance for the way they altered the configuration of the main Parade Ground. 	<ul style="list-style-type: none"> Provides the ability to establish a key movement network through site. Allows for controlled public entry points into Pentridge. Provides a definite edge between different areas of open space within Pentridge. Provides for experience and interpretation of the original intention of the walls as part of any heritage interpretation walk through the site.
Guard posts	<ul style="list-style-type: none"> Posts, most of which are found on those walls external to the Pentridge site, are of primary significance as part of the initial group of structures built for the new 'model prison' in 1858-9 and the early 1860s as a major part of the expansion of Pentridge undertaken at the commencement of the administration of Inspector-General William Champ. Some guard posts have undergone alterations, but most are reversible. 	<ul style="list-style-type: none"> Contributes to the character of the wall which surrounds Pentridge. Provides an opportunity for potential experience as part of any heritage interpretation walk through the site.
Parade Ground	<ul style="list-style-type: none"> Area of the original parade ground, known at least by the late nineteenth century as Pentridge Square. Primary significance as the original space around which Pentridge Prison was organised. The c1858-9 buildings all face onto the large rectangular parade. The existing central road, paths and rectangular grassed areas in the Square broadly follow the original layout although most paved areas are now asphalted. 	<ul style="list-style-type: none"> Provides a sense of place of prison operations including its former use as a parade ground. Provides a community accessible open space area able to accommodate a variety of uses, including offering the opportunity as a festival and event space. Provides the opportunity to be activated through the provision of appropriate active uses in the existing heritage and new buildings proposed at its periphery. Is surrounded by buildings to ensure the open space is not of a scale which is so large that it becomes a desolate, inactive space.

Public Wall Openings

When combined, the Champ Street and Murray Road interfaces will provide a number of public entry points into the site through the existing bluestone walls, for both vehicles and pedestrians. These public entry points are identified on Figure 4.1.2w. The amended masterplan includes an additional opening to Murray Road. These openings will break through the existing walls in a consistent and attractive manner, allowing for “dialogue” between the internal and external environment in terms of materials and connection.

While the detail of these public access openings will be subject to future design resolution, it is envisaged that vehicle entries will break the full height of the wall, while pedestrian entries will generally be “partial height” breaks (except for major site entries), retaining a bluestone lintel over the opening.

Wall Openings	Existing / Proposed	Type of opening	Reason for opening
Opening 1	Existing	Vehicular	Stockade Avenue vehicle access to apartments.
Opening 2	Proposed	Pedestrian	Connection with Murray Road.
Opening 3	Proposed	Pedestrian	Connection with Murray Road.
Opening 4	Proposed	Vehicular	Champ Street vehicle access to apartments.
Opening 5	Proposed	Pedestrian	Connection with Champ Street.
Opening 6	Proposed	Vehicular	Champ Street vehicle access to residences and Piazza.
Opening 7	Proposed	Vehicular	Connection with Champ Street
Opening 8	Proposed	Pedestrian	Champ Street vehicle access to residences and Piazza.
Opening 9	Existing	Pedestrian	Connection between Champ Street and Piazza.
Opening 10	Proposed	Vehicular	Champ Street vehicle access to residences and Piazza.
Opening 11	Proposed	Vehicular/Pedestrian	Champ Street vehicle and pedestrian access to residences.
Opening 12	Proposed	Vehicular/Pedestrian	Pentridge Boulevard vehicle and pedestrian access to residences.
Opening 13	Proposed	Pedestrian	Connection between Division B and Pentridge Boulevard
Opening 14	Proposed	Pedestrian	Extension of Warders Walk into Piazza.
Opening 15	Proposed	Vehicular	Connection between Road A and Pentridge Boulevard.
Opening 16	Proposed	Vehicular	Stockade Avenue vehicular access to residences.
Opening 17	Proposed	Vehicular/Pedestrian	Connection of Industry Lane / Stockade Avenue with Piazza.

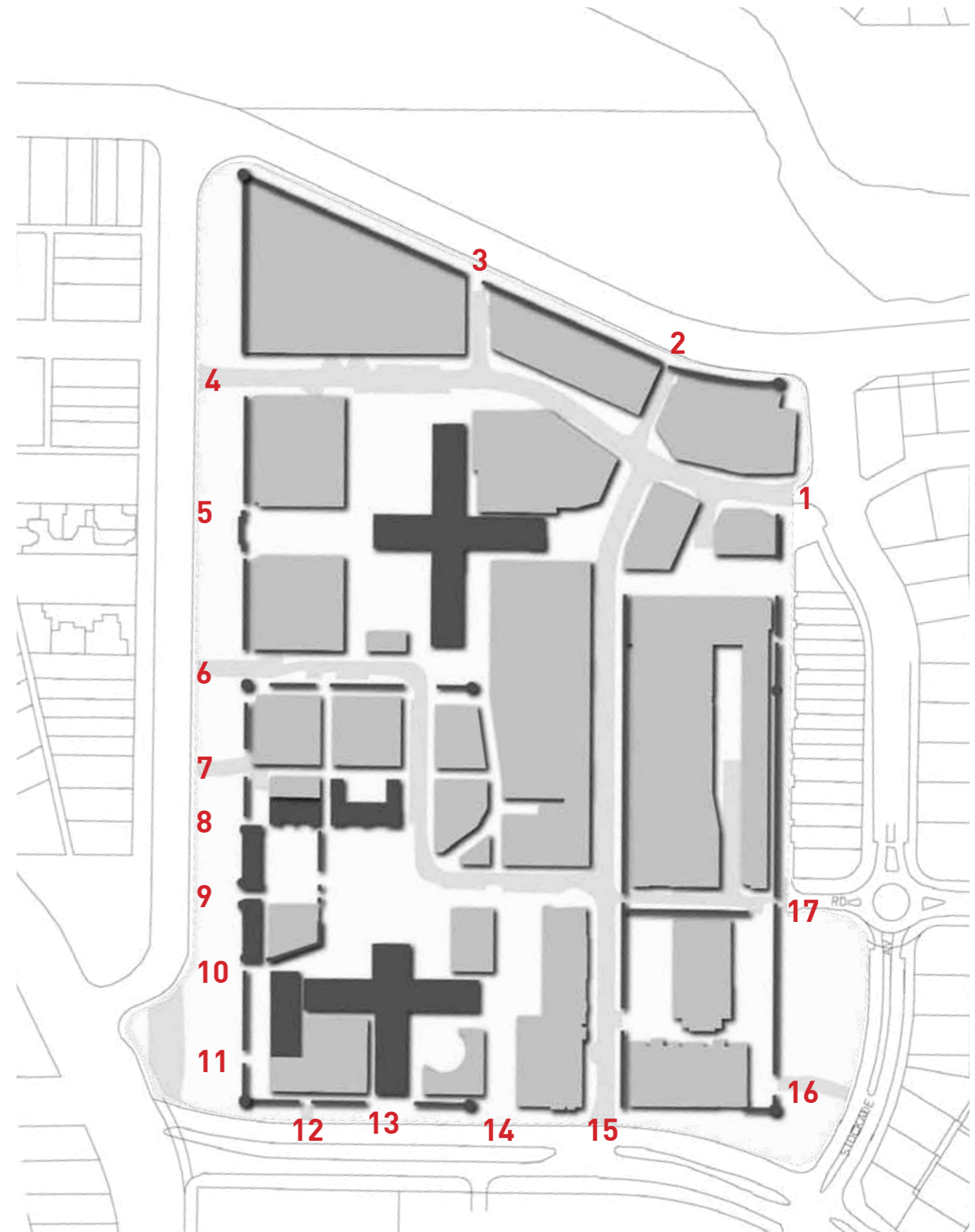


Figure 4.1.2x Public Wall Openings

4.0 Design and Masterplan Response

Heritage and Built Form Principles

In keeping with the principles outlined in the Key Site Planning Considerations section, and recognising that the site is to be transformed for residential and retail / commercial usage, a consistent and considered approach is proposed to address any new vehicle or pedestrian openings into the site.

Strategic Openings

A balance is to be attained between retention of the existing heritage walls, and in the opening up of the site. The suggested approach to dealing with all future openings is approached in detail within the Heritage Interpretation Master Plan (2013) that will provide more detailed concept resolution.

Wall Cut and Aperture Design Approach

An overall architectural design approach has been developed to guide the proposed heritage wall removals, interpretation and design of any inserted contemporary elements.

Key design guidelines for contemporary insertions are:

- To respect heritage, whilst enhancing visitor understanding of the historical value of the structure and the precinct;
- To enhance the threshold experience of movement into and out of the site;
- To ensure that introduced cuts are recognised as a contemporary intervention and not part of the historical form, in accordance with 'best practice' interpretation principles of respecting the authenticity of the place; and
- To ensure that the design of the cut is read at the urban, vehicle and pedestrian scale.

Proposed concept for all wall openings and apertures is that the raw cut stone will be faced with a metal feature entry frame. This metal element will house heritage interpretation and also serve to protect the wall from vehicles. The final design dimensions, content and colour are to be developed.

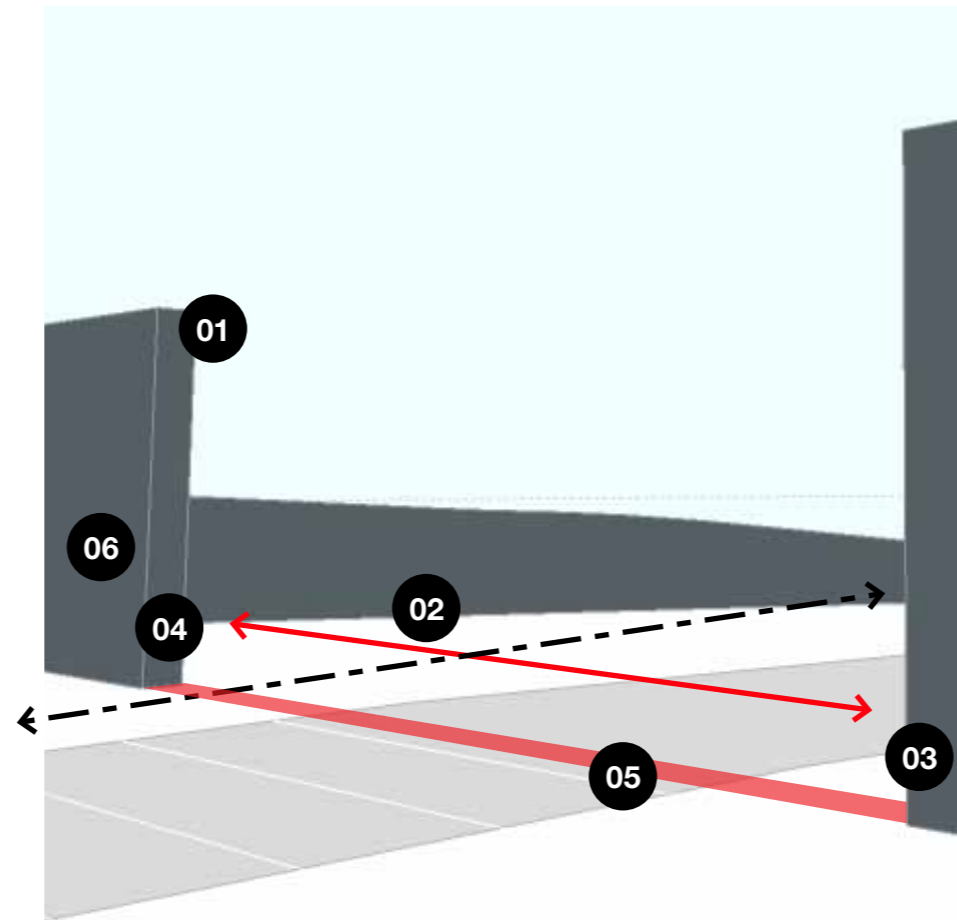


Diagram of design approach

Design Issues and Opportunities:

1. Clean cut through existing bluestone with any internal rubble mortared.
2. Cut width determined by road and pedestrian width requirements and logical end points (i.e. piers).
3. Protection of wall from vehicular impact via kerb, bollard or other element (e.g. Vertical metal plate).
4. Opportunity for interpretation to speak directly to pedestrians.
5. Line of former wall foundation to be interpreted.
6. Incorporate interpretation and branding at key entrances to the precinct.



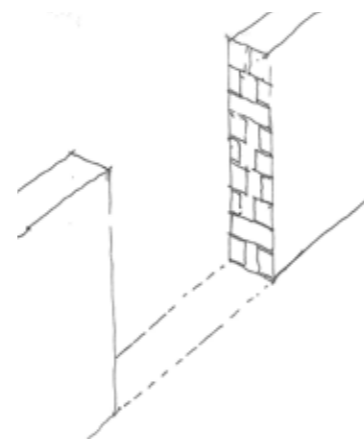
Examples of possible Interpretation Concept for wall cuts - Refer to Prison Pentridge: Interpretive Concepts by SHP (Sue Hodges Productions)

Heritage and Built Form Principles

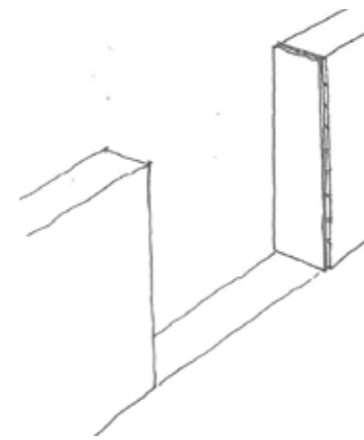
A number of sketches investigating the possible approaches to each wall cut are presented to the right.

Each wall cut being submitted for heritage approval has been influenced by the typologies revealed in these sketches and supported by design research of contemporary engagement with heritage fabric from projects situated across the world as well as benchmark interpretation practice.

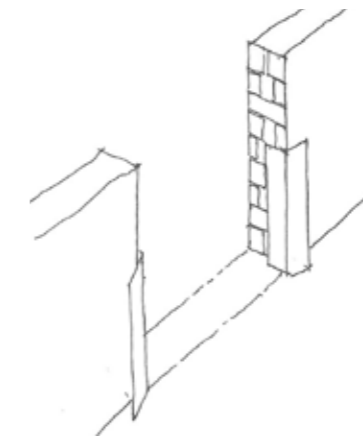
Wall Cuts



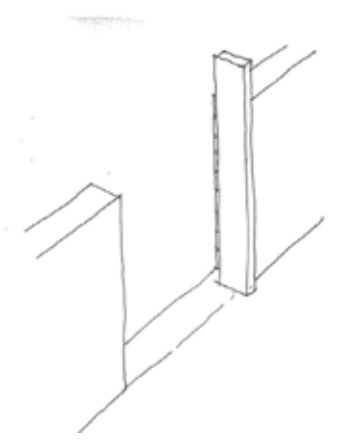
Raw cut through wall



Cut clad with metal plate or other material



Cut wrapped with metal plate or other material



Accentuate the vertical cut



Current wall cut approaches already undertaken throughout the Pentridge area. We see these as not appropriate for Pentridge Piazza.

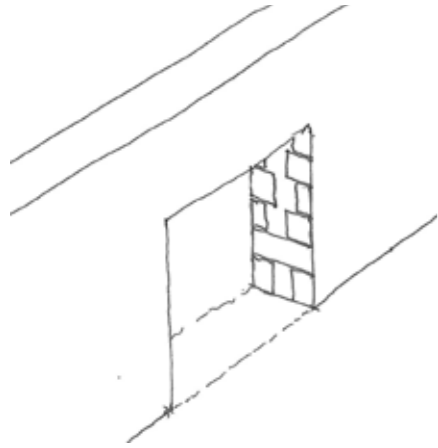


A range of contemporary design examples that illustrate our design thinking.

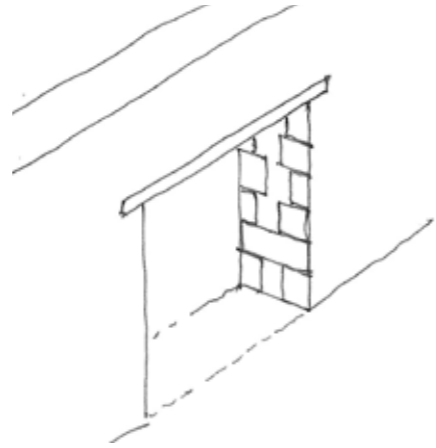
4.0 Design and Masterplan Response

Heritage and Built Form Principles

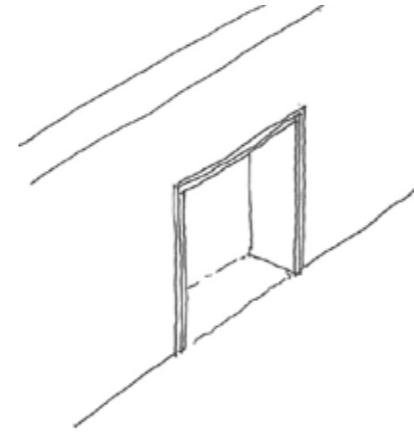
Wall Apertures



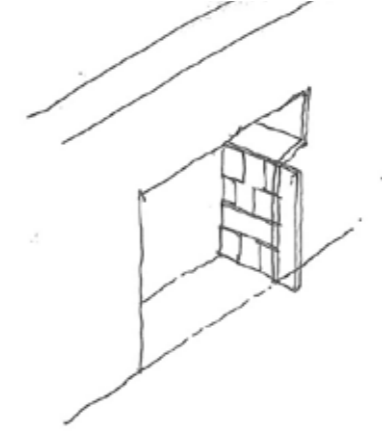
Raw aperture through wall



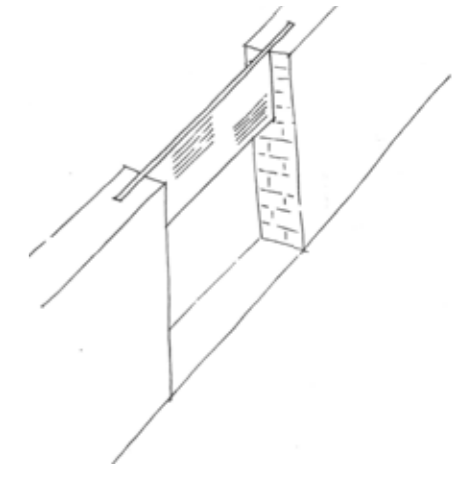
Lintel highlight over aperture



Framed aperture



Expressed aperture



Inserted lintel highlight



There are limited current examples of wall apertures in the Pentridges area. This one is from a later time in the Prison's operational history.



A range of contemporary design examples that illustrate our design thinking..

4.1.3 Staging Plan

The development strategy for Pentridge seeks to initiate development of the precinct with those stages which give greatest impact to the establishment of a vibrant new community. The heart of the Pentridge community is intended to focus around the Piazza. All pedestrian spines channel through the Piazza; it is surrounded with a mix of uses which will serve to activate the space around the clock. The dominant heritage fabric is also contained within these initial stages and surrounds the Piazza space. The heritage fabric is an active contributor to the unique character of the future Piazza and Pentridge community. It facilitates the creation of a Pentridge destination and actively contributes towards the promotion of the development in perpetuity.

In conjunction with the heritage fabric and proposed mix of uses, the proposed scale of density shares an interdependent relationship which contributes towards the creation of a vibrant new community hub. The scale, height and density of development contained within the initial stages of development have twofold importance. Firstly, the density of population in the initial stages is essential to creating a sense of community vibrancy necessary to promote the development into future stages. Secondly, the density of development helps to generate the funds necessary to restore and conserve the heritage fabric and maintain it in perpetuity through the owners corporation.

The development programme spans a potential 8-10 year period and the development strategy contemplates the following indicative sequence of works (subject to market demand):

- Stage A – Application for approval & Construction for Public Realm, including roads, Piazza, infrastructure and services by middle of 2014.
- Stage B – Application for approval for Retail building (Building 9), adaptive re-use of Div. A & adjoining Apartment tower (Building 8) within the first 12months.
- Stage C – Application for approval for development of existing heritage building around the piazza.
- Stage D – Construction of permit approved apartment complex by end of 2014.
- Stage E – Application for approval for development of apartment complex within first 12months.
- Stage F
- Stage G
- Stage H
- Stage I
- Stage J
- Stage K
- Stage L

Within 6 months of the Masterplan's approval, the master planning of the public realm and precinct wide infrastructure design will be developed. This includes the Landscape Design, Civil Services and a Water Sensitive Urban Design strategy; Environmental Sustainable Design Infrastructure; a Wind Impact Analysis of the public realm; review and updating of the Conservation Management Plan; Heritage Interpretation Strategy and Management Plan; development of a site wide wayfinding strategy; Disability Discrimination Act review; and further Archaeological excavation and documentation.



Figure 4.1.3a Staging Plan

4.0 Design and Masterplan Response



Figure 4.1.4a Allford Hall Monaghan Morris, Barking Town. Sculptural building forms and windows to reinforce wall edge.



Figure 4.1.4b Baumschlager Eberle, Nuziders Residences. Layered, kinetic and lightweight facade design.



Figure 4.1.4c Expressive, lightweight and layered architectural design.



Figure 4.1.4d RMIT Courtyard, Peter Elliot. Public realm functionality with street architecture.



Figure 4.1.4e Fort Dunlop, Birmingham, Urban Splash. Adaptive reuse of large scale heritage buildings.



Figure 4.1.4f Tower Bridge, Foster. Major mixed use precinct adjacent significant Heritage assets



Figure 4.1.4g Oxford Prison Development. Successful prison redevelopment by private developers.



Figure 4.1.4h The Esplanade Hotel, Katsalidis Architects. Large scaled insertion reinforcing sense of place, heritage reinforcement.



Figure 4.1.4i Santa Catarina Market - Pinos, Miralles. Contrasting exemplary architecture reinforcing public realm and heritage assets.



Figure 4.1.4j The Urban Workshop, NHArchitecture, Wardle, Hassell



Figure 4.1.4k Melbourne Laneway

4.1.4 Heritage and Architectural Response

Generally the Pentridge Prison heritage fabric presents a consistent 'model' design and a uniform identity has been enhanced by the use of bluestone throughout. Windows are recessed and generally minor in scale, roofs were originally all slate and some have been replaced with profiled sheet metal.

The uniform nature of the existing buildings provides the opportunity for a contrasting architectural approach with an emphasis on innovative architecture to demonstrate the changed role of Pentridge into a dynamic local hub whilst maintaining respect for the heritage character and setting. Contemporary architectural language of exemplary quality has been a preference of all agencies and is encouraged with this Masterplan.

The site presents a massing hierarchy context developed from the model prison design. The language of solid walls both free standing and those of the axial buildings characterise the existing built form clearly. Future architectural design can respond to the historical strata. The manner of articulating this line is flexible, for instance methods such as setbacks, projections and material changes.

Bluestone is a dominant building material at Pentridge and provides a unique identity to the site. The bluestone's detail application presents a number of surface cutting and relief patterns of high artisan skill. The encouragement of access to the building edges through the public realm design is important for appreciation of this quality. In response future architectural design shall have thoughtful material selection and articulation, in particular adjacent the public realm network.

The existing Pentridge prison facilities include a range of internal spaces, with capacity to be sensitively reused for public and private functions. The Masterplan is based upon a principle of actively incorporating both the internal and external fabric into the public realm. Laneways, arcades and courtyards have been positioned to provide for this function.

The larger Division cell buildings have been identified as opportunities for sensitive reuse and heritage interpretation. The adjoining illustrations describe how new buildings can have positive adjacencies with the heritage fabric encouraging their interactive use.

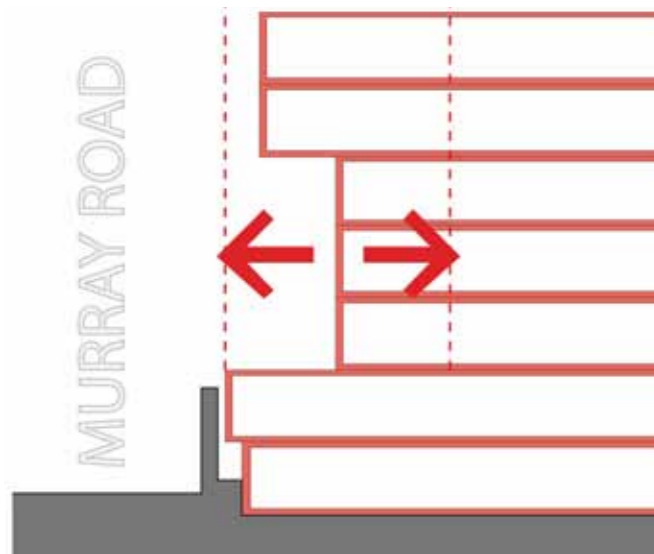


Figure 4.1.4l Contrasting building edge diagram
This diagram illustrates how the intended interaction of the new building form with the existing bluestone wall along Murray Road may be achieved within varied built form layout and design.

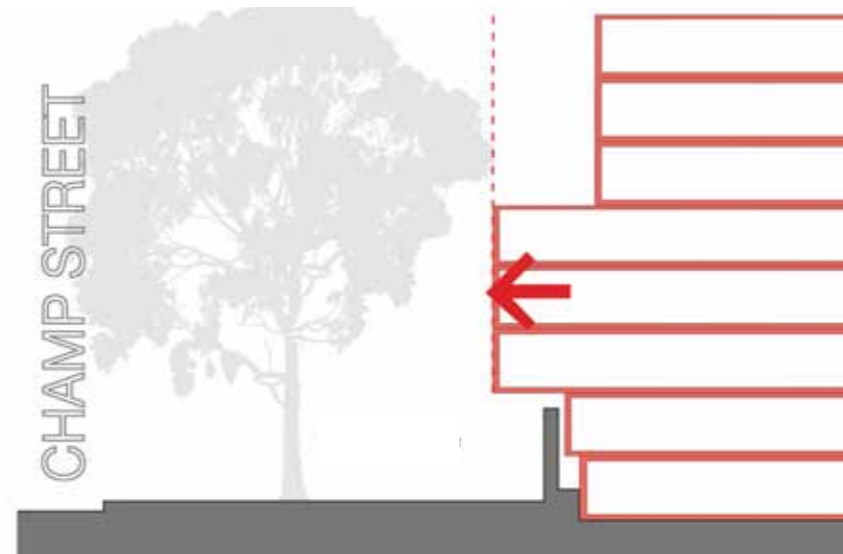


Figure 4.1.4m Building edge overhanging wall diagram



Figure 4.1.4n

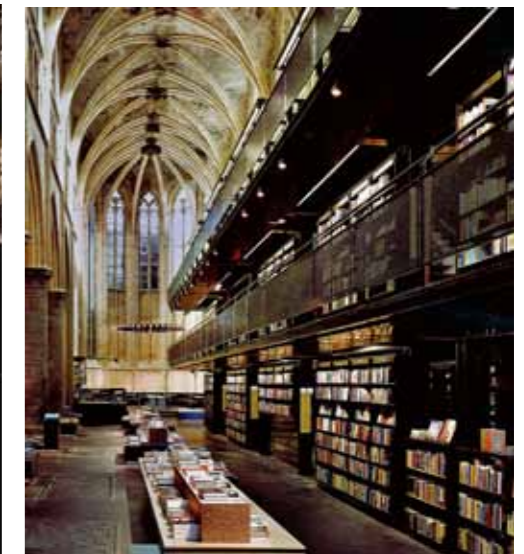


Figure 4.1.4o



Figure 4.1.4p Bluestone Material Articulation



Figure 4.1.4q Aspect Studios - Victoria Park



Figure 4.1.4r Breath Architecture - Seven Seeds



Figure 4.1.4s

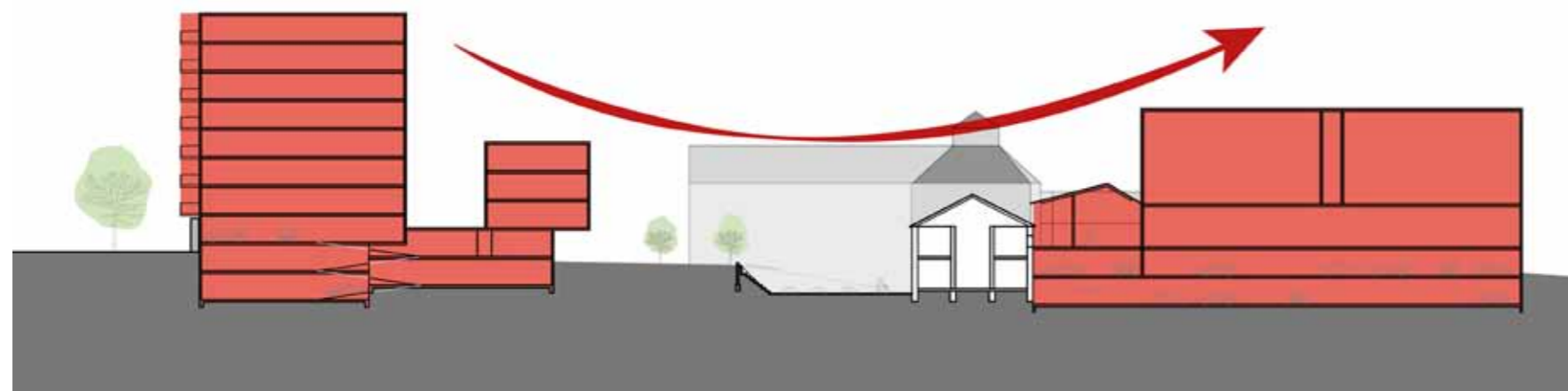


Figure 4.1.4t East-West Diagrammatic Section through Division A South Wing

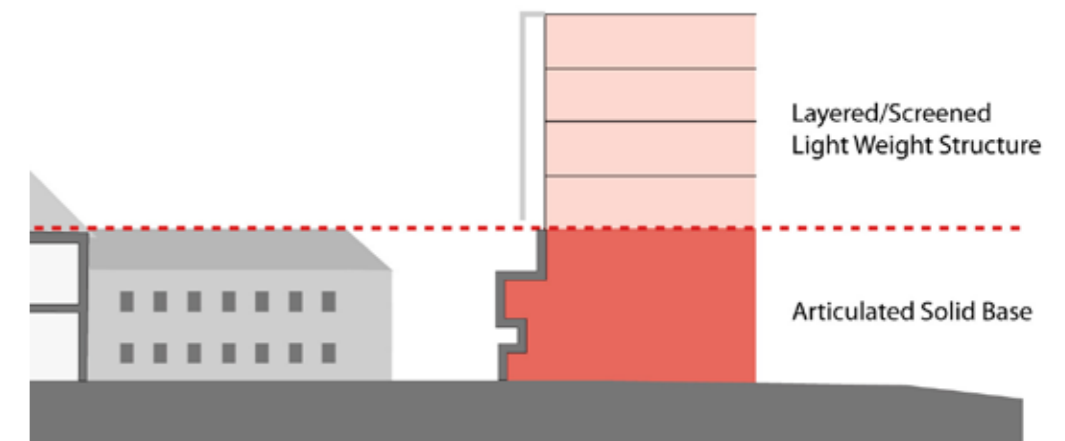


Figure 4.1.4u Massing Hierarchy

4.0 Design and Masterplan Response

4.2 Land Use and Precincts

4.2.1 Overall Land Use Vision

The Masterplan for Pentridge is primarily concerned with the rejuvenation of a former Pentonville Prison complex into a dynamic and sustainable urban hub.

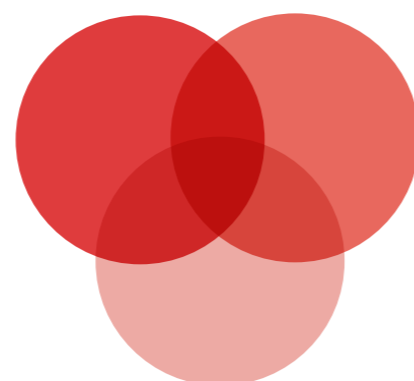
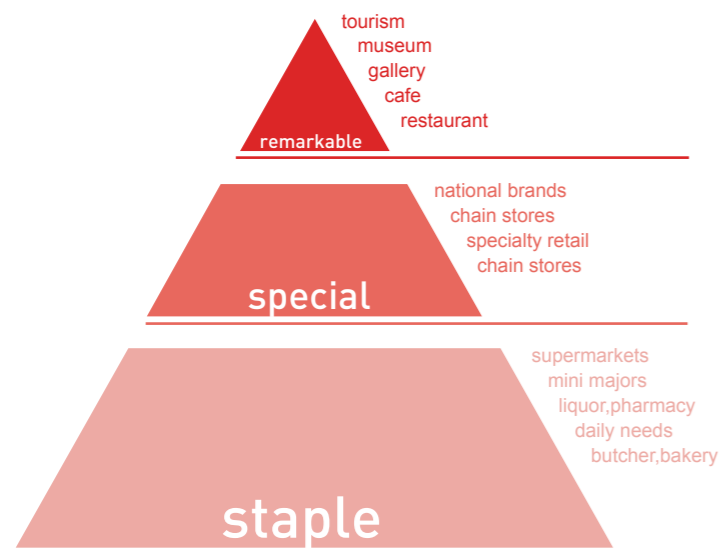
The future development contemplated by the Masterplan will create a sense of place for both new residents, workers and the adjoining neighbours. The heritage character will inform this to a large degree; its solid bluestone walls and dominant free standing structures having a powerful presence. Co-located with this fabric will be the everyday facilities of a fully functioning community.

The resulting spectacle of a vibrant mixed use environment interwoven with the historic structures of previous incarceration will become a unique Australian experience.

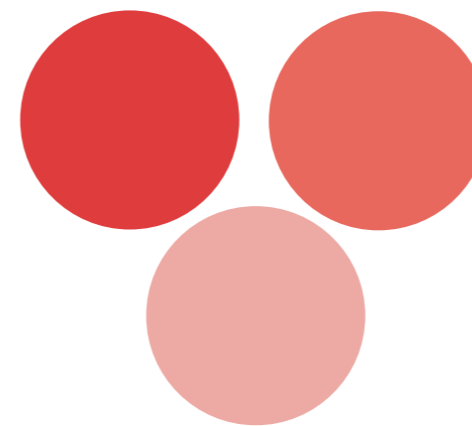
The overall land use pattern is reminiscent of traditional Australian typologies, where streets, laneways and arcades along with a series of defined public spaces give order to the Masterplan. Larger uses and support infrastructure (eg carparks) have been located away from active edges and publicly accessible open space areas so as to allow this network of streets to function effectively.

This structure provides for a diverse range of large uses to integrate together in an efficient and supportive manner rather than having a series of individual land uses operating in isolation of each other and not creating public interaction (refer Figure 4.2.1b).

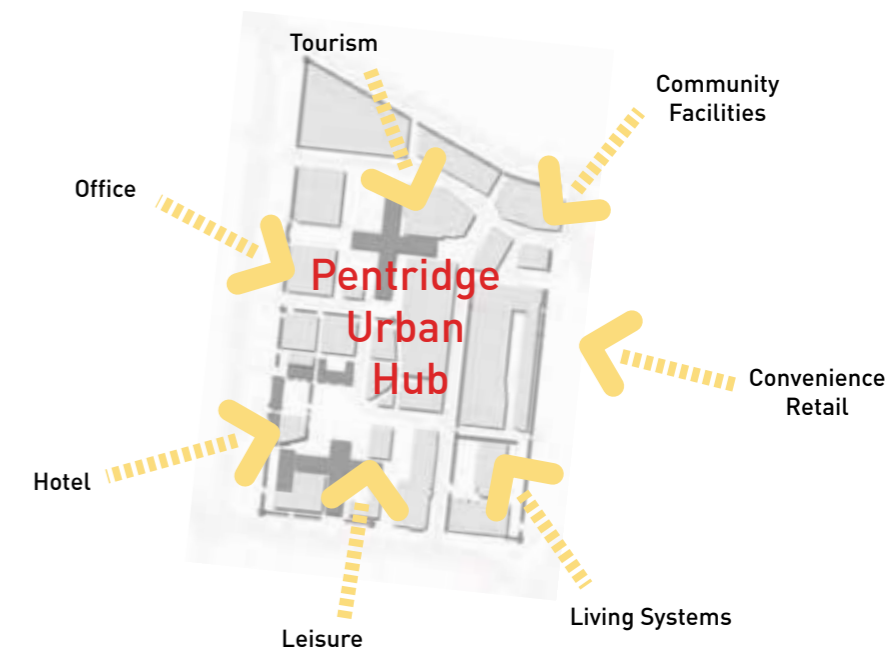
Dynamic and populated public realm spaces are partnered with high levels of public visitation to adjoining or surrounding land uses. Commercially successful retail development, including food and beverage outlets, is an example of such publicly accessible land uses. In addition other functions like office formats, hotels/serviced accommodation and residential uses also contribute to the life and activation of the public realm, including to the network of streets and laneways. The redevelopment of Pentridge seeks to create such high levels of interaction throughout the site and encourage vibrant uses adjoining publicly accessible open space areas, in particular surrounding the Piazza (refer Figure 4.2.1c).



Integrated Uses
(at Pentridge)



Uses Side by Side
(Suburban Condition)



(L-R)

Figure 4.2.1a Pentridge Urban Hub Activities
Figure 4.2.1b Activities Integration @ Pentridge
Figure 4.2.1c Activities side by side - suburban.
Figure 4.2.1d Pentridge Programme of Activities

Activity generated by the draw of convenience retail servicing daily needs (such as a supermarket) can be used to underpin a wider range of retail and other services reflecting the broad cultural values of the community (eg outdoor dining opportunities) and utilising the unique experience of retailing within Pentridge. It is this retail offer, combined with the tourist attraction of Pentridge, which will lead to interaction of the public with the important heritage asset which is Pentridge. It is recognised that the stronger the retail offer, the healthier the public realm spaces within its influence (refer Figure 4.2.1a).

The presence of people interacting on a daily basis within Pentridge, in particular within the public realm areas, will enable the open spaces within the site to be used for a variety of purposes such as community festivals, market days and cultural celebration. The shared use of the public realm and its adjoining facilities by the local residents, workers, neighbouring users and tourists from the region will program a rich cycle of activities which will see a large number of people interacting in Pentridge throughout the week, more so than within typical single land use type developments. (refer Figure 4.2.1e, f and g).

Pentridge creates possibilities for many different uses (eg retail, commercial, residential and community) to be integrated in the one area and connected by various public realm spaces (e.g. laneways and arcades). This is an example of a successful mixed use development and the land use outcomes proposed for Pentridge generate opportunities for layering of these activities with efficiencies in support infrastructure, such as carparks. The following collection of images describe some of the key facilities considered for Pentridge.

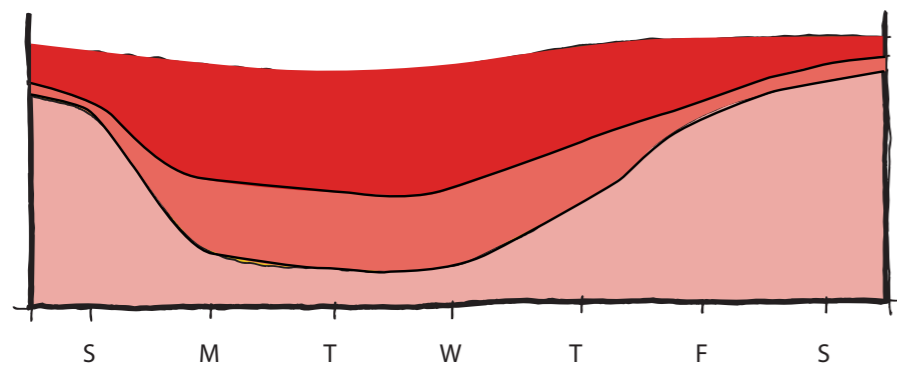


Figure 4.2.1e

Pentridge Population

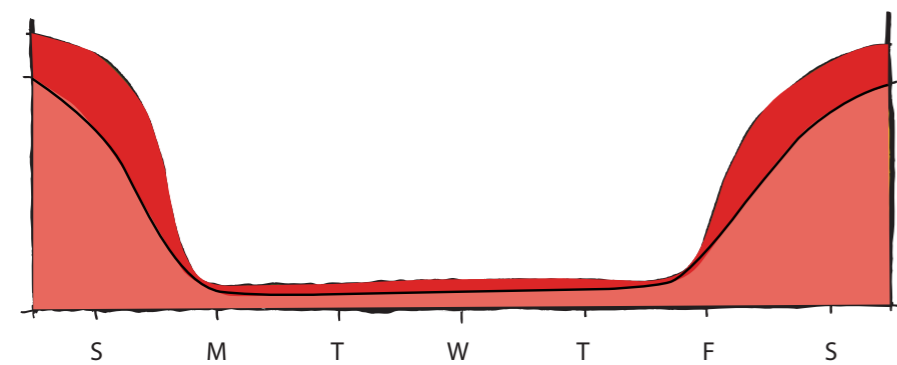
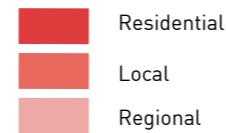


Figure 4.2.1f

Typical Residential Development Population

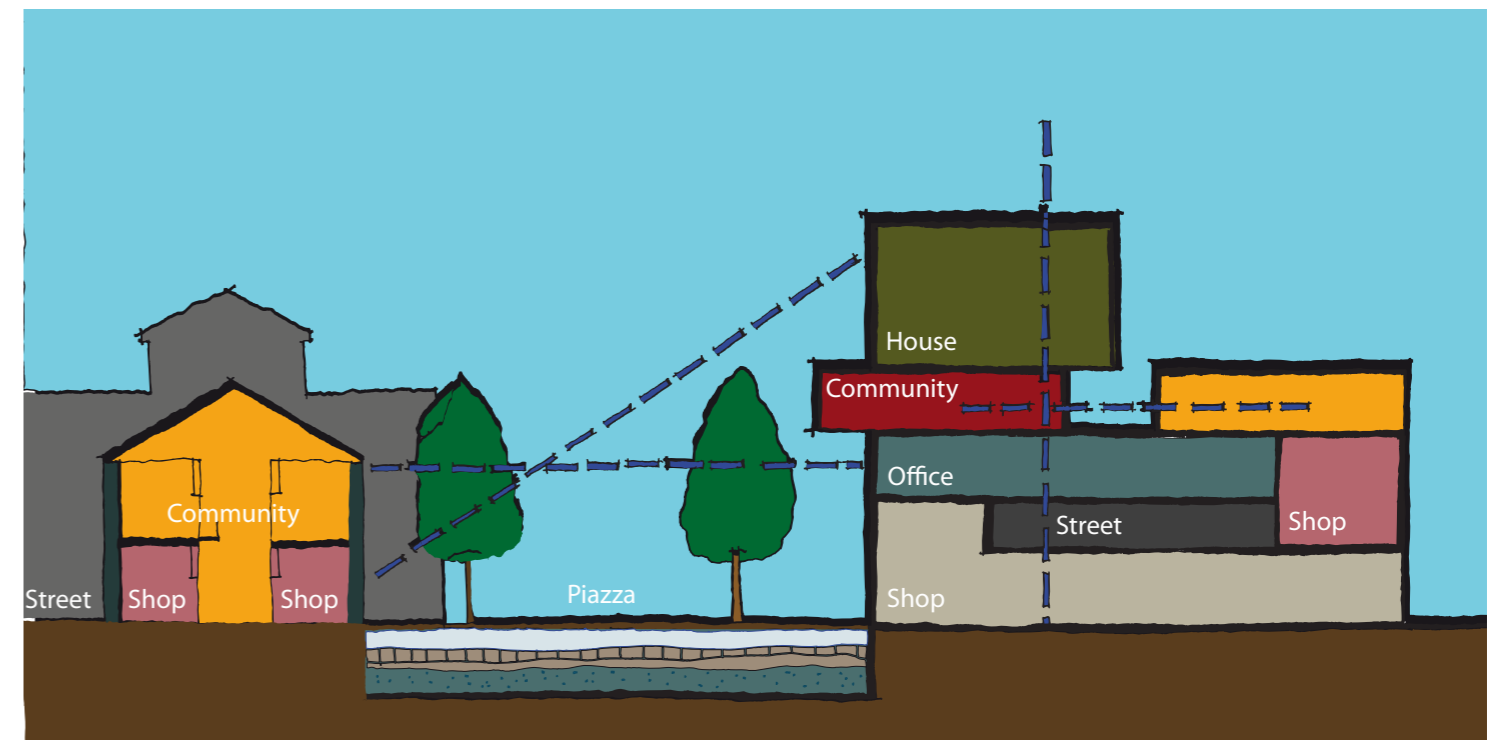


Figure 4.2.1g Integrated mixed use typical cross section (For illustrative purposes only)

4.0 Design and Masterplan Response

4.2.2 Public Exchange Activities



Figure 4.2.2a James St Market, COX Architects



Figure 4.2.2b Craft Market



Figure 4.2.2c Child Care



Figure 4.2.2d Apartment Living



Figure 4.2.2e Courtyard

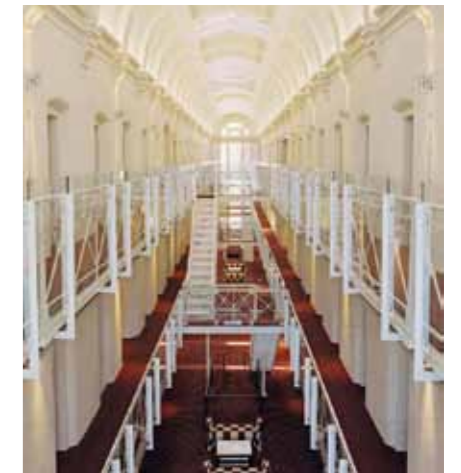


Figure 4.2.2f Hotel Conversion Malmaison



Figure 4.2.2g Bakery and Restaurant, Abbotsford Convent



Figure 4.2.2h Moonlight Cinema, Abbotsford Convent



Figure 4.2.2i Moonlight Cinema, Abbotsford Convent



Figure 4.2.2j Local Retail in Heritage Building

4.2.3 Residential Component

There is a growing recognition in Melbourne and all cosmopolitan cities that low and moderate income households require help to continue to live close to extended families, social networks and places of employment. If this issue is not addressed, the social and economic implications for cities and economies are profound. Pentridge will seek to deliver affordable housing options subject to achieving the scale, height and density contemplated by the Masterplan.

Affordable Housing

Affordable housing can cover many tenures; community rental, private rental, financial products, low cost purchase and purchase. These tenure types allow various sections of the community access to housing to meet their needs.

Pentridge will seek partners to deliver to the community and the City of Moreland the type of integrated, sustainable community to which all aspire. This would include:

- Providing high quality homes for the whole community;
- Providing a range of housing choices to promote diversity;
- Meeting (with aspirations to exceed) the requirements for sustainable development; and
- Developing access for a range of household types and incomes.

There are a number of groups being placed in housing stress, within the Moreland municipality and broader Melbourne. The developer, with their partners, will be targeting to deliver affordable housing outcomes to:

- First-time buyers;
- Older;
- Singles / young;
- Essential services workers; and
- Low income workers.

The developer understands that the delivery of meaningful outcomes across a range of tenures to a number of different groups requires partnership. Partnerships recognise the strength that each party can bring to delivering real outcomes. Pentridge will focus on the delivery of affordable integrated housing products for purchase and will seek to work with a financial institution to deliver innovative financial model and with a Registered Housing Association to deliver rental products to the market.

Purchase

In delivering affordable housing to the market, it must be seamlessly integrated with the rest of the community. It is pointless delivering affordable housing product if it is different or stands out for whatever reason. Pentridge will continue to seek innovative designs that allow for entry level homes for first time purchasers and essential services workers.

Innovative Financial Products

The developer will seek to find a financial institution partner to undertake specific product / financial package releases through a combination of First Home Owners Grants, First Home Savers Accounts and the Commonwealth Government's Housing Affordability Fund.

The developer will commit to working with a financial institution partner to seek the implementation of new financial solutions to make housing more affordable to low and moderate income groups.

Rental Housing

The Masterplan is based upon a Registered Housing Association (RHA) undertaking all the community housing at Pentridge. The RHA would own and manage the properties in the long term.

RHA would deliver community rental product to the market, where no tenant paid more than 30% of the household income on rental. The range of housing types would be determined on a needs and grant basis. The RHA will be reliant upon achieving Victorian Government Funds (as provided to Housing Associations and / or National Rental Affordability Scheme recognition.

The table below demonstrates how the developer and their partners will seek to achieve a diverse community with affordable housing outcomes by accessing available funds.

Group	Purchase	Financial			Rental	
		First Home Owners Grants	First Home Savers Accounts	Housing Affordability Fund	National Rental Affordability Scheme	Victorian Government Funds
First time buyers	✓	✓	✓	✓		
Older	✓				✓	✓
Singles/Young	✓	✓	✓	✓	✓	✓
Essential services workers	✓	✓	✓	✓	✓	✓
Low Income Workers		✓	✓	✓	✓	✓

Housing typologies

The Masterplan built form massing supports a wide range of housing typologies and each housing typology is provided with a different type of interactive experience within Pentridge. A variety of housing options are anticipated to be provided within the residential development component of the Pentridge site including dwellings with home based office opportunities, studio apartments, 2 or 3 bedroom apartments, multi-level apartments and serviced accommodation. This accommodation will cater for the population in various stages of the human life cycle and will contribute to a vibrant, community of varying ages interacting in the Pentridge environment.

The quality and functionality of the public realm network is intended to provide the residents with an enriched outdoor public life; these spaces will support a range of pastimes like reading a book, drinking coffee and watching parading public or children's play and will support both formal and informal activities.

The adjoining Coburg Lake and Merri Creek park system will afford another 'green' experience close by for Pentridge residents. The clear road and laneway network within the site provides the opportunity for both the multiplicity of access to diverse housing forms (home office, terraces, walk up units) and legible public access encouraging a safe, visible environment. Finally the larger building footprints reduce the amount of unuseable space between buildings (verges, overlooked courtyards) while increasing the design flexibility within building envelopes. Quality and diversity in architectural design is promoted by establishing clear building identities in both scale and address.



Figure 4.2.3a
Neutilings Ridjik, Borneo Sporenburg. Home office flexible living formats.



Figure 4.2.3b
O.M.A Nexus World. Intimate courtyard model integrated with commercial uses.

4.0 Design and Masterplan Response



Figure 4.2.4d Location Plan

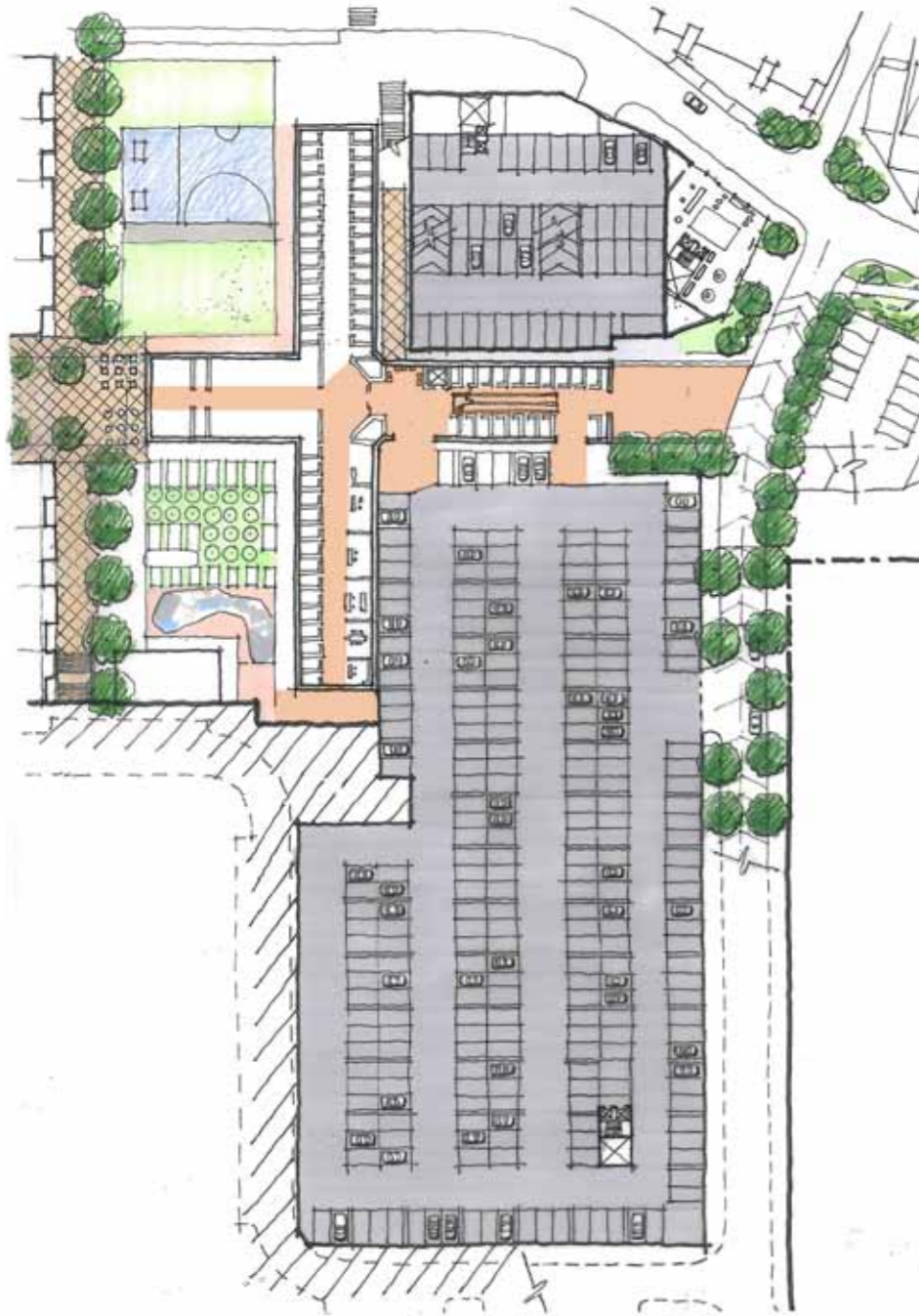


Figure 4.2.4a Lower Ground Retail Plan (for Illustrative Purposes Only)

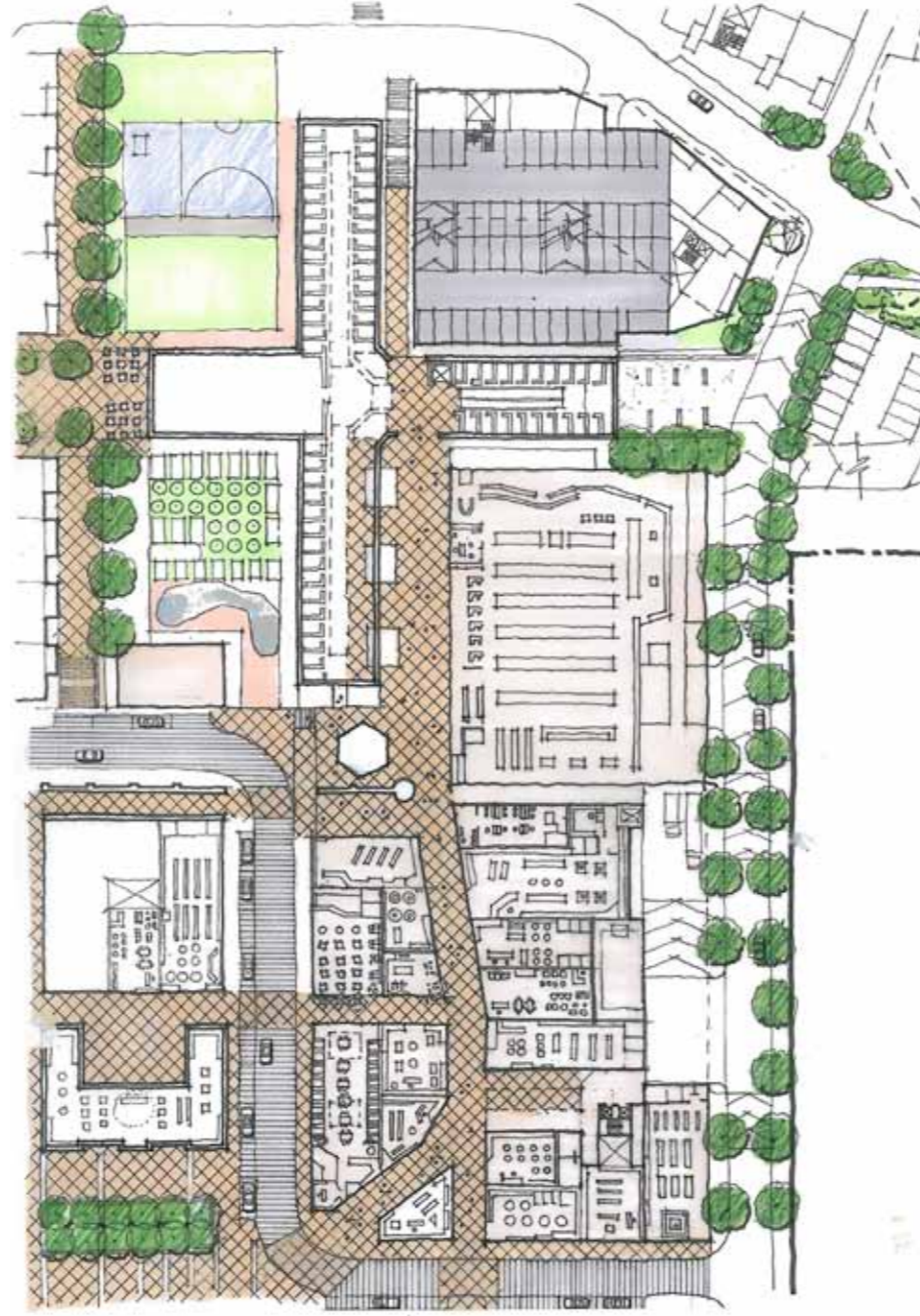


Figure 4.2.4b Ground Retail Plan (for Illustrative Purposes Only)



Figure 4.2.4c Level 1 Plan (for Illustrative Purposes Only)

4.2.4 Retail and Commercial Component

The redevelopment of Pentridge will maintain and enhance the historical character of the site. It will also enable the weaving of a mix of uses which will confirm the role of the Coburg Principal Activity Centre as an important activity centre in Melbourne's inner north.

Office development will be generally concentrated within the Mixed Use Precinct of Pentridge, easily accessible to Champ Street, and located to the south of the main residential accommodation proposed in the Coburg Lake Precinct along Murray Road and north of the more vibrant and interactive Piazza Precinct. Some office uses are contemplated within existing heritage buildings such as the Former Administration Building and office space exists within the QM Building currently under construction.

The delivery of the retail component of Pentridge is designed to complement the balance of the Coburg Principal Activity Centre, and to this end, the format will not be a conventional enclosed shopping centre. Instead, the layout of the retailing will be in an open pedestrian style environment or housed within existing bluestone buildings.

Retail development will be focused around the Piazza Precinct, including the provision of food and drink premises that will support a leisure and tourism theme. A small retail element together with some non-retail uses such as a gymnasium and interpretive centre are contemplated within the historic Division B building. The largest section of retail development at Pentridge will form the heart of the site (including the historic Division A building). This stage will include a full-line supermarket, food and non-food specialties as well as a small non-retail specialty offer, providing services to the workers, residents and consumers in the precinct. Additional services such as a childcare centre, medical centre and community services may also form part of this phase of development and office accommodation are also proposed in this Mixed Use Precinct of the site. Retail development of the site will also include the use of the Division E building and this section of development is proposed to incorporate food and non-food specialties in a location proximate to office and residential accommodation.

The catchment area defined for Pentridge comprises a primary sector and five secondary sectors. The primary sector extends up to 2 km from Pentridge, predominantly to the north, east and south-east due to convenient access to major arterial roads such as Sydney Road, Bell Street and Murray Road. The nearby presence of the core of the Coburg Principal Activity Centre limits draw from the south of this area. The secondary sectors extend up to 6 km from Pentridge and reflect more contestable markets. However all residents in the secondary sectors will be able to reach the Pentridge site within 10 minutes by car.

The provision of identified retail floorspace within the catchment area at the current time (at 68,734sqm) represents a provision ratio of only 0.70sqm of retail floorspace per person within this area, less than half the Melbourne suburban average of approximately 1.5sqm per person. On this measure alone, the Pentridge catchment area is undersupplied with retail floorspace by up to 78,856sqm at the current time. As the catchment area population is forecast to continue growing, this apparent undersupply would increase to 94,456 by 2016 without the development of any new retail floorspace within the catchment area. There are currently no significant aggregations of retail floorspace

within the primary catchment area. The largest precinct within the catchment area (Coburg Principal Activity Centre core) comprises approximately 32,887sqm of retail floorspace. This precinct straddles the secondary southwest and secondary south sectors. With the exception of the Coburg Principal Activity Centre core and Sydney Road retail strip, the catchment is characterised by a number of small neighbourhood or convenience strips. There are several major shopping centres and significant strip centres located beyond the Pentridge catchment which help to define the extent of the catchment area (eg Northland Shopping Centre).

A number of developments at competitive centres and precincts within and beyond the catchment area are either underway or expected to take place prior to the planned opening of Pentridge. The most significant of these involve the proposed revitalisation of the Coburg Principal Activity Centre, as part of the Coburg Initiative, through an additional 1,500 dwellings and 65,000sqm of additional retail and office floor space, the redevelopment of Northland Shopping Centre (currently underway) and proposed redevelopment of Preston Market. The overall percentage of escape expenditure from the catchment (i.e residents of catchment area travelling outside the area to make purchases at other retail outlets) is forecast to reduce only slightly from 74% in 2007/08 to 72% in 2014/15 as a result of the Coburg Initiative only slightly counteracting the significant retail expansion underway or planned beyond the catchment area.

On completion of retail development within Pentridge, the average reduction in sales for existing catchment area retailers is forecast as -4.0%, comparable to one year of spending growth expected within the catchment area. It is generally accepted that impacts in excess of -10% are required before the viability of a retail centre or precinct could be threatened. The average impact level is sustainable and comfortably within the levels to be expected by retailers operating with a freely operating competitive market. Impacts on other retailers within the catchment area will be minimised due to the unique nature of Pentridge and its resulting ability to substantially wind back escape spending and generate sales from customers living beyond the catchment area.

It is also important to consider the supply of supermarket floorspace within the catchment area. At the current time, it is estimated that there is 15,767sqm of such floorspace located within 11 supermarkets in the catchment area (or 0.16sqm per person). The metropolitan Melbourne average is 0.29sqm per person and, again, this indicates a significant current undersupply of approximately 12,800sqm. This undersupply will grow to approximately 15,800sqm by 2016 without the development of new supermarkets within the catchment area. Another consideration is that a planning permit does exist for a smaller supermarket on the site.

The adjoining diagrams - Fig 4.2.4a and 4.2.4b provide a schematic indication of the potential ground level retail development contemplated at Pentridge within the Piazza and Mixed Use Precincts, primarily within Buildings 8 and 9.

Fig 4.2.4e is an extract taken from Council's series of Coburg Initiative Investment Logic Maps used to facilitate discussion at Council's community stakeholder workshops. The principles described by the table are also applicable to and consistent with the drivers, objectives and benefits of retail and commercial development proposal at Pentridge.

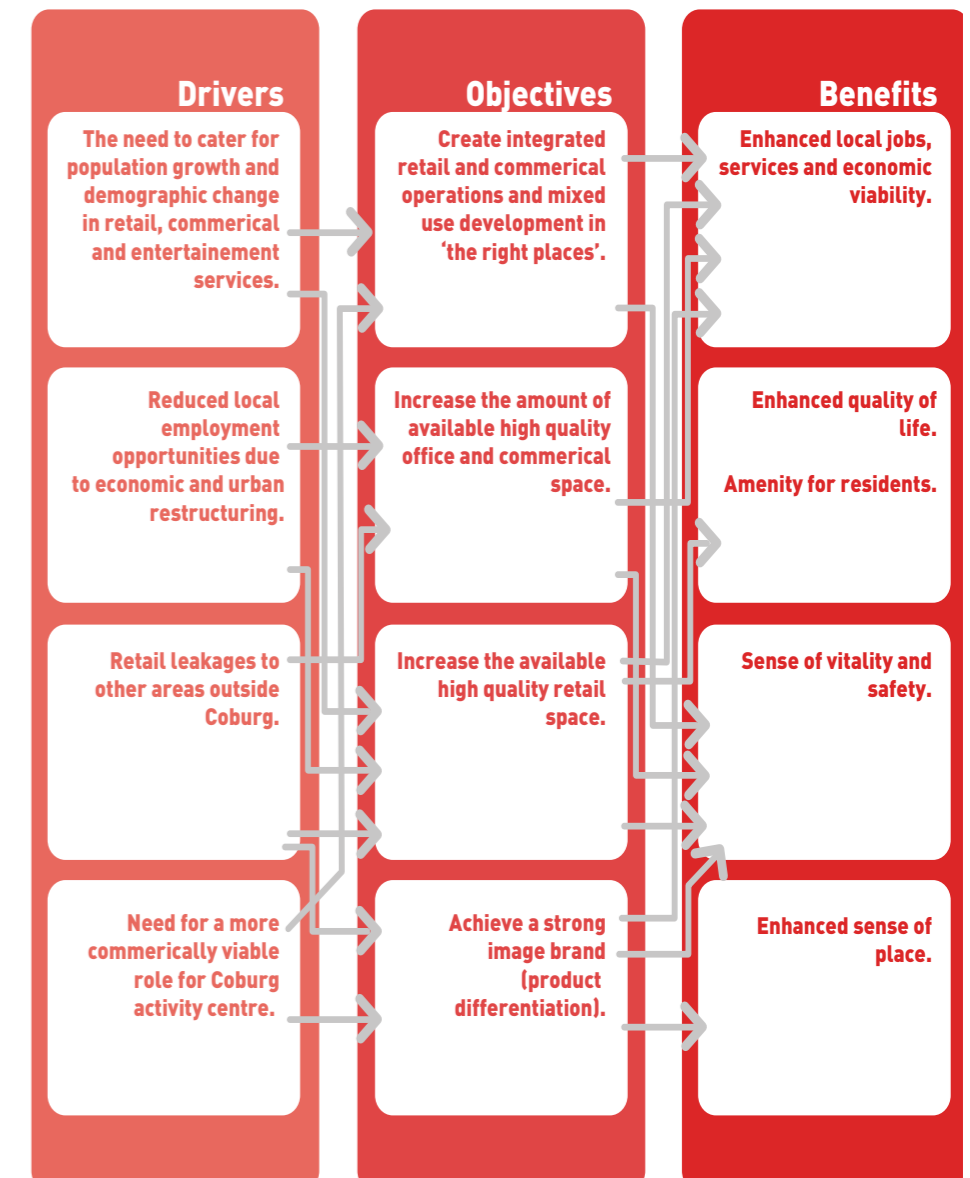


Fig 4.2.4e Retail and Commercial Drivers, Objectives and Benefits

4.0 Design and Masterplan Response

4.3 Development and Land Use Schedule

The following table is based on preliminary functional planning undertaken at a Masterplan level and is subject to market testing, detail design and feasibility. The data is presented on the basis that it facilitates understanding by authorities associated with the planning of infrastructure services to the site and has been based on the following list of assumptions:

- Average residential lot size of 70-80sqm.
- Average office area allocation of 15sqm per person.
- Average household size of 2.4 persons/household.
- The areas cannot be aggregated.
- The areas include the QM Building but do not include Industry Lane.
- Various building efficiency ratios have been assumed dependent upon the Masterplan building envelope; proposed building use; and nature of building fabric (new or heritage).
- Heritage floorspace is calculated on the basis that these buildings have a low efficiency ratio. The overall heritage building GFA is in excess of 10,000sqm.

BUILDING USE	NSA/NLA (sqm)	UNITS	POPULATION
Residential	88,000 -97,000	1,250 -1,400	2,640-3,360
Commercial	11,000-20,000		700-1,350
Retail	12,000	*	Refer to EIA
Other	3,500	*	Refer to EIA
Heritage	6,500	*	Refer to EIA

The overall composition of uses within each Precinct, and the indicative uses for each building in each Precinct are illustrated in the Development and Land Use Tables adjoining.

* Refer to Economic Impact Assessment (separately submitted)

Development Schedule & Land Use Table*

Precinct 1: Piazza

Building	Proposed Height	Proposed Potential Use	Comment
E Division	No change – existing building	Retail Commercial	Re-use of Heritage building. The type of retail use contemplated as being potentially appropriate for the building is a food and beverage retailer at ground floor level.
Former Administration Building (Gatehouse Building)	No change – existing building	Commercial	Re-use of Heritage building. The uses contemplated as having the potential to be established within this building include administration / office uses, potentially administration services associated with the balance of the site such as Owners Corporation and Property Management Offices.
B Division	No change – existing building	Commercial Retail Community/other	Re-use of Heritage building. A variety of uses are contemplated as having potential to be appropriate within the building, including food and beverage retailing, Gym, Heritage Interpretive Centre / Exhibition Centre / Function Centre.
B Division Annexe	No change – existing building	Residential	Re-use of Heritage building to accommodate dwellings.
Building 15	2 levels	Retail Commercial	Freestanding mixed use building, with retail use contemplated as being potentially appropriate for ground floor level.
Building 16	3 to 18 levels	Residential Resident car parking	Freestanding residential building with resident car parking. Car parking is proposed within lower 3 level podium of building with a residential tower above.
Building 17	2 levels	Retail	Freestanding building within a landscaped courtyard area, with potential uses contemplated to occupy the building being retail based.
Building 18	1 level	Retail Community	Retail or community building at ground level to interact within the Piazza space.
QM Building	5 levels	Commercial Retail Residential	Constructed

Precinct 2: Sentinel

Building	Proposed Height	Proposed Potential Use	Comment
Air (former Sentinel bldg)	Approved – 3 to 19 levels	Residential Resident car parking	Approved under permit MPS 2002/0677

4.0 Design and Masterplan Response

Precinct 3: Mixed Use

Building	Proposed Height	Proposed Use	Comment
A Division	No change – existing building	Commercial Retail Community/other	Re-use of Heritage building. The community uses contemplated as having potential to be established within this building include a Community children's play area, an Artists gallery and a Community hall.
Building 1	8 levels	Commercial Residential Occupant car parking	Commercial or residential building (subject to market conditions).
Building 2	9 levels	Commercial Residential Occupant car parking	Commercial or residential building (subject to market conditions).
Building 9	4 levels	Retail Commercial Public carpark	Multi levelled arcade building with predominantly retail or commercial uses connected to Building 8 at ground levels. Basement and upper level public carpark.
Building 11	2 levels (above ground)	Retail Community	Due to the slope of the land it is contemplated that a retail use, complementing the retail uses in Buildings 8 & 9, may have potential to occupy the lower ground level.
Building 12	9 levels	Retail Commercial Residential Occupant car parking	A freestanding mixed use building with the potential to have a combination of commercial and retail uses at ground floor. The potential retail uses are contemplated as occupying the east side to enable interaction with the retail uses within Building 9.
Building 13	6 levels	Commercial Residential Occupant car parking	Freestanding commercial or residential building. Possible carpark bridge connection to Building 12.
Building 14 (including Former Wardens Building)	2 levels	Retail Commercial	The retail uses contemplated as having potential to be established within this building include a food and beverage tenancy at ground level which have opportunity to interact with the Piazza.
H Division	Demolition		

Precinct 4: Coburg Lake

Building	Proposed Height	Proposed Potential Use	Comment
Building 3	13 levels	Residential Resident car parking	Residential building with possible interconnected residential car parking.
Building 4a and 4b	9 to 16 levels	Residential Resident car parking	Residential building with possible interconnected residential car parking.
Building 5	8 levels	Residential Resident car parking	Freestanding residential building with residential car parking.
Building 6	18 levels	Residential Resident car parking	Freestanding residential building with residential car parking.
Building 7	7 levels	Residential Resident car parking	Freestanding residential building with residential car parking.
Building 8	8 to 19 levels	Residential Resident car parking	Freestanding residential building with residential car parking. Connected ground levels with Div A and Building 8.

* All development and uses are subject to the development of a detailed retail and commercial strategy, market testing, detail design, feasibility, securing of suitable tenants and relevant Council and Heritage Victoria permits. For these reasons the detail may change and evolve with time.

4.0 Design and Masterplan Response

4.4 Landscape

Pentridge Streetscapes Concept Design

The City of Moreland commissioned and adopted, in May 2006, the Pentridge Streetscapes Concept Design. This concept plan provides a design context for public spaces adjoining Pentridge, on Murray Road, Champ Street and Pentridge Boulevard. The design direction outlined in the Pentridge Masterplan is broadly in accordance with the intent and principles of the Pentridge Streetscapes Concept Design, particularly in the following aspects:

- Retention of existing trees on Champ Street;
- Provision of additional new trees on Champ Street to improve pedestrian amenity;
- Provision of a continuous new pedestrian route along Champ Street;
- Reinstatement of a "heritage" fence, with complementary detailed planting, to the former main prison entry off Champ Street; and
- Provision of a broad pedestrian interface with Pentridge Boulevard.

Pentridge landscape concept

The Landscape concept masterplan for Pentridge describes a public realm which comprises a network of linked public spaces, creating a unifying framework within which built elements will sit and a diverse range of activity will occur. This public realm ranges from interface treatments which invite exploration of the site's spaces and activity, to internal public spaces which support a range of community activity and have a richness of physical expression. These public realm spaces are all conceived with the interpretation of the site's built and social heritage firmly integrated.

Interface treatment

Points of interface between Pentridge and its adjoining spaces (Champ Street, Pentridge Boulevard, Murray Road) will be treated in a way which will not only facilitate movement around the edges of the site but will, importantly, invite visitors to enter the site, expressing the principle of permeability through the site. This will be achieved by a range of detailed design measures such as:

- The extension of "internal" treatments (particularly pavements) into the Champ Street and Pentridge Boulevard corridors as a means of transcending the "physical and psychological barriers" created by the Prison walls, as identified in the City of Moreland's Coburg Activity Centre initiative;
- Breaking through the existing prison walls of the site in a number of locations, allowing for the flow of pedestrians and cyclists, as well as vehicles in some locations. The amended Masterplan provides potential breaks in the wall to Murray Street to provide for enhanced circulation; and
- Taking a simple but strong design approach to spaces outside the walls, so that the monumental physical nature of the walls is celebrated and expressed, rather than unnecessarily obscured and diluted.

Activity

Within the Pentridge development, a network of public spaces will provide for a diverse range of activity to occur. The spaces which will make up this network will range from large focal areas, such as the central Piazza and the northern local parks, to smaller, more intimate courtyard spaces and circulation spaces, such as lanes and arcades.

Expression

As noted above, the public realm of Pentridge will consist of a diverse range of public spaces, varying in both scale and function. It will be essential that this public realm does not appear as a disparate group of spaces with no connection or thematic link. While such links will be made spatially, through physical and visual connections, they will also be made through the consistent and controlled use of the detailed design elements which contribute to the character of urban landscapes – elements such as pavement materials, plant materials and urban site furniture.

The selection of materials and furniture will be guided by a number of design principles, including:

- Choice of materials suited to repetition across the development, to provide continuity and connection between spaces;
- Simplicity of materials, suitable to a range of spatial types. For example, a single seat or bench type should be used in similar contexts across the development, rather than a multiplicity of styles or forms;
- Regularity in use of materials. For example, furniture elements should be at regular spacings within spaces and along roads and walkways, and a single profile should be used for all kerbs and channels etc;
- A design approach expressing a contemporary aesthetic applicable to a heritage context. Furniture elements, for example, should not mimic 19th century styles, despite sitting in some instances next to 19th century buildings, rather they should be of simple contemporary design complementing rather than conflicting with nearby heritage structures; and
- Relevance to the existing character and materiality of the site, perhaps reflecting existing materials in pavement color or aggregate, for example.

Planting within public spaces should also achieve a number of design objectives, including:

- Clarity of visual and spatial connections across spaces;
- Durability / hardiness; and
- Limited expressions of planting linked to both the cultural identity of the location and remnant cultural plantings.



Fig 4.4a Illustrative landscape plan viewed from the ground plane. (Aspect Studios)

4.0 Design and Masterplan Response

4.5 Public Realm

In developing the public realm of Pentridge, there are a number of key objectives which have been considered.

The public realm should:

- Be integrated, so that a network of linked spaces, of diverse character, is created;
- Be inviting and legible at the interface with its boundaries, so that visitors are encouraged to explore its spaces and activities;
- Be attractive and comfortable, with spaces that are accessible and safe with high levels of amenity and a human scale;
- Provide physical and passive recreational opportunities of the residents and visitors;
- Have regard to appropriate surveillance and safety needs;
- Be easily navigated, so that clear movement routes are provided for vehicles and pedestrians;
- Be interactive with the ground level of all buildings;
- Be respectful of heritage, so that existing buildings and other structures are well presented and incorporated into the design of spaces and movement corridors; and
- Provide opportunities for urban art and heritage interpretation, particularly that which reflects the site's penal history.

In achieving these objectives, the public realm of the Pentridge site and its constituent spaces, should be designed in accordance with a range of key design principles. These key design principles include:

Public Spaces

Public spaces with Pentridge will be recognisable as such through the consistent and integrating use of urban landscape elements such as thematic pavement treatments, urban furniture (seats, litter bins, cycle hoops, drinking fountains etc), public lighting (for both safety and historic continuity) and other public amenities. The detail of such elements will be agreed with the Responsible Authority and will be used in a consistent manner across the site to contribute to the creation of a unified and clear public realm.

Permeability

The Pentridge public realm should encourage and facilitate the simple and direct movement of pedestrians and cyclists through the site. This will involve the identification of numerous clear points of entry into the site, through strong visual and spatial design, as well as obvious and high amenity routes through the site from these entries. Permeability, and connection to local open space, is a key objective of the Coburg Structure Plan, and will be a key principle in the Pentridge design. The proposed design will not only achieve the objectives of the Pentridge Redevelopment Precinct Plan, as outlined in the Structure Plan, but will surpass that plan in the number of connections provided.

Activation of public space

Key public spaces, at various scales, should be activated by the function of buildings which define them. This will involve both commercial and community activity spilling from buildings into adjoining open spaces such as squares, courtyards and arcades.

Flexible / multifunctional public spaces

Rather than facilitating single uses, key public spaces should be suitable for a wide range of uses, including community gatherings and events, performing areas, children's spaces, larger commercial uses (such as markets, outdoor cinema etc), eating and drinking, relaxing.

Diversity of public space

Successful public space networks are most effective when they provide diversity in terms of spatial character, function and scale. Rather than a single focal space within the public realm, Pentridge will feature a range of spaces of various forms and scales, connected by a high amenity network of pedestrian linkages.

Response to heritage assets

Physical structures at Pentridge are key to understanding the history of the place, and in giving a sense of continuity to the site. This is not a new place, but an old place with a new function and role. In this regard key heritage assets, mainly buildings and walls, will be retained and incorporated into the new design. While the role of such elements (containment and control) will change, so that they are seen as objects within spaces, rather than objects which contain spaces, their significance will remain as key components of the Pentridge public realm. This principle will lead to a direct expression of the Coburg Activity Centre objective to "reduce the impact of Pentridge's walls as physical and psychological barriers".

Materials

The material expression of the Pentridge public realm should consider a range of design principles:

- Response to existing building material (especially bluestone) and character – colour, material type;
- Deliberate insertions into existing heritage fabric should be clearly identifiable;
- Response to previous use of the site;
- Durability; and
- Human scale.

Urban Art

The public realm will provide the opportunity for inclusion of urban art within Pentridge, particularly in a form which provides context and allows for interpretation of the penal history of the site and highlights the story of those who spent time inside the prison walls.

Lighting

Lighting within the public realm is critical to provide for the feeling of safety and security. Appropriate lighting will be provided within the public realm within Pentridge and to this end a public lighting plan will be prepared within 6 months of approval of this Masterplan.

Design Features

The expression of these principles will be resolved in the design phase of the Pentridge development, although the Landscape concept masterplan for Pentridge does illustrate a public realm which comprises a network of linked public spaces, creating the frameworks that accommodate old and new built form, and an elaborate system of movement networks.

Pentridge will present a variety of public space opportunities, in that the public realm will consist of spaces of varying scale, function and character, yet all forming a cohesive whole through the use of a complementary range of materials and design details. Key features of the public realm will form large focal spaces, such as the central Piazza, to the northern local parks and smaller more intimate courtyard spaces and transitional spaces, such as lanes and arcades. This variety will create spaces with not only diversity of function but also diversity of character, contributing to a richness of space across the site.

In this regard, the varied character of the open space will contribute to meeting the Coburg Activity Centre objective of "Access for All".

Publicly Accessible Open Space Network

The current Section 173 Agreement dated 8th July 2005, which originated from the 5 Lot Subdivision of Pentridge (SP2002/0126), requires the provision of a Publicly Accessible Open Space Network that is constructed, maintained, managed, operated and kept accessible to the public. The Publicly Accessible Open Space Network must be accessible to and be able to be used by the public 24 hours a day free of charge for 364 days of the year, subject only to limited exceptions or restrictions provided for in the Publicly Accessible Open Space Network Management Plan. The current Section 173 Agreement states that the total area of the Publicly Accessible Open Space Network must be no less than 7,344m² plus or minus a tolerance of 10% of such area.

Figure 4.5a, the Open Space Plan, illustrates the location of the primary publicly accessible open space areas and secondary publicly accessible space whilst also indicating the publicly accessible movement corridors made up by the road network proposed within Pentridge. The quantum and percentage of publically accessible open space is also confirmed.

The primary publicly accessible open space areas comprise the 'Publicly Accessible Open Space Network'. These areas are principally comprised of the Piazza area north of B Division, the local parks west of A Division and the areas along the Champ Street frontage of the site. Opportunities will exist in these areas for passive recreation, in particular along Champ Street, with provision of public seating, shade trees and similar for visitors, workers and residents to make use of. Landscaping will be integrated into these spaces. The use of these open space areas by tenants in buildings abutting the spaces will be encouraged. In particular, it is intended that the Piazza will be surrounded by land uses which will activate this space (eg food and beverage retailers) and promote flexible uses for a variety of activities (eg markets, performing areas, outdoor cinema) which combine to ensure the liveliness and safety of this publicly accessible area.

4.0 Design and Masterplan Response

Secondary publicly accessible space will comprise the laneways between buildings and the areas around those buildings which do not abut primary publicly accessible open space areas. The secondary publicly accessible space areas will primarily provide for pedestrian access, landscaping, passive recreation (eg sitting, relaxing) and where in proximity of retail or commercial buildings may be used for outdoor activities associated with these uses including provision of tables, chairs, meals and refreshments. These spaces will generally be more intimate in nature however will encourage activation and safety.

Any private land within Pentridge identified as publicly accessible open space shall be provided so that the public has access 24 hours a day, 364 days a year and will be managed by the Pentridge Owners Corporation provided that any such requirement shall not prevent the owner, or persons authorised by the owner, from on such land or parts of it:

- Holding events and other activities; and /or
- Providing for use of such land for commercial activities like markets; provision of tables, chairs, meals and refreshments; entertainment and the like; provided that they are generally activities in which the general public can partake or be admitted to. This does not prevent restricting admittance to fee paying activities; and /or
- Providing the potential to appropriately secure shopping arcade / laneway areas within Buildings 8 and 9 after trading hours, for safety and security purposes.

In addition to the publicly accessible open space, areas of private and semi-private open space are likely to be provided in association with the residential development contemplated, these will include areas of landscaping, courtyards or the surrounds of the residential buildings which will primarily cater for the residents of these buildings but may also be areas able to be accessed by the public.

The primary publicly accessible open space areas which comprise the 'Publicly Accessible Open Space Network' for Pentridge are coloured red on the Open Space Plan at Figure 4.5a. The existing Section 173 Agreement will need to be amended or replaced by a new Agreement which makes reference to this Public Open Space plan in the Masterplan and the areas coloured green as being the Publicly Accessible Open Space Network. In addition, the existing Publicly Accessible Open Space Network Management Plan will need to be reviewed to ensure it is consistent with the Masterplan.

Pentridge Owners Corporation

Pentridge is a master planned precinct development comprising a community linked together by roads, open spaces and recreational facilities and mixed uses. A governing body, Owners Corporation 1 Plan No. PS 501198H (OC#1), will have control over the whole site. This enables common services to be delivered consistently and buildings maintained to a common standard.

The Pentridge owners corporation structure will comprise of one unlimited owners corporation (OC#1) and multiple limited owners corporations for each subsequent stage of development (OC#2 Sentinel, OC#3 QM Building, OC#5 Industry Lane and so forth). The functions and obligations of OC#1 will be for any mandatory compliance functions including but not limited to:

- Heritage management plan;
- Environmental health plan;
- Maintenance plan management;
- Insurances;
- Sustainability maintenance;
- Occupational health and safety;
- Essential services; and
- Public open space management plan.

OC#1 will also assume responsibility for obligations that make economical sense, such as:

- External window cleaning;
- Road management;
- Garbage services; and
- Landscape management (publicly accessible).

Vested in OC#1 will be the bluestone walls, any centralised infrastructure plant and the public realm comprising roads and open spaces. During development, the heritage buildings will remain as part of an 'S' lot until their ultimate divestiture to OC#1 on conclusion of the precinct's development. With respect to the obligations associated with the ownership and management of the heritage buildings, this provides one single point of accountability in both the short term and long term (OC#1).

Vested in each limited owners corporation will be the specific building assets of each stage. The functions and obligations of the limited owners corporations will include but not be limited to:

- Common area cleaning;
- Lift services;
- Owners corporation register;
- Owners corporations certificates;
- Dispute resolution;
- Budgets and levies; and
- General maintenance of the building.

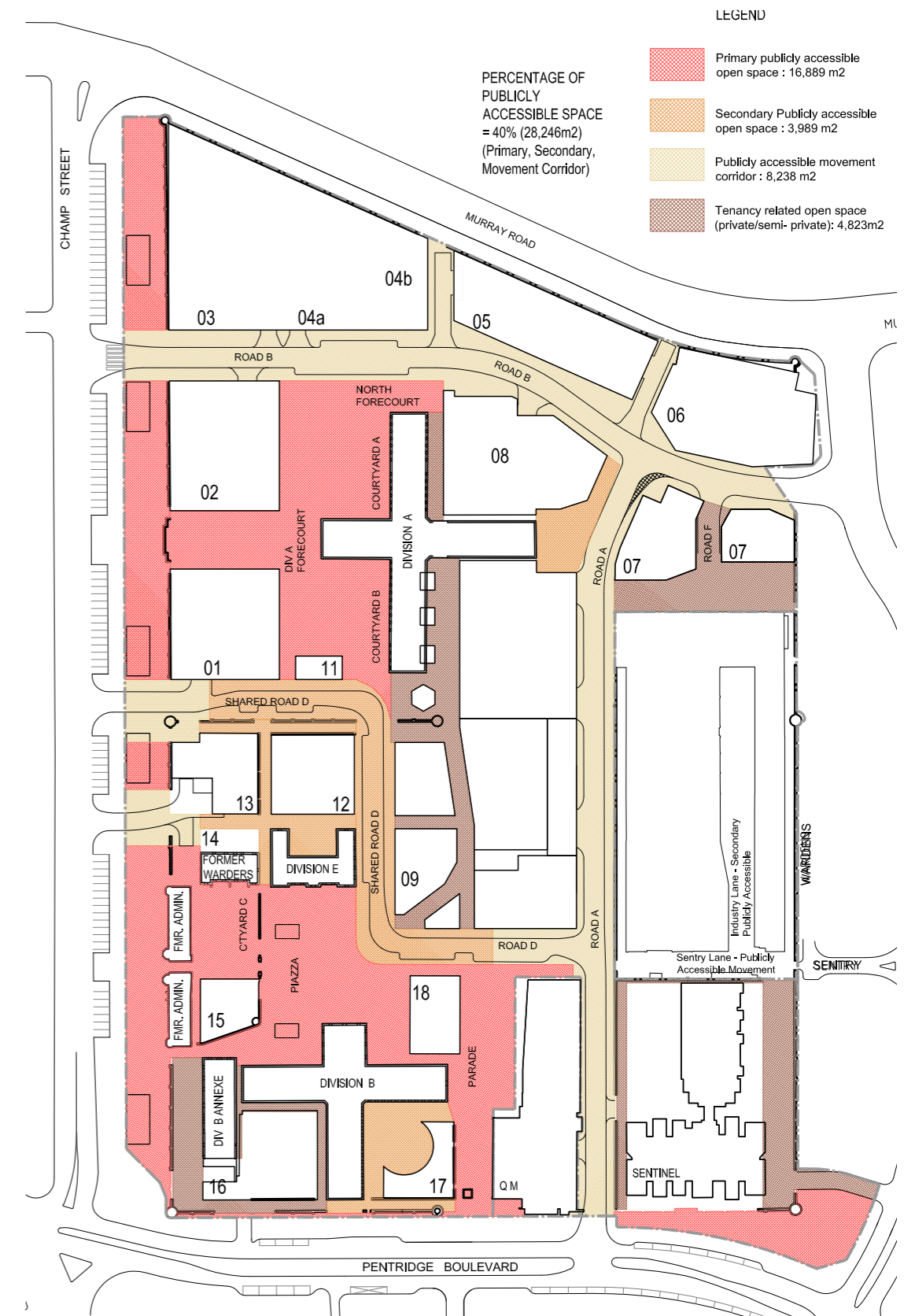


Fig 4.5a Open Space Plan
Note that internal layout of buildings 8 & 9 has been simplified for diagrammatic purposes.

4.0 Design and Masterplan Response

4.5 Public Realm

- 01** Major Open Spaces
Central Piazza

- 01** Secondary Open Spaces
Active Recreation Local Park
- 02** Passive Pursuits Local Park
- 03** Shared Pedestrian Avenue

- 01** Heritage Interpretation Spaces
Rock Breaking Yard
- 02** Airing Yard

- 01** Heritage Laneway Network
Ceremonial Promenade
- 02** Warder's Walk
- 03** Pentridge Lanes
- 04** Division A Arcade

- 01** Courtyard / Forecourt Spaces
Admin Courtyard
- 02** Division A Forecourt
- 03** QM Forecourt
- 04** Division E Courtyard
- 05** Admin Forecourt

- 01** Landscape Spaces
Champ Street Gardens
- 02** Pentridge Boulevard Streetscape
- 03** Air Apartments Streetscape
- 04** Pocket Parks

- A** Streetscapes
Road A
- B** Road B



Piazza

The Piazza will be the primary public space of the development. It will be a space defined by existing buildings (Division B and Division E) and bluestone walls and the new retail/commercial building to the northeast of the square. A smaller commercial/community building will provide the eastern edge to the square. These buildings will create a strong spatial definition and contribute to the activation of the square, through a range of commercial and community functions, especially food and beverage outlets. The Place will be an engaging place for the all sectors and ages of the community.

The Piazza will also be activated by its location near the nexus of the primary north - south pedestrian circulation spine (extending from Warders Walk) and the east - west connection, linking Champ Street and Stockade Avenue. Access would also be provided for vehicles, although it is intended that this be in the context of a "shared environment", so that kerbs are eliminated, and pedestrian pavements flow across vehicle routes, creating a seamless space which flows between built elements.

The character of the Piazza will be of a flexible large open space with detail and human scale being provided by textured ground surfaces pavement elements, water feature, furniture, urban art elements and intimate heritage interpretation. Shade and shelter should be provided through strategic use of canopy tree planting that will also assist with wind amelioration.

The Piazza will be a key civic space for the northern Moreland municipality, providing the stage for a range of community events and functions, such as markets, open air cinema, community displays, small scale concerts and performances, and temporary arts installations.



Fig 4.5b Piazza Illustrative Landscape

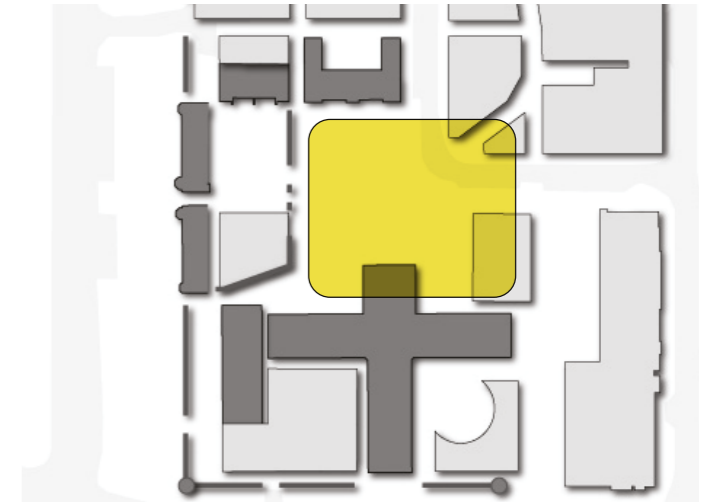


Fig 5.5b Piazza Diagram

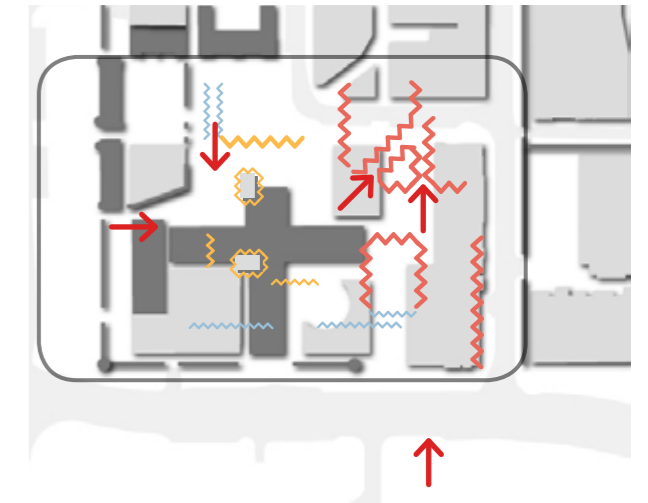


Fig 4.5c Piazza Active Edge Diagram

- High Activity
- Medium Activity
- Low Activity
- Piazza Study Area
- Key Entry Points



Fig 4.5d Victoria Park, Melbourne, Aspect Studios



Fig 4.5e Brunetti's Cafe, Melbourne



Fig 4.5f Salamanca Square, Hobart



Fig 4.5g Rathausplatz, St Potten Austria

4.0 Design and Masterplan Response

Two Local Parks / Courtyards

Two interconnected public spaces will form the focus of the northern area of the development. These spaces create a respectful foreground to the heritage of Division A building, and provide open space and recreation. These spaces will focus on comfort, amenity and activities for local residents of all ages and abilities, and will be open to broader community use.

The most northern park has the character of a local community park that provides spaces and facilities for active and passive outdoor activities. The park will include a range of outdoor recreation facilities (potentially table tennis table, outdoor fitness elements and a multi-purpose sports court), seating, picnic tables and a lawn area.

The southern park has the character of a courtyard garden and will include all-season productive trees (orchard groves), community gardens, formal gardens, toddler and children play spaces and a community building.

Tree canopies and open air structures will be strategically positioned in both spaces to enable access to sun and shade at all times of the day, throughout the year. A row of feature trees and pathway connect the two parks along the western edge.

Key design elements include:

- Threshold spaces and treatments to heritage spaces and buildings, particularly the Division A building;
- Appropriate integrated community building (south space);
- Resolution of level changes including integrated universal access (DDA compliant);
- A range of elements that cater for active and passive recreation and activities for people of all ages, interests and abilities (as above), particularly residents;
- A range of soft and hard scapes (such as pavements, lawns, gravels); and
- A range of formal vegetation structures (such as orchards, groves, arbours, rows) and informal community gardening opportunities.



Figure 4.5h Courtyard illustrative landscape

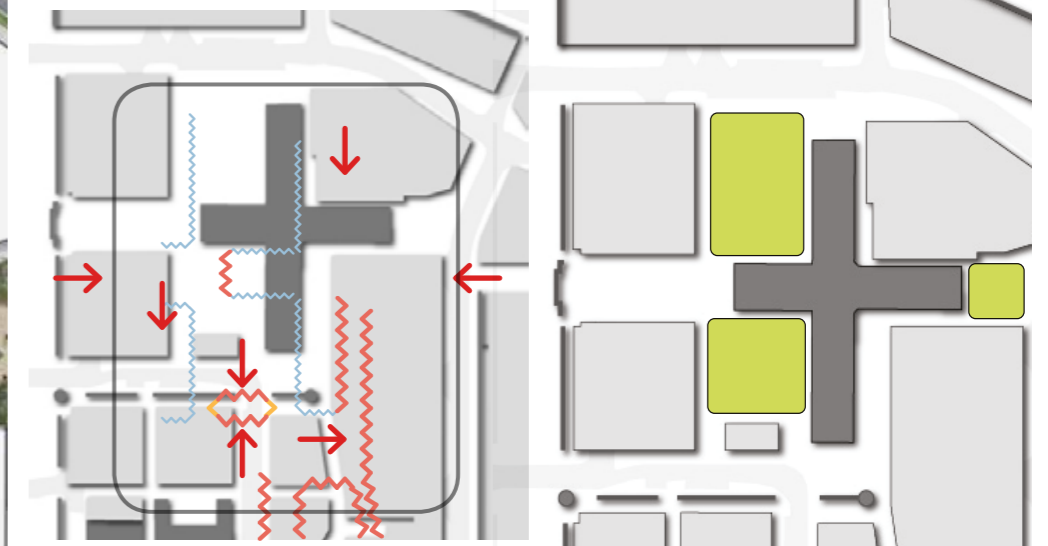


Figure 4.5i Courtyard Active Edge Diagram

Figure 4.5j Key Courtyard Opportunities

- High Activity
- Medium Activity
- Low Activity
- Study Area
- Key Entry Points



Figure 4.5k Social ball sports opportunities
54



Figure 4.5l Informal recreation opportunities for residents



Figure 4.5m Courtyard focusing on single feature tree for scale, shade and shelter



Figure 4.5n Community vegetable gardens

Central Pedestrian Precinct

The distribution of buildings (both old and new) within the proposed master plan for Pentridge has been deliberately formulated to create an intertwining network of pedestrian only pathways, small scale lanes and arcades. These connections provide access across the site, between and into buildings, and create a definable framework within which these buildings will sit. This framework will be an integrating element of the master plan, achieved through consistent use of simple pavement materials, with key elements such as a primary east- west and north-south routes through the site. These primary pathways are a particularly important element of the master plan embodying the permeability objectives of Coburg Activity Centre. The proposed north – south link goes beyond Coburg Activity Centre in providing a connection to Murray Road.

As well as access and circulation between buildings, the pathways, lanes and arcades will provide small scale opportunities for seating, particularly through the use of café style furniture, particularly where activated by adjacent building uses.



Figure 4.5o Laneway Illustrated landscape

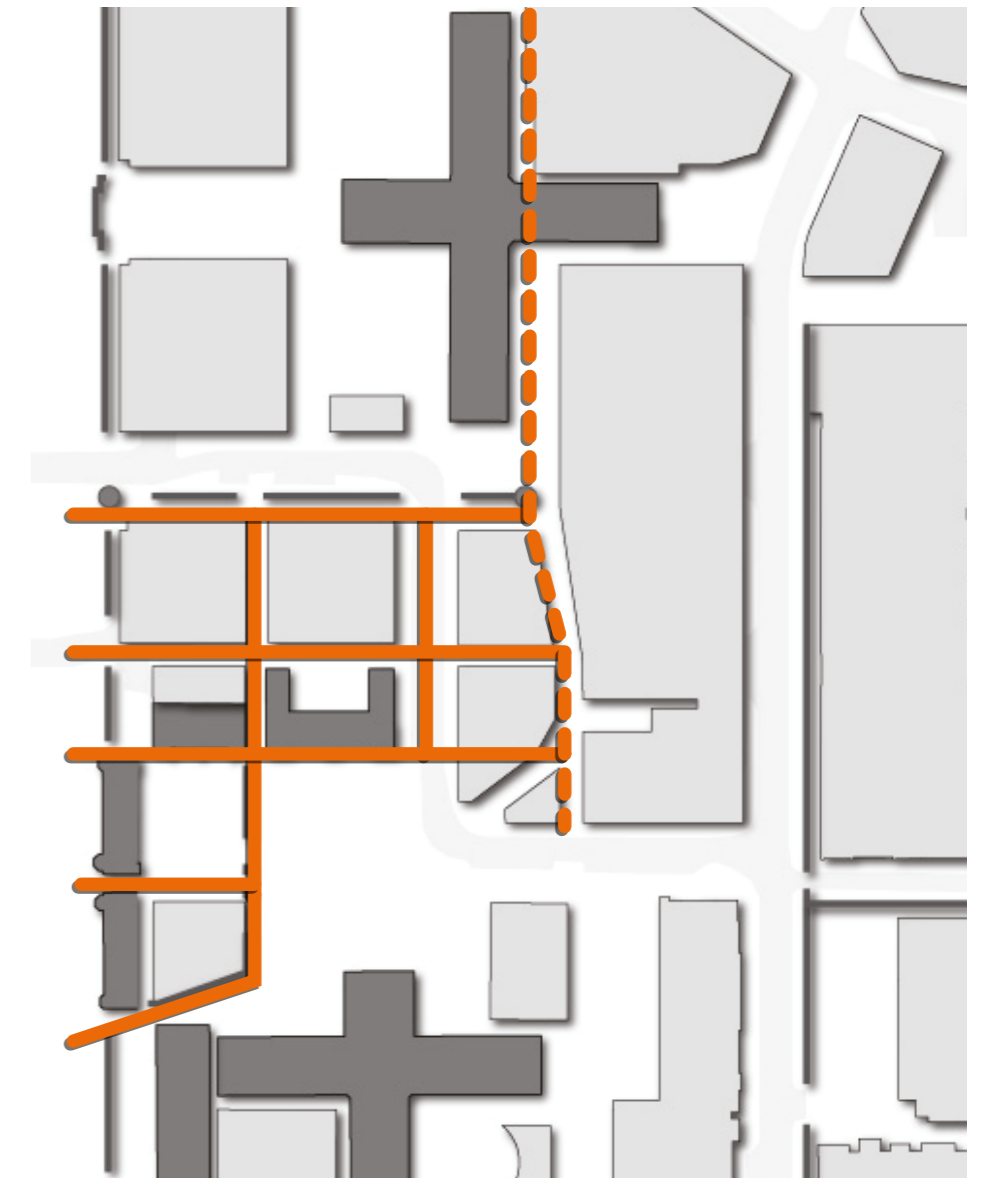


Figure 4.5p Key Laneway Opportunities

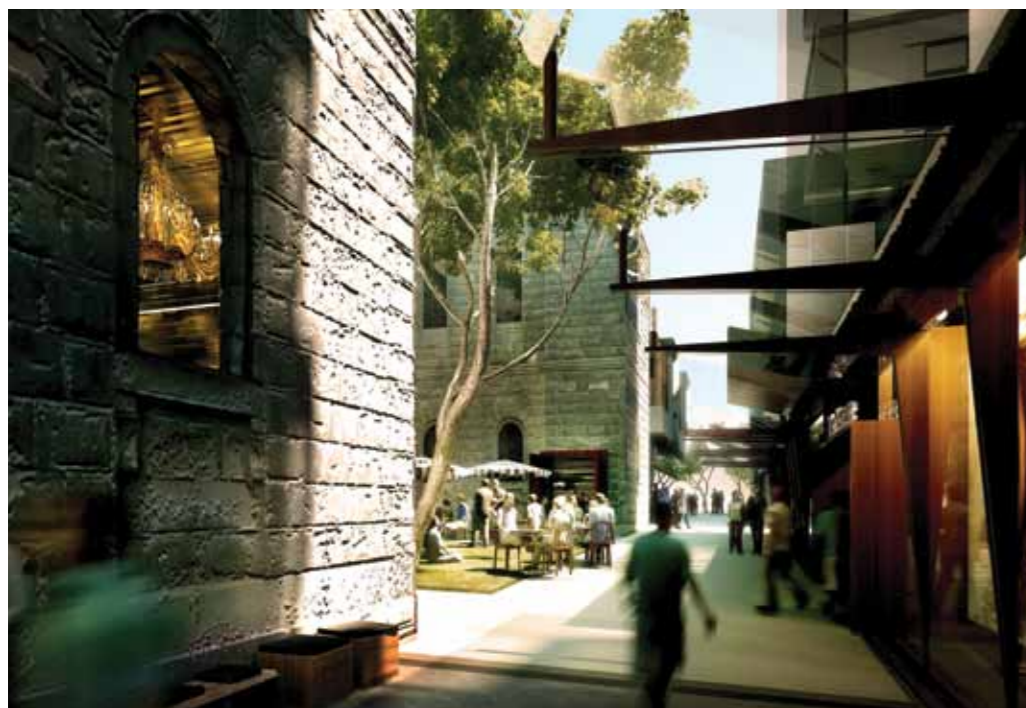


Figure 4.5q Internal Laneway visualisation [NH Architecture]



Figure 4.5r Southern Cross Lane, Melbourne [ASPECT Studios]



Figure 4.5s Degreaves Lane, Melbourne

4.0 Design and Masterplan Response

Interfaces and Entries

The arrival spaces to the Champ Street, Murray Road and Pentridge Boulevard frontages are vital to the successful integration of Pentridge into Coburg. A multiplicity of access points of various scales and qualities are envisaged and identified in Figure 4.1.2x.

In addition to the successful new residential, commercial and community occupation of Pentridge, methods for recognising the important memory of lives spent inside the walls should be consciously marked in these spaces. The use of public art, interpretation elements are some methods for recognising this history.

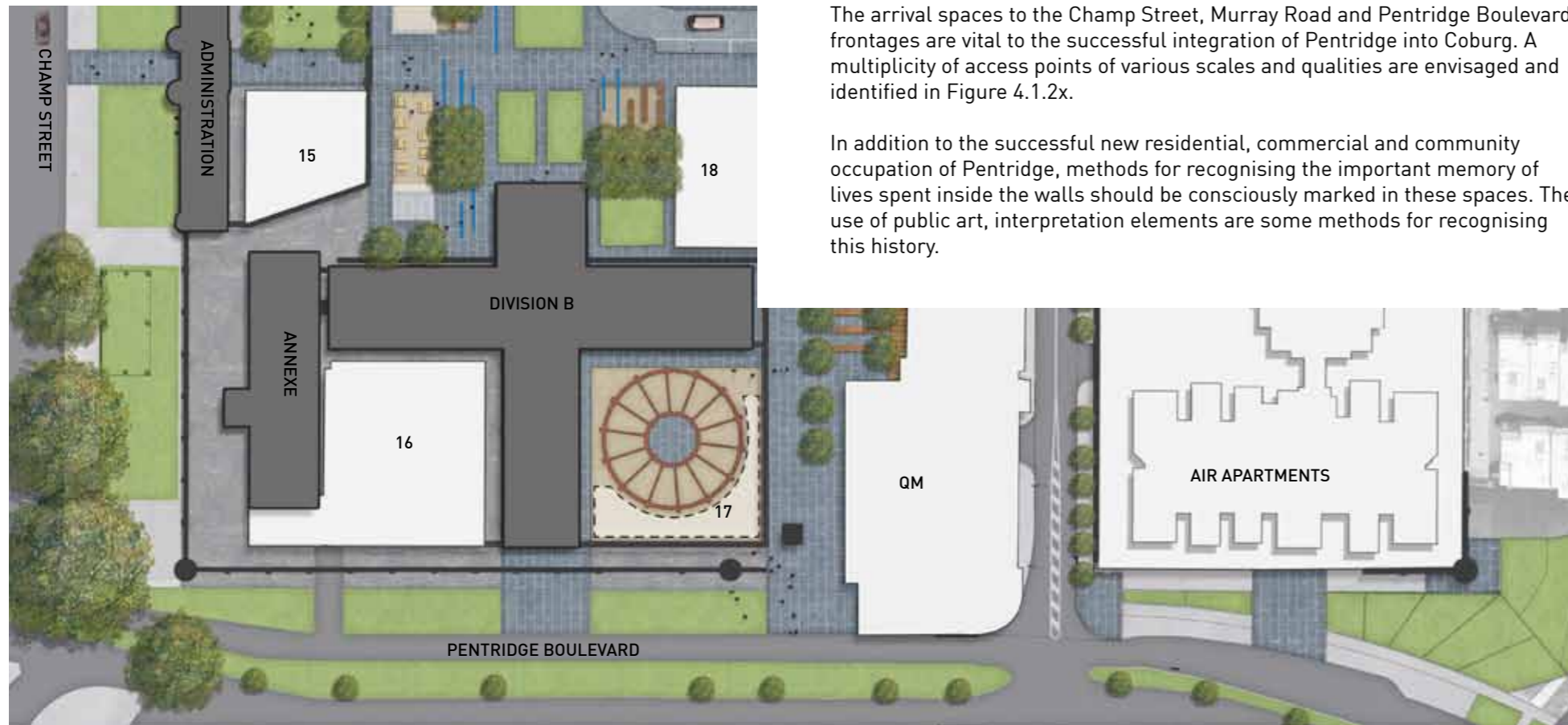


Figure 4.5t Forecourt illustrative landscape

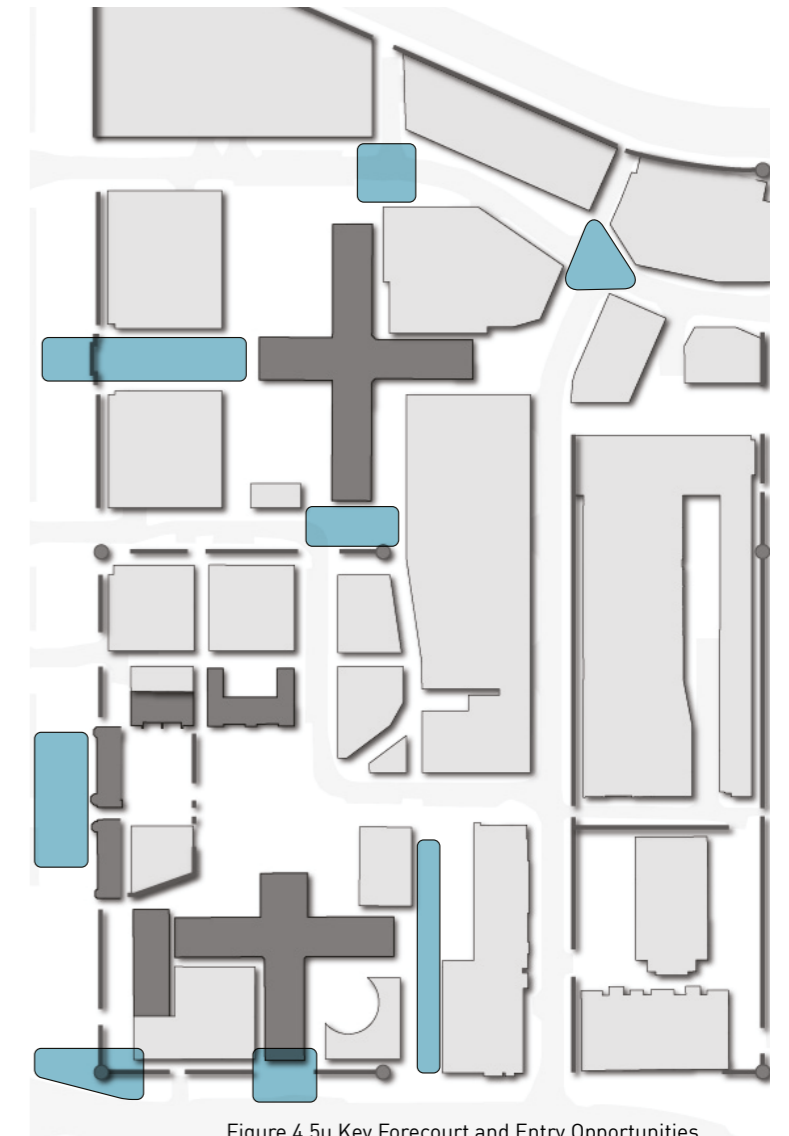


Figure 4.5u Key Forecourt and Entry Opportunities



Figure 4.5v Prison Ghosts, Anthony Gormley



Figure 4.5w Toyo Ito, London

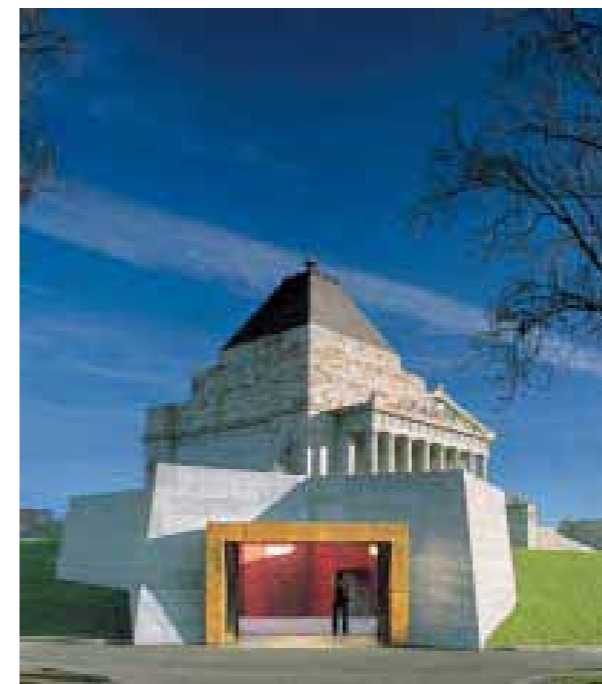


Figure 4.5x Shine



Figure 4.5y Parc Citroen, Paris, France

4.6 Sustainability Principles

The Masterplan for the Pentridge development has been fully informed by the sustainable design principles set out in Coburg 2020. An integrated design process has been undertaken to assess the physical and social constraints and opportunities of the site with the objective of creating a truly sustainable community with exemplary community, environmental and economic outcomes. The physical planning of buildings and public space has proceeded on the basis of detailed analysis and consideration of community and environmental outcomes.

In terms of environmental sustainability, key objectives adopted for the development are to:

- Minimise greenhouse emissions associated with building and transport energy use;
- Manage solar access and wind to public open spaces to enhance amenity and function throughout the year;
- Minimise greenhouse emissions associated with energy systems and energy supply;
- Achieve sustainable water cycle management through:
 - Efficient use of potable water supplies;
 - Recycling and re-use of alternative water sources;
 - Integrate stormwater treatment into the design of urban spaces and landscapes;
- Optimise indoor environmental quality in all buildings and structures;
- Reduce the use of material resources during construction and throughout occupancy; and
- Provide landscaping which enhances amenity and contributes to biodiversity.

The Pentridge development will be designed to be consistent with the objectives set out above and the Green Building Council Australia's rating tools for buildings will be utilised to benchmark performance and demonstrate that the above objectives have been met.

Precinct wide master planning of the site services infrastructure will be undertaken within 6 months of the Masterplan being approved. This precinct wide infrastructure planning will facilitate the location and sizing of the water treatment and cogeneration plants if deemed feasible. Stages of the redevelopment of Pentridge which precede the installation of this infrastructure will make provision for tapping into the infrastructure at a later date. Details of the initiatives and performance standards adopted are in Appendix B.

Indicative environmentally sustainable initiatives are shown adjoining.



Green roof



Green roof



Vertical shading and social sustainability



Vertical shading



Sun shading



Urban wind turbines



Solar panels



Mixed mode climate control

4.0 Design and Masterplan Response

4.7 Internal and External View Analysis

The success of the publicly used spaces will be enhanced through the adoption of Crime Prevention Through Environmental Design (CPTED) principles, with an emphasis being surveillance of public spaces.

These public spaces are illustrated in Figure 4.1.2b, and the surveillance of these areas (including streets, lanes, arcades, public open space and semi-public areas) is an important design element. Opportunities for surveillance will also be provided from the active frontages of the proposed buildings, from private residential balconies of proposed buildings. Safety and improved surveillance opportunities will be enhanced by the provision of lighting within the public realm.

Another important element of the site planning and resolution of the building scale within the development has been the 'landmark' views that are focused on the retained former prison buildings, and some of these views are illustrated in Figures 4.7.1a-4.7.1f. These landmark views will also assist with general legibility of the development for residents and visitors.



Heritage Wall fabric.

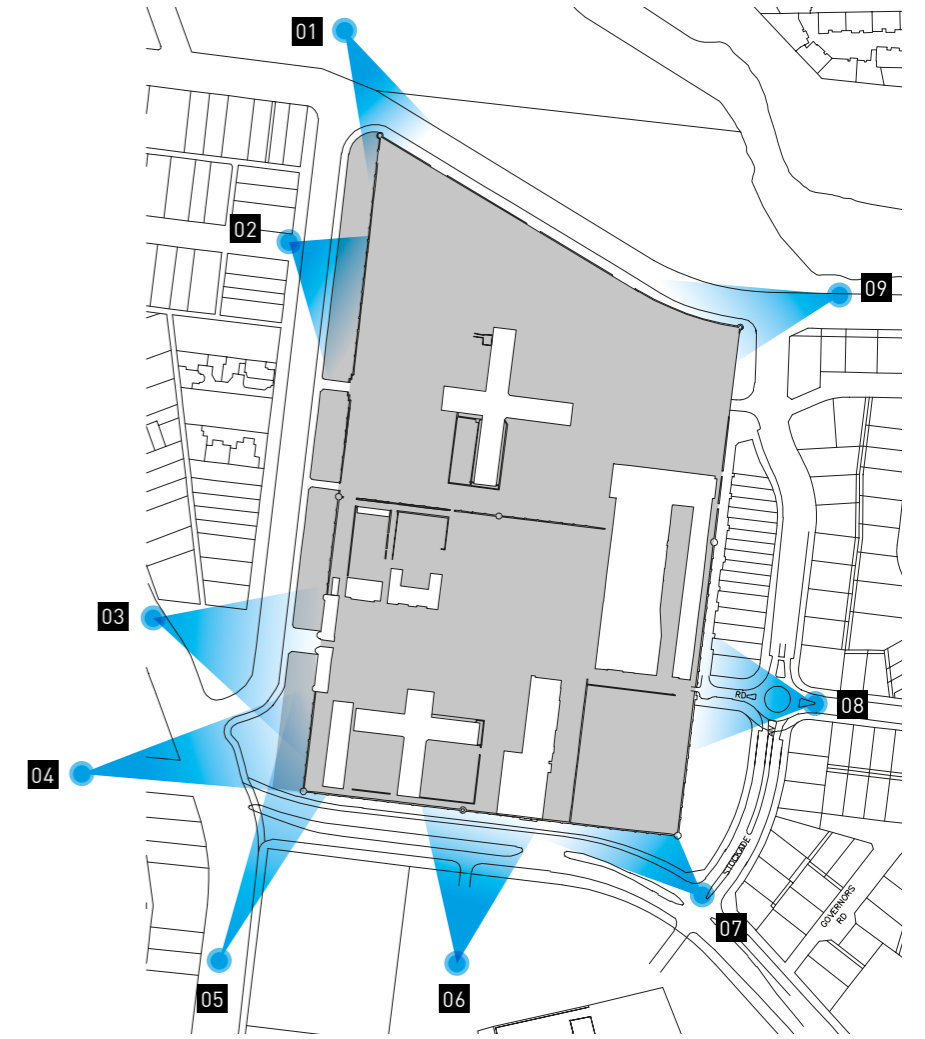


Figure 4.7.1a Key Approach Views

4.7.1 External View Analysis



Figure 4.7.1[01] Murray Road



Figure 4.7.1 [02] Champ Street



Figure 4.7.1 [03] Champ Street Entrance

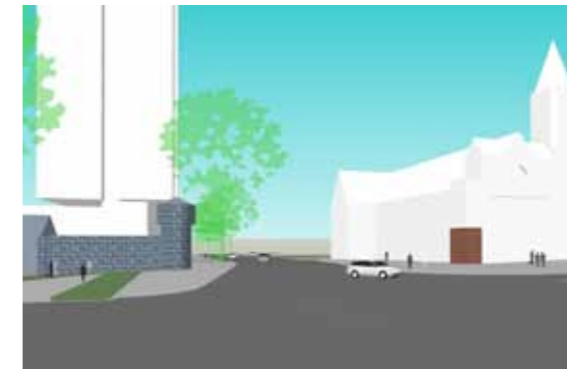


Figure 4.7.1 [04] Cnr Pentridge Boulevard & Sydney Road



Figure 4.7.1 [05] Sydney Rd View



Figure 4.7.1 [06] Pentridge Boulevard

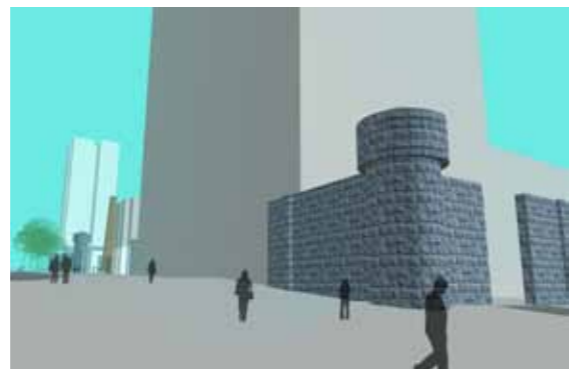


Figure 4.7.1 [07] Cnr Pentridge Boulevard & Stockade Ave



Figure 4.7.1 [08] Stockade Avenue



Figure 4.7.1 [09] Cnr Murray Road & Stockade Avenue

4.0 Design and Masterplan Response

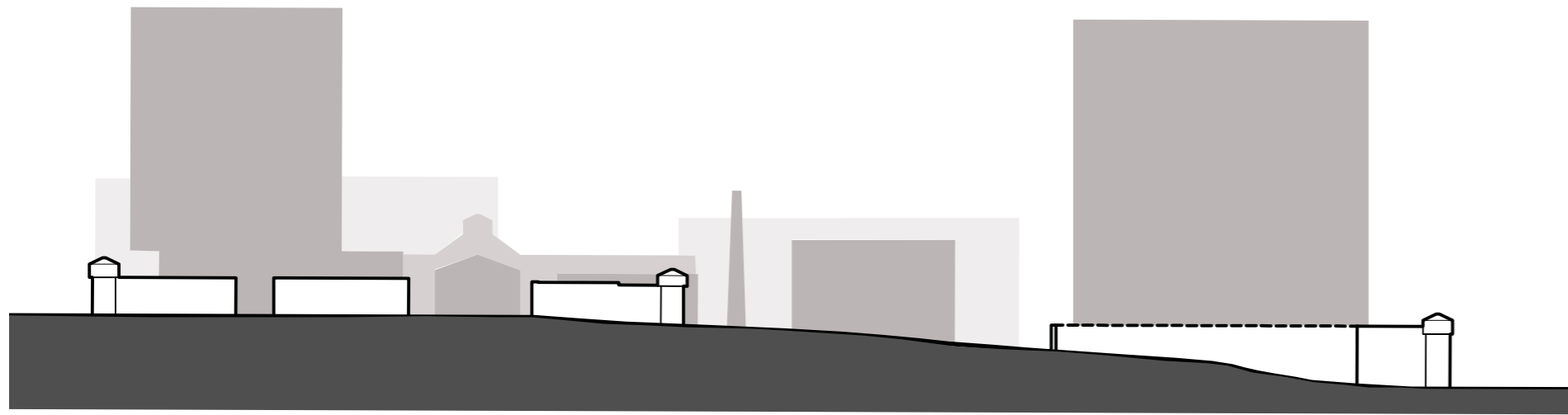


Figure 4.7.1b Pentridge Boulevard layered elevation

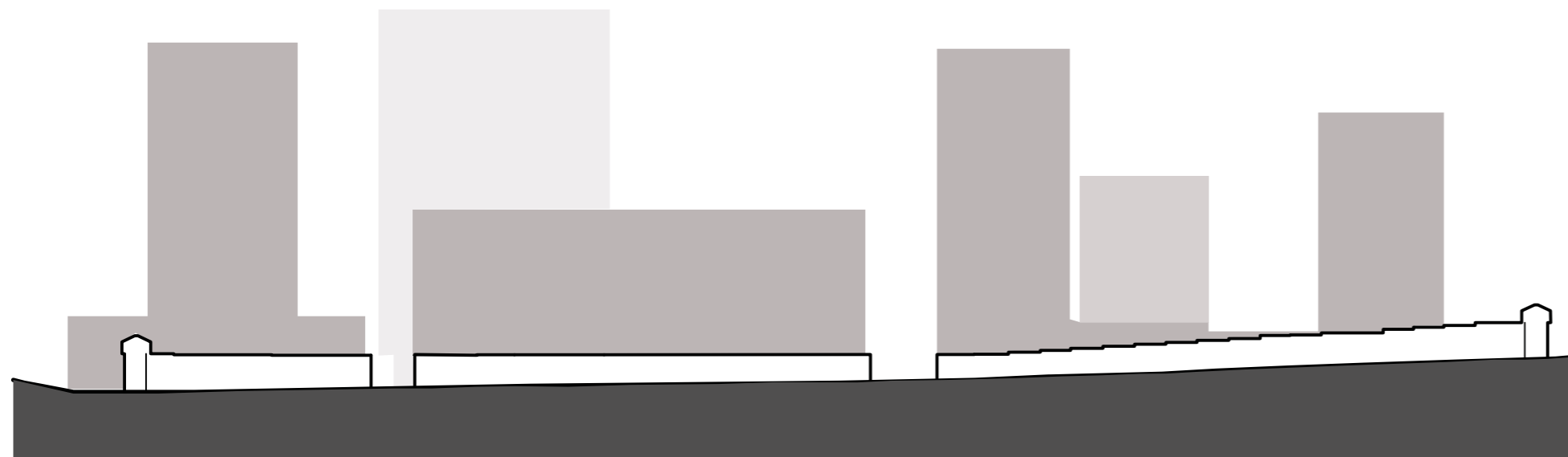


Figure 4.7.1c Murray Road layered elevation

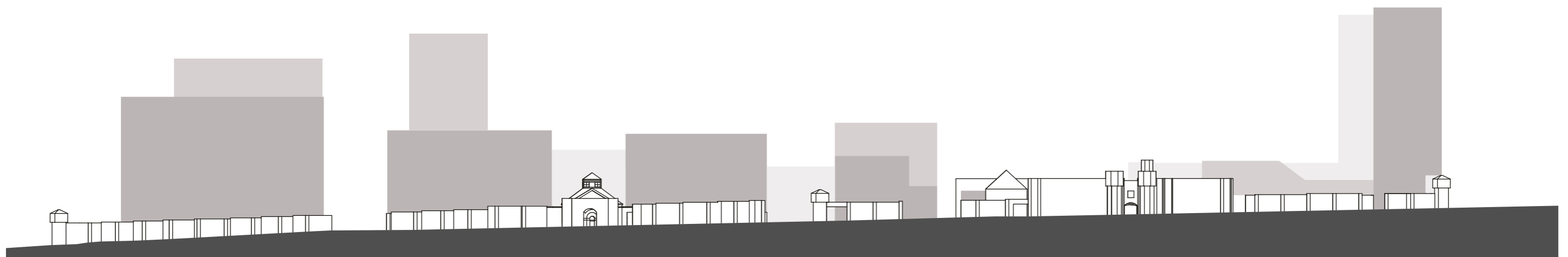


Figure 4.7.1d Champ Street layered elevation

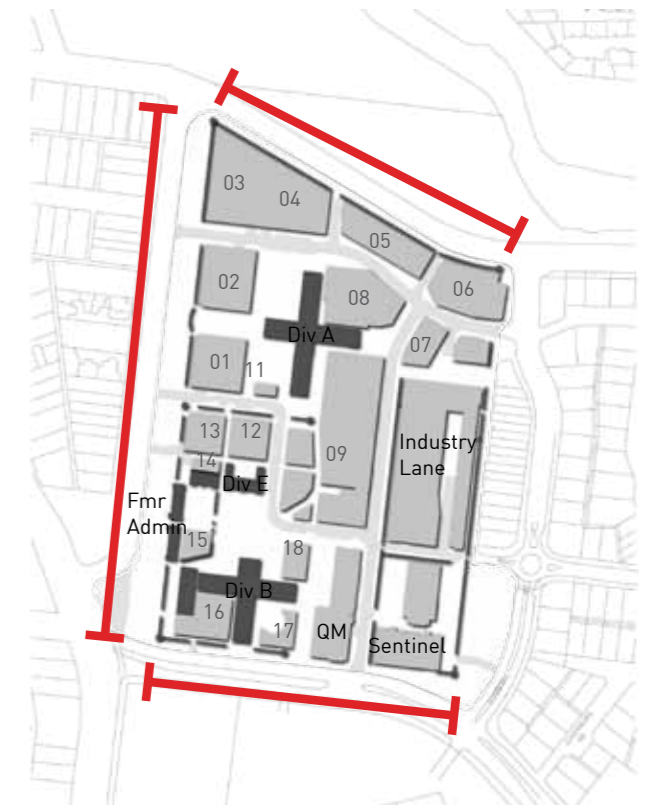


Figure 4.7.1e Location Plan

- Foreground
- Middle Ground
- Background

4.0 Design and Masterplan Response

4.7.2 Internal View Analysis



Figure 4.7.2a Major View - Division A West Elevation



Figure 4.7.2b Major View - Road D towards Division A



Figure 4.7.2c Location Plan



Figure 4.7.2d Major View - Division A North Elevation

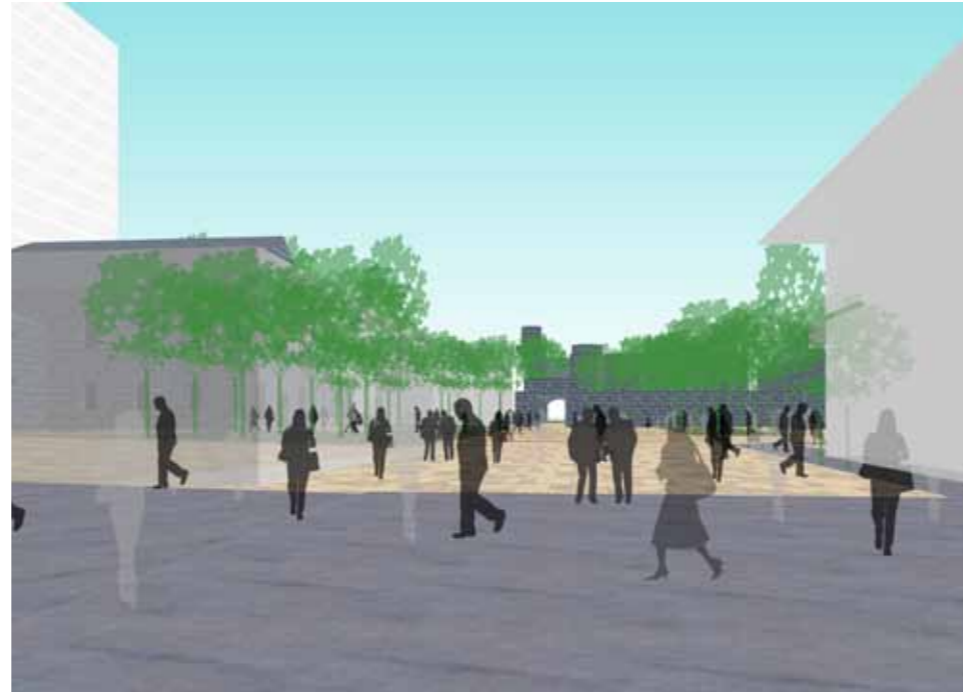


Figure 4.7.2e Major view - Piazza

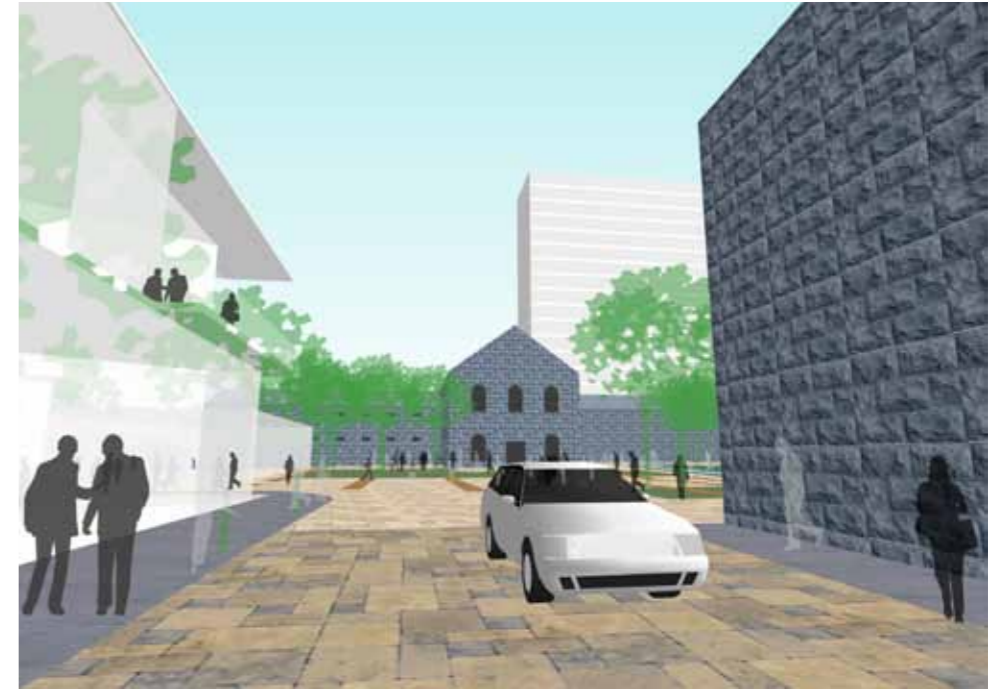


Figure 4.7.2f Major View - Division B North elevation

4.8 Access and Mobility

The Pentridge redevelopment represents a relatively unique opportunity in inner Melbourne to demonstrate consistency with state and local government planning policies, strategies and plans through the adoption of an integrated approach to land use and transport planning, and the principles of sustainable travel. Discussions have been held with representatives of the Department of Transport in relation to the redevelopment of the Pentridge site and the road and public transport implications of this development (refer to Appendix C).

This integration has been considered on a spatial basis with respect to the relationship of the site to the surrounds, and within the site on the basis of the relationship of transport modes to built form. More specifically the site plan and infrastructure provisions have been designed to promote local trips to be either by foot or by bike, and the range of movements within the site are managed to minimise conflict and provide precedence for walk and cycle trips where practical.

The overarching objective for the access and mobility strategy is to provide for a range of attractive travel options so that residents, workers and visitors are presented with a choice as to mode of travel.

The focus of this approach is to reduce car dependency and to encourage public transport and non-motorised travel. The final mix of modes, services and facilities respects the current situation but builds in the flexibility to provide for future changes in travel behaviour. It also reflects the significant local catchment for the range of uses proposed within the site, and the selection of proximate social, recreational and associated activities of interest to residents and visitors.

The traffic and transport aspects of the Masterplan aim to strike a balance across a range of travel modes, and adopt a comprehensive view of travel options in terms of both access and circulation patterns and linkages, as well as built form design and end of trip facilities. It also highlights the importance of supporting measures such as green travel plans to increase the likelihood of desired travel behaviour for future residents and users from initial occupation. This approach is balanced against a pragmatic view of the role of car travel as an important ongoing means of access in the future.

These objectives are translated into an Access and Movement Strategy covering public transport, pedestrian and cyclists, road network access and carparking.

The key outcomes of the Access and Movement Strategy are summarised below with more detailed discussion in Appendix C:

General

- The overarching objective for the Access and Movement Strategy is to provide for a range of attractive travel options so that users of the site are presented with real choice as to mode of travel and to be consistent with the objectives of both Melbourne 2030 and CC2020

Public Transport

- Provision of visible, safe, attractive and functional linkages to the surrounding public transport nodes.
- Suitable provision made for bus services to be introduced in future in terms of road network geometry and stop locations.
- Potential re-routing of bus services currently using Champ Street to better service Pentridge as a whole by travelling along Stockade Avenue and Pentridge Boulevard.

Bicycle and Pedestrian Facilities

- The pedestrian network will be clearly legible and inviting to use to maximise the convenience, safety and pleasure for pedestrians of all ages and abilities.
- A major initiative by C2020 is the new pedestrian north-south spine, which is reinforced through the Masterplan and is continued through Pentridge and across Murray Road.
- Pedestrian activity within and immediately surrounding Pentridge will be given priority where relevant and will permeate all roads and paths within, to/from and through the site.
- Provision of end of trip facilities and secure and protected bicycle storage for residents and visitors at various locations around the site.
- Bicycle parking provided at or greater than the rates set out in the Moreland Planning Scheme.

Road Network Access

- The internal road network to be configured to maximise the choices available to both the local and wider catchment, and to distribute demands across a range of access points in line with the surrounding road network and the distributed nature of parking throughout Pentridge, while at the same time discouraging through traffic movements.
- Private roads to maximise the flexibility of open spaces by allowing these roads to be closed to vehicles during special events. The road network will be able to accommodate necessary traffic movement during such occasions.
- A loading and waste management strategy that maximises access to and from Pentridge Boulevard with lower levels of activity to Murray Road, while consolidating loading and waste points internally, and concealing them where possible.

Car Parking

- The approach to the provision of carparking is to adopt a minimisation policy consistent with the objectives of the CC2020 documentation and state government planning for activity centres.
- Long term users such as residents and staff will have allocated private parking while short term retail patrons and other visitors will utilise a shared pool of spaces in a centralised location servicing a range of uses which experience different temporal profiles of demand and as such can share a common resource.
- A whole-of-site carpark management plan will ensure an adequate number of car spaces are available for each stage of development.

4.0 Design and Masterplan Response

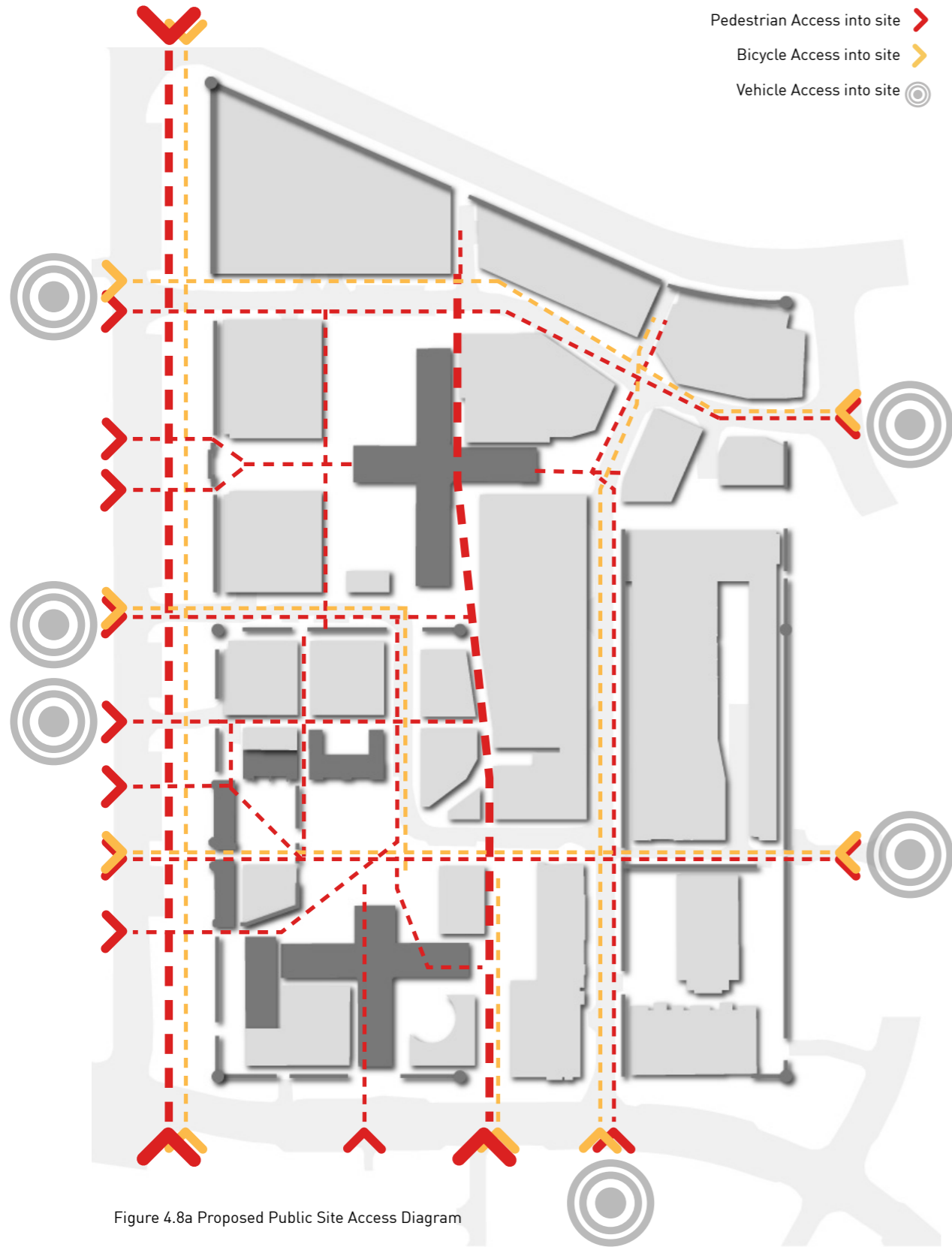
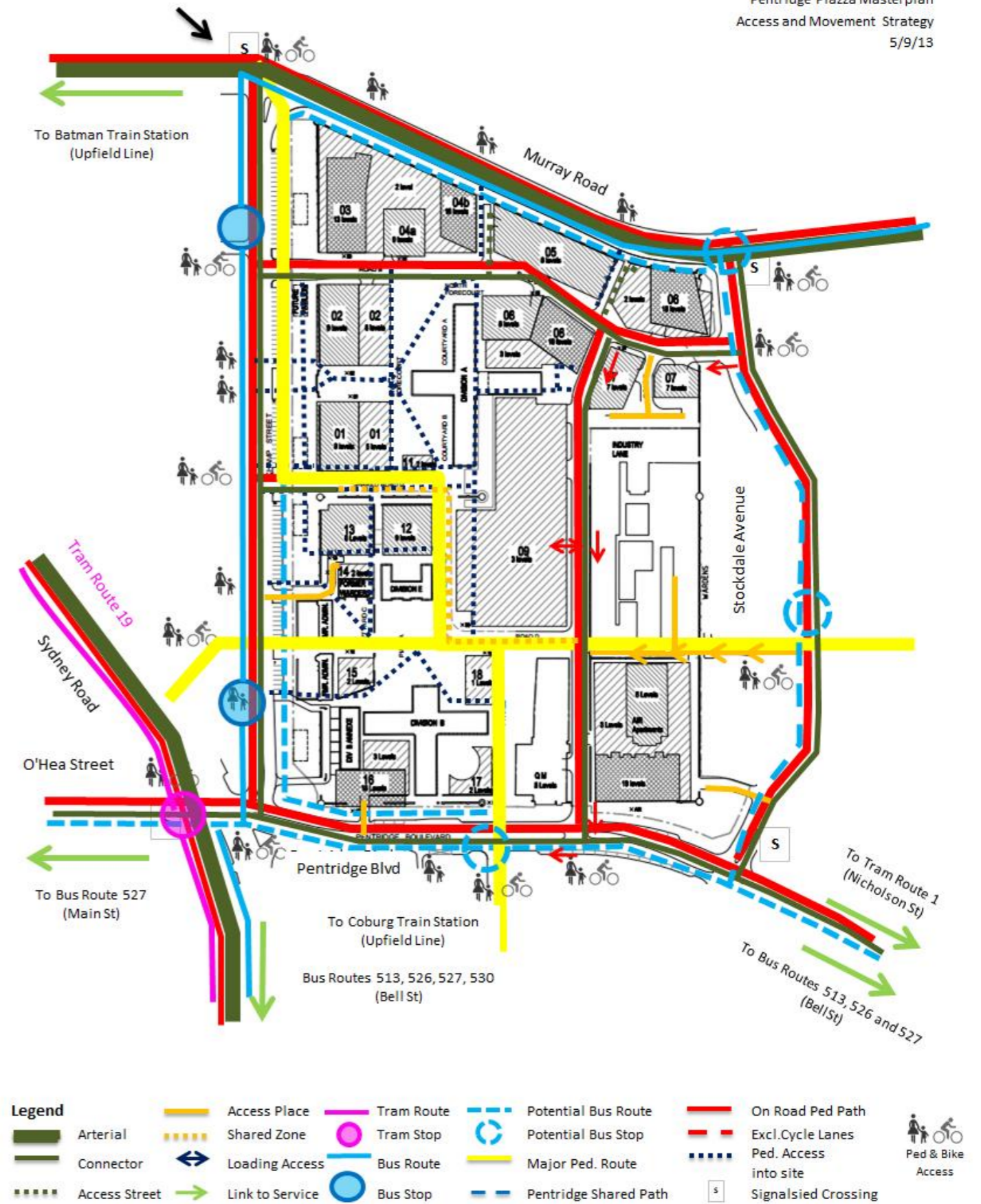


Figure 4.8a Proposed Public Site Access Diagram

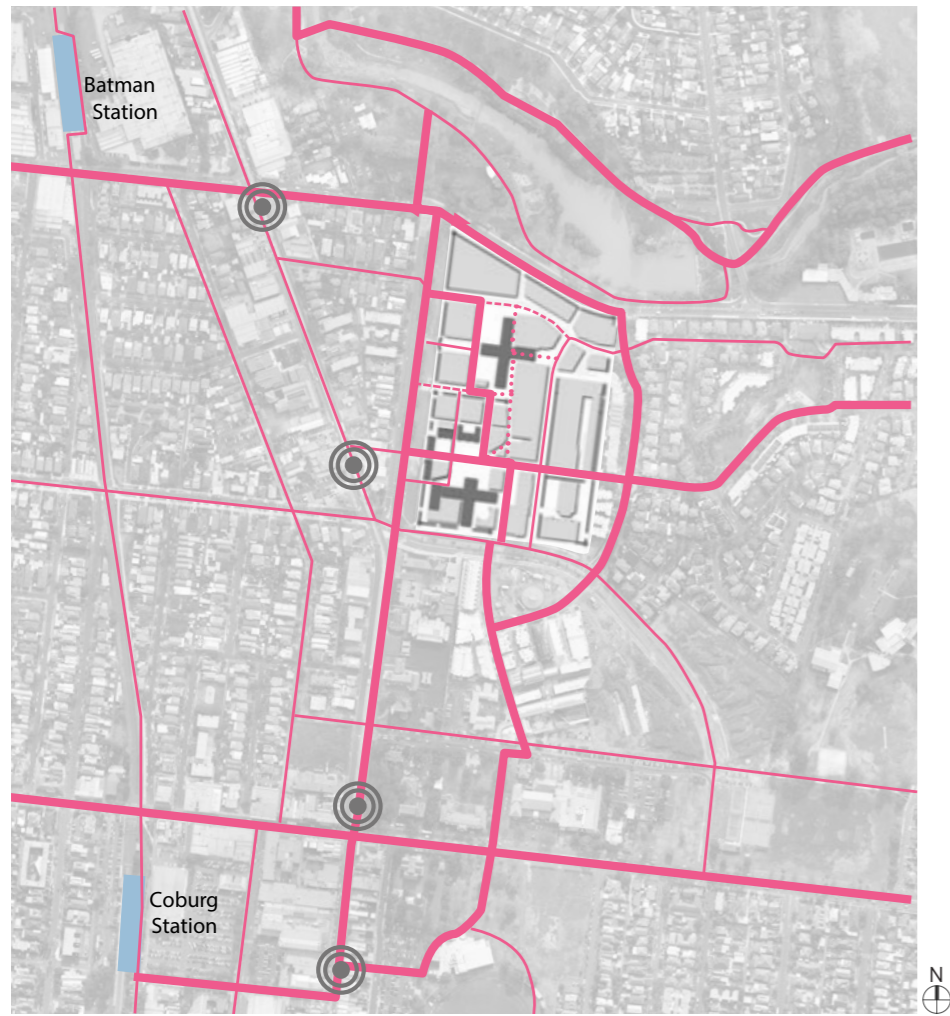
- Pedestrian Access into site >
- Bicycle Access into site >
- Vehicle Access into site ⊙



- | | | | | | |
|---------------|-----------------|------------|---------------------|-----------------------|-----------------------|
| Legend | Access Place | Tram Route | Potential Bus Route | On Road Ped Path | Ped & Bike Access |
| Arterial | Shared Zone | Tram Stop | Potential Bus Stop | Excl. Cycle Lanes | Ped. Access into site |
| Connector | Loading Access | Bus Route | Major Ped. Route | Pentridge Shared Path | Signalled Crossing |
| Access Street | Link to Service | Bus Stop | | | |

Figure 4.8b Access and Movement Strategy (GTA)

Figure 4.8c Proposed Pedestrian Network Diagram



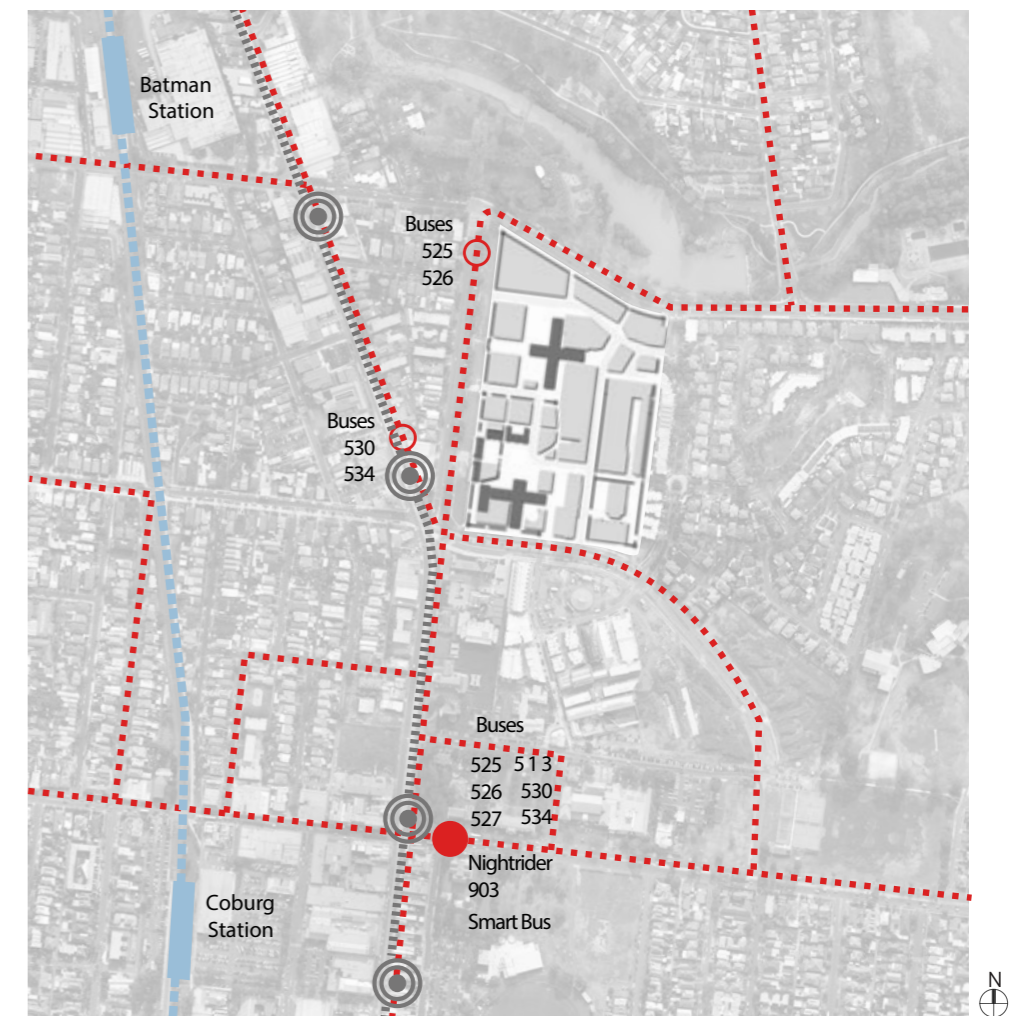
- Primary Interprecinct Pedestrian Links
- Secondary Interprecinct Pedestrian Links
- Train Station
- Tram Stop

Figure 4.8d Proposed Bicycle Network Diagram



- Off-Road Bicycle Links
- Informal On-Road Bicycle Links
- On-Road Bicycle Links
- Council's Proposed Bicycle Links

Figure 4.8e Proposed Public Transport Network Diagram



- Train Station
- Upfield Train Line
- Tram 19 Route
- Tram Stop
- Bus Route
- Major Bus Stop
- Bus Stop

4.0 Design and Masterplan Response

4.9 Shadow Studies

The objective related to overshadowing is to ensure that public spaces within the development have access to sunlight for the majority of the year, and Figures 4.9a,b,c,d,e and f have been prepared for approximations of the shadows cast on September 22nd for 9am, 10am, 11am, 12pm, 2pm and 3pm (ie. The Equinox).



Figure 4.9a 9am Shadow Diagram



Figure 4.9b 10am Shadow Diagram



Figure 4.9c 11am Shadow Diagram



Figure 4.9d 12pm Shadow Diagram

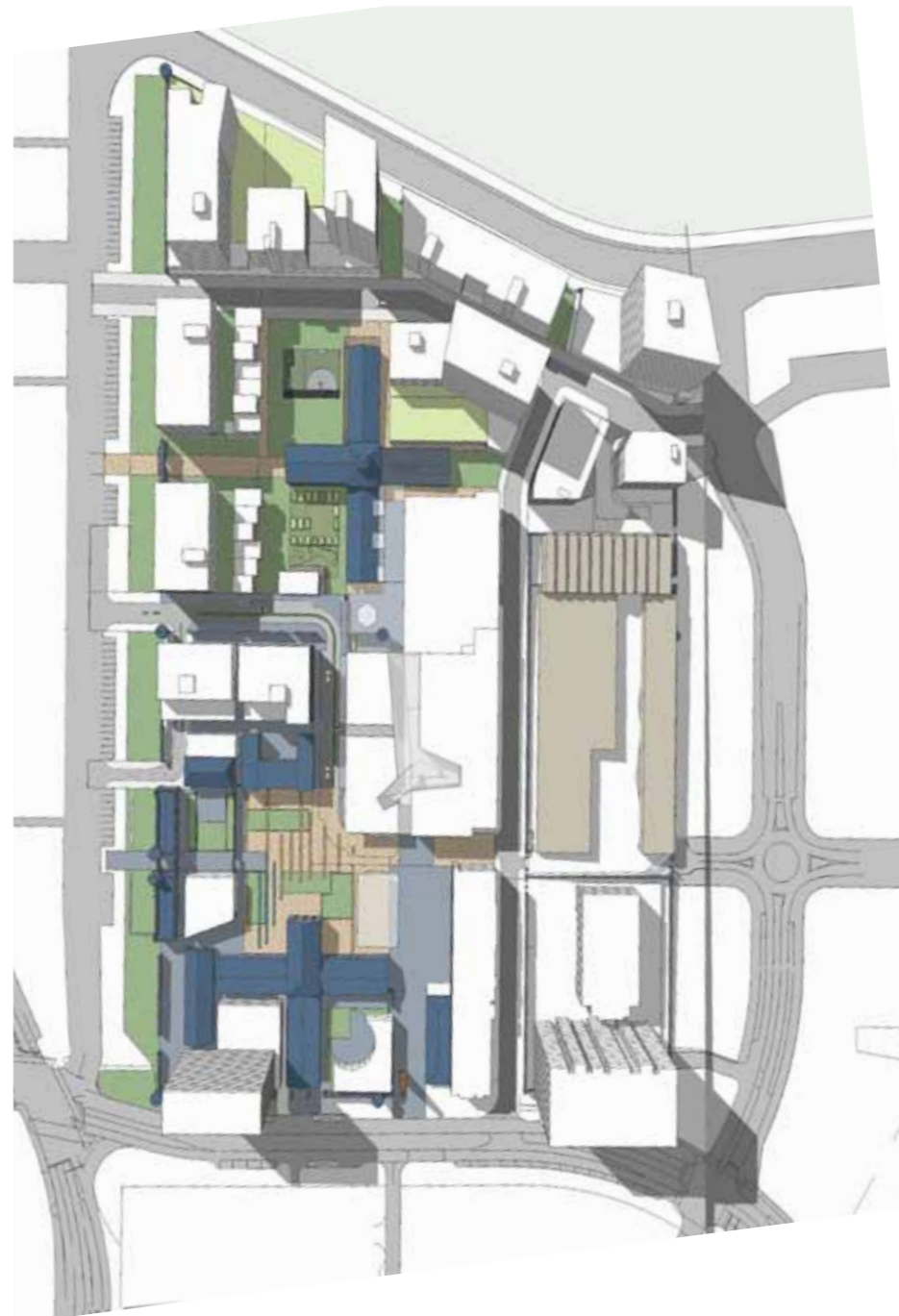


Figure 4.9e 2pm Shadow Diagram



Figure 4.9f 3pm Shadow Diagram

5.0 Key planning, heritage and urban design guidelines



ADMINISTRATION CLOCK TOWER

5. key planning, heritage and urban design guidelines

This section of the Design Guidelines and Masterplan provides a summary of the key planning, heritage and urban design guidelines developed for Pentridge based on the preceding material in the Masterplan. The columns of this table identify the 'Pentridge Development Principles' which are the key outcomes sought for the re-development of Pentridge; the 'Response' section outlines the broad means of responding to the relevant Development Principle; and the 'Guidelines to be achieved' set out broad guidelines for the re-development of Pentridge. It is intended that any development proposed within Pentridge should have regard for these overall guidelines in addition to the details of Section 5.0 of the Masterplan.

5.0 Key planning, heritage and urban design guidelines

Pentridge Development Principles	Response	Guidelines to be achieved	Guideline Ref. No.
Integration with Coburg			
Integrate the active uses and expansion of Sydney Road with the urban hub at Pentridge.	Utilise the Chapel Street precedent ideology of separately identified centres operating in conjunction with existing established retail / commercial areas. (Refer to Section 3.3).	Provide a range of use types and scales at Pentridge that will complement, rather than compete with, the current and projected facilities in the Central Coburg area.	01
	A complementary facility to proposed Central Coburg infrastructure that will combine to draw back trade currently lost to other regional centres.	Provide appropriate openings within the existing bluestone wall and built form structures evident above the wall to allow identification of the active residential, commercial and community uses proposed within Pentridge.	02
Appropriate infill development for the long term, sustainable, growth potential of Coburg.	Central Coburg developed to attract new retail and mixed use opportunities.	Incorporate into the site suitable retail, commercial and hospitality facilities which take advantage of the character of Pentridge, create a destination venue and will achieve a sustainable Coburg Principle Activity Centre.	03
	Leverage the east-west distributors (Murray, Bell Street) passing directly adjacent Pentridge.	Promote Pentridge as a hub which is proximate to public transport and supports community interaction within the wider Central Coburg 2020 area.	04
	Construction of Pentridge Boulevard as a further east-west distributor.	Appropriately scale infill development to communicate and encourage a pattern of adaptive and interactive use at Pentridge.	05
Reinforce the north-south links from Bell Street through to Coburg Lake.	Optimise north-south connection as identified in Central Coburg 2020.	Provide direct and easily recognised connections through the site, in particular for pedestrian and cyclists.	06
	Detailed resolution at threshold with Murray Road for pedestrian access required.	Encourage bicycle use with responsively designed roads and pathways.	07
		Provide public activity nodes within the hub along major pedestrian networks, including the multiple pathways to Coburg Lake and east-west thoroughfare.	08
		Reinforce deep view lines into the core of Pentridge at gateways.	09
Integrate Pentridge into the adjoining residential neighbourhoods.	A network of lanes and roads through the site including extensive east/west connections required.	Provide a network of clear access points and public spaces. The building detailed design will need to reinforce these shared community functions.	10
	Clear sightlines required through all connections into and out of Pentridge.	Provide internal links and access points which connect directly with external links at all frontages	11
	A series of 'marker buildings' denote key arrival and public spaces.	Encourage high quality, identifiable architectural design to celebrate the new character at Pentridge.	12
		Provide a mix of retail and community uses, including those which will encourage interaction with the surrounding residential area and activate the site.	13
A sustainable mixed use hub			
Structure an integrated, comprehensive mix of uses within an urban hub for local access.	Allow for the provision of support facilities child care, community spaces, gyms, medical etc.	Weave the restored heritage buildings, public realm and new building fabric together maximising interaction between regular users and visitors.	14
		Maximise opportunities for shared use of support facilities including car and bike parking, lift/stairs, loading and amenities, while maintaining a clear sense of entry and address for all buildings.	15
		Provide facilities and systems to enable residents, staff and visitors to access managed car and bike sharing scheme.	16
		Provide adaptable open spaces which complement, encourage and facilitate a mix of activities and uses (including children's spaces, outdoor theatre, craft market).	17

5.0 Key planning, heritage and urban design guidelines

Pentridge Development Principles	Response	Guidelines to be achieved	Guideline Ref. No.
A sustainable mixed use hub continued...			
Sustainable Use of Natural Resources	<p>Whole of site approach to energy supply, greenhouse minimisation, water management and waste management required.</p> <p>A centralised water treatment plan and centralised cogeneration plant subject to achieving the scale, height and density contemplated by the Masterplan.</p> <p>An ESD Management plan for the whole of site provided to Moreland City Council within 6 months of Masterplan approval.</p>	Integrate water sensitive urban design techniques into the design of buildings and landscaping to provide a sustainable water supply and attain best practice stormwater quality standards.	18
		Adopt a whole of site approach to the minimisation of greenhouse emissions associated with the use of buildings and transport on the site.	19
		Design buildings and facilities to be flexible and adaptable to a range of uses to maximise useful life.	20
		Provide waste management facilities which encourage the separation, recycling and re-use of waste materials.	21
		Develop an integrated waste management strategy to encourage the recycling and re-use of waste streams in public areas and private buildings with the objective of achieving Sustainability Victoria's Waste Wise accreditation for the Pentridge development.	22
		Implement the following specific initiatives, if technically feasible and cost effective for consumers: <ul style="list-style-type: none"> • Precinct wide cogeneration plant. • A water treatment system to supply non-potable water for toilet flushing and landscaping from non-mains water. 	23
Reuse the built fabric resource in a manner that affirms its heritage significance and civic objectives.	Publicly activated heritage buildings with extensive areas of adjoining commercial and community use.	Re-use buildings efficiently and appropriately, having regard for the heritage significance of the buildings.	24
		Retain and/or adapt for new uses, structures comprising high embodied energy materials where possible to minimise environmental impact of new construction.	25
		Ensure existing heritage buildings have a positive relationship to the public realm in terms of defining and activating publicly accessible areas.	26
Sustainable design of the public realm.	<p>The design of public spaces to take account of seasonal variation in solar access and prevailing wind with the objective of maximising thermal comfort and amenity, and avoiding the need for mechanical heating and cooling.</p> <p>A preliminary wind impact analysis of the public realm provided to Moreland City Council within 6 months of Masterplan approval.</p> <p>A WSUD (Water Sensitive Urban Design) strategy for the entire public realm provided to Moreland City Council within 6 months of Masterplan approval.</p>	Consider solar orientation and wind impacts on the public realm to ensure the conditions suit the functionality of those spaces.	27
		Prepare a detailed wind report for the public realm to accompany individual permit applications as relevant and incorporate wind amelioration devices as recommended.	28
		Integrate WSUD (Water Sensitive Urban Design) management techniques into the landscape design consistent with meeting the STORM/MUSIC best practice standards for stormwater treatment for the Pentridge development.	29
		Incorporate, where appropriate, plant species from the Moreland City Council list of indigenous varieties of the region to promote biodiversity.	30
		Utilise plant species which require minimal detailed management within the public realm.	31
		Prepare a central waste management plan.	32
		Ensure all buildings have a positive relationship to the public realm in terms of defining and activating publicly accessible areas.	33

5.0 Key planning, heritage and urban design guidelines

Pentridge Development Principles	Response	Guidelines to be achieved	Guideline Ref. No.
A sustainable mixed use hub continued...			
Commitment for new buildings to meet Australian best practice standards of environmental and resource management.	New commercial and retail buildings designed to attain a minimum 4 star Green Star standard (or the equivalent, to be agreed with Moreland City Council, if no relevant Green Star tool exists), with respect to sustainable design outcomes.	All new commercial and retail buildings will attain a minimum 4 star standard for the relevant Green Building Council Rating tool. The GBCA tools include: • Green Star Shopping Centre Design • Green Star Office Design.	34
	New residential buildings designed to have regard for Green Star Multi Unit Residential tool.	Develop and implement guidelines for tenants to ensure all tenancy fit outs on the site for the above achieve a minimum 4 star rating in accordance with the Green Building Council of Australia relevant interior rating tool.	35
	Achievement of Green Star standards subject to achieving the scale, height and density contemplated by the Masterplan.	All new residential buildings will score a minimum of 45 points (equivalent to a 4 star standard) according to the Green Star Multi Unit Residential tool with the exception of attaining any conditional building envelope rating, if such a measure is included.	36
Actively encourage alternative transport networks other than private cars.	An integrated transport strategy to reduce the dependence on private cars and reduce the greenhouse emissions associated with transport.	Provide travel plans for those sites within Pentridge where it is appropriate to encourage sustainable travel behaviour.	37
	Compliance with the Central Coburg Integrated Transport Plan and CC2020 incorporated in the Masterplan.	Provide bicycle facilities, including relevant storage and end of trip facilities, at a rate consistent with the relevant Green Star rating tool and the Moreland Planning Scheme.	38
	Convenient access to facilities to encourage a large walkable/cycle catchment, in particular to retail facilities.	Investigate potential re-routing of bus services currently using Champ Street, to better service wider Pentridge travelling along Stockade Avenue and Pentridge Boulevard.	39
	Highest standards of pedestrian amenity required along all identified access ways.	Provide visible, safe, attractive linkages to the adjoining train stations and tram stops to the west.	40
Incorporate a range of housing typologies including affordable housing at Pentridge.	Dwellings designed to provide housing choice including families, singles / young persons, older persons, serviced apartments, studios, home office, and providing affordable housing options.	Seek to deliver successful affordable housing outcomes with recognised and experienced partners, in particular affordable housing that will cover many tenures; community rental, private rental, innovative financing, low cost purchase and purchase.	41
		Seek to deliver integrated affordable housing that will provide a diverse community which in the long term will be a 'high quality sustainable community', creating integration in an economic, social and physical sense.	42
		Provide high quality homes that will deliver diversity and provide for housing choice for the community.	43
Pentridge Public Spaces			
Promote the cultural and built heritage of the intact and original prison complex.	Activate use by the wider community of the buildings and public spaces.	Provide for re-use and restoration of heritage buildings with a majority for publicly accessible activities.	44
	Underpin the restoration and repair of the heritage buildings by the inclusion of sustainable mixed uses.	Develop a site wide cultural interpretation plan for the site encouraging investigative exploration through external and internal spaces.	45
	A review and update (if deemed necessary) of the current Conservation Management Plan (CMP) to be undertaken within 6 months of Masterplan approval.	Investigate a calendar of temporary events in the principle public spaces at Pentridge including markets, outdoor cinema, art festivals, and cultural events. Provide infrastructure to support activities within the public realm design.	46
	A review and update (if deemed necessary) of the existing Heritage Interpretation Strategy to be undertaken within 6 months of Masterplan approval.		
Selectively locate new construction with due regard to buildings and spaces of primary significance	Buildings of primary significance (refer to Figure 4.1a) to remain in restored condition with appropriate re-use functions.	Include extensive active edges adjacent to heritage buildings to encourage public investigation of the site.	47
		Provide appropriate siting and scale of new buildings to ensure existing heritage built form is respected.	48
		Contrast new taller buildings against the solid heritage walls with a screened and layered architectural language.	49

5.0 Key planning, heritage and urban design guidelines

Pentridge Development Principles	Response	Guidelines to be achieved	Guideline Ref. No.
Pentridge Public Spaces Continued...			
Celebrate the rich collection of found spaces between buildings into a diverse and flexible public domain.	<p>Activate the diverse public spaces with proposed uses suitable for real community life. The public spaces should support ongoing change and growth of Pentridge and cater for a range of user groups.</p> <p>A review of the current Pentridge Streetscapes Concept Plan (May 2006) prepared by Thompson Berrill Landscape Design P/L is to be undertaken within 6 months of Masterplan approval.</p> <p>A wayfinding strategy, in consultation with Moreland City Council and Pentridge Village, is to be undertaken within 6 months of Masterplan approval.</p>	Provide legible linkages, through the public realm, between the various public spaces on the site and investigate the opportunity to provide wayfinding linkages with Pentridge Village.	50
		Ensure the public realm within the existing walls addresses a connection with the surrounding community.	51
		Utilise detailed design elements and materials (thematic pavements, planting, furniture) to both designate and integrate the spaces which will make up the overall public realm network.	52
		Design, supply and manage public furniture and infrastructure (litter bins, seats, bicycle hoops, drinking fountains, lighting etc) for the public realm and publicly accessible roads to provide a sense of public space and coherent appreciation of the 'public space' to these areas.	53
		Provide public realm landscaping consistent with the approved Streetscapes Concept Plan or any approved amendment to or update of this concept plan.	54
Design			
To deliver excellence in design for all architectural and public realm components.	<p>A diverse selection of Architects will design buildings and public spaces within Pentridge.</p> <p>Architectural and public realm design excellence will be delivered and approved through the planning permit process.</p> <p>A public realm strategy, providing an integrated approach to the design of the public realm, is to be undertaken within 6 months of Masterplan approval.</p>	Utilise the site layout, of discrete building blocks, to provide multiple architectural expressions.	55
		Provide high quality durable finishes to all exterior elements.	56
		Prepare 'Design Guidelines' for the provision of Advertising Signage to Pentridge and investigate opportunity to provide a co-ordinated and consistent approach with Pentridge Village, recognising that the proposed signage will not be exactly the same.	57
		Provide due consideration to accessibility issues in the design of each building stage and the design of the public realm. Ensure a DDA consultant is engaged as a member of the design team for the public realm and for each building stage of the redevelopment of Pentridge.	58
		Provide public realm spaces in compliance with CPTED (Crime Prevention Through Environmental Design) principles.	59
		Design the roof profiles as part of the overall building form. Integrate plant and equipment into the design of the building or screen from sight for landmark and major views.	60
Architectural and Landscape design will respond to the rich remnant and social heritage context.	<p>The density of development ensures the long term retention of heritage building stock, as successful restoration and adaptive re-use is subject to achieving the scale, height and density contemplated by the Masterplan.</p>	Enhance the interpretation of the existing Pentridge fabric in conjunction with contemporary elements.	61
		Provide interpretive displays and information to convey the site history, having regard for details in the approved Heritage Interpretation Statement.	62
		The built form materiality should respond to the existing Pentridge character.	63



DIVISION D PANOPTICON CEILING



appendix a. heritage considerations (bryce raworth)

Pentridge Masterplan

Sydney Rd, Champ St and Murray Rd COBURG

Site Analysis and Design Response

Pentridge Coburg Masterplan

Sydney Rd, Champ St and Murray Rd COBURG



Site Analysis and Design Response

September 2013

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1.0 Introduction

This report was commissioned by Shayher Properties Pty Ltd. It comments on the significance of the former Pentridge Prison site and provides a heritage assessment of the design approach that has been employed in developing the current Design Guidelines and Masterplan for the portion of the site owned by the Shayher Group.

The current Design Guidelines and Masterplan is the latest of a number of previous proposals for the site. In particular, the current Design Guidelines and Masterplan builds on the 2009 document produced by NH Architecture for VALAD. The 2009 VALAD *Pentridge Coburg Design Guidelines and Masterplan* received a letter of in principle support from Heritage Victoria. The letter of endorsement is not heavily qualified and, while emphasising the aim of retaining as much original fabric as possible, does not specifically criticise or reject any of the outcomes that are contemplated in that document. This includes items such as the demolition of the rock breaking yards at the rear of Division A, as well as the construction of major new works of considerable scale.

The significance of the former Coburg Prisons Complex has been recognised in many documents. It is a place of State significance, and is listed on the Victorian Heritage Register as registered place H1551. In August 1996, Allom Lovell & Associates prepared a Conservation Management Plan (CMP) for the site. This document was prepared using a best-case scenario for the conservation of the heritage buildings and structures located on the site, without any consideration of the way in which the site might be developed in the future.

The draft Masterplan that accompanied the original tender for the site was followed by a *Coburg Prisons Complex Development Strategy: Heritage and Development Issues*, (prepared by Bryce Raworth Conservation in association with Tract Consultants Pty Ltd, August 2000). The *Development Strategy* was developed in consultation with Heritage Victoria, the City of Moreland and the National Trust. It built on the intent of the earlier CMP, but allowed for the retention, conservation and interpretation of the significant heritage buildings while also considering the opportunities for future development of the site. The *Development Strategy*, along with the *Pentridge Conservation Management Plan* (Allom Lovell & Associates), provides the basis for decision-making with respect to heritage considerations on the site.

Subsequent to this, the *Pentridge Piazza Design Guidelines and Masterplan* (Vol 1 and 2, prepared by TRACT) was endorsed by the City of Moreland in April 2003 after extensive consultation, including a process of review and comment by Heritage Victoria.

The new 2013 Design Guidelines and Masterplan proposed for the former Pentridge Prison site incorporates some development proposals that have already received permits under the previously approved Masterplan, but also departs from that document in some key respects. The revised Masterplan proposes a similar extent of retention and development as proposed in 2009, however the distribution of the development has been altered in some key respects. These differences will be discussed in greater detail in Section 5.

It is intended that the *Conservation Management Plan (CMP)* will be reviewed and updated (if deemed necessary) within 6 months of Masterplan approval to reflect the changes that have occurred on the site since this document was first produced (for instance, the various structures of no significance that have been demolished in the intervening period). It is also intended that the *Heritage Interpretation Strategy (HIS)* be reviewed and updated (if deemed necessary) within 6 months of the new Masterplan being approved. This process will be informed by a number of different factors, including:

- the Masterplan development philosophy;
- the objectives of key stakeholders;
- the historical and cultural significance of the site;
- the aspirations of the community; and
- the characteristics of arts and cultural activity in Melbourne and Moreland particularly.

An important component of the development of the former Pentridge Prison site will be management of the Prison's archaeology. Detailed archaeological investigation and associated interpretation will be required as part of the development of the site, and clearly the former needs to be undertaken prior to development of the relevant parts of the site. The results of the archaeological investigations will establish the constraints and obligations arising from state heritage legislation, as well as helping inform appropriate management strategies. Following revision, the Heritage Interpretation Strategy is to be implemented by means of a heritage interpretation programme that will be developed in conjunction with a suitably qualified and experienced professional.

The *Heritage Interpretation Programme (HIP)* will include a Vision and Objectives, Programmes Strategies and Management Plan for overseeing the implementation of the HIP until completion of the development. Programme strategies may include:

- a range of heritage interpretive activities such as public art, heritage trails, publications linked to the development and trails;
- the branding and naming of the precinct and sub precincts;
- a commissioning programme for permanent public art works;
- a commissioning programme for temporary public art commissions which may include an annual art award and exhibition, festival events and other activities; and
- the establishment of cultural facilities and infrastructure.

The programme is intended to be a working document that will be regularly reviewed and updated as the development progresses.

2.0 Heritage Listings

The current heritage listings that apply to the site are listed below.

Victorian Heritage Register

The former Coburg Prisons complex is a place of State significance, and is listed on the Victorian Heritage Register as registered place H1551 (File number: 602848 (1-4)).



Figure 1 Diagram H1551 showing the extent of registration.

Heritage Victoria has reviewed the extent of registration in recent years, and the registration now encompasses the following fabric and land as defined by the Heritage Council:

- All of the buildings known as B1 Main Gate and Administration Building, B2 Former Chief Warders and Overseer of Works Residences, B3 Former Hospital (former E Division), B4 B Division, B5 B Division Annexe, B6 Industry Buildings, B7 A Division, B8 H Division, B9 Walls, Gates and Lookout Towers, B10 G Division, B11 D Division including remnant exercise yard walls, B12 F Division, B13 Laundry, B14 South Gate all marked on Diagram H1551 held by the Executive Director.
- All of the land marked L1 and L2 on Diagram H1551 held by the Executive Director.

National Trust of Australia (Victoria)

The site as a whole is also classified as a place of state significance by the National Trust of Australia (Vic) (File number: B1303). The National Trust has adopted the levels of significance identified in the 1996 Conservation Management Plan.

The National Trust is an advisory body with no statutory powers although it is expected to play an advisory role and provide input into all proposals for the site.

3.0 Statement of Significance

City of Moreland

The site is subject to an individual heritage overlay under the Moreland Planning Scheme, listed as HO47 in the schedule to the heritage overlay, while the Champ Street trees are under a separate heritage overlay HO287.

Although the site is subject to HO47, it is not subject to the provisions of Clauses 43.01 and 22.13 of the Moreland Planning Scheme because it is within a registered historic place. Accepting this, the key considerations within the terms of the overlay are whether any future proposals for the site will affect the character and appearance, and thus the significance, of the heritage place.

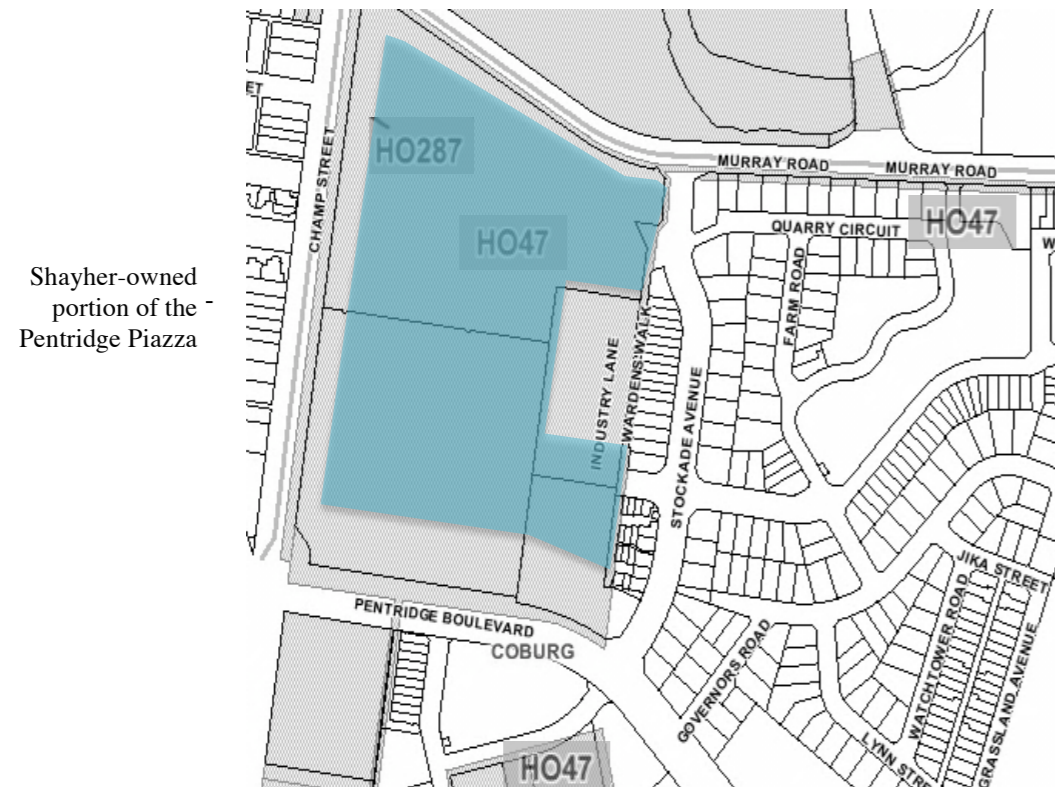


Figure 2 HO Map showing extent of HO47 and area of the site currently under consideration.

Australian Heritage Council

The former Coburg Prisons complex is included on the Register of the National Estate (Place ID: 18351, File No: 2/13/011/0012). The site is not included on the National Heritage List, however. However, the Register of the National Estate was closed in 2007 and is no longer a statutory list. The site is not included on the National Heritage List.

As noted above, the former Coburg Prisons complex is place H1551 on the Victorian Heritage Register, and is widely recognised as being of State significance. The Statement of Significance for the former Coburg Prisons complex provides a detailed appreciation of the significance of the precinct and reads as follows:

What is significant?

The former HM Pentridge Prison was established in December 1850. The structures remaining from the prison consist of A Division, B Division, B Division Annexe (former kitchen), D Division including the exercise yards, the former hospital (Former E Division), F Division, G Division (Jika Reformatory for Girls), H Division, the main gate, Administration Building, the former Chief Warders and Overseer of Works Residences, the Industries Buildings, the laundry, the south gate to the Women's Prison, and remaining bluestone walls, gates and lookout towers.

The first stage of the prison was the 1850 to 1857 Pentridge Stockade Complex, a relatively ad-hoc group of structures built by prison labour using predominantly local materials. None of these structures survive, although the boundary of the prison was established at this stage. The second phase undertaken in the late 1850s and early 1860s was the construction of Inspector General William Champ's model prison complex, based on the British Pentonville model and incorporating a relatively sophisticated system of prisoner classification and penal reform. These were all constructed of locally sourced bluestone. The prison was gradually expanded and developed in stages, reflecting both developments in design as well as broader Government policies relating to the operation of the prison system. Following the Stawell Royal Commission of 1870, an extensive work program for prisoners was introduced at Pentridge and a complex known as the 'Industries' was constructed. These included a timber yard, a woollen mill, carpenters and blacksmiths workshops completed in 1879, and tailors and bootmakers workshops completed in 1886.

A women's prison was constructed on the site between 1860 and 1865, now known as A Division. This was superseded when a new female prison was constructed on the site between 1887 and 1894, in order to provide completely separate accommodation for women. This section is now known as D Division. Pentridge remained the main female prison in Victoria until it was replaced by the new women's prison, HM Prison Fairlea in 1956.

From the 1870s Pentridge was also the location of reformatories for girls and boys, established following the findings of the Stawell Royal Commission of 1870. The Jika Reformatory for Boys was accommodated in an existing building (F Division), between 1875 and 1879, while a purpose built reformatory was constructed for Protestant Girls (G Division), operating between 1875 and 1893.

In 1900 labour yards for A Division were completed. During the 1950s these yards were later converted to a high security block which became known as H Division. In 1924 Pentridge replaced the Melbourne Gaol as the main remand and reception prison for the metropolitan area. The bodies of approximately thirty-six prisoners executed at the Melbourne Gaol were

exhumed and relocated to Pentridge, where they were reburied. Pentridge also became the venue for ten prisoner hangings, until the last Victorian prisoner to suffer the death penalty, Ronald Ryan, was executed in D Division in 1967. In 1960 during a term spent in Pentridge, the Aboriginal artist Ronald Bull painted a mural depicting a traditional tribal scene. The mural survives and is located at the east end of F Division. In April 1995 the Office of Corrections ordered that the six main towers at Pentridge be closed, since most of the high security prisoners from the gaol had been relocated to Barwon as part of the downgrading of Pentridge to a medium security prison. The prison was finally closed in 1997 and the land and buildings subsequently sold.

This site is on the traditional land of the Kulin Nation.

How is it significant?

The former HM Prison Pentridge is of historical, architectural, archaeological, scientific (technological) and aesthetic significance to the State of Victoria.

Why is it significant?

The former HM Prison Pentridge is of historical significance as the largest prison complex constructed in Victoria in the nineteenth century.

The former HM Prison Pentridge is of architectural and historical significance as a nineteenth century complex of buildings that demonstrates a number of phases in the development of the penal reform system. Most of these structures still survive, largely intact. The range of cell blocks, workshops and other buildings, the relatively dispersed layout of the buildings and the large scale of the site as a whole demonstrate the unique character of Pentridge as the principal establishment for long-term prisoners. The planning of A, B and D Divisions are representative examples of the overwhelming influence and continuing development of British planning models, from the 1830s until the end of the nineteenth century. F Division is a rare surviving example of early nineteenth century prison buildings. The former prison is of architectural significance due to its monumental size and the austere Classical style of the nineteenth century prison buildings. The complex of buildings and walls are important for their expression of the requirements of containment and order.

The former HM Prison Pentridge is of historical significance in the history of child welfare in Victoria. It was the location of reformatories for both girls and boys, established following the findings of the Stawell Royal Commission of 1870. The prison complex includes the purpose-built Jika Reformatory for Protestant Girls (G Division), which operated between 1875 and 1893.

The former HM Prison Pentridge is of archaeological significance for its archaeological features, deposits and relics that relate to the construction and use of the site. The burial area and industry refuse site adjacent to the east wall of the F Division includes the burial sites of all executed prisoners relocated from the Old Melbourne Gaol between 1929 and 1937, and the burials of nine prisoners executed at Pentridge between 1928 and 1951. The area adjacent to the east wall of D Division is significant as the former burial site of Ronald Ryan, and as the site where executed prisoner burial remains were reinterred in 2011.

The former HM Prison Pentridge is of scientific (technological) significance for its original ventilation systems in A, B and D Divisions, and the surviving original cisterns and other elements of the water supply system in B Division. The apparently intact thermo-ventilation system in B Division is of particular importance.

The former HM Prison Pentridge is of aesthetic significance due to its grim and imposing bluestone walls and towers which are important landmark features.

4.0 Significant elements

In addition to the Statement of Significance for the site, and the revised extent of registration that accompanies it, the significance of the place has also been analysed in detail in the 1996 *Pentridge Conservation Management Plan* (CMP). This plan identifies the respective significance of each of the individual components of the overall complex, with each item being identified as of primary, contributory or no significance. These levels of significance provide a key to the nature of appropriate interventions and degrees of change for each item.

The diagram showing the respective significance of each of the individual components as identified in the 1996 Conservation Management Plan is reproduced below.

Areas of primary significance are defined as being those which:

- contribute in a fundamental way to an understanding of the cultural significance of the place;
- are particularly demonstrative of historically significant phases of building activity and shifts in the organisation and functioning of the prison;
- are particularly demonstrative of significant aspects of planning or building fabric;
- are of particular aesthetic significance; and
- are predominantly intact in form and fabric.

Areas of primary significance within the Masterplan area include:

- | | |
|----|--|
| 1 | Main gate and administration building |
| 6 | Former Chief Warder's and Overseer of Works' Residences |
| 11 | Former Hospital (former E division) |
| 26 | B Division |
| 27 | Former kitchen (B Annexe) |
| 38 | A Division |
| 39 | H Division |
| | Bluestone walls, turrets, internal cast iron fences, the alignment of the remainder of the perimeter walls but not the materials |
| | The area of the original Mustering/Parade ground |
| | Identified potential archaeological sites including areas adjacent to A and B Division |
| | Original road alignments but excluding non-original materials |



Figure 3 Levels of significance of existing building from the Pentridge Prison CMP

Elements of contributory significance are defined as being those which:

- while not fundamental to the cultural significance of the place overall, contribute to an understanding of that significance;
- represent historically significant phases of building activity and shifts in the organisation and functioning of the prison;
- are representative of significant aspects of planning or building fabric;
- are representative of a particular aesthetic concept within the complex; and
- are relatively intact in form and fabric.

Elements of contributory significance within the Masterplan area included the following:

- 24 Stores building (west wing)
- 57 Chapel (former Printers' Shop) (demolished)

Elements of no significance are defined as contributing little to the cultural significance of the prison as a whole. These areas were either intrinsically of minor interest, or have been so altered that any significance they might otherwise have had has been lost. The Development Strategy states that 'elements of no

significance may be retained, altered or demolished.' That is to say, while development of the associated land requires a permit under the Heritage Act, demolition of these buildings does not. With the changes to the Heritage Overlay in Planning Schemes under the recent VC49 Amendment, under Clause 43.01-2 no permit is required to 'develop a heritage place which is included on the Victorian Heritage Register.'

The Masterplan acknowledges a requirement for archaeological investigation of a number of sites, particularly in the former Mustering/Parade Yard and around the A and B Division cell-blocks. Preliminary archaeological investigation of the site has previously been undertaken by DIG International in close consultation with Heritage Victoria, well ahead of the development of each area. The permit application and works arising from the DIG International report will be undertaken as soon as the revised Design Guidelines and Masterplan have been endorsed.

It should also be noted that the 'Walled City' development within the former industrial precinct has already been undertaken and is therefore outside the scope of this Masterplan.

5.0 Heritage Response

The latest Design Guidelines and Masterplan incorporates a number of development proposals that have already received permits consistent with the previously approved *Pentridge Piazza Design Guidelines and Masterplan* (Vol 1 and 2, prepared by TRACT) as well as elements that have received in-principle support from Heritage Victoria consistent with the 2009 *Design Guidelines and Masterplan* by NH Architecture, but also departs from these documents in a number of respects. These changes are intended to improve the architectural outcomes for the site, and are discussed in full below. Generally, however, the major changes between the current Masterplan and the 2009 Masterplan can be summarised as follows:

- The spaces for the public realm have been consolidated by removing a number of interstitial spaces – including Roads C and G – as well as some of the smaller scale buildings previously proposed.
- As a general rule, the taller building heights have been pushed away from the main Piazza area towards the northern part of the site. For example, some of the building mass has been moved from Building 09 to Buildings 08 and 03 (i.e. away from the main Piazza area).
- It is now proposed that a cinema be incorporated into the Piazza or Mixed Use Precinct.

The various changes that have been made to each of the building envelopes shown in the Masterplan can be summarised as follows:

Building No	2009	2013	Changes
Building 01	6	8	Building envelope abuts perimeter wall. The western section is two levels taller while the eastern section is two levels lower.
Building 02	6	9	Building envelope abuts perimeter wall. The western section is three levels taller, the

			eastern section is the same height.
Building 03	6	13	Building height seven levels taller.
Building 04a	15	9	Building height six levels lower.
Building 04b	15	16	Building height one level taller.
Building 05	7	8	Building height one level taller.
Building 06	14	18	Building height four levels taller.
Building 07	6	7	Road now runs between two halves. Building height one level taller.
Building 08	13	19, 8 and 3	Overall building height six levels taller.
Building 09	11, 9 and 7	3	Building footprint is now divided by laneways and pedestrian pathways. Building height has changed from a maximum height of eleven storeys to three storeys only.
Building 10	2		Building 10 has been deleted to provide a better appreciation of the front of A Division.
Building 11	2	2	Building height remains unchanged.
Building 12	8	9	Building height one level taller.
Building 13	4	6	Building envelope abuts perimeter wall. Building height two levels taller.
Building 14	2	2	Building height remains unchanged.
Building 15	2	2	Building height remains unchanged.
Building 16	18	18	Building height remains unchanged.
Building 17	2	2	Building height remains unchanged.
Building 18	1	1	Building height remains unchanged.

The Industry Lane Precinct, located to the east of the site, was developed some time ago and is therefore not under consideration as part of the proposed Masterplan.

From a heritage perspective, the most important area of the overall site is the Piazza Precinct located at the southwest corner of the site. This portion of the site contains a high proportion of heritage buildings including former B Division, former B Division Annexe, former E Division, the Champ Street Gatehouse, the Piazza (the former Mustering Yard), the site on which C Division once stood (demolished c1978), the former Stores building, the former Warders' building and all the associated walls. Development of the former Stores building with the QM Development was completed several years ago.

The Masterplan anticipates that the area entered via the main Champ Street entry will accommodate the great majority of tourism activities within the overall complex. As the Precinct contains a number of highly significant structures, it lends itself to tourism purposes.

In accordance with previous design strategies that have been developed for the site, B Division and B Annexe are to be preserved and used as the primary interpretative elements within the precinct. The Warders' building and E Division are to be adapted to compatible uses – retail, for instance – that will complement the broader use of the area as a tourist precinct. As part of this

adaptive reuse, the Warders' building and E Division are to undergo restoration and reconstruction works to restore their original external configuration.



Figure 4 Photographs showing various views of the Mustering Yard at Pentridge, c1896. Source: Picture Victoria Online Picture Collection.

The historic penal character of the Piazza precinct – with its severe buildings and parade ground – is to be retained and reinterpreted as part of the proposed scheme for the site. The heritage buildings are to be retained and restored, and modern accretions will be removed. However, the adaptation of the site to new urban uses and the need to achieve integration with the surrounding urban fabric necessitates some degree of change and intervention. It is proposed that the main Piazza precinct, and the development as a whole, provide a mixture of retail, commercial and community uses that will render it a vital and sustainable environment well into the future. This is a key cornerstone of the adaptive reuse, and thus conservation, of this historic place. Moreover, the success of this adaptive reuse will provide the financial underpinning for specific conservation interventions for the historic fabric, including extensive roof repairs and replacement, a large component of stone repair, and a myriad of other items of detail.

The proposed landscape plan for the Piazza precinct draws inspiration from the place's history to create a scheme which will activate the Piazza area while charting earlier histories of the place. It represents a strong contemporary response to the site while still being respectful of the early significant fabric. The proposed scheme is designed to complement the historic character of the place in a manner which retains the visual dominance of the key historic building. It is intended that the public realm be developed as part of the first stage of works for the site.

One of the main changes between the current Masterplan for the site and the Masterplan of 2009 is that the taller building heights have generally been pushed away from the main Piazza area towards the northern part of the site. For example, some of the building mass of Building 09 – which previously rose to an overall height of eleven storeys – has been shifted north to Buildings 08 and 03 in particular. In the 2009 Masterplan, Building 09 was conceived as a four level podium structure with three taller residential elements of seven, nine and eleven levels respectively. These levels had been graduated to form a stepped progression from the more sensitive areas of the site – namely the new publicly accessible piazza – to the less sensitive areas of the site. The current Masterplan builds on this design strategy by removing the taller elements from this part of the site altogether and redistributing them in the less sensitive northern part of the site. Building 09, which is located on the former C Division site, will rise to an

overall height of three storeys while the buildings along Road B will generally rise to taller heights than previously proposed to compensate. In particular, the height of Building 03 has increased from six levels to thirteen levels in the current Masterplan. However, the redistribution of building mass from the Piazza area to the north-western corner of the site is seen as being a positive heritage outcome.

Both within Australia and internationally, there exist a number of precedents for adapting Pentonville model goals to new uses. For instance, the former Fremantle Prison in Western Australia – which was built by convict labour in the 1850s – has been converted into a State owned complex that now serves as a tourist attraction, function centre and education facility.



Figure 5 Images of the adaptive reuse of Fremantle Prison, WA.

In contrast, the Oxford Castle Hotel in the UK has been developed as a commercial enterprise while retaining the buildings' severe character. This adaptive reuse did, however, necessitate some internal alterations: two cells were combined to form a bedroom, while a third cell was refurbished to form an ensuite bathroom. The cell doors were retained, although the spy holes were adapted to allow the room's occupants to see out. Walkways and balconies were also retained – a secondary glass structure was introduced to comply with safety regulations. Similarly, although the Het Arresthuis, in Roermond, served as one of the most feared prisons the Netherlands for almost 150 years, this prison has recently been converted into a luxury hotel.



Figure 6 Images of the former prison building at Oxford Castle.



Figure 7 Images of the Het Arresthuis in Roermond, Netherlands, which has been adaptively reused as a luxury hotel.

Unlike the Oxford Castle Hotel redevelopment, it is generally proposed that the early cell buildings at Pentridge be retained and restored for adaptive reuse in a manner that will minimise the extent of internal alteration required. However, given that there is a substantial duplication of particular building types across the site which have limited potential for adaptation without substantial intervention in the significant fabric, it will therefore be necessary to construct a number of new purpose-built structures to accommodate the provision of facilities that the site as a whole requires. This said, there is general acceptance of the fact that the large number of nearly identical cells across the site, coupled with the difficulties inherent in adaptively reusing such a limited space, mean that some degree of adaptation may prove unavoidable. For instance, the CMP states that:

It is recommended that the exteriors of the significant early bluestone and brick buildings...be restored and/ or reconstructed and that later additions and accretions be removed. Internally, significant fabric should be retained and conserved, however, accepting this constraint, there is scope for the interiors of a number of these buildings to be altered and adapted for new uses.

As was the case in the 2009 Masterplan for the site, it is proposed that a residential tower be constructed to the southwest of the B Division precinct. Assessing the proposal from a purely heritage policy-based, built form perspective, it is recognised that constructing a tall building on this or any portion of the site may be contentious. There are, however, a number of arguments for allowing development of a higher scale in areas that are some distance from the key historic entry point at Champ Street and principal public spaces associated with the heritage buildings. For instance, Shayer has a preferred sequence of development that is tied to specific precincts, buildings and works, including conservation works (refer to Staging Plan prepared by NH Architecture). Shayer links the residential development behind B Division and B Annexe specifically

with the regeneration of these buildings, both in terms of use and conservation interventions. It is anticipated that final approval of each individual development will be linked to a specific schedule of conservation works by means of a condition of permit. New works and conservation works would be linked, reflecting Shayher's commitment to undertaking conservation works in a timely manner that reflects its strong commitment to the heritage buildings as both significant fabric and a key factor in the future character of the place.

The envelope associated with the B Division residential building is designed to accommodate the higher density development that economic analyses indicate is essential to the ongoing economic viability of the site. To this extent, Shayher argue that the proposed development should be endorsed on the basis of the economic arguments provided for in the permit application processes under the Heritage Act. Specifically, under s. 73(1)(b) of the Heritage Act, the Executive Director must consider the extent to which the application, if refused, would affect the reasonable or economic use of the registered place, or cause undue financial hardship to the owner. Although this clause is rarely invoked in any detail in relation to permit applications, the issues of reasonable or economic use of the land and financial hardship are important considerations in relation to the redevelopment of a vast and complex site such as Pentridge.

Although the multi-storey element was not anticipated in some earlier background documents – neither the Conservation Management Plan, nor the Development Strategy anticipated a tall building in this part of the site – it is seen as being necessary to the overall scheme insofar as it will help create the facilities required for a body corporate large enough to carry the costs of sustaining the site at viable premiums. As the public realm and heritage structures will be owned and managed by a body corporate rather than by a public authority, there must be a sufficient population base to ensure that annual body corporate fees and other costs are not excessive, as this will undermine the viability of the development as a whole.

In addition to the economic argument, the current scheme also responds to the market demand for affordable apartment living within close proximity to a government recognised activity centre. Many other approved and constructed developments of recent years in the inner metropolitan area also provide precedent for the juxtaposition of restored heritage fabric against taller, modern forms, and to some extent this can be seen to be an emerging idiom within the Melbourne landscape as a result of the pressure for increased density and as a result of rising land values. Both the economic justification of such development, and the architectural and urban design outcomes that have been achieved, have received a wide-ranging acceptance within both government and community.

It is also proposed that a low scale building be located within the Piazza to the north-east of B Division. The rationale behind this new, purpose-built structure is to provide facilities that activate the public Piazza space without altering or otherwise adversely affecting the highly significant fabric on the site. It is intended that this building be expressed as a modern lightweight structure, in order for the significant fabric to remain clearly legible as such. The footprint of this single storey structure is somewhat larger than that proposed in the previous 2009 Masterplan for the site. However, this building has been sited so it will not impede principal views of B Division or diminish an understanding of the Piazza precinct as a whole.

Although it is critical to minimise the impact that development of the Pentridge site will have upon the fabric of structures of primary and contributory significance, and upon the significance of the site as a whole, it is also important to recognise that a degree of development is necessary in order to make the place a vibrant living and working environment that is economically sustainable into the future. The survival and maintenance of the significant fabric depends upon achieving economically sustainable adaptive reuse outcomes. Although the proposed redevelopment of the site in this manner will result in a substantial and readily appreciable change to the character and appearance of the place, it will also provide an opportunity for the revitalisation of the historic building stock and for conservation works that are, in many instances, long overdue.

Many of the same comments can be made about the portion of the site that incorporates the area around the former A and H Divisions, the former chapel, the land running between Champ Street in the west and Warders' Walk in the east, and the associated walls. A number of residential towers are to be located in this area of the site, as well as car parking and other utilitarian uses that are best concealed from major vistas. Although this aspect of the design differs from that proposed in previous background documents, it reflects the fact that the taller building envelopes have been pushed away from the main Piazza area towards the northern part of the site.

Carparking in this section of the site – a substantial and necessary element of the proposed development – is to be largely concealed within the buildings' basements and podium levels, and will therefore be limited in its potential for external impacts. Beyond this, the key conservation outcome with regard to this development comes in the form of benefits for the balance of the complex. Locating much of the site's carparking in this precinct satisfies the need for the provision of facilities that the site as whole requires without encroaching on the more significant fabric of the site. Car parking to all areas is via discreet basement and podium car parks with access via the site's major roads. In this respect it will make a positive contribution to the utility and liveability of the place.

A and H Divisions were identified as being of primary significance in the Pentridge CMP, while the chapel was identified as being of contributory significance. In contrast to many of the earlier schemes for the site – since (and including) the successful tender for the site by Grandview Square – it is now proposed that a greater proportion of A Division be retained and restored as part of the development of the overall former Pentridge site. As shown in the accompanying 'Masterplan Building Envelope' plan by NH Architecture, much of H Division is to be demolished as part of the proposed Masterplan in order to enable the main north/ south road – Road A – to run through the site: this area has been designed to enhance the north-south connectivity. Accessed from the east end of A Division, H Division originally consisted of sixteen rock-breaking yards that ran off a central cambered brick walkway that had been constructed by 1900. A further eight rock-breaking yards were added to H Division in 1896: these are shown in an aerial photograph of the prison dating from c1921. The rock-breaking yards were designed to accommodate the hard-labour component of court-imposed sentences and were also used punitively for disciplinary breaches. The rock-breaking yards were remodelled and incorporated into H Division in 1958. As part of the overall Heritage Interpretation Strategy for the site, it is proposed that landscape elements be used to interpret the site of the former rock-breaking yards. Prior to the commencement of any demolition works, a

comprehensive photographic survey will be prepared and lodged with Heritage Victoria and the State Library.

In the 2009 Masterplan for the site, it was proposed that two low-rise buildings were to be located in the western courtyards to A Division. One of these buildings – the building to the north – has been deleted in the revised 2013 Masterplan for the site, thereby providing a more expansive view of A Division as well as consolidating the spaces of the public realm. The proposed pedestrian walkway to the south side of A Division will also help encourage pedestrian movement around and through this building, thereby promoting a greater degree of interaction with the heritage fabric.

The proposal provides an extent of development that is necessary in order to achieve a positive adaptive reuse of the overall site in terms of future economic viability.

The current Masterplan proposes that the northern section of the site along Murray Road be developed with number of residential building envelopes of varying height (refer to accompanying 'Masterplan Building Envelope' plan by NH Architecture) in order to help articulate the Murray Road frontage. Basement and podium car parking will be located underneath these buildings. The buildings will line the major vehicular thoroughfare through the site, currently designated Road B. They will also help articulate the boundary of the site as viewed from Murray Road, standing as a counterpoint to the strong wall element along Murray Road, and providing an urban marker for the former Pentridge Prison site. Although not specifically a conservation consideration, it is part of achieving an overall balance of urban design and conservation outcomes on the site that will result in a vibrant, balanced and sustainable development both in terms of its internal outcomes and its reading from outside the site.

Options for the incorporation of a greater number of residential units within heritage buildings have been set aside on the basis that the cell block buildings in particular can only sustain such a use through substantial demolition and alteration of a nature that would fundamentally undermine their integrity and significance. As discussed earlier, the higher density development has been shifted to the northern part of the site from the more sensitive Piazza precinct. Options for a lower number of residential and other units within the redevelopment have had to be set aside on the basis that the costs associated with the ongoing management of the site would be prohibitive for future owners.

Approval to construct a multi-level development up to 15 storeys in height as well as associated car parking on the former Hospital site in the southeast corner of the site has previously been granted by both Moreland City Council and Heritage Victoria. The permit also allowed for openings in some of the historic bluestone walls surrounding the site to allow for pedestrian and vehicle access. Amendments to this permit were later sought to, among other things, increase the height to 16 storeys plus rooftop wind turbines. Approval for this proposal was granted in 2010.

The former Hospital site was previously identified as being well positioned to accommodate the higher density development that earlier economic impact analyses have suggested is essential to the ongoing economic viability of the site. Identified in the CMP as having no individual significance, the former Hospital site is located away from key viewlines within the broader heritage place and from any structures of significance. The site is distant from the key historic entry

point at Champ Street, and does not adjoin any of the key individual buildings in this precinct such as A, B or E divisions.

It is nonetheless clear that the building will be readily visible from many points in and about the site, and in particular from within the proposed Pentridge precinct and from outside the site in terms of views from the east and south. Although the multi-storey elements were not anticipated in some earlier background documents, they are seen as being necessary to the scheme insofar as they will help create the facilities required for a body corporate large enough to carry the costs of sustaining the site at viable premiums. As the public realm and heritage structures will be owned and managed by a body corporate rather than by a public authority, there must be a sufficient population base to ensure that annual body corporate fees and other costs are not excessive, as this will undermine the viability of the development as a whole. Development of the former Hospital site will contribute toward achieving the capacity for residential and other occupation that the site will require in order to achieve a sustainable adaptive reuse outcome.

6.0 Conclusion

In summary, while the proposed redevelopment of the site in accordance with the current Masterplan will result in a substantial and readily appreciable change to the character and appearance of the place, it will also provide an opportunity for the revitalisation of the historic building stock and for conservation works that are, in many instances, long overdue. The proposal is an example of adaptive reuse at the scale of a large complex, an adaptive reuse that grapples with substantial issues in terms of making this place a vital and sustainable environment for the future.

In general terms this Masterplan follows the course established in the earlier planning for the site, including the 2009 VALAD *Pentridge Coburg Design Guidelines and Masterplan*, the *Coburg Prisons Complex Development Strategy: Heritage and Development Issues*, (prepared by Bryce Raworth Conservation in association with Tract Consultants Pty Ltd, August 2000), and the *Pentridge Piazza Design Guidelines and Masterplan* (Vol 1 and 2, prepared by TRACT), which was endorsed by the City of Moreland in April 2003 after consultation with Heritage Victoria and other interested parties. The Masterplan also has regard for the various permits that have been granted for development of sections of the site in the period since 2003.

Where changes have been made, they have been proposed on the basis that the density of development, and the particular configuration of development and uses that are proposed, are essential to the ongoing health and vitality of the future community of the place, and will help ensure the successful redevelopment and conservation of the place. Overall, the proposed Masterplan will help augment the overall significance of the place as well as enhance the cultural life of the community.



DIVISION STAIR



appendix b. sustainability considerations (ark resources)



SUSTAINABLE DESIGN INITIATIVES

AT

PENTRIDGE

FOR

VALAD PROPERTY GROUP

20 OCTOBER 2008

FILE 580A

Contents

1. INTRODUCTION	3
2. LIMITATIONS.....	3
3. ENVIRONMENTALLY SUSTAINABLE DESIGN PRINCIPLES	4
4. WHOLE-OF-SITE STRATEGIES.....	5
<i>Integrated Water Management Strategy</i>	5
<i>Minimising Greenhouse Emissions</i>	6
5. BUILDING PERFORMANCE.....	7
<i>Standards</i>	7
6. MATERIALS AND WASTE MANAGEMENT	8
7. MANAGEMENT AND REPORTING	8
<i>ESD Management Plan</i>	8
<i>Construction Waste Management Plan</i>	9
8. CONCLUSION	9

1. Introduction

Ark Resources has been engaged by Valad Property Group to provide advice in relation to environmentally sustainable development initiatives for the proposed *Pentridge* development.

This report contains a summary of:

- Environmental objectives adopted for the development
- Sustainable design initiatives integrated into the design of the project.
- Commitments to performance targets

Initiatives and performance outcomes in this report are based on:

- Architectural plans prepared by NH Architecture
- Discussions with:
 - Ms Anna Martiniello, Development Executive, Valad Property Group
 - Mr Vaughan Connor, Director Contour Consultants
 - Mr Lindsay Fraser, Director Land Design Landscape Architects
 - Mr Christian Griffith, Director, GTA Traffic Consultants
 - Mr Bryce Raworth, Director, Bryce Raworth Pty Ltd (Conservation and Urban Design Consultant)

2. Limitations

The ESD initiatives and associated performance standards set out in this report are subject to commercial and technical feasibility established on the basis of the scale, height and density of development set out in the Pentridge Masterplan and are therefore conditional on approval of the proposed scheme.

3. Environmentally Sustainable Design Principles

The Central Coburg 2020 Structure Plan sets out a vision for sustainable development based on a triple bottom line approach which requires social, environmental and economic issues to be considered and addressed in an integrated manner in new development.

The proposed scheme for the *Pentridge* development has been fully informed by the sustainable design principles set out in Coburg 2020. An integrated design process has been undertaken to assess the physical and social constraints and opportunities of the site with the objective of creating a truly sustainable community with exemplary community, environmental and economic outcomes. The physical planning of buildings and public space has proceeded on the basis of detailed analysis and consideration of community and environmental outcomes and is illustrated in the sustainability master plan on page 5 of this report.

Engagement with Council's ESD Unit will be undertaken early in the process to ensure compliance with the relevant ESD requirements and other statutory obligations.

Key environmental objectives adopted for the development are to:

- Minimise greenhouse emissions associated with building and transport energy use
- Manage solar access and wind to public open spaces to enhance amenity and function throughout the year
- Minimise greenhouse emissions associated with energy systems and energy supply
- Achieve sustainable water cycle management through:
 - Efficient use of potable water supplies
 - Recycling and re-use of alternative water sources
 - Integrate stormwater treatment into the design of urban spaces and landscapes
- Optimise indoor environmental quality in all buildings and structures
- Reduce the use of material resources during construction and throughout occupancy
- Provide landscaping which enhances amenity and contributes to biodiversity

The *Pentridge* development will be designed to be consistent with the objectives set out above and work towards best practice outcomes within the following recognised green rating schemes:

- Green Building Council of Australia rating tools
- Moreland City Council's STEPS program
- City of Port Philip's Sustainable Design Scorecard (non residential)

These standards and the key initiatives proposed are set out in detail in the following sections of report.

4. Whole-of-site Strategies

An integrated approach has been taken to the crucial sustainability objectives of reducing greenhouse emissions and water cycle management to reduce the environmental footprint of the development.

Integrated Water Management Strategy

An integrated approach has been adopted to the management of water to:

- Encourage minimal water consumption and conserve potable water supplies.
- Ensure high quality urban stormwater discharges which maintain ecosystem health.
- Reduce stormwater flows downstream of the development compared to existing levels.
- Integrate stormwater management measures into the design of open spaces and streetscapes.
- Reuse treated water for toilet flushing and landscape irrigation.

Initiatives that will be implemented to meet these objectives include:

Water Conservation

Water efficient fittings and fixtures will be installed in all new buildings including the specification of waterless urinals in all new public amenities throughout the development to minimise wastage of potable water

All fittings will be specified to be **within 1 star** of the most efficient fitting commercially available¹ at the time of detailed design

Water Recycling

A water treatment system will be installed to ensure 100% of the demand for non-potable water for toilet flushing and irrigation is supplied from non-mains water. Because wastewater supply volumes will exceed the demand for these uses, this system will ensure an ongoing, sustainable non-mains supply of water for landscape irrigation irrespective of future rainfall levels.

The potential to use rainwater to supplement hot water supplies will be investigated thoroughly and implemented in office buildings where it is technically most feasible, subject to compliance with environmental health standards.

Reuse of other water sources such as fire system test water and cooling plant water will also be considered in the design of the water recycling systems to supplement mains water supplies.

Stormwater Quality

Stormwater management and treatment systems will be included in the design and landscaping of public areas as required, to meet the standards of the MUSIC model developed by CSIRO for stormwater quality. Detailed modelling taking into account any accepted future variation in rainfall and climate will be undertaken during design development of the precinct-wide public realm to confirm the location and size of alternative treatment options including permeable pavements and infiltration systems.

Note that details of the specific initiatives comprising the Integrated Water Strategy will be provided in the precinct-wide ESD Management Plan as set out set out in Section 7 of this report.

Minimising Greenhouse Emissions

The approach to the design of public spaces, individual buildings and transport routes plays a major part in the level of energy use and hence greenhouse emissions arising from the development throughout its life. The objective of reducing lifecycle greenhouse emissions has been an important factor in the urban design process with key consideration being given to:

- The design of public spaces to take account of seasonal variation in solar access and prevailing wind with the objective of maximising thermal comfort and amenity and avoid the need for mechanical heating and cooling. The effect of wind on amenity of public and semi public outdoor spaces will be fully investigated during design development of the precinct-wide public realm and is subject to the preparation of a detailed wind report by a qualified consultant and incorporation of wind amelioration devices as recommended.
- The orientation and placement of buildings with respect to solar access opportunities to minimise the need for mechanical heating and cooling
- Access for pedestrians, cyclists and public transport to reduce dependence on private cars.

Alternative Energy Supply

A development of this scale has the capacity to integrate alternative systems for the supply of energy to reduce dependence on coal-fired electricity from the Victorian grid which has a high greenhouse intensity. Preliminary investigations indicate a gas-fired cogeneration system to supply part or all of the energy demand at *Pentridge* has the potential to reduce greenhouse emissions by approximately 40% compared to the conventional energy supply solutions. To pursue this opportunity, Pentridge will fully investigate the feasibility of this system in consultation with the City of Moreland and the Coburg Solar Cities program and if technically feasible and cost-effective for consumers, this system will be implemented.

Note that details of the energy and greenhouse management initiatives and systems will be provided in the Precinct Wide ESD Management Plan as set out set out in Section 7 of this report.

¹ Based on ratings under the Australian Government Water Efficiency Labelling & Standards Scheme

5. Building Performance

All new buildings at *Pentridge* will be designed to achieve best practice in terms of environmentally sustainable design outcomes. We believe that the Green Star rating tools developed by the Green Building of Council Australia (GBCA) are the appropriate framework for benchmarking all new buildings proposed on the site due to the scope of environmental issues covered and the integrity of the assessment process. For building types not covered by the suite of Green Star tools, the Sustainable Design Scorecard (non-residential) tool developed by the city of Port Phillip will be adopted.

Current GBCA tools considered relevant to the development are:

- Green Star Multi-Residential²
- Green Star Shopping Centre Design³
- Green Star Office Design, Office As Built and Office Interiors

Standards

Buildings at Pentridge will meet the following environmental performance standards:

- All new residential buildings will score a minimum of 45 points (equivalent to a 4 star standard) according to the Green Star Multi Unit Residential tool with the exception of attaining any conditional building envelope rating if such a measure is included in the official version of the tool following completion of the Pilot testing phase.
- The retail shopping centre will attain a 4 Star Green Star Shopping Centre Design rating.
- All new office buildings will attain a 4 star Green Star Office Design rating.
- All new community use buildings will meet the performance benchmarks of the Port Phillip Sustainable Design Scorecard (non-residential).

The way in which building tenants use energy and other resources can significantly affect the overall outcome. In order to encourage tenants to adopt a best practice approach to environmental management, guidelines will also be developed for *Pentridge* tenants to ensure all major tenancy fit outs on the site achieve a minimum 4 star rating in accordance with the GBCA relevant interior rating tool which complement the base building tools set out above.

Note that details of the initiatives and systems contributing to achieving the building performance standards set out above will be provided in the Individual Stage ESD Management Plans as set out set out in Section 7 of this report.

² Currently in PILOT form with official release expected in early 2009.

³ Currently in PILOT form with official release expected in early 2009.

6. Materials and Waste Management

In order to address the environmental impact of construction materials and to minimise the volume of waste to landfill, an integrated waste management strategy will be developed for the site to encourage the recycling and re-use of waste streams in public areas and private buildings with the objective of achieving Sustainability Victoria's *Waste Wise* accreditation for the Pentridge development.

The following strategies will be implemented:

- Retain and/or adapt for new uses, heritage structures comprising high embodied energy materials where possible to minimise environmental impact of new construction.
- Design buildings and facilities to be flexible and adaptable to a range of uses to extend the useful functional life of buildings.
- Installation of waste management facilities in buildings and public places which encourage the recycling and re-use of waste materials.
- Encourage the use of shared bins to minimise waste management collection costs.
- Implementation of a site-wide green waste composting system to provide mulch and fertiliser for the community gardens on the site.
- Application for Waste Wise accreditation for the entire Pentridge development inclusive of training for commercial operators and provision of appropriate facilities.

Note that details of the waste management initiatives and systems will be provided in the ESD Management Plans as set out in Section 7 of this report.

7. Management and Reporting

ESD Management Plan

Details of strategies and initiatives required to implement the commitments set out above will be outlined in an ESD Management Plan addressing the following issues:

- Sustainable energy management including supply & demand measures
- Water conservation and re-use
- Water sensitive urban design (including details of ongoing management & maintenance of these assets) and stormwater management (including MUSIC modeling and Melbourne Water guideline details)
- Demolition and construction management
- Waste management (including re-use and recycling details)
- Indoor environment quality
- Material use (including where possible avoidance of unsuitable materials or those sourced from non-accredited sources)
- Sustainable transport

ESD Management Plans will be submitted to Council in accordance with the following schedule:

Scope of ESD Management Plan	Submission Schedule
Precinct Wide Strategies including: <ul style="list-style-type: none"> • Greenhouse & energy minimisation initiatives • Integrated Water Management Strategy 	Six months from Masterplan Approval
Individual Stage Initiatives	In conjunction with Planning Permit application for each stage

The ESD Management Plans will

- Identify relevant statutory obligations in addition to strategic or other documented sustainability targets or performance standards that the site or stage is aiming to meet.
- Document the performance benchmarks attained and the means by which the target performance will be achieved
- Identify responsibilities and a schedule for implementation, and ongoing management, maintenance and monitoring.
- Demonstrate that the design elements, technologies and operational practices that comprise the ESD management plan can be maintained over time.

Construction Waste Management Plan

A Construction Waste Management Plan will be prepared, setting out the facilities and methods to be adopted to minimise construction waste and enhance opportunities for recycling of construction materials, prior to the commencement of development for each permit application / stage of development.

8. Conclusion

The initiatives presented in this report demonstrate that *Pentridge* has been planned in accordance with the sustainability principles and objectives set out in the Central Coburg 2020 Structure Plan.

This report identifies a range of innovative sustainable design features, which are integrated into the design and specification of the proposed development, in order to improve environmental outcomes during occupation. In particular, a systemic approach to energy and water management incorporating demand and supply side strategies will ensure that greenhouse and water outcomes from the site will be consistent with current industry best practice standards.

Green Star ratings will be undertaken for all new retail, residential and commercial buildings at Pentridge. This will ensure that Moreland City Council's sustainability benchmarks for buildings incorporated in the STEPS and Sustainable Design Scorecard (non residential) will be exceeded for these developments. All community use development will meet the sustainability benchmarks of the Sustainable Design Scorecard (non residential).

Accordingly the sustainable design outcomes from the proposed development are considered to be consistent with environmental best practice standards.

Jan Talacko
Director



DIVISION D SOUTH WING



appendix c. traffic and transport considerations (gta consultants)

Pentridge Piazza, Coburg

Masterplan, Access and Movement Strategy

Issue: A 5/9/13

Client: Shayher Group
Reference: 14M1136000
GTA Consultants Office: VIC

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	5/9/13	Final	Rebecca Strachan	Simon Davies	Simon Davies	SD

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Table of Contents

1. Introduction	1
1.1 Background	1
1.2 Purpose	1
2. Existing Conditions	2
2.1 Regional Transport Infrastructure	2
2.2 District Transport Infrastructure	4
2.3 Local Transport Infrastructure	4
3. Development Proposal	6
4. Access and Movement Overview	7
5. Public Transport	8
6. Bicycle and Pedestrian Facilities	10
6.1 Overview	10
6.2 Pedestrian Facilities	12
6.3 Bicycle Facilities	12
7. Road Network Access and Car Parking	14
7.1 Overview	14
7.2 Road Network Access	14
7.3 Loading, Waste and Commercial Vehicle Activity	17
7.4 Car Parking Provision	17
8. Key Outcomes	20
9. Summary	22
Appendices	
A: DoT Referral Response	
Figures	
Figure 2.1: Regional Transport Network	3
Figure 2.2: Local Transport Network	5
Figure 5.1: Public Transport Access Strategy	9
Figure 6.1: Pedestrian and Cycle Access Strategy	13
Figure 7.1: Road Network Access Strategy and Road Hierarchy	16
Figure 9.1: Site Access and Movement Strategy	23
Tables	
Table 7.1: Guiding Rates for the Provision of Parking within the Site	19

1. Introduction

1.1 Background

Shayher Group has recently acquired the Pentridge Piazza site in Coburg (the Site) which has an approved masterplan. The new owners plan to develop Pentridge Piazza into a vibrant and sustainable mix of retail, commercial, entertainment, leisure, tourism and residential uses, with the amended masterplan generally being consistent with the currently approved masterplan.

A great deal of work was completed in 2008 on access and movement issues in support of the approved masterplan. In addition, the Central Coburg 2020 (CC2020) document exists to provide a long term framework for the redevelopment of the area.

A key driver of the traffic and transport planning for the site is consistency with CC2020, integration of the site with the surrounding environment, and Central Coburg in particular.

GTA Consultants have been engaged by Shayher Group to assess the amended masterplan and ensure consistency with the approved masterplan and strategic aims of Moreland City Council.

1.2 Purpose

This report is an update to the Pentridge Design Guidelines and Masterplan, Access and Movement Strategy report prepared by GTA Consultants in October 2008. The report is required to be updated to reflect the amended masterplan proposed by Shayher Group.

This report serves as the access and movement strategy for the Site and forms an appendix to the Pentridge Design Guidelines and Masterplan. It sets out the principles and design elements associated with the traffic and transport aspects of the proposal, and illustrates how the Site will work for all users, for all times of the day and night, and for all modes of transport. Detailed design layouts and the like will be provided to accompany permit applications of specific sub-precincts following approval of the masterplan.

2. Existing Conditions

2.1 Regional Transport Infrastructure

Pentridge is located to the north of Melbourne CBD, with excellent freeway and arterial road connections to regions north, south, east and west of the site. Train and tram links provide direct access to the Central Business District (CBD) approximately 8km south, while a range of bus services connect to points of activity in surrounding areas. Figure 2.1 shows the site in context with regional transport infrastructure while regional access routes can be described as follows:

- Upfield Rail Line which provides a metropolitan train service between Campbellfield and the CBD.
- Sydney Road and Nicholson Street which provide major north-south arterial routes between inner Melbourne and the Hume Highway. Sydney Road also accommodates Tram Route 19 which provides services between Coburg North and the CBD. Nicholson Street accommodates Tram Route 96 between Coburg and St Kilda.
- Bell Street provides a major east-west arterial route between the Tullamarine Freeway and the north-eastern suburbs. It also accommodates bus routes as part of Melbourne's Principal Public Transport Network (PPTN) and has SmartBus services operating along the green orbital route.
- Tullamarine Freeway and CityLink which connect to the state freeway network.

Figure 2.1 shows the locality of the site in the wider context of the regional transport network.

Figure 2.1: Regional Transport Network



14M1136000
Pentridge Piazza, Coburg
Masterplan, Access and Movement Strategy

5/9/13
Issue: A
Page: 3

2.2 District Transport Infrastructure

Transport services in the district surrounding the Site include train, tram and bus services and a range of arterial roads.

Bus route services provide district connections as follows:

- Route 513 along Bell Street between Eltham Station and Glenroy Station
- Route 526 along Murray Road, Champ Street and Sydney Road between Coburg and West Preston
- Route 527 along O’Hea Street, Sydney Road, Bell Street and Elizabeth Street between Northland Shopping Centre and Gowrie Station
- Route 530 along Sydney Road between Campbellfield and Coburg via Fawkner.
- Route 534 along Urquhart Street, Elm Road and Sydney Road, between Glenroy and Coburg via Boundary Road
- Route 561 along Urquhart Street, Elm Road and Sydney Road between Macleod and Coburg via La Trobe University.

Arterial road network routes in the vicinity of the site include:

- Murray Road / Gaffney Street which is aligned east-west along the northern boundary of the Site
- Champ Street along the western boundary which links Murray Road to Sydney Road
- Newlands Road which provides a north-south link to Reservoir
- Urquhart Street, Drummond Street and Elm Grove which link Sydney Road north to Bell Street east (ultimately to be modified following construction of Pentridge Boulevard).

2.3 Local Transport Infrastructure

Central Coburg contains Coburg Station with its train service and associated commuter parking, tram stops along Sydney Road and bus stops on Bell Street and various other streets. Extensive at-grade parking is also available in the activity centre, particularly on the southern side of Bell Street and the west side of Sydney Road.

A proposal exists to develop a transport interchange for the Coburg Activity Centre as part of structure planning for the area as defined in CC2020.

Batman Station exists to the west of the site accessed off Gaffney Street with it potentially being more attractive than Coburg Station for residents of, and visitors to the northern end of the site.

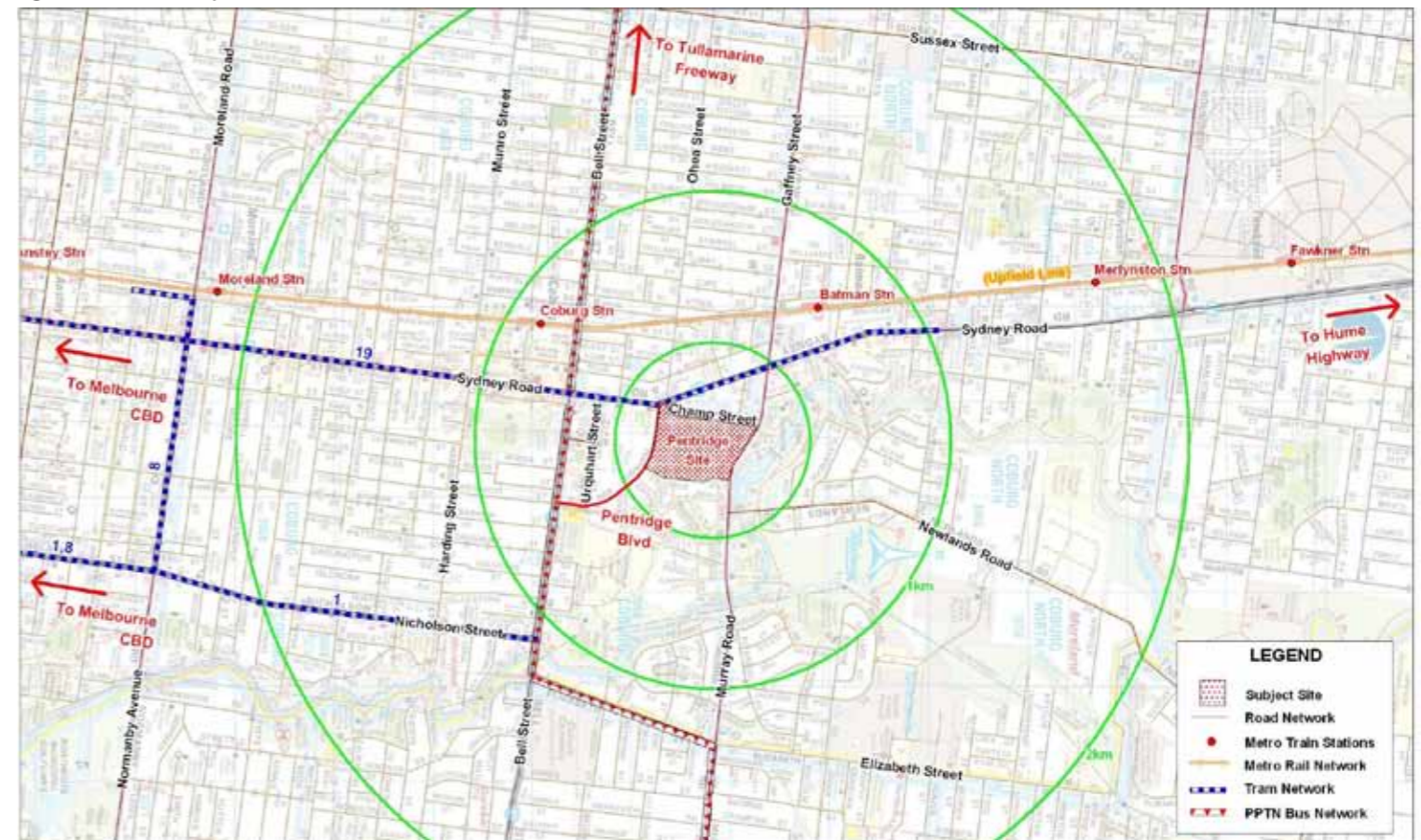
Pedestrian and bicycle facilities are also prominent in the local area with the Merri Creek Trail, on-road bicycle lanes along O’Hea Street and an off-road shared path along the rail line.

A range of tram, bus and pedestrian/cycle services and facilities exist or are to be provided adjacent the Site as discussed in the text that follows.

The overall transport principles for the Site are consistent with the objectives and thinking of the planning underpinning the structure planning for the activity centre. Further guidance on these issues is contained in the CC2020 documentation.

Figure 2.2 provides the location of the site within the local transport network.

Figure 2.2: Local Transport Network



14M1136000
Pentridge Piazza, Coburg
Masterplan, Access and Movement Strategy

5/9/13
Issue: A
Page: 5

3. Development Proposal

The Site will be developed to provide a mix of uses while retaining the historically significant prison buildings and structures integrated into the overall design form of the area. Existing historically significant buildings will be rejuvenated and adapted for re-use, while new structures will be constructed to complement the existing form and design.

Proposed major uses across the Site include:

- Mixed density residential units including apartments and home offices
- Retail and Specialty Stores
- Offices
- Supermarket
- Serviced apartments
- Food and drink premises
- Tourist and heritage facilities
- Community facilities, potentially including child care and a gymnasium.

A more detailed discussion of uses is contained in the Design Guidelines and Masterplan Report.

An internal road hierarchy has been established which manages access to and within the Site while defining reserving specific routes to promote pedestrian and cycle accessibility. The Site incorporates dedicated shared zones promoting pedestrian movements and aims to create an area that encourages the use of walking and cycling as an alternative to private vehicle travel. It includes private roads to maximise the flexibility of open spaces by allowing these roads to be closed to vehicles during special events. The road network will be able to accommodate necessary traffic movements during these times. Public transport connections are provided to train, tram and bus services along with supporting taxi facilities.

The sections that follow document the principles and approach adopted and resulting Site configuration and features.

The Department of Transport reviewed the previous Masterplan and Access and Movement Strategy report as a referral agency and supported the proposal (DoT response is included in Appendix A). It is noted that the current masterplan does not make any significant changes to the site configuration or features and as such it is anticipated that the former approval from DoT (now known as the Department of Transport, Planning and Local Infrastructure, DoTPLI) is likely to remain.

4. Access and Movement Overview

The Site represents a relatively unique opportunity in Inner Melbourne to demonstrate consistency with state and local government planning policies, strategies and plans through the adoption of an integrated approach to land use and transport planning, and the principles of sustainable travel.

This integration is considered on a spatial basis at the Site level with respect to its relationship to the surrounds, and within the Site on the basis of the relationship of transport modes to built form. For example, will it be practical for locals to ride to the Site to shop, eat and work? Will it be practical for residents to walk or ride to and from Central Coburg and its associated activities and public transport services? How will the range of movements within the Site, and their associated conflicts are managed in such a way so as to provide precedence for walk and cycle trips where practical? These examples illustrate the type of issues "front of mind" in the development of the masterplan.

The overarching objective for the access and movement strategy, apart from consistency with CC2020, is to provide for a range of attractive travel options so that users of the Site are presented with real choice as to mode of travel. The focus of this approach is to reduce car dependency and to encourage public transport and non-motorised travel such as walking and cycling. The final mix of modes, services and facilities respects the current situation in Central Coburg but builds in the flexibility to provide for future changes in travel behaviour. It also reflects the significant local catchment for the range of uses within the Site, and the selection of proximate social, recreational and associated activities of interest to residents and visitors.

The traffic and transport aspects of the masterplan aim to strike a balance across a range of travel modes, and adopt a comprehensive view of travel options in terms of both access and circulation patterns and linkages as well as built form design and end of trip facilities. It also highlights the importance of supporting measures such as green travel plans to increase the likelihood of desired travel behaviour for future residents and users from initial occupation. This approach is balanced against a pragmatic view of the role of car travel as an important ongoing means of access in the future.

These objectives are translated into an Access and Movement Strategy covering public transport, pedestrian and cyclists, road network access and car-parking.

5. Public Transport

In recognition of the mixed use nature of the development, its density, location within an activity centre and proximity to a range of transport options including train, tram and buses, public transport access is to be encouraged. This includes pedestrian access to Coburg and Batman Stations across Sydney Road as well as orientation of Pentridge access to the tram stop on Sydney Road and bus stops on Champ Street, Deans Street and Pentridge Boulevard.

The provision of public transport and pedestrian/cyclist access to the Site is important in terms of encouraging sustainable travel behaviour and reduced car dependency, as well as providing accessibility options for a wide cross-section of the community with limited travel options. This includes residents and visitors to Pentridge and capitalises on the existence of a significant catchment of approximately 4,500 dwellings ultimately to be located within Pentridge Piazza, Pentridge Village, Coburg Initiative and the former Kodak Site in Elizabeth Street¹.

Pentridge is located close to a range of public transport options that connect to the Central Business District of Melbourne approximately 8km south of the site and surrounding activity centres. Options available include trains, trams and buses.

Earlier traffic impact assessments of the Site set out the existing services that operate in the vicinity of Pentridge. They include trains to the southwest and northwest, trams to the west and southeast and buses on the surrounding roads.

A public transport concept for the current masterplan was developed to identify existing and future routes and facilities, and the manner in which these are integrated with the Site. It was reviewed by the DoT and generally includes:

- Provision of visible, safe, attractive and functional linkages to the surrounding train services on the Upfield Line to the west.
- Provision of visible, safe, attractive and functional linkages to the surrounding tram services on Sydney Road to the west and Nicholson Street to the southeast.
- Potential re-routing of bus services currently using Champ Street to better service Pentridge as a whole by travelling along Stockdale Avenue and Pentridge Boulevard (refer Appendix A).
- Provision of corresponding bus stops along the new routes located at strategic points of access to Pentridge. This includes potential new stops to the south of Pentridge Piazza on Pentridge Boulevard at the pedestrian crossing to focus pedestrian activity to points where it will naturally occur and where it can be managed safely.
- Suitable provision made for bus services to be introduced in future in terms of road network geometry and stop locations.
- Potential to maximise the attractiveness of the tram service by careful urban design and operational planning of the road reserve between the stops on Sydney Road and Pentridge Piazza access on Champ Street.

Consultation with the Department of Transport (DoT) occurred in 2008 to plan for new or altered routes and stops. A draft of the Pentridge Design Guidelines and Masterplan was provided to the DoT for comment. The DoT position of the current masterplan set out in Attachment A, which shows that the DoT supported the development.

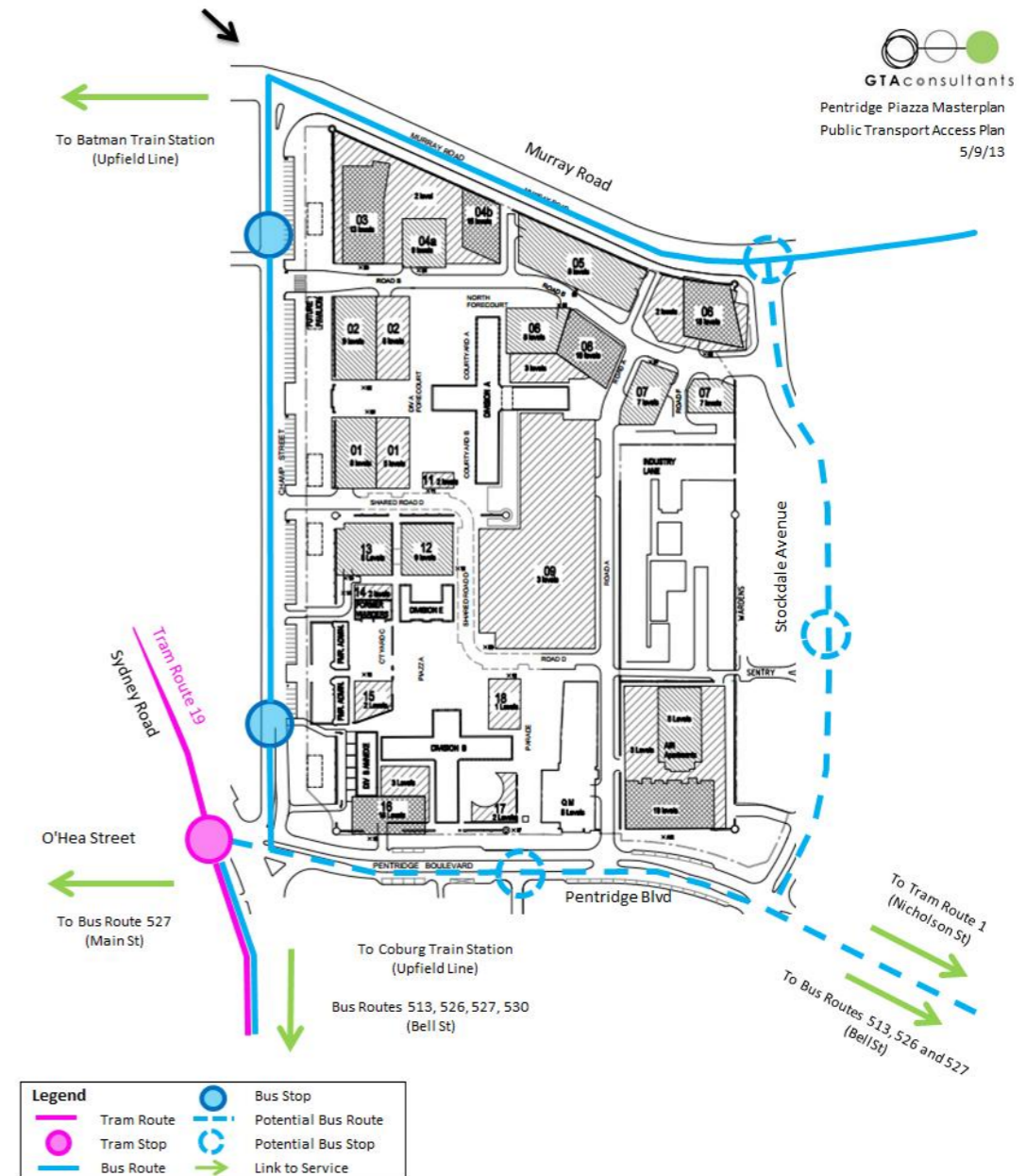
It is noted that the proposed masterplan does not make any changes to the proposed public transport networks and as such it is anticipated that the former approval from DoT (now known as the Department of Transport, Planning and Local Infrastructure, DoTPLI) is likely to remain.

¹ Source: Urbex

In addition, the Central Coburg Integrated Transport Plan and the associated documentation in CC2020 articulates the broader area thinking in terms of public transport access, and the approach adopted in this masterplan is consistent with that approach, and reinforces it where practical.

Figure 5.1 shows the resulting public transport access strategy for the Site.

Figure 5.1: Public Transport Access Strategy



6. Bicycle and Pedestrian Facilities

6.1 Overview

Pedestrian and cyclist access and movement throughout the Site is driven by the land use at the local level and the aims for movement at the Site and surrounding level. A key design principle adopted is the interaction of the Site linkages and facilities with the residents on site and their visitors, and the users of the public spaces and land uses.

Particular focus has been paid to the indicative bicycle parking rates to adopt for the various land uses, and the end of trip facilities to be incorporated into the development for both long term users such as residents and commercial users and shorter term visitor demands.

The key pedestrian and cyclist movement patterns to be catered for include the following:

- Walk and cycle trips to, through and from the Site to passive and active recreational opportunities in the surrounding area, including the Coburg Lake and Merri Creek recreational corridor and the nearby ovals, basketball, athletics, tennis and bowls facilities, as well as the Coburg Activity Centre.
- Walk and cycle trips within the site by visitors who are experiencing the attractions of its future and former uses.
- Walk and cycle trips to and from the precinct by residents of Pentridge Piazza, Pentridge Village and surrounds.
- Linkages off-Site to Central Coburg including the municipal and community facilities located to the south.
- Linkages off-Site to a range of public transport services.

A pedestrian and cyclist concept has been developed to identify existing and future routes and facilities, and the manner in which these are integrated with the Site. It generally includes:

- Paths and maintenance of vistas within the Site connecting separate land uses while providing safe and clearly visible treatments to cross roads and streets along desire lines.
- Boulevard streetscape treatment to key pedestrian movement corridors.
- A clear delineation between pedestrian and vehicle movement within the site or a suitable treatment where the two uses co-exist or share space.
- Development design that encourages pedestrian and cyclist use through appropriate end of trip facilities and storage for residents.
- Provision of an important north-south shared use corridor linking Central Coburg south of Bell Street via Elm Grove through Pentridge Village to Pentridge Piazza and across Murray Road to Coburg Lake to the north. This link will have a series of treatments to manage conflicts while preserving vistas and a sense of the links coherence.
- Preservation of a significant east-west shared use corridor linking O'Hea Street and the Sydney Road trams over Champ Street through Pentridge Piazza and Pentridge Village to Drummond Street.
- Provision of shared use paths and appropriate streetscape amenities along the roads surrounding the site including Murray Road, Champ Street, Pentridge Boulevard and Stockade Avenue to encourage use.

Pedestrian activity within and immediately surrounding the precinct will be given priority where relevant and will permeate all roads and paths within, to/from and through the Site.

This network will be clearly legible and inviting to use. This will maximise the convenience, safety and pleasure for pedestrians of all ages and abilities and promote reduced car usage and increase use of the public transport infrastructure in the surrounding neighbourhood. The following principles will be applied in the design of this general network:

- a clear and continuous sequence of sightlines
- provision for multiple route opportunities at any given point
- provision of dedicated pedestrian paths to all roads except where it is unnecessary or a shared environment is to be provided
- provision of pavement or other detailing throughout the site that prioritises safe and convenient walking and cycling
- provision of street and path lighting that functions primarily to aid and attract pedestrian activity at night
- provision of end of trip facilities and secure and protected bicycle storage for residents and visitors at various locations around the Site.

Within the network there are key routes determined by:

- main entry and exit routes in and out of the site
- routes through the main activity precincts
- routes to and from the bus, tram and rail public transport stops
- The Heritage Walk
- a new shared access to Champ Street
- a signage strategy across the Site to manage the range of users and modes of travel
- secure bicycle parking both open and undercover will be provided in order to encourage bicycle use.

The provision of secure and accessible bicycle facilities is important to achieve the goal of encouraging sustainable travel behaviour. This applies to pathways and signage as well as end of trip facilities to stimulate cyclist demand.

Bicycle parking for residents will be provided in accessible, safe and secure facilities. Ideally this will be in individual garages or storage cages, or alternately in communal bicycle storage facilities with resident-only access. At a minimum, resident bicycle parking should be provided at a rate of one space per five dwellings, as required by the Moreland Planning Scheme. Further consideration of this issue will be made in the context of the Green Star (or equivalent) ESD rating of individual proposals.

The areas of office and retail use within the development should provide accessible, safe and secure facilities for staff bicycle storage. This will generally be in lockable communal bicycle parking areas with space for at least one staff bicycle parking space per 300sq.m of floor area for retail and office land uses and one space per 100sq.m for restaurant staff, in accordance with the rates in the Moreland Planning Scheme. Additional appropriate shower, change room and locker facilities will be provided in a convenient location for staff use. Further consideration of this issue will be made in the context of the Green Star (or equivalent) ESD rating of individual proposals.

Bicycle parking for visitors and customers will be provided in parking stations at key locations through the site, integrated into the built form, providing an attractive destination for year round use. These should be sited conveniently with only a short walk to all uses, and allow 24 hour use through appropriate street lighting and other security treatments. As a minimum, visitor bicycle parking for residential uses should be provided at a rate of one visitor bicycle space per 10 dwellings, whilst those for the other uses should be at a rate of one visitor bicycle space per

200sq.m (restaurant), 500sq.m (retail) or 1,000sq.m (office) as per the Moreland Planning Scheme rates.

Figure 6.1 over the page shows the pedestrian and cyclist access strategy for the site.

6.2 Pedestrian Facilities

The northern area of central Coburg as identified in C2020 will be substantially improved with the introduction of new pedestrian thoroughfares through the Site.

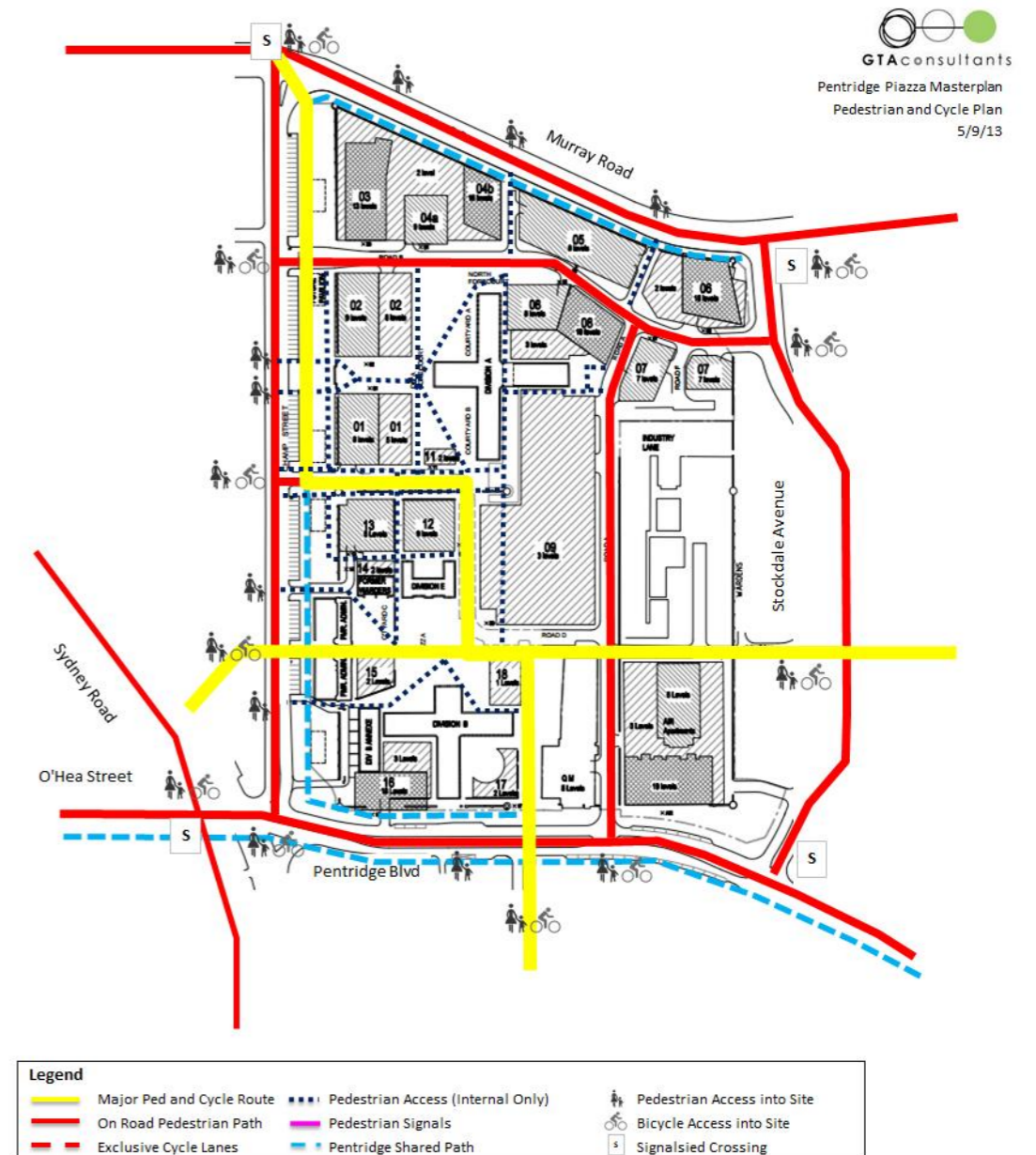
A major initiative by C2020 is the new pedestrian north-south spine, which is reinforced through the Masterplan and is continued through the Site and across Murray Road.

6.3 Bicycle Facilities

Bicycle access is a viable form of alternative transport in the area due to the flat topography and generous street widths in a legible grid pattern.

Bicycle access will be promoted through the sensitive design of shared paths consistent with the approach adopted for pedestrians and supplemented by the provision of bicycle end of trip facilities in the various land uses within Pentridge Plaza, particularly the retail and commercial uses. All residential dwellings will be provided with access to bicycle parking to encourage use.

Figure 6.1: Pedestrian and Cycle Access Strategy



7. Road Network Access and Car Parking

7.1 Overview

Road network access and car parking provision aims to strike a balance between reduced car dependency and the needs of a practical and workable centre. The approach adopted maximises the permeability of the site by providing access points via three frontages and a simple and logical internal road network, while minimising undesirable impacts on surrounding residents in the Pentridge Village Site and along Champ Street.

Supporting initiatives such as the preparation of green travel plans for a selection of the major development proposals within the overall site are supported, where sustainable travel behaviour can be encouraged from initial occupation. This provides the relevant information for residents and visitors to make informed choices as to how they access the Site.

The overall aim is to provide residents and visitors with genuine choice as to their access options, consistent with the objectives of both Melbourne @ 5 Million (an update of Melbourne 2030) and CC2020.

7.2 Road Network Access

The movement of traffic to, from, within and through the Site is assessed against criteria including safety, mobility, accessibility, capacity and amenity.

The development of the traffic access and circulation strategy references the range of previous work undertaken for the Site and the surrounds, including:

- Moreland Integrated Transport Strategy 2010 - 2019 and Pedestrian Strategy 2010 - 2019
- Traffic Impact Assessment Report prepared for the 2-Lot Plan of Subdivision in March 2002
- various individual planning application work in the intervening period
- CC2020 and associated Activity Centre Documentation (various)
- The Central Coburg Integrated Transport Strategy.

The key outcomes of this work include:

- Provide a range of access options from all directions to accommodate passing traffic, locals from the surrounding area and residents of Pentridge Village, as well as residents of the Site.
- To maximise the connectivity of the Site to the surrounding road network.
- To balance local area accessibility with wider-area traffic movements.
- To minimise the impacts of through traffic on residential streets such as Pentridge Boulevard and Stockade Avenue.
- To provide a high level of road network accessibility to the Site in support of those uses that generate a demand without unreasonable impacts on existing and future residents.
- To minimise through traffic on Pentridge Boulevard and retain its use as a local connector street primarily for users of the abutting uses.
- To provide for service vehicle, waste management and emergency vehicle access.

In order to deal with these issues appropriately, a range of low-speed access points are provided to the north, south, east and west of the 'walled' area. The internal circulation patterns have been configured to maximise the choices available to both the local and wider catchment, and to distribute demands across a range of access points in line with the surrounding road network and the distributed nature of parking throughout the Site, while at the same time discouraging through traffic movements.

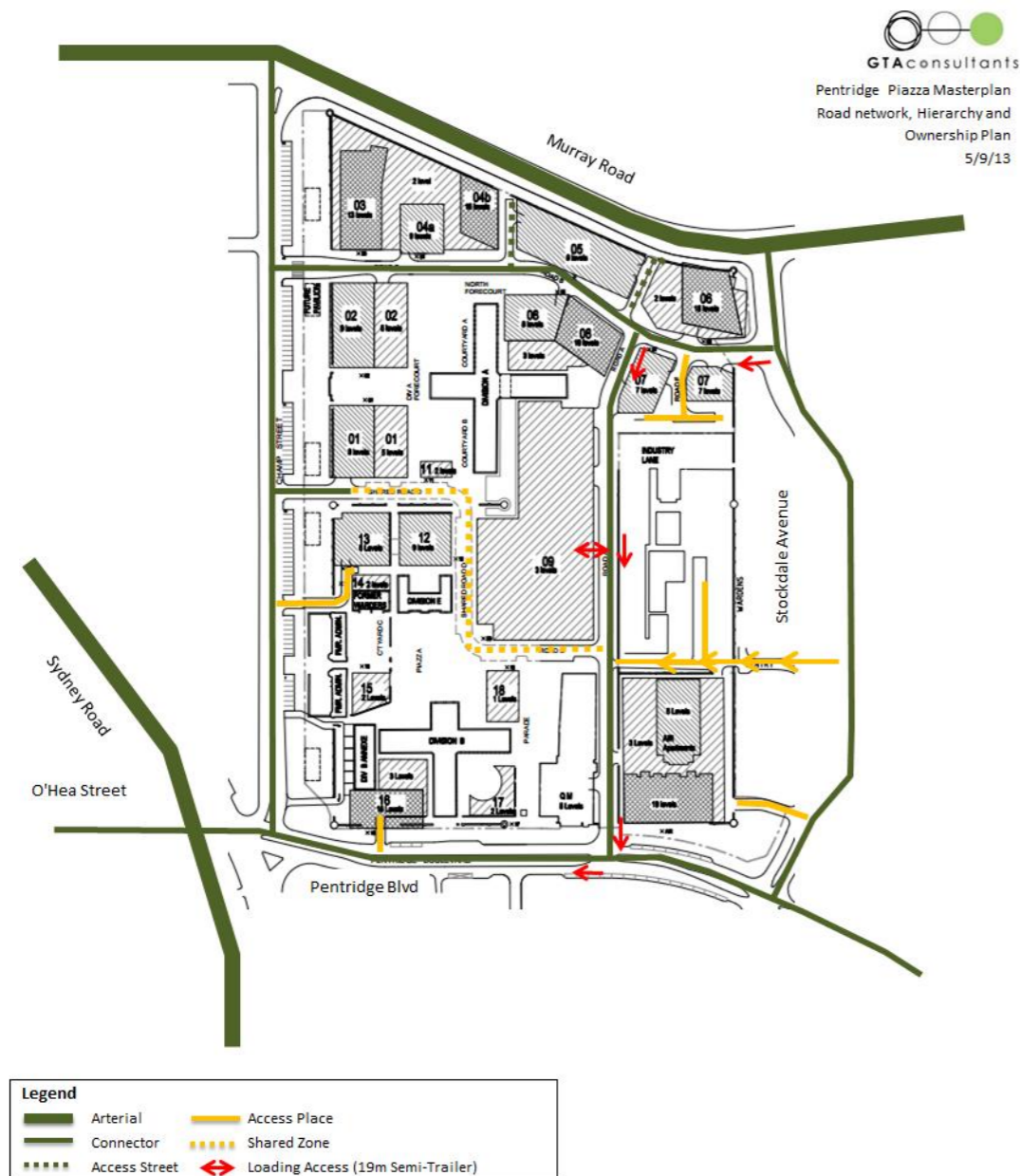
The resulting road network access and circulation concept integrates with the public transport and pedestrian and cyclist concepts and has the following general elements:

- A road hierarchy differentiating between visitor and resident demands and inclusive of "shared" links.
- Provision of a clear and logical network of internal roads with a series of private linkages through the central piazza section of the site to encourage its use for a range of purposes and to clearly define its role as a shared zone.
- Private roads to maximise the flexibility of open spaces by allowing roads to be closed to vehicles during special events. The road network will be able to accommodate necessary traffic movement during such occasions.
- Use of commonly recognisable public infrastructure (lighting, seating, bicycle parking, public amenities, etc.) within private roads to clearly define their public space role.
- Main road network access via all frontages to minimise unreasonable impacts on surrounding residents.
- Access to the precinct via the southern frontage to Pentridge Boulevard, western frontage to Champ Street and east frontage to Stockade Avenue and Murray Road.
- Provision for potential widening of the Champ Street and Murray Road access points and resulting wall breaches to allow for three traffic lanes at each access point.
- Retention of the ability to use the Site land external to the wall along Champ Street for a range of purposes including road network access and parking.
- Retention of the ability to satisfy permit conditions regarding approved parking rates and allocations for the QM and Sentinel Sites, although possibly in alternative locations.
- Ability to accommodate typical requirements for roads in respect to civil engineering and associated standards.

The issue of road names has not been resolved as part of the masterplan. The road names adopted at this time are generic only with the actual names to be selected via a separate process to the masterplan. The Council letter dated 17th April 2008 deals with this issue.

Figure 7.1 shows the road network access strategy for the Site along with the road hierarchy.

Figure 7.1: Road Network Access Strategy and Road Hierarchy



7.3 Loading, Waste and Commercial Vehicle Activity

In keeping with the access and movement strategy, access by commercial vehicle and waste collection vehicles must be managed so as to ensure adequate servicing whilst minimising conflict and poor amenity outcomes.

Key elements for the management of loading, commercial and waste collection vehicle access include:

- The implementation of a commercial vehicle access management plan.
- Development of a loading and waste management strategy that maximises access to and from Pentridge Boulevard with lower levels of activity to Murray Road, while consolidating loading and waste points internally, and concealing them where possible.
- Development of agreed access and waste management arrangements for previously approved developments such as the QM Building, Sentinel and Industry Lane.
- The designation of a key commercial vehicle route to the commercial development in the centre of the site.
- The segregation of pedestrian and cycle use wherever possible from designated commercial vehicle areas.
- The use of appropriate access points across the Site for waste collection, deliveries and servicing where required.

7.4 Car Parking Provision

The approach to the provision of car-parking is to adopt a minimisation policy consistent with the objectives of the CC2020 documentation and state government planning for activity centres.

Clause 52.06 (Car Parking) of the Victorian Planning Schemes was updated in June 2012 and July 2013 and now identifies separate (lower) rates for parking within an activity centres as a start point from which more detailed empirical assessments of similar centres and land uses can be undertaken. The resulting parking rates to be applied reflect the specific characteristics of the Site in terms of the size and mix of uses, and corresponding sharing of demands and efficiencies to be gained through a centralised parking management approach.

An overriding objective is to provide parking in a flexible manner to best adapt to changing circumstances and behaviour patterns in future.

Car-parking has been assessed for both the interim arrangements as development occurs progressively over a period of years, as well as the ultimate conditions following complete development of the Site.

Some development has already been undertaken within the Site and planning permits and traffic and parking reports for these individual developments contain specific details of their car parking provision. These permit requirements are maintained as part of this masterplan.

Details of interim and ultimate car parking provision of the current masterplan was provided in the car parking management plan for the entire site prepared by GTA Consultants and titled 'Pentridge Plaza Car Park Management Plan – Construction Period and Ultimate Occupation²'.

² the most recent version of the letter is dated 5 June 2008

The whole-of-site car park management plan will be progressively updated as the development yields of the proposed master plan become available, or as details change and individual precincts are developed to ensure an adequate number of car spaces are available for each stage of development.

This assessment has been undertaken to examine the adequacy, distribution and management of parking for the range of uses expected. The analysis adopts appropriate activity centre or "shared" rates for the provision of parking for all uses. It specifically references the preparation of travel plans for certain individual development applications within the overall Site to support the lower rates and sustainability objective.

Key elements of the parking plan include:

- Provide for efficient access to a range of car-parking spaces distributed throughout the Site for convenience to the range of users.
- The majority of public parking will be provided in a centralised location servicing a range of uses which experience different temporal profiles of demand and as such can share a common resource.
- Long term users such as residents and staff will have allocated private parking while short term retail patrons and other visitors will utilise the shared pool of spaces.
- The centralised location will be accessed via a north south aligned road (Road A) adjacent to the eastern edge of the car parking.
- Provide for allocated parking in separate locations or with separate access arrangements where relevant to maximise the efficiency of the Site's operation.
- Provide for residential visitor parking in a mix of on-street and off-street spaces, again making use of the shared or common pool where relevant. Residential buildings will include residential parking in a basement or podium configuration where required.
- Other visitor parking will be available on street within the Site and around the Site such as along Champ Street and Pentridge Boulevard.
- Other areas for parking provision are potentially available within the Site depending on the final land use mix and yield adopted.
- Provision for future parking charges or pricing as a further management tool to better manage supply and demand as is common for mixed use centres.
- Adequate provision during the staged construction of the Site.

Centralised public parking will be provided within the area known as Building 9. Prior to its development, this area will also provide a temporary parking location for a range of uses. Following its development as the key retail and commercial core of the Site, it is to contain a public car park. The parking will be owned and managed by the entity in control of the centre as is typical with mixed use centres of this type.

In addition, discussions will be held with operators of shared car systems such as Flexicar and GoGet to investigate the feasibility of a dedicated on-street and/or basement car space or spaces, as well as the ability for basement or podium parking areas to accommodate scooter and motorcycle parking as a replacement for car parking. Opportunities also exist for the residential parking to be managed in such a way so as to best match demand and supply on the basis that a proportion of dwellings do not own cars. Again, the approach is to provide future residents with a real opportunity to live in a place where it is not necessary for them to own a car.

Supporting initiatives such the preparation of travel plans for a selection of the major development proposals within the overall Site are supported, where sustainable travel behaviour can be encouraged from initial occupation.

The masterplan seeks to deal with the issues of both car ownership and car use, to set in motion a pattern of behaviour at the start of the development's life that is consistent with the access and movement principles stated earlier.

7.4.1 Recommended Car Parking Rates

As a guideline for further development within the Site, Figure 7.1 provides an example range of parking provision rates which may be applied to each development component as part of the planning permit application process.

Table 7.1: Guiding Rates for the Provision of Parking within the Site

Use	Spaces per	Recommended Rate Range
Residential Units	per residential unit	0 – 2
Office	per 100sq.m	2.5 – 3.0
Supermarket	per 100sq.m	3.3 – 5.0
Retail	per 100sq.m	1.6 – 3.5
Food and Drink	per seat	0.1 – 0.4
Childcare	per child	0.15 – 0.3
Other	various	To be agreed

In establishing the rates provided above we have considered the updated Parking Provisions in the Victorian Planning Scheme and an extensive body of empirical evidence from similar developments. The actual rates to be applied to each development will be based on specific empirical evidence and will accompany each development application.

8. Key Outcomes

The key outcomes of the Access and Movement Strategy are summarised below.

GENERAL

- The overarching objective for the Access and Movement Strategy is to provide for a range of attractive travel options so that users of the Site are presented with real choice as to mode of travel and to be consistent with the objectives of both Melbourne@5million and CC2020.

PUBLIC TRANSPORT

- Provision of visible, safe, attractive and functional linkages to the surrounding public transport nodes.
- Suitable provision made for bus services to be introduced in future in terms of road network geometry and stop locations.
- Potential re-routing of bus services currently using Champ Street to better service Pentridge as a whole by travelling along Stockade Avenue and Pentridge Boulevard.

BICYCLE AND PEDESTRIAN FACILITIES

- The pedestrian network will be clearly legible and inviting to use to maximise the convenience, safety and pleasure for pedestrians of all ages and abilities.
- A major initiative by C2020 is the new pedestrian north-south spine, which is reinforced through the Masterplan and is continued through the Site and across Murray Road.
- Pedestrian activity within and immediately surrounding the precinct will be given priority where relevant and will permeate all roads and paths both within, to/from and through the Site.
- Provision of end of trip facilities and secure and protected bicycle storage for residents and visitors at various locations around the Site.
- Bicycle parking provided at or greater than the rates set out in the Moreland Planning Scheme.

ROAD NETWORK ACCESS

- The internal road network to be configured to maximise the choices available to both the local and wider catchment, and to distribute demands across a range of access points in line with the surrounding road network and the distributed nature of parking throughout the Site, while at the same time discouraging through traffic movements.
- Private roads to maximise the flexibility of open spaces by allowing these roads to be closed to vehicles during special events. The road network will be able to accommodate necessary traffic movement during such occasions.
- A loading and waste management strategy that maximises access to and from Pentridge Boulevard with lower levels of activity to Murray Road, while consolidating loading and waste points internally, and concealing them where possible.

CAR PARKING

- The approach to the provision of car parking is to adopt a minimisation policy consistent with the objectives of the CC2020 documentation and state government planning for activity centres.
- Long term users such as residents and staff will have allocated private parking while short term retail patrons and other visitors will utilise a shared pool of spaces in a

centralised location servicing a range of uses which experience different temporal profiles of demand and as such can share a common resource.

- A whole-of-site carpark management plan will ensure an adequate number of car spaces are available for each stage of development.

9. Summary

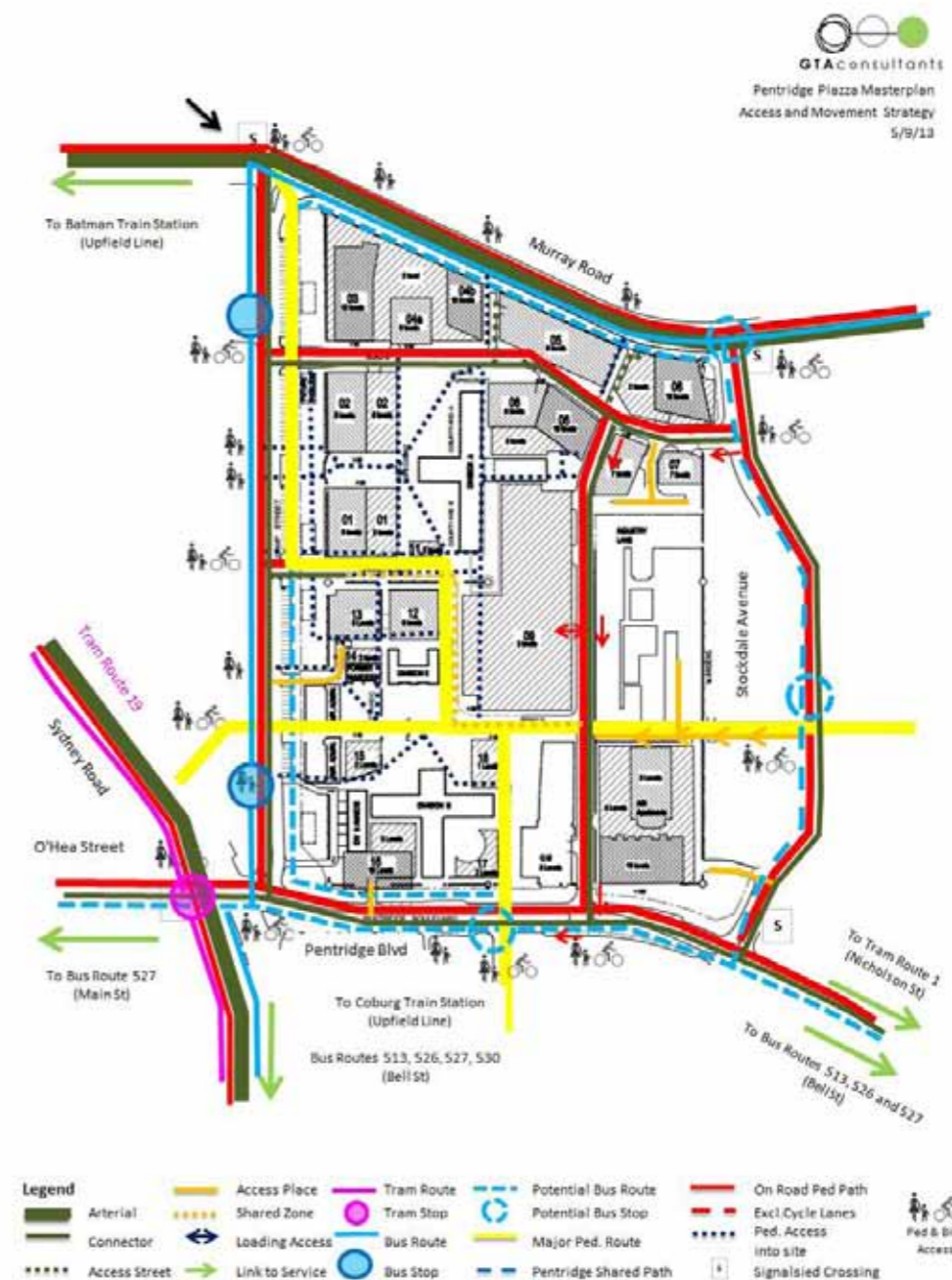
The Site is to be serviced via an Access and Movement Strategy as set out in this document. Further information about the interaction of the various land uses with traffic and transport infrastructure is contained in the Design Guidelines and Masterplan document.

The key principles underpinning the approach are consistency with CC2020 and resulting integration with Central Coburg for all user types and modes. The intent is to create a place where there are a range of real access options that together represents a sustainable approach to travel consistent with longer term targets for behaviour change. This minimises private vehicle travel and car-parking demands, while balancing the practical needs of the Site in terms of road network access and parking provision.

Separate figures are presented that summarise the approach for each of: public transport, pedestrian and cyclists and road network access with the overall Access and Movement Strategy set out in Figure 9.1.

Following approval of the proposed Masterplan, separate and more detailed submissions will accompany individual permit applications, but that further work will be guided by the principles and approach set out in this document.

Figure 9.1: Site Access and Movement Strategy





Appendix A

DoT Referral Response

Appendix A

PO Box 2797
Melbourne, Victoria 3001
Telephone: (03) 9655 6666
Facsimile: (03) 9095 4096
www.transport.vic.gov.au
DX 210410

Our Ref:

Ref:
File: FOL/08/29181

GTA Consultants
PO Box 684
KEW VIC 3101

Dear Sir/Madam

PENTRIDGE PIAZZA DESIGN GUIDELINES AND MASTERPLAN

I refer to the *Pentridge Piazza Design Guidelines Guidelines and Masterplan* prepared by NH Architecture and the *Pentridge Piazza Design Guidelines and Masterplan – Access and Movement Strategy* prepared by your office.

For the purposes of this response, I have broken down the Director of Public Transport's response into two key areas, namely:

- Built Form and Masterplan Design Response.
- Exterior Influences Beyond Site Boundaries.

Built Form and Masterplan Design Response

Overall the proposed design response is considered to be appropriate from a public transport perspective. It is noted that public transport services will not run directly through the subject site. Access to public transport is relied upon from the following means:

Train

- Batman railway station which is located approximately 800 metres walk from the subject site. The railway station is located on the Upfield line.

Tram

- The site is located within 400 metres walking distance of Tram Route 19 which links the CBD with North Coburg.

Bus

- 525 – Coburg to West Reservoir via Newlands Road.
- 526 – Coburg – West Preston.

- 530 – Cambellfield to Coburg via Fawkner
- A number of cross-town bus services operate along Bell Street which includes the SmarBus route.

Given the above, it is generally relation to public transport services.

Exterior Influences Beyond the Site Boundaries

Whilst it is noted that the subject site has good access to public transport, there are a number of elements which need to be acknowledged beyond the boundaries of the site. These include:

- The construction of Pentridge Boulevard.
- The construction of the intersection of Pentridge Boulevard and Stockade Avenue.

I understand that there has been significant history which relates to the construction of Pentridge Boulevard, and significant lead time beyond the current ownership of the subject site. I also understand based on discussions with you, that there has already been approvals granted for the construction of Pentridge Boulevard, and works have already commenced on site. Given this, it is important to note some of the implications that the construction of Pentridge Boulevard will have on the public transport aspects of the subject site, particularly because the Access and Mobility Strategy rely on the ability to be able to provide public transport services now and into the future.

Construction drawings of Pentridge Boulevard indicate that the intersection with Champ Street has a left turn only from Champ Street. Existing bus services run south along Champ Street, turning right and then run south down Sydney Road. The current arrangements will no longer be able to occur with the new road design.

Given the above, there are two scenarios which will likely occur following the construction of Pentridge Boulevard and intersection treatments:

- Buses will continue to run south along Champ Street, then will turn left into Pentridge Boulevard running south-east to the intersection with Bell Street, then turn right.
- Buses will not continue to Champ Street, rather turning left into Stockade Avenue running south to Pentridge Boulevard, then turn right and run west along Pentridge Boulevard, turning left into Sydney Road.

Attachment A demonstrates these road movements.

It is understood that the construction of these roads is beyond the limits of the masterplanning process for the subject site, however these issues must be noted when making an appraisal of the public transport interests of the site. Once the construction of Pentridge Boulevard has been completed, a more thorough assessment of the road networks will be established and the final bus routes will be determined.

Overall Response to the Masterplan

Given the above, it is considered that the proposal is appropriate from a public transport perspective. Whilst there may need to be some revision of bus routes that run in the locality following the construction of Pentridge Boulevard, this does not alter the support for the proposal from the Director of Public Transport.

It is noted that there have been indicative stop locations shown on the plans which are notionally supported. These would however rely upon the final bus route being determined.

The Director of Public Transport looks forward to opportunities to continue working with GTA to ensure that the public transport services will continue to be delivered in an effective manner.

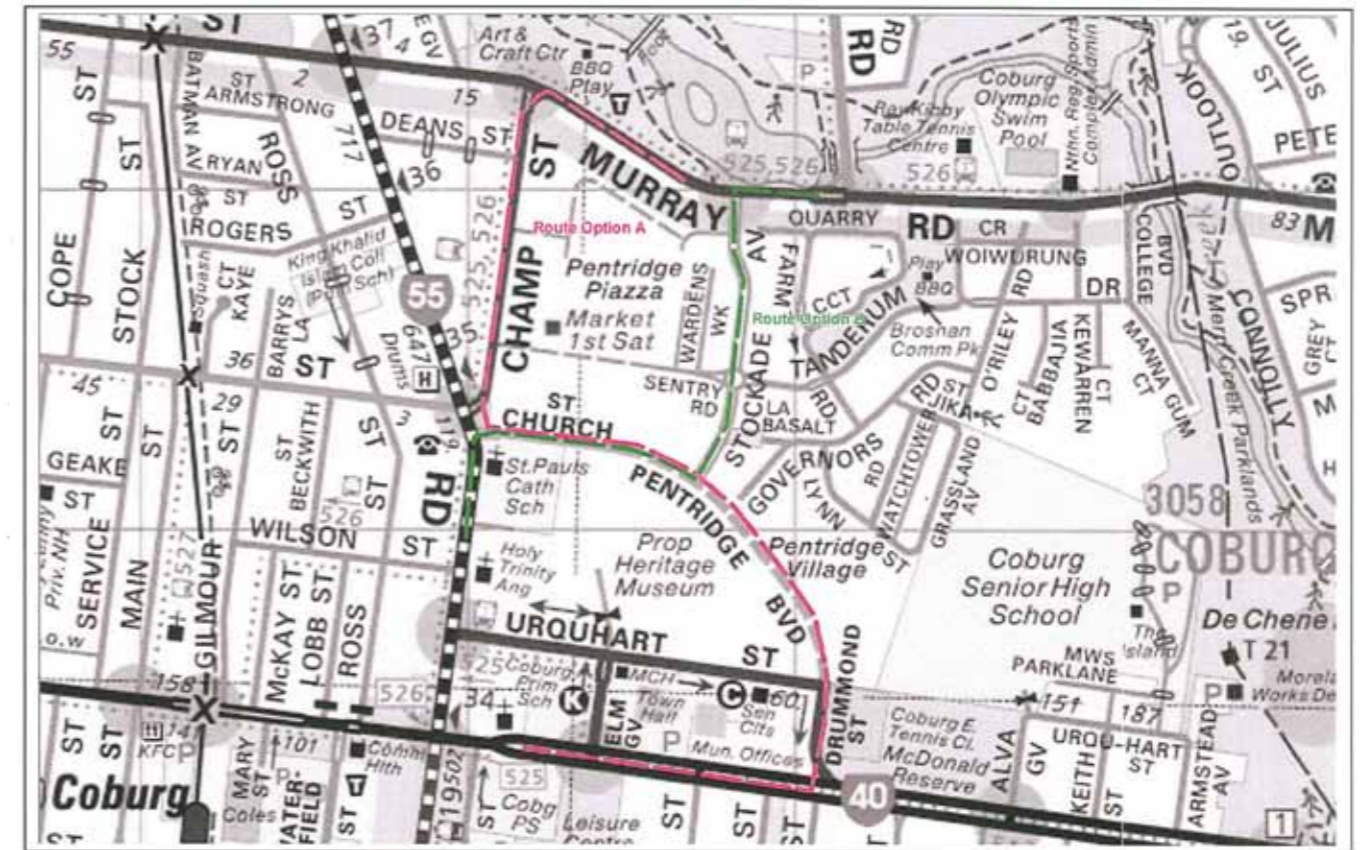
Should further information be required, please contact me on 03 9095 4107.

Yours sincerely

BRETT HOPE
 Planning Referrals Co-ordinator
 Delegate of the Director of Public Transport

21 / 3 / 2008

Attachment A





DIVISION D NORTH WEST COURTYARD



appendix d. landscaping considerations (aspect studios)

PENTRIDGE MASTER PLAN

Landscape directions

October 2008

Revised January 2014



ASPECT Studios™

1.0 INTRODUCTION

In August 2013, ASPECT Studios were appointed by Shayer as part of a Consultant team investigating the redevelopment of the Pentridge site. They were to provide public realm advice and landscape architectural design services, as part of an amended Master Planning submission.

This was to build on the original work undertaken by LandDesign Partnership Pty. Ltd. that commenced August 2007.

The process in undertaking this work included:

- Analysis of the site to confirm opportunities and constraints presented by the existing buildings and landscape.
- Review of existing planning and policy documents, particularly Coburg Activity Centre, to understand objectives contained in these documents which will be relevant to the Pentridge site.
- Preparation of context analysis plans, describing key site elements impacting upon design directions.
- Development of Public Realm Design Principles and Approach, to guide the layout and design of the site.
- Preparation of an amended overall Landscape Master plan for the site, along with amended plans for key areas expressing the design approach to be taken in such spaces.



Figure 1 Context Plan

2.0 THE SITE AND ITS SURROUNDS

2.1 Site Context: Access and Connection

2.1.1 Key community features

Pentridge is surrounded by a range of commercial and community features, as illustrated on Figures 1 - 3, and as summarized below:

Coburg Commercial Centre - Sydney Road, south of Bell Street

Schools

- King Khalid Islam College
- Coburg Primary School
- Coburg Senior High School
- St.Pauls Catholic Primary School

Community Facilities and Open Space

- Coburg Town Hall and Civic Centre
- Holy Trinity Anglican Church
- Coburg Lake Reserve
- Coburg Olympic Swimming Pool
- Bridges Reserve and Coburg Leisure Centre
- Merri Creek Parkland and Trail
- Harold Stevens Athletics Track
- De Chene Reserve
- McDonald Reserve
- Brosnan Community Park



Figure 2 Existing and proposed connections with community facilities

2.1.2 Key connections and access points

Pentridge is well connected into its surrounding community, and the facilities and features listed above, by a range of physical connections including:

- Pentridge Boulevard (proposed) linking to Sydney Road and to Coburg Senior High School and McDonalds Reserve, via Urquhart Street
- Warders Walk (proposed) linking to Coburg Primary School, Coburg Town Hall and Civic Centre and, via Elm Grove, Bridges Reserve and Coburg Leisure Centre
- Murray Road, linking to Coburg Lake Reserve and Merri Creek Parklands
- Champ Street, linking to Sydney Road and Coburg Lake Reserve
- Tanderum Drive, linking to Brosnan Community Park and the Merri Creek Parklands



Figure 3 Existing open space connections

2.2 The Site Proper: Forms and Spaces

2.2.1 Buildings and Walls

The Pentridge site contains a range of built structures - buildings and walls - which are remnants of the previous prison use. These buildings are significant historically and, particularly, in the case of the walls and associated turrets, present a powerful architectural image. The significance and character of these built elements are described elsewhere in the Pentridge master plan report.

2.2.2 Slope and Topography

The "parent" landscape of the Pentridge site would have been dominated by the Merri Creek, running to the east and north of the site. The site itself, located above the immediate creek valley, would have formed part of a relatively simple undulating landform sloping generally towards the Creek.

While the site in its current form has clearly been substantially modified, it continues to demonstrate the general nature of the parent topography, showing considerable change in level from its southern boundary, with an approximate RL of around 65.50 at its south-western corner, to its northern boundary, with an RL of around 52.00 at its north-eastern corner on Murray Road. The modifications to the original topography have, however, seen the site being divided topographically into two halves.

The southern half, between the southern boundary and the central east-west bluestone wall south of A division, is relatively flat, with an average fall of less than 2.0 m across a distance of almost 170m - an average grade of around 1:85. North of this wall, however, the site falls more dramatically, dropping 8-9m over as little as 140m. The impact of this topography is that the southern half of the site presents the opportunity for public spaces on relatively flat topography, while the variable topography of the northern half presents the opportunity for buildings of varying heights on variable topography.



Figure 4 Generalized Topography

2.2.3 Vegetation

The original pre-settlement vegetation associated with the Pentridge site would have consisted of the Plains Grassy Woodland EVC, characterized by open woodland of mainly River Red Gum trees with a simple grassy understorey. With development, however, this vegetation community has long since been removed and replaced in private gardens, road reserves and open space areas with an exotic mix of mainly European tree species, with some more recent planting of non-indigenous Australian species.

Typical widespread tree species planted in the area surrounding the site include:

- *Cupressus sempervirens*
- *Ulmus procera*
- *Schinus molle*
- *Phoenix canariensis*
- *Eucalyptus tricarpa*
- *Corymbia citriodora*

Vegetation on the Pentridge site itself is minimal, and, as with its surrounding context, consists of non-indigenous planted trees mainly associated with buildings. Since these trees exist as specimens, rather than as components of avenues or masses, their primary potential in the development of the master plan is as focal trees within smaller scale courtyard spaces. The obvious contrast is the lineal avenue of River Red Gums which exists along the eastern edge of Champ Street, providing a visually interesting counterpoint to the otherwise dominant bluestone wall on the western boundary of the site, and providing a strong visual link along Champ Street, from Sydney Road to Murray Road. Interestingly, while these Red Gums have been planted, they would have formed the primary tree species within the original vegetation community of the site.



2.2.4 Connections

As noted above, the Pentridge site has a range of connections with features which make up its surrounding context. Within the site there are also a number of key connections which should be taken advantage of and emphasized in the site master plan. These are highlighted on Figure 5 and include:

- The east – west link from Sentry Lane across Pentridge to Champ Street
- The east – west connection inevitably formed by the central wall, between Champ Street and the western edge of the Industry Lane development.
- The north – south link from the future Warders Walk to Murray Road, incorporating features such as the existing chimney in the south of the site and the sentry tower forming part of the central east – west wall
- The north – south connection along the western edge of the Industry Lane development into its surrounding

These connections also suggest important view corridors across the site, defined largely by walls and focusing on key visual elements such as chimneys, turrets and sentry towers.

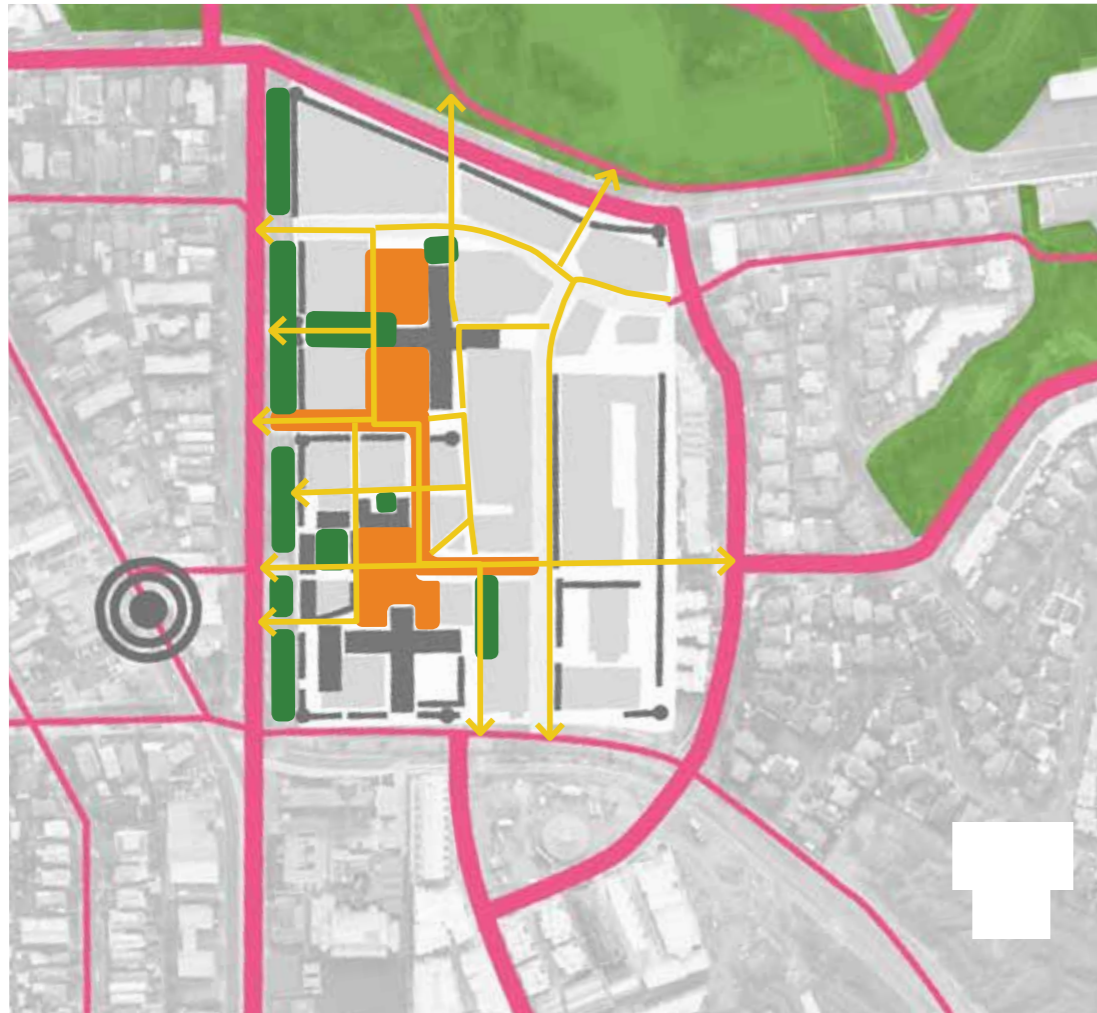


Figure 5 Proposed Open Space Connections



Figure 6 Proposed Open Space Connections

3.0 PUBLIC REALM: DESIGN OBJECTIVES and PRINCIPLES

OBJECTIVES

In developing the open space and public realm of Pentridge, there are a number of key objectives which have been considered.

The public realm should:

- Be integrated, so that a network of linked spaces, of diverse character, is created;
- Be inviting and legible at the interface with its boundaries, so that visitors are encouraged to explore its spaces and activities;
- Be attractive and comfortable, with spaces that are accessible and safe with high levels of amenity and a human scale;
- Provide physical and passive recreational opportunities of the residents and visitors;
- Have regard to appropriate surveillance and safety needs;
- Be easily navigated, so that clear movement routes are provided for vehicles and pedestrians;
- Be interactive with the ground level of all buildings;
- Be respectful of heritage, so that existing buildings and other structures are well presented and incorporated into the design of spaces and movement corridors;
- Provide opportunities for urban art and heritage interpretation, particularly that which reflects the site's penal history.

PRINCIPLES

In achieving these objectives, as well as the Urban Design Policies outlined in the overall Pentridge Master Plan report, the public realm of the Pentridge site and its constituent spaces should be designed in accordance with a range of key design principles.

These key design principles include:

Public Spaces

Public spaces within Pentridge will be recognisable as such through the consistent and integrated use of urban landscape elements such as thematic pavement treatments, urban furniture (seats, litter bins, cycle hoops, drinking fountains etc), public lighting (for both safety and thematic continuity) and other public amenities. The detail of such elements will be agreed with the City of Moreland and will be used in a consistent manner across the site to contribute to the creation of a unified and clear public realm.

Permeability

The Pentridge public realm should encourage and facilitate the simple and direct movement of particularly pedestrians and cyclists through the site. This will involve the identification of numerous clear points of entry into the site, through strong visual and spatial design, as well as obvious and high amenity routes through the site from these entries.

Permeability, and connection to local open space, is a key objective of the Coburg Activity Centre Structure Plan, and will be a key principle in the Pentridge design. The proposed design will not only achieve the objectives of the Pentridge Redevelopment Precinct Plan, as outlined in the Structure Plan, but will surpass that plan in the number of connections provided.

Activation of public space

Key public spaces, at various scales, should be activated by the function of buildings which define them. This will involve both commercial and community activity spilling from buildings into adjoining open spaces such as squares, courtyards and arcades.

Flexible / multifunctional public spaces

Rather than facilitating single uses, key public spaces should be suitable for a wide range of uses, including community gatherings and events, public performance, children's play, larger commercial uses (such as markets, outdoor cinema etc), eating and drinking, relaxing.

Diversity of public space

Successful public space networks are most effective when they provide diversity in terms of spatial character, function and scale. Rather than a single focal space within the public realm, Pentridge will feature a range of spaces of various forms and scales, connected by a high amenity network of pedestrian linkages.

Response to heritage elements

Physical structures at Pentridge are key to understanding the history of the place, and in giving a sense of continuity to the site. This is not a new place, but an old place with a new function and role. In this regard key physical heritage elements, mainly buildings and walls, will be retained and incorporated into the new design. While the role of such elements (containment and control) will change, so that they are seen as objects within spaces, rather than objects which contain spaces, their significance will remain as key components of the Pentridge public realm.

This principle will lead to a direct expression of the Coburg Activity Centre objective to "reduce the impact of Pentridge's walls as physical and psychological barriers".

Materials

The material expression of the Pentridge public realm should consider a range of design principles:

- Response to existing building material and character – color, material type;
- Deliberate insertions into existing heritage fabric should be clearly identifiable;
- Response to previous use of the site;
- Durability; and
- Human scale.

The expression of these principles will be resolved in the design phase of the Pentridge development. The potential outworking of these principles in the overall master plan, as well as in a number of typical spaces has, however, been explored, resulting in a master plan which expresses a multi-layered network of public spaces.

Urban Art

The public realm will provide the opportunity for inclusion of urban art within Pentridge, particularly in a form which provides comment and allows for interpretation of the penal history of the site and highlights the story of those who spent time inside the prison walls.

Lighting

Lighting within the public realm is critical to provide for the feeling of safety and security. Appropriate lighting will be provided within the public realm within Pentridge and to this end a public lighting plan will be prepared within 6 months of approval of this Master plan.

4.0 PUBLIC REALM: A NETWORK OF LINKED SPACES

4.1 Diverse spatial character

The amended Landscape Master Plan for Pentridge, as shown on Figure 7, illustrates a public realm which comprises a network of linked public spaces, creating the frameworks within which built elements, both new and existing, sit, and through which users of the site – residents, workers, and visitors – move. Pentridge will present a variety of public space opportunities, in that the public realm will consist of spaces of varying scale, function and character, yet all forming a cohesive whole through the use of a complementary range of materials and design details. Key features of the public realm include large focal spaces, such as the central Piazza, two local parks, smaller, more intimate courtyard spaces and transitional spaces, such as lanes and arcades.

This variety will create spaces with not only diversity of function but also diversity of character, contributing to a richness of space across the site. In this regard, the varied character of the open space will contribute to meeting the Coburg Activity Centre objective of “Access for All”.

The Piazza

The main central space of the development will be the Piazza, which will be a space defined primarily of existing buildings (Division B and Division E) and bluestone walls. Secondary definition and activation of the space will also be provided by a number of new contemporary buildings, and open air structures, leaving a space for a range of community and visitor uses, in accordance with the Coburg Activity Centre objective of promoting Coburg as a destination for visitors and tourists. The focal nature of the Piazza is emphasized by its location near the nexus of the primary east / west and north / south pedestrian movements through the site.

Two Local Parks

The open spaces to the west of the Division A north-south transect will include two local parks. The northern park will include a range of outdoor recreation facilities, community gardens, seating and a lawn area. The southern park has the character of a courtyard garden and will include productive trees (orchard groves) and gardens, open air structures, toddler and children play spaces and a community building. These two public spaces focus on comfort, amenity and activities for local residents of all ages and abilities, and will be open to broader community use. A row of feature trees connect the two parks along the western edge.

Pedestrian pathways

The diversity of spatial character expressed throughout the Pentridge public realm will be unified by an intricate network of intimate yet logical arcades and laneways. This network will create connections between spaces and buildings, and contribute to the human scale and amenity of public realm. Many laneways will operate on a 24 hour basis.



Figure 7 Landscape Concept Master Plan

4.2 Key Design Features

The potential application of the design principles described above is illustrated by preliminary concept designs for a number of key areas at Pentridge, as outlined below.

4.2.1 Interface Areas

The City of Moreland commissioned and adopted, in May 2006, the Pentridge Streetscapes Concept Design. This concept plan provides a design context for public spaces adjoining Pentridge, on Murray Road, Champ Street and Pentridge Boulevard. The design direction outlined in the current Pentridge master plan is broadly in accordance with the intent and principles of the Pentridge Streetscapes Concept Design, particularly in the following aspects:

- Retention of existing trees on Champ Street;
- Provision of additional new trees on Champ Street to improve pedestrian amenity;
- Provision of a continuous new pedestrian route along Champ Street;
- Reinstatement of a "heritage" fence, with complementary detailed planting, to the former main prison entry off Champ Street;
- Provision of a broad pedestrian interface with Pentridge Boulevard.

The Pentridge master plan departs from, or expands upon, the Pentridge Streetscapes Concept Plan through the provision of additional design resolution, particularly through the extension of "internal" treatments (particularly pavements) into the Champ Street and Pentridge Boulevard corridors as a means of transcending the "physical and psychological barriers" created by the Prison walls, as identified in the City of Moreland's Coburg Activity Centre Initiative

Pentridge Boulevard / Warders Walk Interface

The key principle of permeability of the Pentridge site, especially for pedestrians and cyclists is illustrated by the southern interface, where the site meets the future Pentridge Boulevard and Warders Walk. At this interface, there will be the potential to create a number of openings through the existing bluestone wall to not only increase permeability, but also visual interaction between the "outside" and "inside" of the site. The key element of permeability would be the main north – south link, aligning with Warders Walk, through Pentridge Village to the south, and leading ultimately to Murray Road in the north. Permeation of the southern wall would be emphasized by the flowing through of ground surfaces to the edge of Pentridge Boulevard, so that the walls become elements within spaces, rather than edges to them – a key design principle throughout the development.

The Pentridge Boulevard interface and the Champ Street interface (following) aim at integration of the site with its immediate context, achieving the Coburg Activity Centre Structure Plan objective of seeing such interfaces come "alive". Both will also promote the "simple but contemporary" design approach advocated by the Structure Plan.



Figure 8 Pentridge Boulevard Interface



Figure 9 Champ Street Interface

Champ Street Interface

In a similar fashion to the Pentridge Boulevard / Warders Walk Interface, the interface with Champ Street shows the potential to improve visual and spatial permeability by breaking through the western wall of the site in a number of locations, allowing for the flow of pedestrians and cyclists, as well as vehicles in some locations. In this scenario, pedestrian entry points would be expressed as partial height openings through walls, while vehicle entries would be expressed as full height breaks. Surface materials would flow through the breaks in the walls, providing thematic and visual continuity and connection.

In terms of landscape elements, the illustrated interface concept provides the potential for retention of the important River Red Gums which line Champ Street, as well as new planting of secondary trees to reinforce the lineal spatial character expressed by both the existing trees and the walls.

The interface design will also allow for the broadening of pedestrian pavements which is identified within the Coburg Activity Centre Structure Plan.

Murray Road Interface

As with the Champ Street interface, the interface with Murray Road, on the northern edge of the site, will be made more permeable and "friendly" through a number of clear design initiatives.

These initiatives include:

- Proposed breaks in the existing wall to allow for physical and visual communication between Murray Road and the internal environment of the development. Pedestrian entry points would be expressed as partial height aperture openings through walls,
- Provide a wider pedestrian zone along the southern verge of Murray Road, replacing the existing grassed verge. A broad concrete path may be required to be implemented at the base of the existing wall, protecting the structural integrity of the existing wall and providing improved pedestrian amenity, and reflecting the general approach taken on the southern edge of the development, at the Pentridge Boulevard interface; and
- The "undergrounding" of the existing Murray Road powerlines, as part of a broader City of Moreland strategy to address the full length of Murray Road. This would aim to improve visual amenity from the points of view of drivers, pedestrian and residents. This will be subject to discussions with power authorities and the State government.



Figure 10 Murray Road Interface

Public Entry Points

When combined, the Champ Street and Murray Road interfaces will provide a number of public entry points into the site through the existing bluestone walls, for both vehicles and pedestrians. These entry points are identified on Figure 11. As noted previously in this report, in discussing the Champ Street interface, these openings will break through the existing walls in a consistent and attractive manner, allowing for “dialogue” between the internal and external environment in terms of materials and connection.

While the detail of these openings will be subject to future design resolution, it is envisaged that vehicle entries will break the full height of the wall, while pedestrian entries will be “partial height” breaks, retaining a bluestone lintel over the opening.

Wall Openings	Existing / Proposed	Type of opening	Reason for opening
Opening 1	Existing	Vehicular	Stockade Avenue vehicle access to apartments.
Opening 2	Proposed	Pedestrian	Connection with Murray Road.
Opening 3	Proposed	Pedestrian	Connection with Murray Road.
Opening 4	Proposed	Vehicular	Champ Street vehicle access to apartments.
Opening 5	Proposed	Pedestrian	Connection with Champ Street.
Opening 6	Proposed	Vehicular	Champ Street vehicle access to residences and Piazza.
Opening 7	Proposed	Vehicular	Connection with Champ Street
Opening 8	Proposed	Pedestrian	Champ Street vehicle access to residences and Piazza.
Opening 9	Existing	Pedestrian	Connection between Champ Street and Piazza.
Opening 10	Proposed	Vehicular	Champ Street vehicle access to residences and Piazza.
Opening 11	Proposed	Vehicular/Pedestrian	Champ Street vehicle and pedestrian access to residences.
Opening 12	Proposed	Vehicular/Pedestrian	Pentridge Boulevard vehicle and pedestrian access to residences.
Opening 13	Proposed	Pedestrian	Connection between Division B and Pentridge Boulevard
Opening 14	Proposed	Pedestrian	Extension of Warders Walk into Piazza.
Opening 15	Proposed	Vehicular	Connection between Road A and Pentridge Boulevard.
Opening 16	Proposed	Vehicular	Stockade Avenue vehicular access to residences.
Opening 17	Proposed	Vehicular/Pedestrian	Connection of Industry Lane / Stockade Avenue with Piazza.

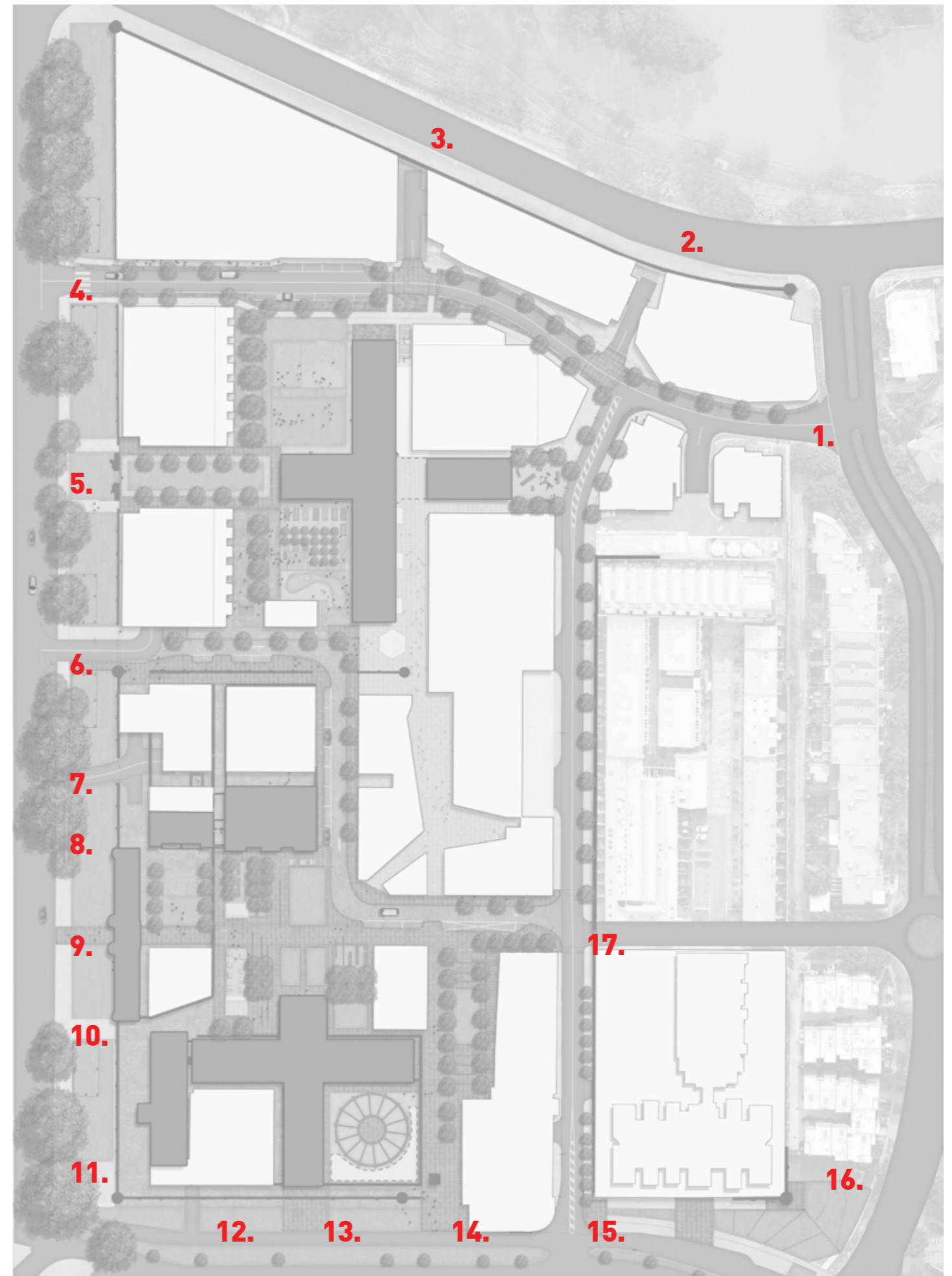


Figure 11 Public Entry Points

4.2.2 Public Spaces: Piazza

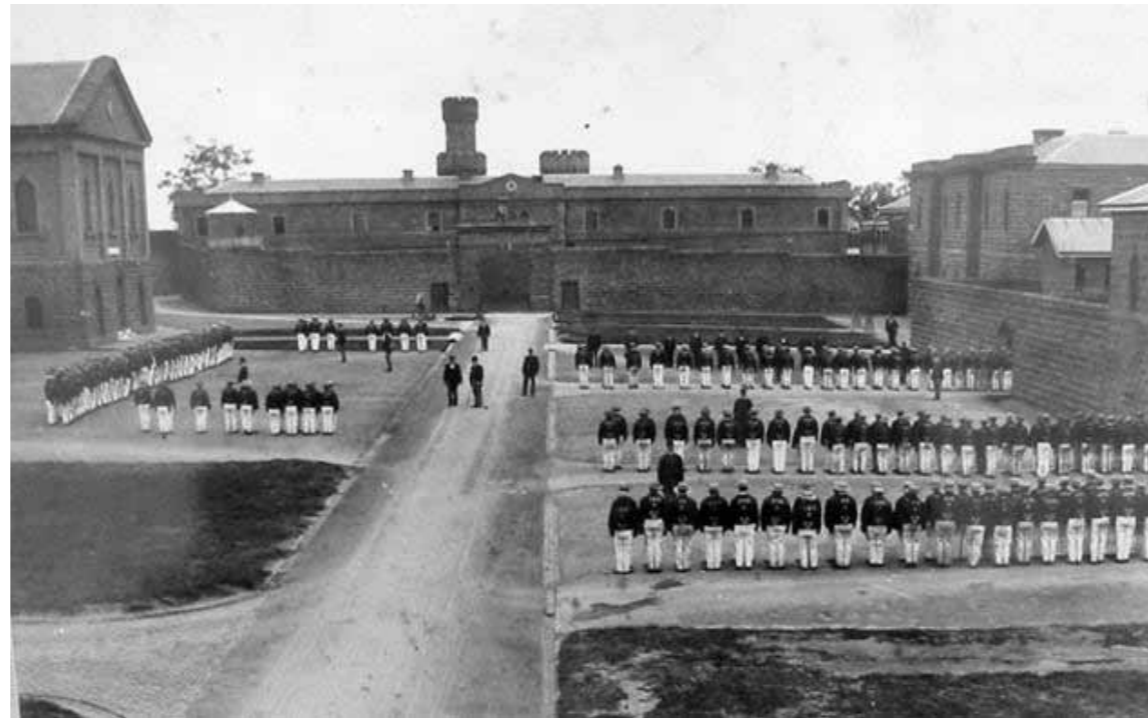
The Piazza, focused on the former Parade Ground, will be the primary public space of the development, albeit one which will sit clearly within the overall public realm network. The piazza will be a significant space within the context of the City of Moreland, both in terms of size and character. The master plan envisages the Piazza space to measure approximately 70m x 50m, providing 3500m² of public civic space. This is significantly larger than any other civic space within Moreland, and is comparable to large spaces within the City of Melbourne, such as the main square within Federation Square (5000m²) and the City Square (3000m²).

The Piazza as illustrated would be primarily defined by historic built elements (walls, E Division, B Division), with activation and definition also provided by new buildings housing retail and commercial functions, especially restaurants. This again is comparable with both Federation Square and the City Square which are adjoined by commercial uses necessary for appropriate activation of large public spaces.

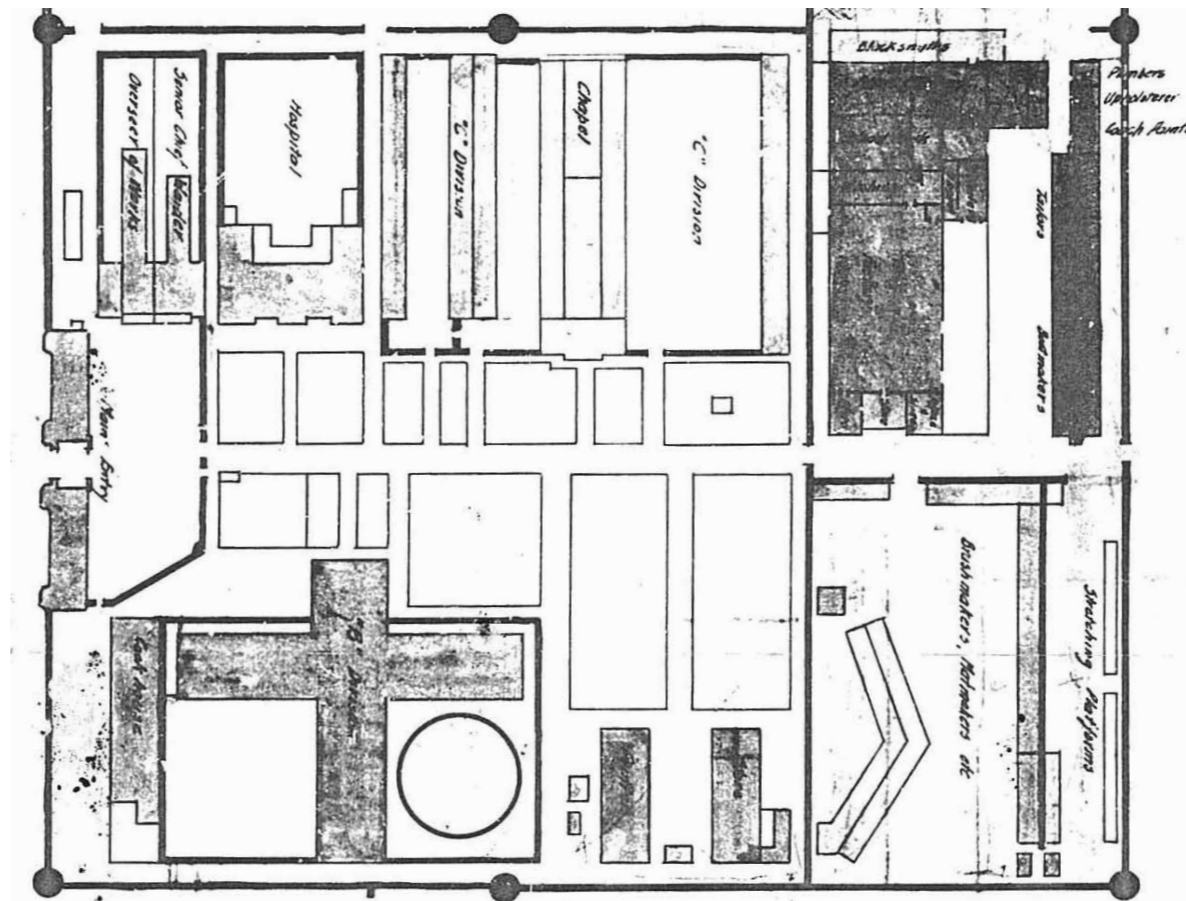
The Piazza will also be activated by its location near the intersection of the primary north - south pedestrian circulation spine (extending from Warders Walk) and the east - west connection, linking Champ Street and Stockade Avenue, as illustrated on the overall site master plan. Access would also be provided for vehicles from the north and west of the site, although it is intended that this be in the context of a "shared environment", so that kerbs are eliminated as a means of defining the vehicle route, and pedestrian pavements flow across vehicle routes, creating a seamless space which flows between built elements.

The character of the Piazza will be of a flexible large open space with detail and human scale and comfort being provided by textured ground surfaces (including lawn areas), furniture (seating, drinking fountains, cycle racks, bins), pavement elements and potentially water elements. Shade and shelter will be provided through strategic canopy tree planting and open air structures. As noted above, the Piazza will be a key civic space for the northern Moreland municipality, providing the stage for a range of community events and functions, such as markets, an open air cinema, community displays, small scale concerts and performances, or temporary arts installations.

The design of the piazza will focus on the following important aspects: interpretation of heritage significance, adequate infrastructure and space for sizable events and elements that will create comfortable, safe and welcoming experiences at all times for people located in nearby residences, services and businesses.



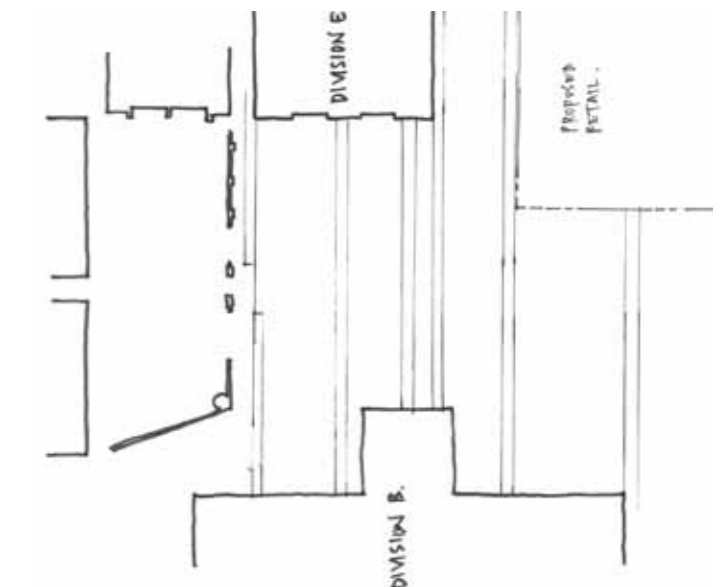
1896 Pentridge Square work muster, Coburg Historical Society



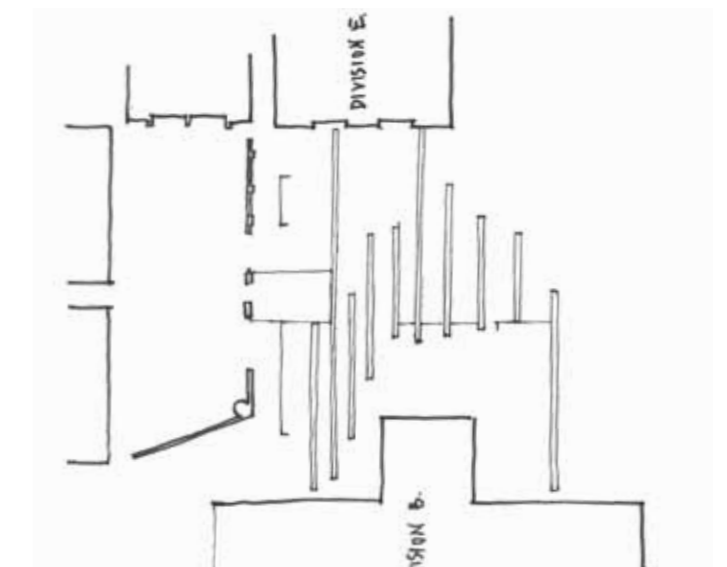
PGP 1.7 Pentridge Gaol Penal Establishment Part Plan - Public Works Department Plan 1853-1998



1. Mustering Yard estimated layout - from photo/plans



2. Extensions of mustering lines - estimated



3. Interpretation of lineups and roadway

Figure 9 Champ Street Interface

Design Principles

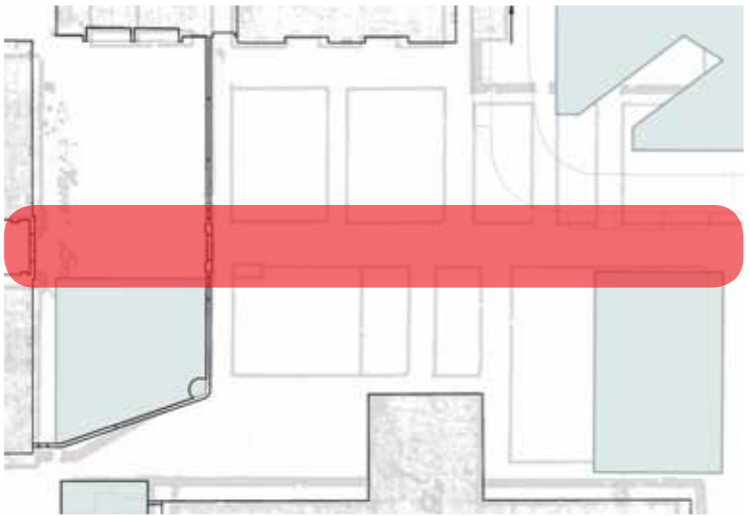
Design principles have been established that have guided the design and approach to the future detailed design of the Piazza.

The design principles have been informed by the historical significance of the place and developed in collaboration with NH Architects, Bryce Raworth and Associates and SHP (Sue Hodges Productions).

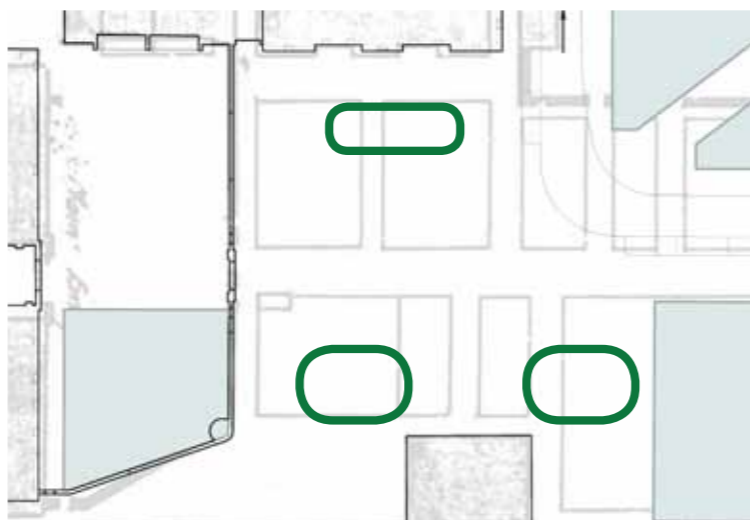
Please refer to Pentridge Coburg Design Guidelines and Master plan 2013 for further design guidelines in regards to adaptive reuse of heritage buildings.



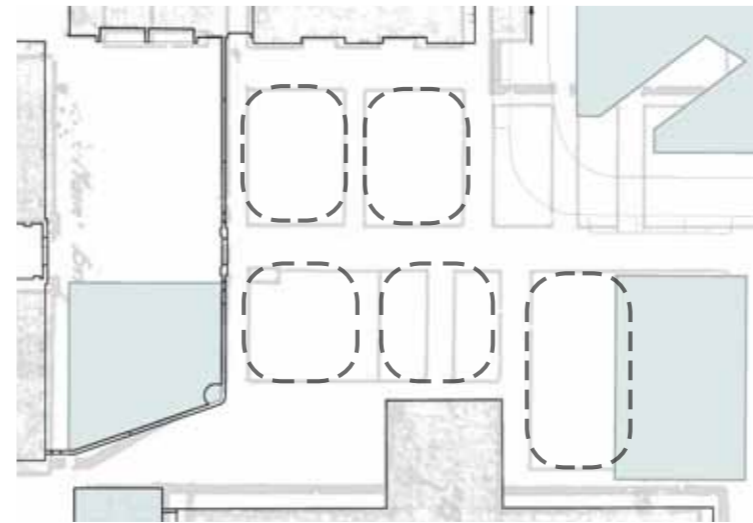
Retain a strong visual and spatial relationship between Division E and B. Important view from Wall K gateway into central space.



Maintain the important open central axis from the Administration Building and Gatehouse to Wall C.



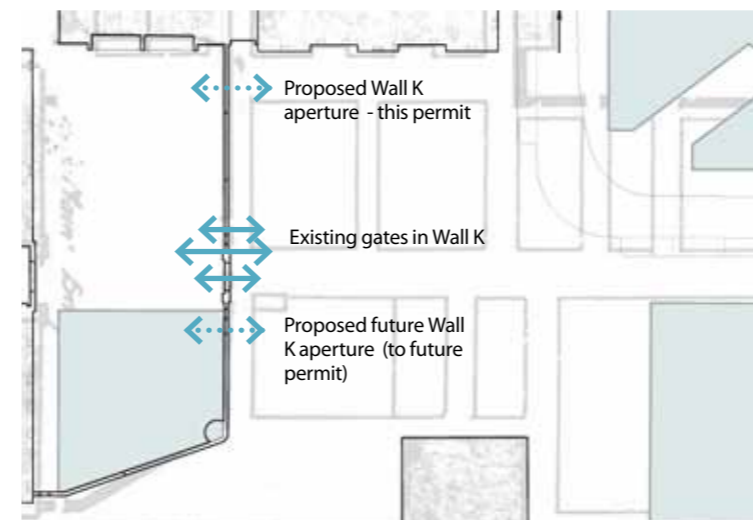
Areas of wind amelioration treatments required to reach sitting conditions all year round (as per Vipac wind specialist recommendations). Wind amelioration can include canopy elements, such as trees and small structures.



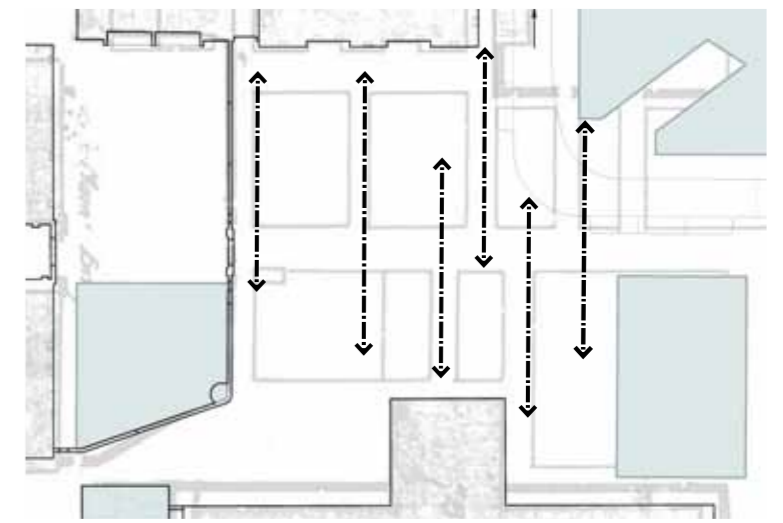
Re-interpret the ground plain shapes (pavement and grass) of the former mustering yard.



Create a central open and flexible usable area, surrounded by a series of smaller and more intimate public rooms and outdoor dining areas.



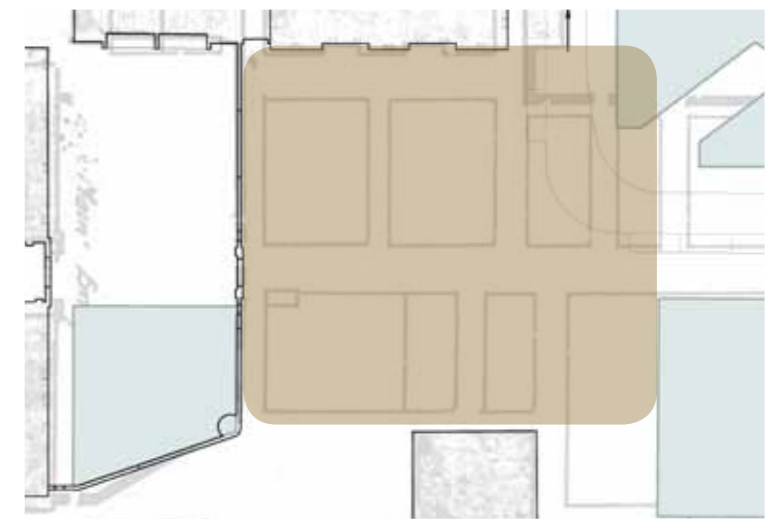
Existing and proposed wall openings. The wall opening at the northern end of Wall K is to facilitate pedestrian movement between the Piazza and Administration courtyard (Courtyard C). Pedestrian movement is important on the northern edge to ensure long term commercial viability of tenancies and create an active northern edge to the Piazza.



Reinterpret the mustering lines generally in a north south direction throughout the Piazza.



Create an active edge to the Piazza to ensure a successful public and commercial square. The location of two pavilions (for outdoor dining etc) provide for an active western edge.



The final design of the Piazza will be fully integrated into the Heritage Interpretative Strategy and Concepts by SHP (Sue Hodges Productions).

Piazza Landscape Character

The Piazza's final character will be created through a synthesis of the historically significant buildings and walls, the new physical design elements, the adjacent buildings and tenancies, the interrelation concepts and on-going events and activities.

The concept proposed lays a design base that forms a strong connection to history as well as establishing a flexible enough basis for future use by adjacent tenancies and the community.

The Piazza must be of a character that draws people to the space, as both an attraction in its own right and as an integrated space with its adjoining building uses. Key spaces and elements include:

- Water feature based on the historical mustering lines. Final form or water feature to be determined in conjunction with an integrated water management system and consideration of sustainability issues. The water feature element may contain jets, narrow channels and reflection pools and other sculptural elements. The water features will also contribute to the space through its sculptural and playful non-water forms.
- Piazza pavement comprised of bluestone complimented with other stone products. The ground surface of the space has been identified as an area for historical interpretation.
- Seating lengths throughout the piazza for both public and outdoor dining and cafe use. Seating will be carefully designed to ensure appropriate distribution and amount of private and public seating opportunities. Low walls and raised lawn edges will also provide places for informal occupation.
- Lawn areas tracing the underlying historical grass areas create important soft and high flexible usable spaces in the central precinct.



Illustrative images of proposed design character of the Piazza



Indicative water feature element



Indicative open lawn space (RMIT / Old Melbourne Gaol)



Indicative raised lawn and seating edge



Indicative seating elements



Indicative pavement (salvage site bluestone and other stone pavement types)



Indicative occupation and use of outdoor dining around the edges of the Piazza

Two Local Parks / Courtyards

The open spaces to the west of the Division A will include two local parks. These two public spaces focus on comfort, amenity and activities for local residents of all ages and abilities, and will be open to broader community use. The northern park has the character of a local community park that provides spaces and facilities for active and passive outdoor activities. The park will include a range of outdoor recreation facilities (potentially table tennis table, outdoor fitness elements and a multi-purpose sports court), community gardens, seating, picnic tables and a lawn area.

The southern park has the character of a courtyard garden and will include all-season productive trees (orchard groves), community gardens, formal gardens, open air structures (such as arbors), toddler and children play spaces and a community building.

Tree canopies and open air structures will be strategically positioned in both spaces to enable access to sun and shade at all times of the day, throughout the year. A row of feature trees connect the two parks along the western edge. Key design elements include:

- Appropriate threshold spaces and treatments to heritage spaces and buildings, particularly the Division A building.
- Appropriate integrated community building (south space)
- Resolution of level changes including integrated universal access (DDA compliant)
- A range of elements that cater for active and passive recreation and activities for people of all ages, interests and abilities (as above), particularly residents
- A range of soft and hard scapes (such as pavements, lawns, gravels)
- A range of formal vegetation structures (such as orchards, groves, arbours, rows) and informal community gardening opportunities



Figure 12 Division A Local Parks / Courtyards



Figure 12a Social ball sports opportunities



Figure 12b Informal recreation opportunities for residents



Figure 12c Courtyard focusing on single feature tree for scale, shade and shelter



Figure 12d Community vegetable gardens

Walled Garden

A walled community garden is proposed for the south-eastern courtyard of B Division. The character and form of the garden will be subject to detailed design but will be a partially enclosed garden space responding to extant heritage elements (B Division buildings and walls) and the results of archeological investigation.



Figure 13 Walled Garden

Interpretive gardens

Throughout the development, all spaces can be enriched through a considered integration of heritage elements and remnants. The key garden where this might occur is to the eastern end of Division A, at the site of the former rock breaking yards.

Here, elements such as building outline, material references and a drier planting palette can support the locating of other artefacts to create a visual interpretation of these yards to educate residents and visitors.



Figure 14 Rock Breaking Yard



Barcelona – small scale street space incorporating amenity through furniture and tree planting



Paris – public space softened through use of gravel pavement



Old Melbourne Jail – local courtyard defined by heritage buildings, with human scale amenity



Courtyard focusing on single feature tree for scale, shade and shelter
Incorporation of heritage items in the landscape

Central Pedestrian Precinct

The distribution of buildings (both old and new) within the proposed master plan for Pentridge has been deliberately formulated to create an intertwining network of small scale lanes and arcades. These arcades will not only provide access across the site, between and into buildings, but will also create a definable framework within which these buildings will sit.

This framework will be an integrating element of the master plan, achieved through consistent use of simple pavement materials, with key elements such as the primary east-west and north-south routes across the site, distinguished through the use of contrasting materials.

These primary links are a particularly important element of the proposed master plan embodying the permeability objectives of Coburg Activity Centre. In fact the proposed north-south link goes beyond Coburg Activity Centre in providing a direct connection to Murray Road.

As well as access and circulation between buildings, the arcades and laneways will provide small scale opportunities for seating, particularly through the use of café style furniture, particularly where activated by adjacent building uses.



Figure 15

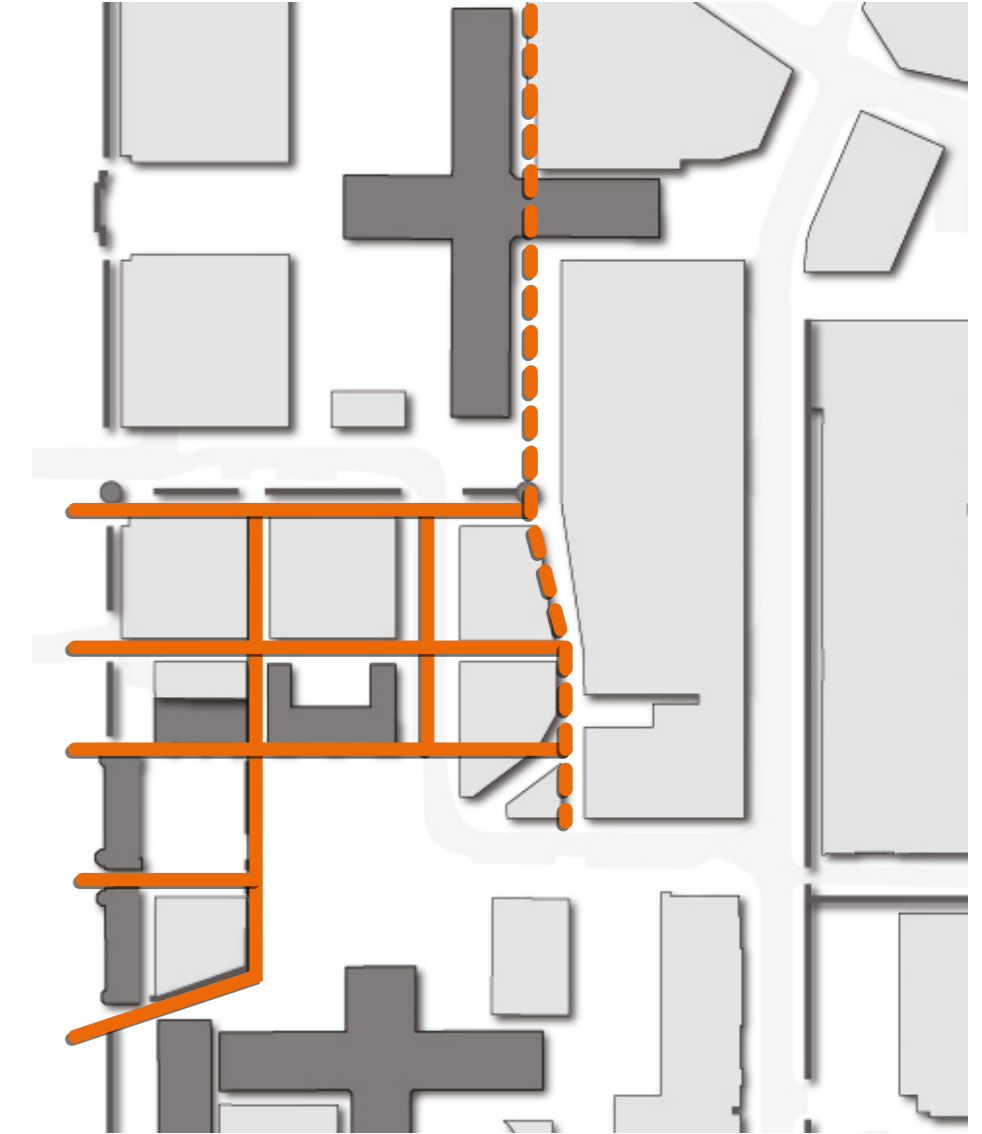


Figure 15a



Figure 15b Internal Laneway visualisation [NH Architecture]



Figure 15c Southern Cross Lane, Melbourne [ASPECT Studios]



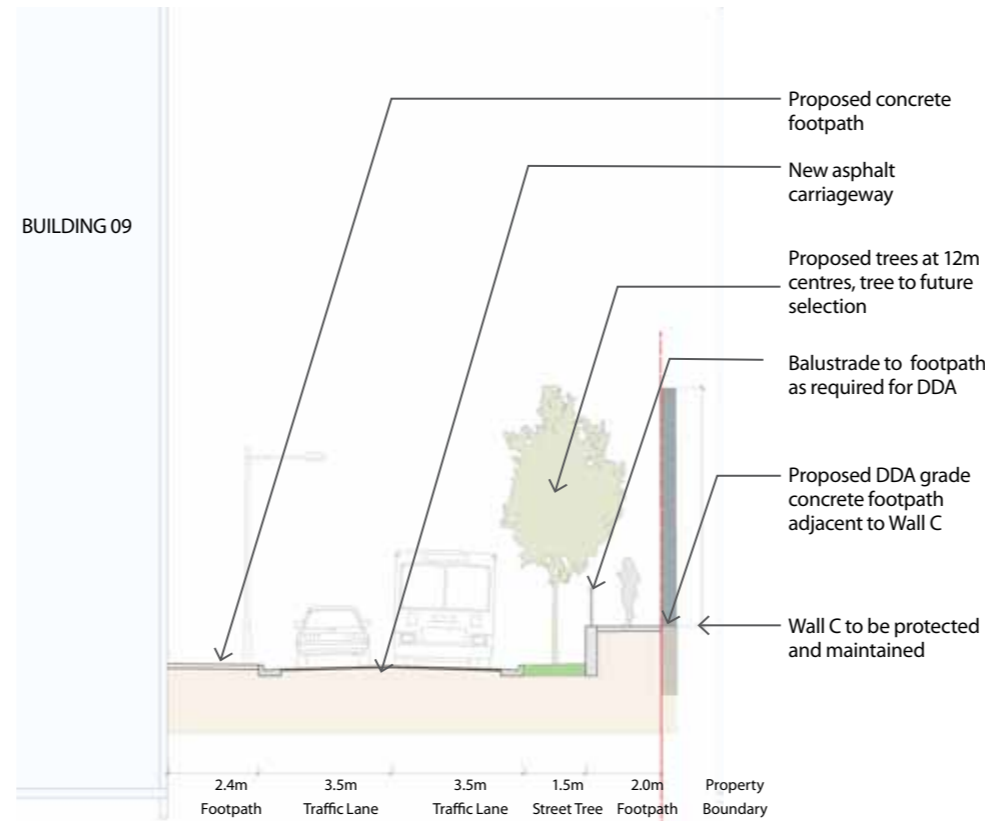
Figure 15d Degreaves Lane, Melbourne

Roads

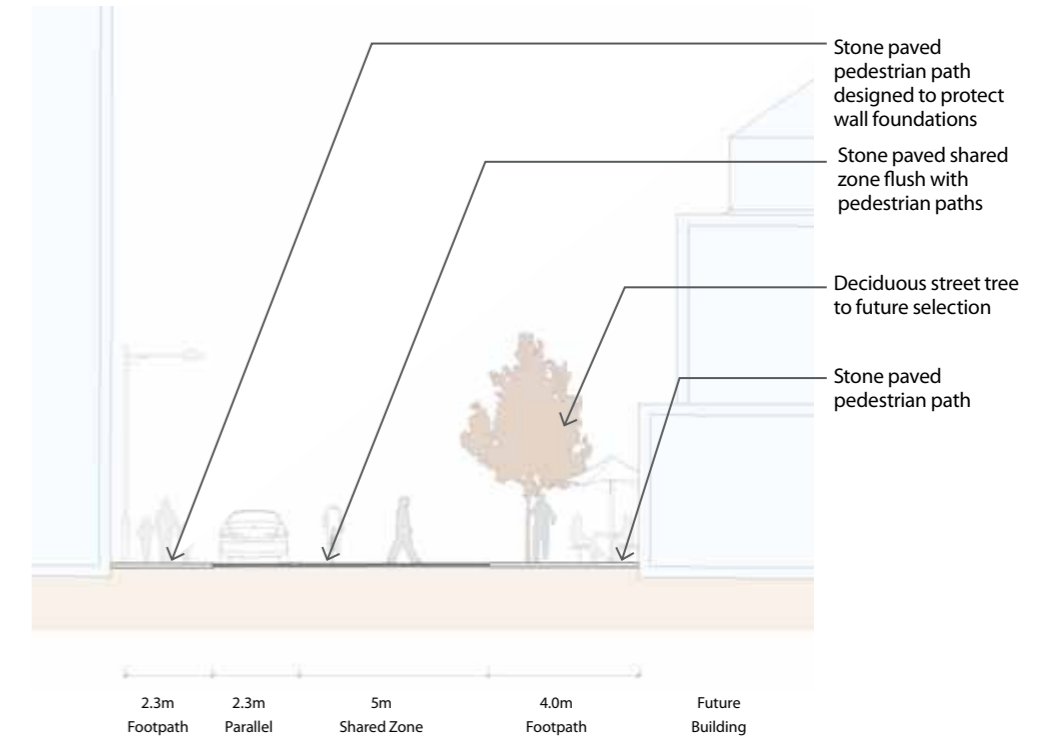
While emphasis will clearly be placed upon ease of pedestrian movement through the Pentridge site, the distribution of vehicle traffic in a clear and logical manner will also be of importance, as described in the separate report prepared by GTA Consultants.

The road system will, however, also be an important aspect of the public realm of the site, particularly in terms of its presentation and overall visual character. As illustrated on the landscape master plan drawing, it is intended that the primary road system allow space for tree planting, in order to create a unifying avenue effect, softening the edges of the roads and moderating the height of buildings as they transition to a human scale. The location and size of such trees will be subject to detailed design investigations.

Where the road system moves through the Piazza space itself, it is intended to treat the roads as shared zones, deliberately slowing traffic and taking a more "urban" approach, avoiding the divisive use of kerbs and instead taking advantage of the unifying effect of a consistent ground plan. Vehicle traffic routes will instead be defined by more subtle means such as pavement banding and bollards.



SECTION 02 - ROAD A



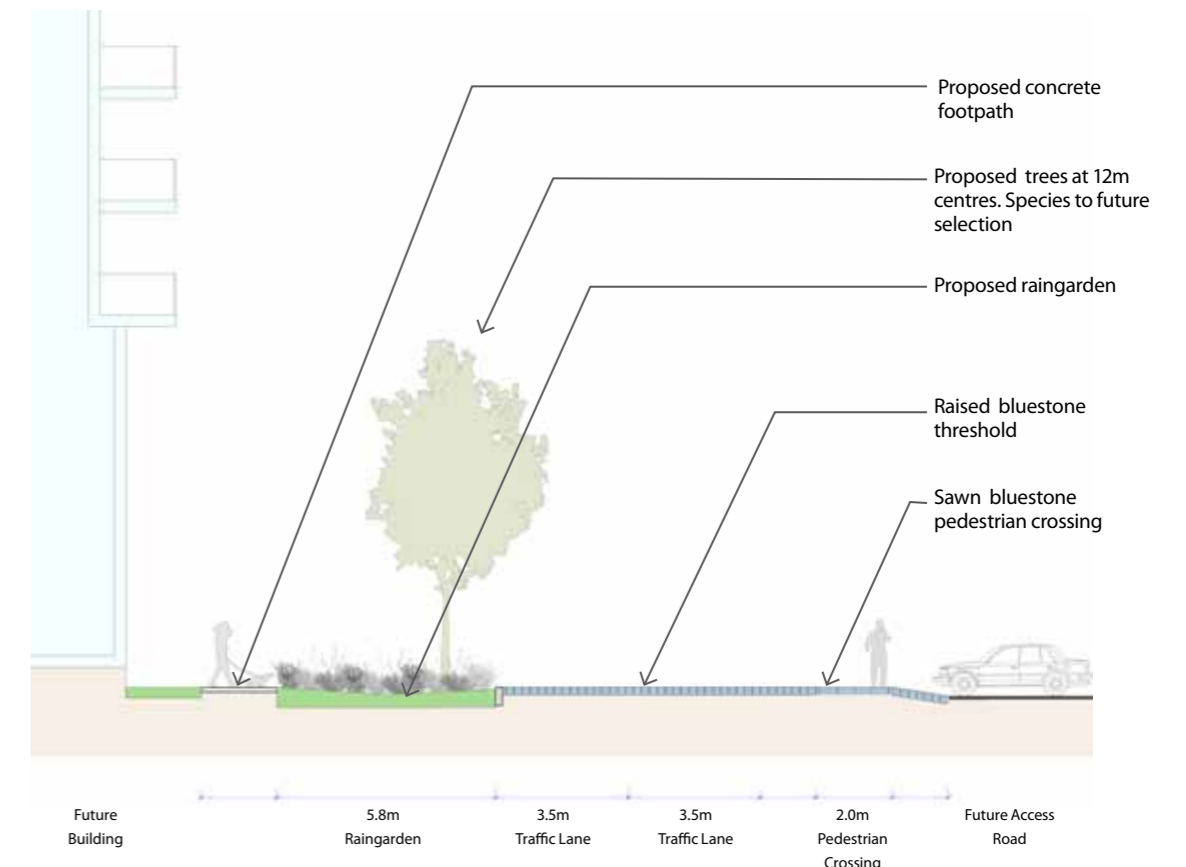
SECTION 01 - TYPICAL SHARED ROAD



Example of proposed pedestrian crossing at raised threshold (sawn bluestone pavers)



Example of proposed raised threshold (bluestone pavers)



SECTION 02 - TYPICAL RAISED THRESHOLD AND STREETSCAPE

4.3 Landscape Character: materials and furniture

As noted above, the public realm of Pentridge will consist of a diverse range of public spaces, varying in both scale and function. It will be essential, however, that this public realm does not appear as a disparate group of spaces with no connection or thematic link.

While such links will be made spatially, through physical and visual connections, they will also be made through the consistent and controlled use of the detailed design elements which contribute to the character of urban landscapes – elements such as pavement materials, plant materials and urban site furniture.

The selection of materials and furniture will be guided by a number of design principles, including:

- Choice of materials suited to repetition across the development, to provide continuity and connection between spaces;
- Simplicity of materials, suitable to a range of spatial types. For example, a single seat or bench type should be used in similar contexts across the development, rather than a multiplicity of styles or forms;
- Regularity in use of materials. For example, furniture elements should be at regular spacings within spaces and along roads and walkways, and a single profile should be used for all kerbs and channels etc;
- A design approach expressing a contemporary aesthetic applicable to a heritage context. Furniture elements, for example, should not mimic 19th century styles, despite sitting in some instances next to 19th century buildings, rather they should be of simple contemporary design complementing rather than conflicting with nearby heritage structures; and
- Relevance to the existing character and materiality of the site, perhaps reflecting existing materials in pavement color of aggregate, for example.

In addition, the public realm must feel safe and secure, with adequate lighting. To this end a public areas lighting plan will be provided within 6 months of approval of the Master plan.

Pavement Materials

In addition to the general design principles summarized above, pavement materials used throughout the public realm should achieve the following key objectives:

- Response to existing building material and character
- Response to the previous use of the site
- Durability
- Human scale

In this regard, a range of materials is considered appropriate including bluestone, exposed aggregate concretes, limited use of brick (perhaps as banding within other “mass” pavement materials) and granitic sand. These materials are illustrated in the following images.



Granitic gravel paving underneath tree groves



Granite pavers as contrast and highlight material



Bluestone pavers



Concrete for streets



Exposed aggregate concrete

Public Realm Trees

- *Corymbia citriodora**, in public spaces, providing view lines through clear trunks, dappled rather than heavy shade, and visual contrast of light trunks against bluestone buildings
- *Zelkova serrata**, as a street tree providing seasonal variation, a spreading, rather than upright canopy, and a human scale within street environments
- *Olea europea*, within courtyard spaces, being of small scale, with fine detail and colour complementing adjoining bluestone buildings
- *Cupressus sempervirens*, within narrow spaces, such as lanes and walkways, providing lineal formality without intruding upon pedestrian movement

Street Trees

- *Acer campastre**, a fast growing tree that can be pruned and is suitable for narrow streets. This tree will provide a warm golden colour in Autumn.
- *Ulmus parvifolia**, a fast growing large tree with a mottled brown / orange trunk. It will provide a nice canopy structure that will offset the dominance of surrounding buildings and roadway.

Trees In Proximity to Heritage Structures

Due to the stringent requirements of planting near existing heritage structures, the selection of trees shown have been considered as they have a less invasive root system as well as more consistent transpiration rates. However, review by a heritage structural engineer will be required at detailed design stages to assist in final selection.

- *Celtis occidentalis**
- *Celtis australis**
- *Cupaniopsis anacardioides*
- *Ulmus parvifolia**
- *Hymenosporum flavum**
- *Jacaranda mimosifolia**

* Trees listed on the City of Moreland Street Landscape Strategy.



Lemon scented gum, *Corymbia citriodora*



Japanese elm, *Zelkova serrata*



Olive, *Olea europea*



Mediterranean Cypress, *Cupressus sempervirens*



Common Hackberry, *Celtis occidentalis*



European nettle tree, *Celtis australis*



Tuckeroo, *Cupaniopsis anacardioides*



Hedge Maple, *Acer campastre*



Jacaranda, *Jacaranda mimosifolia*



Chinese Elm, *Ulmus parvifolia*



Native Frangipani, *Hymenosporum flavum*

