

Riverstone Town Centre Master Plan



Date February 2018



Master Plan and Background Report

Elton Consulting would like to thank Blacktown City Council, ARUP, GroupGSA, AECgroup and the community of Riverstone for their assistance in preparing this Master Plan.

In the intervening period between the Plan being prepared and exhibited and Council resolving to finalise the preferred option, several important State government strategies were drafted, and new census information released. Given the information the Plan was based on was compiled in 2015/16, it should be noted that this finalised Master Plan does not reflect the latest policies and data.

All photos courtesy of Group GSA.

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Contents

	EXECUTIVE SUMMARY	4
01	INTRODUCTION	5
02	DEVELOPING THE MASTER PLAN	9
03	THE MASTER PLAN	23
04	IMPLEMENTATION STRATEGIES	27
05	CATALYST SITES	63
06	CONCLUSION AND WAY FORWARD	74
	APPENDIX	76

Executive summary

The Riverstone Town Centre Master Plan details Blacktown City Council's strategic direction for the Riverstone Town Centre over the next 20 years. The Plan provides an integrated land use planning and transport response to the anticipated growth the Riverstone Town Centre will experience over that period.

Strategically positioned in the north of Blacktown City, the Riverstone Town Centre is well placed to play a key role in the ongoing future growth and development of the City. Located at the heart of the North West Priority Growth Area the Riverstone Town Centre will also benefit from ongoing housing and employment growth across Sydney's greater North West.

The Riverstone area is expected to be home to an additional 9,000 people over the next 20 years. A large amount of this growth will be concentrated within the Town Centre itself. This growth will take advantage of the centre's access to the metropolitan rail network provided at the Riverstone Rail Station as well as ongoing improvements to the surrounding regional road network including the construction of an overpass across the existing rail lines at Riverstone. While the timetable for the delivery of some elements of key infrastructure that may influence growth is yet to be agreed, the Riverstone Town Centre Master Plan provides flexibility to respond to changes in infrastructure provision over the next 20 years.

The Master Plan promotes the core area to the north of Garfield Road East as the focus for future growth. This reinforces the nature of current development and the investment in social and community facilities that currently exists in this northern precinct. Higher density forms of development will be encouraged in this area to support a growing local economy and improved retail offerings that will be driven by increased population in the centre. The growth will also take advantage of Council's strategy to establish Riverstone as the key destination centre in the City's north for the delivery of services to the community.

Key elements of the existing Riverstone character have been retained and further enhanced in the Master Plan. The sense of place and the feel that Riverstone is a 'semi-rural' town centre will be maintained as far as possible by keeping key view corridors to the mountains, providing a range of community spaces and activities for people to interact and connect, and by ensuring that future development is of an appropriate scale to create a neighbourhood character. Elements of the town centre's cultural heritage will be retained. Streets and footpaths will be enhanced to make walking and cycling a more pleasant experience. New pedestrian links will also be provided to make it easier for residents, visitors and workers to travel around the town centre to access its improved retail, recreational, social and community facilities.

Council's Vision for the Riverstone Town Centre is: "A vibrant, sustainable centre with opportunities for the community"

The Master Plan will play a critical role in guiding decisions by Council investors, and other stakeholders including State government agencies. It will inform the shape and nature of proposals for new development and for the redevelopment of key sites across the town centre. Reviewed regularly, it will also provide a framework for Council's decisions around improvements provided as part of its annual works program.

It is hoped the Vision and the Master Plan will be shared and embraced by residents, land owners, business and other stakeholders. The future Riverstone Town Centre will build on its solid foundations and provide the community with a vibrant, well planned and memorable centre.





Marketown Upgrade

Community Hub

Re-development

Mixed Use 9 Storey

Retail / Commercial





Library (Part of Community Hub) Riverstone Swimming Centre



High Density 9 Storey High Density 6 Storey Medium Density Village Green Public Parking Structure Pedestrian Priority 400m From Village Green 400m From Station **Key Axis**

O1 Introduction

1.1 Introduction

The Riverstone Town Centre Master Plan (the Plan) is a strategic plan intended to shape and manage growth within the Riverstone Town Centre (the Town Centre) over the next 20 years. The Plan provides an integrated land use and transport planning framework to manage the anticipated growth that will occur over this period.

The Plan is consistent with the directions outlined in Council's strategic plan for the City (Blacktown City 2025 - Delivering the Vision Together) and reflects Council's strategic business and corporate direction. The Plan will form part of a suite of documents that controls development and planning within the City of Blacktown including:

- » Blacktown City Local Environmental Plan 2015 (BLEP 2015)
- » Blacktown City Development Control Plan 2015 (DCP 2015)

1.2 Aims and principles of the Master Plan

The Plan will manage growth and development within the Riverstone Town Centre. The aims of the Plan are to:

- » Provide sufficient capacity for growth in employment, business, housing, community and recreation facilities
- » Develop precincts and places that attract people and investment
- Identify improvements to the public domain >>
- Connect places and spaces to and within the >> Town Centre.

To guide the development and consideration of the outcomes included in the plan a number of guiding principles were applied. These principles, which will support development of the Town Centre, are to:

- » Encourage growth through flexible design controls
- Promote high quality and sustainable building design »
- Create an attractive and sustainable public domain >>
- Ensure infrastructure capability to support growth >>

The area covered by the Master Plan is shown in Figure 1.1.

1.3 Background information and supporting studies

The Master Plan has been informed by a number of existing State Government strategic and statutory planning documents, Council plans and policies, and existing studies. These documents assisted in understanding and responding to the existing policy and planning framework influencing development in the Riverstone Town Centre.

In addition specialist studies were prepared to inform the Plan. The intent of these studies was to:

- Assess the implications of the broader policy framework on the Riverstone Town Centre
- » Identify the constraints and opportunities impacting future growth and development within the Town Centre
- » Provide background information to support the development and consideration of Master Plan options for the Town Centre
- Establish the baseline growth assumptions and targets for population and employment growth for developing the Master Plan

The following specialist studies were prepared to support the Plan:

Riverstone Town Centre Urban Design Analysis (June, 2016)

- prepared by GroupGSA

- **Riverstone Town Centre Master Plan Economic and** Feasibility Analysis (prepared November 2015, finalised February 2018)
 - prepared by AECGroup
- Riverstone Town Centre Master Plan Draft Transport Assessment (prepared in 2015, finalised January 2018)
 - prepared by ARUP
- **Riverstone Town Centre Master Plan Planning** Framework Assessment (October, 2015) - prepared by Elton Consulting
- » A Master Plan for the Riverstone Town Centre -Consultation outcomes report (August, 2015) - prepared by Elton Consulting









1.4 Methodology

The methodology adopted to prepare the Master Plan is outlined in Figure 1.2 – Project Methodology below.

Initial stages of the process focused on identifying and analysing relevant background information to support development of options that were assessed against the project aims. The Plan has also been informed through a number of meetings with key stakeholders, Council staff, Council's Executive, and local and State elected representatives.

Development of the Master Plan has been based on the understanding that a grade separated crossing of the railway line at Riverstone will be constructed during the expected 20 year timeframe of the Master Plan.

FIGURE 1.2 RIVERSTONE TOWN CENTRE MASTER PLAN – PROJECT METHODOLOGY



1.5 Structure

The structure of the Master Plan is described below:

SECTION 1 – INTRODUCTION

Provides an overview of the Plan, its location, context, aims, and methodology.

SECTION 2 – DEVELOPING THE MASTER PLAN

Key outcomes from the supporting technical studies informing the preparation of the Plan are outlined in this section.

SECTION 3 – THE MASTER PLAN

This section provides an overview of the Riverstone Town Centre Master Plan.

SECTION 4 – IMPLEMENTATION STRATEGIES

This section presents strategies related to achieving the desired built form, access and movement, and public domain outcomes for the Town Centre. It provides details relating to specific strategies that will implement outcomes of the Plan. This section also provides further details relating to the development and/or redevelopment of key 'catalyst' sites within the Town Centre that will be critical to achieving the overall aims and intent of the Master Plan.

SECTION 5 - CATALYST SITES

This section outlines catalyst projects for the Town Centre that will be vital to realise the vision for Riverstone.

SECTION 6 - CONCLUSION AND WAY FORWARD

This section provides an overview of the next steps towards implementation of the Master Plan.

APPENDIX – OPTIONS CONSIDERED

This section includes an overview and assessment of the options that were considered leading to the Master Plan.

1.6 Riverstone Town Centre Master Plan – Overview of the Area

- site
- » the Riverstone Memorial Club
- » the Riverstone Community Centre
- Centre, Marketown Shopping Centre, Council Depot site
- » Uniting Church site
- » Lions Park, Mill Street Reserve

Biverstone Town Centre – Master Plan

1.6.1 THE MASTER PLAN AREA

The Master Plan area covers land to the east of the existing railway line, generally within a 400 metre radius of the existing Riverstone Railway Station. The Plan covers an area of approximately 49.8 hectares.

The southern boundary of the Master Plan area is Elizabeth Street. King Street forms the northern boundary of the plan area and the eastern most boundary is formed by Piccadilly Street. The area is shown in more detail Figure 1.3 – The Master Plan Area: Aerial. The Master Plan area does not include the entire 'township' of Riverstone. However, it does consider how the Town Centre area will be connected to the surrounding area including Riverstone and the North West North West Priority Growth Area (NWPGA).

The Master Plan area includes the main retail and commercial areas of Riverstone both north and south of Garfield Road East. The Plan area also includes a number of key sites such as:

» the former Riverstone Bowling Club and Recreation Club

- » Council assets including the Riverstone Swimming
- » Blacktown City Bicentennial Museum.



FIGURE 1.3 RIVERSTONE TOWN CENTRE MASTER PLAN – AERIAL (2016)

LEGEND

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— · — Study Area



FIGURE 1.4 RIVERSTONE TOWN CENTRE MASTER PLAN - RIVERSTONE TOWN CENTRE IN NWGC(2016)





COMMUNITY PROFILE -INFORMATION SOURCE

The Town Centre Master Plan area is part of the Riverstone precinct. The Riverstone precinct is identified as a release area in the North West Growth Centre (NWGC). Detailed population profiles, dwelling supply and demand figures and employment forecasts have been prepared for the NWGC and the individual release areas. For the purpose of describing the community for the Master Plan area, the term 'study area' is used. The study area includes the Town Centre Master Plan area, and the area immediately adjoining it which correspond to available BTS Travel Zone data sets. Figures used for the Town Centre Master Plan area have been based generally on data prepared by the Bureau of Transport Statistics (BTS) and provided in the Economic and Feasibility Report (AEC Group, 2015/2018).

1.6.2 COMMUNITY PROFILE - SNAPSHOT OF THE PLAN AREA

When considered in the context of the population growth predicted in the NWGC and Blacktown City itself, future development within the Riverstone Town Centre will potentially support a catchment of up to approximately 30,000 people. This catchment includes:

- » the remainder of the township of Riverstone not included in the Plan
- » surrounding suburbs within the City of Blacktown including Marsden Park, Schofields, Vineyard
- » surrounding suburbs in The Hills Shire and Hawkesbury Shire including Windsor, South Windsor

Figure 1.4 provides an overview of Riverstone in the context of the NWGC.

»

Figures based on forecasts by the Bureau of Transport Statistics (BTS) indicate that, by 2036:

» the study area is projected to have a population of 9,184 people, representing an average annual growth rate of 2.5%

» the most significant growth is predicted to occur between 2031-2036 where it is expected to be 23.5% per year over this period

» the total number of dwellings in the study area is predicted to go grow to 3,441 at an average annual growth rate of 2.6% from 2011

» the total number of jobs in the study area is expected to grow to 1,350 at an annual growth rate of 2.3% from 2011

» family households (approximately 80%) will continue to be the predominant form of households in the study area, followed by lone person households at around 15%. Group and 'other' household types are not highly represented as a household type (approximately 5%).

separate houses will continue to be the predominant form of housing provided across the NWGC. In 2011, approximately 93% of dwellings were separate houses. Other forms of housing (semi-detached, flats, apartments, units) represented only approximately 3.3% of the housing stock in the NWGC in 2011

» when considered as a percentage change over the period 2001 – 2011, the provision of semi-detached, flats, apartments, units grew in the order of approximately 70% compared to only approximately 39% for separate houses. This trend is predicted to continue due to a number of factors including:

» the rising cost of providing separate housing

» Government policies and initiatives aimed at focusing future growth around established centres serviced by existing transport

» a generally broader level of acceptance of apartment and unit living.

02 Developing the Master Plan

2.1 Introduction

The following section provides:

- an overview of the planning policy and legislative framework influencing development in the Town Centre (as at 2016); and
- » a summary of the principal findings from the supporting technical studies (as at 2016).

2.2 The planning framework

2.2.1 THE STRATEGIC PLANNING CONTEXT

The strategic planning framework guiding future development in Riverstone is outlined in a number of key planning and policy documents from both State and local government:

- » A Plan for Growing Sydney (2012) Sets out the State government's framework for how growth in the Sydney Metropolitan Region will be managed and where investment in government infrastructure will be focused.
- State Environmental Planning Policy (Sydney Region Growth Centres) 2006 – Establishes the framework for growth in the North West Growth Centre (NWGC). Riverstone Town Centre is within the Riverstone Precinct in the NWGC. The majority of the Riverstone Precinct was rezoned in May 2004. However, the existing Town Centre was excluded from the rezoning, meaning that Council's current land use planning controls still apply. The Riverstone Precinct has been identified to deliver the following indicative outcomes:
 - an additional 9,000 dwellings, accommodating 27,000 new residents
 - 58 hectares of open space
 - 57 hectares of conservation areas
 - 14 hectares of employment land
 - 3 new primary schools and a new K-12 school
 - major road upgrades
 - new community services hub.
- » Blacktown City 2030 (2013) Council's long term Community Strategic Plan identifying the main priorities for the community, and its aspirations for the City to 2030.
- » Blacktown Integrated Transport Management Plan (2013) – Guides the long term development of a transport system which is sustainable, equitable and convenient. The ITMP details improvements and upgrades to the Transport Network that will be required by the year 2036.
- » The Blacktown Housing Strategy (2012) Council's strategic policy for new housing development to 2036. The strategy identifies Riverstone Town Centre as an Urban Renewal Precinct.

- » The Blacktown Planning Strategy (2011) Council's key strategic land use planning document to facilitate and manage future growth and development to 2036.
- » The Blacktown Commercial Centre Analysis (2011) Council's strategic policy document that establishes the planning directions for commercial centres within the City of Blacktown. This was prepared by SGS Economics in 2007 and adopted by Council in 2011.
- » Blacktown Biodiversity Strategy 2010-2020 (2011)– Identifies the need to protect, restore and enhance Blacktown City's biodiversity. The Strategy identifies vegetation worthy of protection and ways in which it can be protected. There is, however, no land located within the Town Centre identified on the Terrestrial Biodiversity Map.
- » The "Eyes on Blacktown" Landscape Strategy (2014) Aims to change the public image of Blacktown City by changing the look of the major transport routes and hubs.
- » The Community Engagement Strategy (2010)– Adopted by Council in 2010, it outlines the requirements for Council when engaging its community in the development of its plans, policies, facilities and services.

Riverstone is identified by Council as a key centre at both a local and subregional scale. The centre is identified as having the potential to undergo urban renewal to accommodate additional population growth in the Northern Precinct of the City. Riverstone is also proposed to be Council's main service centre for the Northern Precinct, with upgrades to Council facilities including the library and existing swimming centre proposed.

The Master Plan reflects that potential. The Plan delivers an underlying land use structure that will encourage higher density forms of residential development closest to the railway station. This higher density development will be supported by retail, employment, social, cultural and recreational land uses. These uses will connect key 'anchors' in the centre and will provide services and facilities for residents.

2.2.2 THE STATUTORY PLANNING FRAMEWORK

The statutory planning framework sets out the land use planning controls that determine the types of uses that are allowed in certain areas. Statutory plans also set out more detailed controls relating to built form for development including height, site coverage, the number of car parks required, and other matters.

The following section provides an overview of the statutory planning framework that applies to current development within the Riverstone Town Centre. These controls have been applied to the assessment of the options for the Plan to determine whether they provide the potential development yield to make future growth in the Town Centre feasible, or whether changes to the controls will be required.

THE BLACKTOWN LOCAL ENVIRONMENTAL PLAN (LEP) 2015

The LEP applies to all land not zoned by State Environmental Planning Polices (e.g. Sydney Region Growth Centres) in the Blacktown LGA. The LEP establishes the zoning for the Town Centre, as well as the minimum lot size, permissible building heights and floor space ratio (FSR) controls. The LEP also identifies items of heritage significance and includes provisions detailing how land in flood affected areas can be developed, as well as identifying areas of environmental significance.

There are a number of zones applicable to the study area including:

- B2 Local Centre ~
- » R2 Low Density Residential
- » SP2 Infrastructure
- **RE1** Public Recreation
- » RE2 Private Recreation

Current zoning in the Plan area is illustrated in Figure 2.1.

Figure 2.2 illustrates the land uses as at 2016 within the Plan area and Figure 2.3 identifies the land ownership pattern as at 2016 in the Plan area.







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FIGURE 2.2 MASTER PLAN AREA: LAND USES (2016)

50 100 200 300m



Strata Title

FIGURE 2.3 MASTER PLAN AREA: LAND OWNERSHIP (2016)

The Blacktown LEP 2015 also includes a number of properties that have been identified for acquisition purposes. This includes sites along Garfield Road East that are expected to be acquired to allow for the construction of the railway overpass.

BLACKTOWN DEVELOPMENT CONTROL PLAN 2015 Blacktown DCP 2015 provides various standards, policies and guidelines adopted by Council for development in the LGA. The DCP provides more detailed controls to support the provisions of the Blacktown LEP 2015.

The following sections of the DCP are applicable to the Town Centre:

- » Part A Introduction and General Guidelines
- » Part C Development in the Residential Zone
- » Part D Development in the Business Zone
- » Part G Site Waste Management and Minimisation
- » Part I Contaminated Land Guidelines
- » Part R WSUD Integrated Water Cycle Management

The Special Infrastructure Contribution (SIC) - Is a financial contribution paid by a developer during the development process to help fund regional infrastructure required to support development in the North West and South West Growth Centres over the next 30 years. The Town Centre is identified within the area covered by the SIC. However, the SIC does not apply to land that was zoned residential, business, commercial or industrial purposes immediately before 28 July 2006 (being the date on which the growth centres SEPP commenced). This applies to a majority of the study area.

Section 94 Plan No. 20 – Riverstone and Alex Avenue **Precincts** – Outlines Council's policy regarding the application of Section 94 (S.94) of the Environmental Planning and Assessment Act, 1979 in relation to the provision of local infrastructure and baseline facilities within the Riverstone & Alex Avenue Precincts. S.94 contributions within Riverstone and Alex Avenue Precinct are levied for the following amenities and services:

- » Community Facilities & Combined Precinct Facilities.

Further details about the statutory planning framework and the specific land use planning controls relating to the Riverstone Town Centre are provided in the supporting Town Planning Assessment Report.

- » Water Cycle Management Facilities
- » Traffic & Transport Management Facilities
- » Open Space and Recreation Facilities

2.3 Economic and feasibility analysis – summary of key outcomes

In late 2015 the AEC Group prepared an Economic and Feasibility Analysis to inform the Master Plan. A number of aspects associated with economic and employment growth, housing supply and demand were assessed. This assessment assisted to identify the range and scale of uses that may be feasible to develop in the Riverstone Town Centre. The following key findings from the report that have influenced development of the Plan are provided below.

SOCIO ECONOMIC ANALYSIS

The present composition of Study Area's employment structure indicates the nature of its growth in the context of the broader North West Priority Growth Area (NWPGA). (Formerly known as the North West Growth Centre)

- » Employment growth in Riverstone Town Centre
 - Between 2006 and 2011 the number of jobs in the Study Area increased from 689 to 778 jobs respectively. This represents a modest increase of 82 jobs or 11.8%.
 - The largest growth industries by number of jobs were: education and training (23 jobs or 17.5%), health care and social assistance (17 jobs or 34.4%), construction (16 or 18.4%) and retail trade (14 or 18.5%).
- » Population growth in NWPGA and Riverstone
 - Between 2001 and 2011 population in the NWPGA increased from 20,890 persons to 29,244 persons, equating to an increase of 8,354 or 40% over the period. This represents an annual average increase of 1.2%.
 - Mesh block data analysis suggests the Riverstone area (Blacktown LEP) and Riverstone Precinct (SEPP boundary) had a combined population of 7,902 in 2011.
- » Dwelling approvals in NWPGA
 - The volume of dwelling approvals in the NWPGA has increased, equating to a rate of 500 dwellings per year over a 4-year period.
 - Despite the modest historical growth in dwellings and employment, Bureau of Transport Statistics (BTS) projections are optimistic indicating population and employment growth expected in Riverstone will outstrip that in Blacktown LGA and the subregion. This is likely to relate to the positioning within the NWPGA.

 It is understood there were fewer than 50 dwelling completions in the Riverstone Precinct from 2011 and 2014, equating to a completion rate of less than 15 dwellings per year.

DEMAND FOR RETAIL/COMMERCIAL USES

- » Retail land uses and demand for floor space are driven by population growth. With regard to Commercial activity types, these are typically reliant on local business as a generator of demand for their services. Population growth is also a driver for local business services, e.g. printing services, home appliance service and repairs, etc.
- » Despite modest population growth, future expected population growth in the NWPGA combined with the close proximity of the Riverstone train station would appear to present demand opportunities for retail/ commercial development in the Town Centre.
- While significant population and dwelling growth in the broader NWPGA is expected to occur, the ability of the Study Area to accommodate new dwellings is more challenged. This is due principally to the already built-up nature of the Study Area which incorporates an array of existing buildings in multiple landownership. The established and built-up nature of the Study Area (with relatively high existing-use values) combined with fragmented landownership patterns has implications for the cost to a developer to assemble a development site.

PROPERTY MARKET APPRAISAL

The price paid by a developer to assemble a development site would depend on the type of development that can feasibly be accommodated on a site. The following transactions indicate what developers can afford to pay for a development site to certain residential typologies.

- » Residential subdivisions: A number of residential subdivisions are observed to have been undertaken in Riverstone and neighbouring Schofields. Vacant sites that are appropriately zoned are generally acquired at prices ranging from \$160/sqm to \$270/sqm of site area.
- Attached dwellings (townhouses, villas): Several development sites for medium density product have been assembled, with prices paid ranging from \$330/ sqm to \$400/sqm of site area for development sites without approval. Sites with development approval sell for more. For example the site at 33 St Albans Road (approved for 9 townhouses) was acquired at \$840/ sqm of site area, this higher price paid indicative of the value placed on a development site with minimal planning risk.

» Residential units (5 storeys): A site in a B1 Local Centre zone at 111 Railway Terrace in Schofields was acquired for \$1,457/sqm of site area. The site benefits from development approval for 32 residential units and 2 commercial units in a 5 storey building (FSR 3.6:1).

Applying the above analysis to the Study Area and its underlying land values (\$800/sqm-\$900/sqm in R2 zone and up to \$2,200/sqm in B2 zone), would suggest that current density controls at 9m (which allow 2-3 storey buildings) are insufficient for feasible redevelopment to occur.

The AEC Group study also identified some key implications for future housing development within the Town Centre area which influenced development of options. These are outlined below.

- » Mixed use/shop top housing
 - This type of housing generally had a lower return owing to the lower end sale values of retail/ commercial space compared to residential-only floorspace.
 - A mixed use development to 5-6 storeys would only be feasible in the Town Centre where existing-use values are less than \$1,354/sqm of site area (after deducting for 20% premium for site assembly).
 - A mixed use development of 8-9 storeys would be required to displace existing retail/commercial uses in the Town Centre as these result in returns which are at the upper end of existing-use values in the Town Centre.
 - Mixed use developments will only be sustainable in locations that lend themselves to good pedestrian visibility and access, otherwise ground floor retail/ commercial suites can suffer from prolonged periods of vacancy.
- » Low-rise residential buildings (3 storeys) Depending on the inclusion of non-residential uses, this form of housing has returns comparable to that of existing-use residential values (\$825/sqm to \$925/ sqm) before any allowance for 20% premium for site assembly. This implies low rise (2-3 storey) residential buildings are not feasible to develop in the Study Area unless a vacant site can be secured.
- » Residential flat buildings This form and housing is more financially attractive than mixed use developments, buildings to 5-6 and 8-9 storeys are likely feasible to develop in the Town Centre. Owing to lower existing-use values in the R2 zone, 2-3 and 5-6 storey buildings would be feasible to develop.

In summary, the AEC Group report (2015) found that:

The Riverstone Town Centre contains many of the attributes of a successful centre, i.e. it is accessible by public transport, contains parking and has exposure to passing vehicular traffic. It however suffers from a poor layout and lacks a retail anchor which impedes its ability to attract other retailers, which in turn affects the amount of pedestrian foot traffic.

» Council's aspirations for the town centre are reflected in its investment into the provision of community and recreational facilities and improving the quality of the public domain. This will undoubtedly result in a lifting of the town centre's profile as well as making it an attractive place to visit and spend time in.

» Notwithstanding the current limited retail offer in the Riverstone Town Centre, as the broader Riverstone precinct grows and indeed the NWPGA grows and the Town Centre establishes itself as a community hub, existing retailers will benefit from increased patronage from beyond the local catchment and conceivably attracting new retailers once a critical mass of patronage is established.

» In line with an increased desirability as a place to be, in the medium-long term there could be a market for shoptop housing in the centre. New residents within the Town Centre will contribute to local demand for retail services, thereby enhancing centre vitality and sustainability.

The potential for growth will be primarily underpinned by local residential growth, supplemented by outside visitation and patronage. The unlocking of development opportunities in the Town Centre would first and foremost be aimed at stimulating developer interest. As development activity and momentum begins to build, retailers would be the next category of private investment targeted. Initiatives to attract visitation and patronage from beyond the Riverstone local catchment will also contribute to sustaining a viable town centre offer.

2.4 Traffic and transport assessment

In 2015, ARUP prepared a traffic and transport assessment to inform the preparation of the Master Plan. ARUP's assessment was based on 2011 Journey to Work Census data.

A summary of the key findings is provided following.

» Travel patterns

- A significant majority of journeys for residents living in the Blacktown LGA (70%) and Riverstone Town Centre (78%) are made by private vehicles. A higher user rate of private vehicles is observed in the study area when compared to other areas in the Blacktown LGA. This reflects the greater accessibility of public transport in many areas of the Blacktown Council area compared to Riverstone.
- Private vehicle use was followed by train travel (10%), vehicle as a passenger (6%), walking (3%), bus (1%) and other (2%) While train travel only accounts for 10% of total work trips in the study area, this would be expected to increase following the completion of the North West Rail Link (anticipated for 2019).

Traffic volumes

- Based on the existing land uses within the town centre, it is estimated that in the order of 800 vehicle trips are generated in the commuter peak hours.
- Traffic surveys carried out in March 2014 indicate:
 - Windsor Road carries the majority of traffic in the precinct. Traffic volumes on Windsor Road progressively increase from north to south, attributable to the more densely developed areas around Rouse Hill and The Ponds.
 - Garfield Road east of the railway line currently carries approximately 530 vehicles per hour in each direction. West of the railway line, this increase to approximately 900 vehicles per hour.

» Congestion

- Traffic congestion in the Riverstone Town Centre is common during commuter peak hours in and around the level crossing of the Richmond railway line at the Garfield Road / Riverstone Parade intersection. This location is currently controlled by traffic signals. During train arrivals and departures, boom gates on both sides of Garfield Road are lowered to prevent traffic from crossing the railway line. This typically results in significant queues of traffic through the town centre and along Riverstone Parade

» Heavy vehicle movements

- Traffic surveys conducted in March 2014 with respect to heavy vehicle traffic indicated that:
 - 12% of traffic (approximately 1,100 vehicles per day) were identified as heavy vehicles along Garfield Road. This is a significant number and reflects the current function of Garfield Road as the predominant east-west link between Windsor Road and Richmond Road. The presence of these heavy vehicles detracts from the function of the Riverstone town centre as a pedestrian friendly environment.
 - On Riverstone Parade to the north of the study area, 16% of all vehicles surveyed were identified as heavy vehicles. This reflects the number of light industrials uses in this area and relatively low number of local residents.

» Parking

- There are a number of public off-street car parking areas within the study area. These include:
 - A commuter car parking area is located directly adjacent to Riverstone railway station which provides 67 all day parking spaces. Overflow commuter parking is also available on the eastern side of Railway Parade with capacity for an additional 100 vehicles.
 - A 50 space car park is located at the eastern edge of the study area adjacent to George Street, serving the nearby swimming pool and park.
 - 193 parking spaces are provided for the Market Town centre along with other uses in the town centre. These parking spaces are time limited to four hours and therefore not available for commuters.
- Unrestricted, all day on street parking as at 2016 is generally provided within the study area. One hour time limits are in place along Garfield Road and Riverstone Parade in the town centre to encourage higher turnover of vehicles.

Figure 2.7 illustrates the location of parking within the Town Centre.

» Rail Services

- Riverstone Town Centre is currently served by the Richmond railway line, a branch of the main Western Line. The Richmond Line currently provides access to key centres located throughout Sydney via both direct links and onward connections.

- Rail services at Riverstone station run approximately every 30 minutes during both on and off peak.

- In 2011 a duplication of the rail line was completed between Quakers Hill and Schofields including the opening of the new Schofields Station. This duplication has allowed for more frequent train services travelling to and from Schofields. A second stage of the project includes a new and relocated Vineyard station and an upgrade of the existing Riverstone Station. This second stage of the project is not presently proceeding, however the planning of the Riverstone Precinct considered a new station location at Vineyard.

» Bus services

- Bus stops are located along Riverstone Parade, next to the train station, and along Piccadilly Street. There are currently limited bus services within the vicinity of the Riverstone town centre. These typically run at low frequencies throughout the day which limit the uptake of travel by bus. The routes include: 661, 662, 757, T75 and T74.

Figure 2.5 illustrates the public transport network as at 2016 within the Town Centre area.

» Cycling

- Existing cycling routes and facilities within and surrounding the study area are currently limited. Windsor Road provides on-road cycleways, however no dedicated bicycle facility (e.g. on-road markings) are provided. These designated cycle routes often carry large volumes of traffic and are generally only appropriate for confident riders.

According to the Blacktown Bike Plan 2013, several developer funded bicycle lanes are proposed to be constructed near the study area. They will run along McCulloch Street and Riverstone Parade. Council has also recommended a state link bicycle route through Garfield Road.

The extent of the cycle and pedestrian network as at 2016 in the Town Centre is illustrated in Figure 2.6.



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FIGURE 2.4 MASTER PLAN AREA: ROAD NETWORK (2016)



TO LIGHT INDUSTRIAL AREA

TO

0







FIGURE 2.7 MASTER PLAN AREA: PARKING (2016)





LEGEND



50 100

Existing Town Centre Core

Proposed Cycleway (RMS)
 Pedestrian Crossing

Marketown

Signalised Intersections

400 m / 5 minute walking band from

N

LEGEND

— · — Study Area

Footpaths

Railway

300m

200

FUTURE TRANSPORT UPGRADES

A number of upgrades are proposed to the transport network within Riverstone and the surrounding area which will impact on the future development of the Riverstone Town Centre. The upgrades detailed in Table 2.1, were considered in the preparation of the Master Plan.

CROSSINGS OF THE RICHMOND RAIL LINE

The RMS has developed a strategy for the provision of gradeseparated road crossings across the Richmond rail line.

The road network strategy identifies the need for five gradeseparated crossings of the Richmond Rail line:

- » Burdekin Road, Quakers Hill
- Westminster Street bridge, Schofields (existing with limited capacity)
- Schofields Road, Schofields (in progress as part of the Schofields Road upgrade project)
- Garfield Road, Riverstone (currently a level-crossing of the rail line)
- » Bandon Road, Vineyard (currently a level-crossing of the rail line).

The RMS road network strategy has been divided into short, medium and long term works as described in Table 2.1.

SYDNEY METRO NORTHWEST

Sydney Metro Northwest is the first stage of Sydney Metro. The project will deliver eight new railway stations to Sydney's North West, providing a connection into Chatswood and the Sydney CBD. Passengers will be provided with rail services every 5 minutes during peak periods and every 10 minutes across the day. Riverstone is located some 3km from the proposed new station at Cudgegong Road. The new station will provide for 1,000 commuter car parking spaces. The station design will include pedestrian linkages to these areas as well as secure parking and storage for up to 45 bicycles.

TABLE 2.1 TRANSPORT UPGRADES

Timeframe	Description of works
	Work with Blacktown City Council to develop local strategies to improve traffic flow within Riverstone Town Centre to boost capacity and minimise delays, with the existing level crossing retained. The specific location and extent of these works are currently being developed.
Short Term Works	Link Westminster Street with Garfield Road West to provide an alternative route for local traffic away from the Garfield Road level crossing.
	Work with the Department of Planning and Environment and Blacktown City Council to reserve a road corridor along Garfield Road between Richmond Road and Windsor Road for future widening
Medium Term Works	Upgrade of Bandon Road to function as a transit boulevard (including an underpass of the Richmond railway line) which would provide a high quality road connection between Windsor Road and Richmond Road. This upgrade would be completed by the time the NWGC reaches approximately 25% of its population and employment development. Based on current projections, this could occur by 2021. Works include the construction of an underpass and creation a new road connection between Richmond Road and Windsor Road. The existing level crossings at Bandon Road and Level Crossing Road would be closed at this time.
Long Term Works	Construction of a grade separated crossing at Garfield Road, replacing the existing level crossing. This infrastructure would be delivered by the time the NWGC reaches approximately 75% of its population and employment development. Based on current projections, this could occur between 2031 and 2036. Works would also include an upgrade Garfield Road between Richmond Road and Windsor Road.

Source: Riverstone Town Centre Master Plan: Transport Assessment (ARUP, 2015/2018).

2.5 Urban design assessment

GroupGSA prepared an urban design analysis of the Riverstone Town Centre. The analysis included the identification of constraints and opportunities that will influence future development. A summary of the key outcomes from the urban design analysis is provided below.

OPPORTUNITIES

The following opportunities were identified through the analysis stage:

- » Strategically located Council landholdings: Contiguous Council-owned blocks have the potential to transform the Town Centre.
- » The Market Street spine: A pedestrian-focused Market Street could integrate existing uses with new retail, commercial and community development.
- » A combined retail / community hub: The Town Centre can be a focus for community services provision in the NWGC. Clustering retail and community services could attract surrounding communities to the Town Centre.
- Proximity to Riverstone West, a potential employment centre.
- » Walkable Town Centre Core: Relatively undeveloped areas are located within a 5 minute walk of the station.
- Differentiation from NWGC retail centres: Riverstone ~ can differentiate itself from competing centres by establishing a fine-grained, mixed use retail centre with inviting public spaces.
- » Flexible open space: Vacant lots under Council ownership provide flexible spaces available for events etc that can activate the Town Centre.
- Deep Town Centre lots: The upper levels of mixed use development could be set back from the street to disguise the scale of development.
- Proximity to Riverstone Park, currently proposed to become a future regional sports field.
- » Heritage: Heritage items can help establish a sense of place that is grounded in the Town Centre's roots.
- » Connectivity to future cycle routes: Adjacent precinct planning identifies potential cycle routes to which new cycle routes within the Study Area could connect to.

The opportunities are illustrated in the Figure 2.8.

FIGURE 2.8 MASTER PLAN AREA: OPPORTUNITIES (2016)









LEGEND

+

- · Study Area
- Railway
- Proposed Regional Sports Field
- Council Owned Sites
- Potential Address to Market Street
- Potential Pedestrian Link
- Potential Retail Community Spine
- 400m / 5 minute walking band from Marketown
- Potential Employment Centre
- Open Space Assets
- Heritage Site Town Centre Core Riverstone Swimming Centre
- > Open Expansive Views
- > View Corridors

CONSTRAINTS AND CHALLENGES

Analysis of the Riverstone Town Centre identified the following constraints and challenges which may impact the future growth potential:

- » Garfield Road Overpass: This will effectively limit the viability Garfield road as a retail / commercial focus, and sever the northern and southern parts of the town.
- » The railway line: This makes it difficult to integrate development on either side of the line. The single track configuration constrains service frequencies.
- » Future Garfield Road upgrade: In the long term, Garfield Road will likely be upgraded to increase capacity. It will likely bring more traffic with attendant noise and pollution impacts, and potentially make it difficult to improve pedestrian crossing opportunities.
- » Heritage buildings: Listed heritage items should be retained as a constraint in any future Master Plan.
- Flood affected land: The western part of the Town Centre is particularly affected by 1-in-100 year floods. The land between Church Street and King Street addressing Riverstone Parade is not suitable for redevelopment due to it being 2.5m below the flood level.
- » Limited pedestrian permeability: Large block dimensions in the east-west direction constrain northsouth pedestrian movement, limiting walkability.
- » Long term constraints: Certain buildings are considered long term constraints due to their function, ownership, or recent construction:
 - Riverstone Schofields Memorial Club
 - Police station: currently being re-developed.
 - Casuarina School (heritage item)
 - St Andrews Uniting Church (heritage item)
 - New townhouses developed on land within the block defined by Park, Mill, George and Pitt Street

The constraints and challenges are illustrated in the Figure 2.9.

FIGURE 2.9 MASTER PLAN AREA: CONSTRAINTS AND CHALLENGES (2016)





LEGEND

	Study Area
	Railway
M	Railway Barrier
	Land Directly Affected By Proposed
	Overpass
\leftrightarrow	Future Garfield Road Upgrade
111.	Site Demolished By Proposed Overpass
	Sensitive Residential Interface
	Area Beyond Easy Walking Distance Of
	Town Centre (600m)
	Area Beyond Easy Walking Distance Of
	Town Centre (800m)
	Gradient Steeper Than 1:20
	Heritage Sites
\bigcirc	Historic and Significant Trees & Vegetation
	Long Term Constraint
7777 3	Medium Risk - 1 in 100 ARI Flood Level
	Significant Flood Inundation

A number of challenges were identified within the Town Centre. These challenges demonstrate the complex interrelationship between land use planning, economics, transport and traffic, and are described below.

- » The lack of an identifiable heart. There is no place that can act as a focus for the community, a space that goes beyond simply satisfying retail needs.
- » **Limited retail and entertainment offer.** Retail choice is diminishing, while remaining businesses are struggling.
- » No sense of arrival into Riverstone. Due to the lack of Town Centre identity, tired building stock, and lack of gateway or landmark urban form. People arriving by train are confronted by the blank wall of Marketown.
- » An established country town on the edge of a growing metropolitan area. Intensifying development in the Town Centre to better utilise the land will need to be carefully balanced against the desire to retain the country town character valued by the community.
- » Getting the re-development of Marketown right. Future planning and design should be considered holistically within the context of the Town Centre, and not just as a stand-alone building.
- » Providing community and social services to the existing and future community.
- » Managing competing demand for Town Centre space. Co-location of retail, commercial and community uses in the Town Centre is desirable in order to establish a sustainable mix of uses. Given the finite availability of land, the allocation of space for the various uses needs to be balanced against the need to provide sufficient public space.

- » Managing future transitions in the Town Centre. Chief among these is the transition forced upon the Town Centre by the overpass. As long as there is no overpass, the viability of existing businesses along Garfield Road needs to be maximised. Once the overpass is constructed, the Town Centre's focus will need to move away from Garfield Road.
- Integrating the Garfield Road Overpass into the Town Centre fabric. The proposed Garfield Road Overpass will disrupt the Town Centre. The Master Plan will need to identify the best use of land adjoining the overpass, in particular the land left over on the southern side of the overpass following the demolition of existing development.
- » Connecting to areas beyond. Riverstone Park, the Riverstone Industrial area and the future Riverstone West employment area are located near the Town Centre.
- Planning for a changing community. The demographic composition of the wider NWGC area is changing. The Master Plan for the Town Centre should recognise these changes so that it serves the needs of all members of the present and future community.
- » Managing heavy vehicle traffic through the Town Centre. Heavy vehicle movements through the Town Centre are incongruous with the Study Area's country town character and compromise pedestrian amenity.

Figure 2.10 illustrates the fragmented nature of the Town Centre and lack of an identifiable heart.

Responses and outcomes to the address the above challenges have been incorporated into the Master Plan.





2.6. Consultation and engagement **2.6.1 CONSULTATION TO INFORM THE**

MASTER PLAN

Preparation of the Plan has been informed by community consultation and engagement with stakeholders within the Town Centre and the broader Riverstone area.

The program of consultation and engagement has heard from a number of stakeholders including:

- » Council staff from a number of Council's branches/ divisions
- » Blacktown City Council Councillors, including Mayor Stephen Bali
- » Kevin Conolly MP, Member for Riverstone
- Local real estate agents (Riverstone) »
- Quakers Hill Police >>
- Sakarra (developer of the site adjacent to the Riverstone » Railway Station)
- Historical Society (local branch) >>
- » NSW Government agencies including Transport for NSW and Roads and Maritime Services (RMS) and the NSW Department of Planning and Environment
- » Local community members at a Community Information and Feedback Session and response to Feedback Forms.

As part of the consultation program, a Community Information Session was held at the Riverstone Schofields Memorial Club. The information session was designed to allow residents, landowners, business operators and other interested stakeholders the opportunity to discuss issues with the project team members and review the background information informing the study. The images in Figure 2.11 - DRAFT MASTER PLAN: CIFS BOARDS show some of the information that was on display at the session.

A summary of the key observations from the consultation program that helped shape the Plan is provided below.

- » Key stakeholder consultation unearthed a range of ideas for the Town Centre. A considerable level of attention was given to the existing and desired character in the Town Centre, access and movement and development opportunities and constraints.
- » It was broadly accepted that there is a need for the Town Centre to have a 'do over', with stakeholders citing existing economic difficulties for local businesses, compounded by local crime and traffic problems as a reason to support amenity improvements.
- Ideas around creating a 'destination Town Centre' or a 'community hub' surfaced persistently throughout both key stakeholder and community consultation. The concept of Riverstone Town Centre as a place people need to and want to visit easily was popular. Some tempered this suggestion with concerns about access, traffic, parking and character-sensitive development. To this end, there was considerable opposition to plans for the Garfield Road overpass.
- There is a perception amongst some stakeholders, including community members, that elements of the community are resistant to change. A popular solution was to deliver a Master Plan that celebrates and preserves the area's heritage at the same time as offering a Town Centre that meets the needs of the area into the future.

FIGURE 2.11 DRAFT MASTER PLAN AREA: CIFS BOARDS

Welcome / Introduction	on	Study area	in conte
This mean state is the state sound use mediations in the next 20 to 30 years. The Town Centre will need to grow to service the needs of the people who live, visit and work in the local area. When the barets 4-bart and accessible Town Centre will service the needs of the second to the service the needs of the second to the second to the second management to the second to the sec	<text><text><text><text><text></text></text></text></text></text>	The study area is generally within a 400m radius from Riverstone Raiway Station. It is bordered by Elizabeth bordered by Elizabeth per the south, by Elizabeth che north and the general south and the ast, King Street to the east, King Street to the the ast, King Street to the the ast, King Street to the the ast, King Street to the east, King Street to the the south, and the south and the south ast the south as	
	tunities	Town Cent	Galaxy Stee
We have identified a number of key Town Centre opportunities - Are	Ibut the Town Canton	We have identified a nun	nber of Lon-bing Too
<text><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></text>		 Analoges to future for deviced on the sector of the sector	any others? and the Tom and the Tom and the Tom the carbonary the carbonary

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Opportunities and challenges traffic and transport



ROUPUSA AECgroup elt

What we have seen



Blacktown Con ARUP COUPUSA AECgroup elton

2.6.2 PUBLIC EXHIBITION OF DRAFT MASTER PLAN

The Draft Master Plan was widely exhibited from 22 August to 30 September 2016, including displays at Council's offices in Blacktown, at Riverstone Library and Marketown shopping centre.

The community was able to view the options, the Draft Master Plan and supporting documents or to download these on Council's 'Have Your Say' webpage. Submitters could complete an online 'quick poll' to gauge support for the options and/or leave general feedback, and more detailed comments were encouraged to be submitted in writing.

Council also held a series of community information 'dropin' sessions at Riverstone Marketown on two Thursday evenings and two Saturday mornings. These sessions gave interested people an opportunity to view the draft masterplan and speak directly with members of the project team. Over 300 people attended these sessions, with the majority feeling well informed and satisfied with the direction of the project. Those who expressed concern or objected to any part of the Draft Master Plan were encouraged to fill out a feedback form. Key observations from the feedback and submissions during public exhibition included:

- There was general consensus that the implementation of the Master Plan could not come soon enough and that Marketown shopping centre needs an urgent upgrade;
- Generally the community supported rezoning of residential areas, although there was concern about the height of buildings and the impact of higher densities on traffic congestion and parking;
- » There was strong support for the concept of a Riverstone 'heart', similar to Market Square in the Rouse Hill Town Centre, and strong support to keep the swimming pool in its current location;
- » The community raised concerns about connectivity with the Riverstone West development, the impact of the overpass, flood impacts, the amount of parking for new residential buildings, shopping centre and commuters and overshadowing and solar access to the Village Green and Market Street;
- » There was a desire to preserve the town character, for more open space and green areas and a public transport interchange.
- » Verbal feedback received at the community information drop-in sessions was positive. The key messages related to the timeframe for the plan to be implemented and the need for Council to act quickly. It was also evident that the community is excited about the prospect of expanding the Marketown shopping centre and passionate about retaining the existing swimming pool.

03 The Master Plan

3.1 The Master Plan explained

The future Riverstone Town Centre is based around a vibrant Main Street activated by a diverse mix of retail, commercial, community, recreational, cultural and open space uses.

This 'heart' is pedestrian-focused and safe, with generous footpaths and pedestrianised plazas enlivened by al-fresco dining. Frontages are fine grain and human-scaled, relating to the public domain. Awnings provide shade, shelter and a sense of intimate enclosure for pedestrians, as well as evoking a country town feel.

This 'heart' is where locals can find everything they need for their day-to-day shopping, and then meet friends for coffee or to lounge in the sun. They go to work there.

The 'heart' is where locals and visitors alike can visit the library, participate in community groups, take lessons, go for a swim, and get fit. It is easily approached on foot from surrounding residential areas, the train station, bus stops, and parking areas.

This 'heart' is flexible and can be closed off to vehicular traffic for special occasions such as the Riverstone Festival, market days and ceremonial events.

The 'heart' is where local shops and businesses can establish themselves along a spine which, between the train station and the revamped Riverstone Swimming Centre, is trafficked by passers-by who are there for a wide variety of reasons. The street is a high quality public space designed to capture a distinct sense of place with avenue tree plantings; a street that instils civic pride.

The 'heart' is where people choose to linger and come back to.

3.2.1 KEY MASTER PLAN COMPONENTS

The Master Plan is a flexible development framework for the regeneration and growth of the Town Centre.

The key components of the Master Plan pre-construction of the overpass are as follows.

- » The Main Street (Market Street): The key Town Centre components are concentrated along this spine to maximise synergies between uses and generate critical mass.
- » Marketown upgrade: Anchored by a 4,000sqm supermarket sleeved with speciality retail to activate the ground plane. Potential for residential development above to maximise utilisation of land.
- » Community Hub: A multi-functional Community Resource Hub incorporating a library, cultural, community and social service functions.
- » Village Green: A flexible, activated green space edged by the Community Hub and mixed use development, this space is the focal public space for Riverstone. It replaces Lions Park and is located at the centre of the Town Centre 'heart'. It relates to the Riverstone Schofields Memorial Club, becoming a space that stitches together existing and future development.
- » Riverstone Swimming Centre Re-development: A comprehensive new sports facility with indoor pool and gym facilities.
- Pedestrian-focus: Improved permeability for pedestrians through the blocks either side of Market Street to improve access to the new Town 'heart'. A new, linear plaza activated by the Marketown Upgrade formalises a pedestrian connection between the train station and Market Street.

- » Mixed Use + High Density Living: Organised around the train station and the Village Green to maximise proximity to public transport and community infrastructure.
- » Townhouse Living (Medium Density): Located at the periphery of the Study Area to function as a transitional zone between high density blocks, gateway sites, and existing low density blocks.
- Integration of Existing Uses: Established development considered to be long term constraints and key heritage items are integrated into the new Town Centre structure.
- Garfield Road East Retail / Commercial Strip: The existing retail / commercial strip continues its current operation. In the short term Council is undertaking public domain improvement works between Riverstone Parade and Pitt Street. The Master Plan proposes development controls that permit more intensive re-development of land either side of Garfield Road East. Despite this it is anticipated that lands affected by the proposed overpass is unlikely to be re-developed, particularly the land on the southern side subject to acquisition in any future overpass construction, until the overpass situation is conclusively resolved.
- Council Depot Site: In the long term, the Council depot may be re-located outside of the Town Centre. This releases the site for conversion into additional open space to serve future increases in the local population. In this scenario, the opportunity to consolidate floodaffected lots along Riverstone Parade to create an even larger open space should be explored.

DEVELOPMENT YIELD ESTIMATES

The following table identifies the potential development yields that may be generated. The yield has been provided as a range, as the final yield will be subject to any changes to development standards such as building heights and FSR controls that are made through the rezoning process. These key features are illustrated in Figures 3.2 to 3.5 for both pre and post over pass construction scenarios.

POST OVERPASS DEVELOPMENT

Following construction of the overpass, it is proposed that affected land on the northern side of Garfield Road East will be re-developed to face Market Street. On the southern side, the land left over after acquisition for overpass construction will be available for development as residential flats, with an appropriate landscaped buffer between any future development and the overpass.

DEVELOPMENT YIELD ESTIMATES

TABLE 3.1 POTENTIAL DEVELOPMENT YIELDS

Master Plan (Summary of Estimated Yield Data (Post- overpass))			
Measure	Estimated Yield*		
Total Gross Floor Area	490,000 – 495,000sqm		
Residential GFA	460,000 – 465,000sqm		
» Estimated residential units	3,800 – 4,000 units		
Retail GFA	11,000 – 12,000sqm		
» Supermarket GFA	3,000 – 4,000sqm		
Commercial GFA 8,500 – 9,000sq			
Community Hub	4,500 – 5,500sqm		

*NOTES:

- The estimates provided are based on block areas and an assumed FSR that reflects the proposed development typologies and building envelopes. The breakdown of GFA by land use is similarly based on a percentage basis.
- 2) The table does not include the GFA of the proposed Riverstone Swimming Centre redevelopment.
- 3) All values are approximate and based on research undertaken in 2015.

3.2 The Illustrative Master Plan

FIGURE 3.1 RIVERSTONE TOWN CENTRE MASTER PLAN – THE ILLUSTRATIVE MASTER PLAN







- · - Study Area





FIGURE 3.2 RIVERSTONE TOWN CENTRE MASTER PLAN – MASTER PLAN OVERVIEW (PRE-OVERPASS)

FIGURE 3.3 RIVERSTONE TOWN CENTRE MASTER PLAN - LAND USE (PRE-OVERPASS)



Police Station / Fire Station

TO

LEGEND

— · — Study Area Railway

Council Depot

Open Space

Private Club

Marketown Mixed Use Residential

Church

Education

Riverstone Station

Community Facilities

Public Recreation



FIGURE 3.4 RIVERSTONE TOWN CENTRE MASTER PLAN – (POST OVERPASS)

FIGURE 3.5 RIVERSTONE TOWN CENTRE MASTER PLAN – LAND USE (POST OVERPASS)

TO

SCHOFIELDS

— · — Study Area Railway

Riverstone Station

Council Depot

Church

Education

Open Space

Private Club

Mixed Use Residential

Marketown

Police Station / Fire Station

Community Facilities

Public Recreation

LEGEND





Gateway/Key Sites

Following submission of the Final Draft of the Master Plan, a workshop was held to brief Councillors and Senior Council staff on the draft plan. The workshop was intended to provide a final overview of the plan prior to its consideration by Council for endorsement to proceed to exhibition.

During the workshop the option of Gateway/Key Sites was raised. These sites have been identified as having additional development potential of up to 15 storeys due to their proximity to the Riverstone railway station and the town centre core. These sites have the potential to provide:

- » Iconic built form outcomes demonstrating design excellence
- » Additional residential development yields, increasing the population of the town centre
- » Improvements to the public domain and streetscape
- Additional opportunities for mixed use development increasing the diversity of employment, retail and commercial opportunities.

The additional development potential, typically in the form of additional height and FSR could be achieved by:

- » Including incentive based clauses in the LEP which would permit the additional development potential provided the proposal meets certain criteria which may include:
 - Demonstrating design excellence by holding a design competition for the sites
 - Delivering additional public domain improvements on site, or in adjoining areas of the town centre
 - Providing other forms of 'genuine public benefit' either on-site or in adjoining areas of the town centre.
- Allowing for a relaxation of certain development controls such as minimum car parking requirements to improve the feasibility of delivering development on these sites
- » Entering into a Voluntary Planning Agreement which would allow Council to consider additional development potential on the site provided certain criteria are met and outcomes that provide genuine public benefit are provided by the developer.

The additional development potential would need to be considered by Council on merit in its assessment of the Planning Proposal to rezone the site and amend the key development standards, as well as at the Development Application stage. As part of its assessment, Council would consider whether the proposal addresses all potential impacts (eg additional traffic, overshadowing, and other amenity impacts), as well as the proposal's consistency with the Master Plan, its objectives and identified outcomes as described in the Implementation Strategies.

Council may wish to consider joint venture opportunities with developers for the Marketown site in particular, as a mechanism to fast track delivery of both new residential development and improved retail offerings in the town centre.



FIGURE 3.6 PROPOSED GATEWAY/KEY SITES

04 Implementation strategies

4.1 Introduction

The following section provides details of the key strategies and implementation framework required to deliver the Master Plan outcomes.

4.2 Implementation strategies

PROMOTE A TOWN CENTRE IDENTITY TAILORED **TO RIVERSTONE**

For Riverstone, residential density needs to increase significantly to sustain new businesses and services. Increasing the Town Centre population will help to create greater vitality in public spaces, leading to a more vibrant and attractive Town Centre.

The Town Centre is well suited to accommodate increased densities for the following reasons:

- » Maximises the number of residents who benefit from excellent access to the improved retail offer of the Marketown upgrade, the future amenity of the Community Hub and the Riverstone Swimming Centre re-development, and nearby public open space.
- » Maximises the number of residents who benefit from good access to public transport.
- » Utilises the spare capacity in the local road network, which is capable of absorbing the additional traffic generated by new development.
- Prospective residents can benefit from unique, expansive views of the rural landscape.

Increasing the density will change Riverstone's existing character. It represents an opportunity to define a stronger identity for the Town Centre, and a more legible urban form. The existing country town character will be folded into the evolution of this new identity. The primary means of expressing the country town will be through:

- » The detailed design of the public domain (for example through materiality and street furniture) which may not necessarily be captured in the plan drawings provided at the Master Plan scale
- » Visual connections to the wider landscape
- Creating a focus for Riverstone around the traditional "Main Street" and "Village Green" typologies
- » Establishing a fine grain pedestrian scale at the interface of built form and the public domain.





and 4.3.

- - train station, where Town Centre services and amenities are within easy walking distance, noting some additional height may be considered in some locations (see page 29).
 - Locate 9 storey development within 400m of the
 - Development within 400m of the train station located on the southern side of Garfield Road East is set at 6 storevs. The height is set to avoid over-development in an area where the Master Plan proposes a heritage emphasis.

Biverstone Town Centre – Master Plan

The highest densities are proposed within walking distance of the train station. An intermediate high density zone is proposed within walking distance of the Village Green. Medium density zones are located at the edges of the Town Centre to transition between the high density core and the low density residential development located just beyond the boundaries. Mixed use development is focused along the Market Street spine. Figure 4.1 illustrates the principle underpinning the Residential Density Strategy.

4.2.1 (B) BUILDING HEIGHTS A LEGIBLE AND SUSTAINABLE URBAN FORM

Council has approved the concept of development up to 10 storeys along the main spine, and up to 15 storeys in certain key locations (for further details, see page 29). Whether development at these heights is suitable will be further considered through the process of amending the LEP (Planning Proposal) – which includes community consultation and consideration of feedback.

The proposed built form makes the Town Centre clearly identifiable. Its scale responds to a post-overpass context, which will be a significant piece of infrastructure incongruous with the existing scale of the Town Centre. Tall buildings are located adjacent to the overpass to act as a buffer between the overpass and the rest of the Town Centre.

The Building Heights Strategy is illustrated in Figures 4.2

Implementation:

» Optimise density on high value land: Permit 9 storey development on the highest value land to maximise development value.

- » Smooth transition in urban form: Step building heights down towards the Town Centre boundary to establish a smooth transition in urban form between the Town Centre and the low density residential areas beyond.
 - Establish an intermediate high density zone of 6 storeys for areas that are beyond 400m of the train station but within 400m of the Village Green. This maximises the number of people living within easy walking distance of the Market Street spine while achieving a transition in building heights from the 9 storey core.
 - Locate 3 storey medium density zones at the boundaries of the Town Centre to establish a transition in scale between high density and low density beyond.

- Optimise land use on catalyst sites: Establish multi->> storey mixed use development on the Marketown upgrade and Community Hub sites to maximise land utilisation.
 - Permit development up to 6 storeys (with a 2 to 3 storey podium) for the Marketown upgrade to potentially integrate a significant residential component into the development.
 - Accommodate the Community Hub over 4 storeys to _ allow the upper floors of the development to benefit from views westwards to the rural landscape. This will also free up land for a multi-storey car park on the site.
- Ensure solar access to streets and public spaces: Set building heights and setbacks so that key areas of the Town Centre benefit from solar access throughout the year.
- Maximum of 6 storeys for buildings edging the Village Green to provide sunlight to the Village Green in mid-winter.

Garfield Road Overpass will be re-developed as 6 storey apartments, even though it is located within 400m of the train station. This reflects the fact that these sites will not be as well integrated with the Town Centre in a postoverpass scenario.



FIGURE 4.3 RIVERSTONE TOWN CENTRE MASTER PLAN - BUILT FORM - BUILDING HEIGHTS (POST-OVERPASS)





FIGURE 4.2 RIVERSTONE TOWN CENTRE MASTER PLAN - BUILT FORM - BUILDING HEIGHTS (PRE-OVERPASS)





LEGEND



10 STOREY HEIGHT LIMIT IN TOWN CENTRE CORE 'RIVERSTONE HEART'

Prior to consultation on the draft Master Plan, Council identified the possibility of considering a maximum permitted building height along the Market Street spine of 10 storeys, which was included as an additional concept for feedback

In considering the preferred option, Council supported the 10 storey potential as well as the ability to consider up to 15 storeys on gateway/key sites.

The higher maximum height limits will result in a much denser character for the Town Centre core, transforming Market Street into a street that is much more urban in character. The proposed built form also suggests that the Village Green would need to be re-imagined as a more urban, plaza-like public space, as opposed to an extensive green-space.

To take advantage of the full 10 storey height limit, it is likely that the Community Hub site would have to be developed as a mixed use development since the floor space required for the Hub would not require a 10 storey building.

A high level assessment of the pros and cons of this option is provided, noting that assessment of the suitability of the 10 and 15 storey maximum heights will occur through the Planning Proposal process.

Pros

- » Potential for increased residential population in the Riverstone Town Centre. This may potentially generate a greater sense of vitality in the Town Centre, as well as more demand for local retail and services to support local businesses.
- » Allows a greater number of people to benefit from proximity to the Community Hub, Marketown and the redeveloped Swimming Centre.

Cons

- » Much of the Village Green, if not all of it, is likely to be overshadowed throughout the year (this will require further shadow analysis to confirm).
- » The proposed densities may have implications for traffic flow on local streets.
- » High density development at the Piccadilly Street end is located more than 5 minute walk away from the train station, making it less convenient for residents.
- » There will be a sudden transition in building scale at the Piccadilly Street end from 10 storeys to 1 to 2 storey dwellings.
- Potentially results in a continuous, monotonous built form along Market Street.

Yield Analysis with 10 Storey Option

550,000 – 560,000 sqm	
520,000 – 530,000 sqm	
4,300 – 4,500 units	
12,000 – 13,000 sqm	
3,000 – 4,000 sqm	
9,000 – 9,500 sqm	
5,000 sqm	

Please note all values are approximate and based on research undertaken in 2015



300m

50

100

200

FIGURE 4.4 ADDITIONAL CONCEPT - 10 STOREY HEIGHT 'RIVERSTONE HEART'

- - Study Area

LEGEND

1 Storey 2 Storey 3 Storey

4 Storey

6 Storey

9 Storey

10 Storey

Gateway / Key Sites (15 storey potential)

(15 storey potential)
 400m From Village Green

- - - 400m From Village Gree

Buffer Zone

4.2.1 (C) BUILT FORM MASSING

EVOLVE A HUMAN-SCALED DEVELOPMENT OUTCOME Creating a distinctive sense of place for Riverstone requires the evolution of a coherent, legible townscape that address the existing fragmented character of the Town Centre. For Riverstone this means a pedestrian-scaled built environment at the street level, where the street environment incorporates design cues associated with traditional country towns.

The Town Centre massing is based on the following principles:

- » Defining a consistent edge to streets and public spaces to establish a comfortable sense of human-scaled enclosure.
- » Setting back the upper levels of taller buildings to reduce the perceived scale of development and reduce overshadowing of streets and public spaces.

These principles are illustrated in Figures 4.5, 4.6 and in 3D conceptually in 4.7-4.10



FIGURE 4.5 RIVERSTONE TOWN CENTRE MASTER PLAN – BUILDING ENVELOPE PLAN (PRE-OVERPASS)



LEGEND

<u> </u>	Study Area		
	Railway		
	Street Level Building Envelope		
	Upper Level Building Envelope		
	3m Ground Level Setback		
/////	3m+ Ground Level Setback		
•••••	Om Street Setback: Build-to-line		
9st	Storey Height		

Riverstone Town Centre – Master Plan



FIGURE 4.6 RIVERSTONE TOWN CENTRE MASTER PLAN – BUILDING ENVELOPE PLAN– MASSING (POST-OVERPASS)

FIGURE 4.7 RIVERSTONE TOWN CENTRE MASTER PLAN - BUILDING ENVELOPES NORTHWEST -**3D CONCEPTUAL ILLUSTRATION**



FIGURE 4.9 RIVERSTONE TOWN CENTRE MASTER PLAN - BUILDING ENVELOPES SOUTHEAST -**3D CONCEPTUAL ILLUSTRATION**



(C) OVERVIEW OF BUILDING ENVELOPES FROM THE SOUTH EAST





FIGURE 4.8 RIVERSTONE TOWN CENTRE MASTER PLAN

(B) OVERVIEW OF BUILDING ENVELOPES FROM THE SOUTH WEST

FIGURE 4.10 RIVERSTONE TOWN CENTRE MASTER PLAN - BUILDING ENVELOPES MARKET STREET -**3D CONCEPTUAL ILLUSTRATION**

(D) OVERVIEW OF MARKET STREET BUILDING ENVELOPES

Implementation:

- » Establish a country town main street scale: Establish a two storey build-to line along Market Street to create a clearly defined, ordered, and intimately-scaled streetscape with the characteristics of a country town.
 - Maximise building setbacks above two storeys as far as practicable to diminish the total building height as perceived from the street.
- » Create a sense of enclosure to the Village Green: Establish 4 storey built form to contain the Village Green.
 - Floor levels above 4 storeys are to be setback to maximise solar access to the Green.
- » Create a sense of arrival and Town Centre identity: Establish a sense of arrival into a clearly identifiable Town Centre.
 - Promote distinctive architecture for landmark corner sites at the entry points into the Town Centre 'heart'. This includes the intersections of Garfield Road East with Riverstone Parade and George Street, the intersection of Riverstone Parade and Mill Street, and the intersection of George Street and Mill Street.
 - Establish a heritage curtilage around the Parrington Terrace listed heritage item to denote a sense of arrival at Pitt Street.
 - Establish the Community Hub as a landmark building on the corner of Pitt Street and Market Street.

- » Mandate upper level setbacks: Require upper level setbacks for all buildings taller than 3 storeys to maximise solar access to public spaces and adjacent residential development, as well as reduce perceived development bulk (Refer Figure 4.13).
- Allow for heritage interpretation: Apply significant setbacks from the street to any re-development on Castlereagh and Elizabeth Streets. The setback provides opportunities for front garden plantings that are a feature of the existing heritage character of the street.
- Reinforce east-west vistas: Reinforce existing views to the west along east-west streets through built form and avenue planting.
 - Maintain the connection to the rural context to draw the rural landscape into the Town Centre's sense of place.
 - Establish a view corridor to the west from the upper _ levels of the Community Hub development.
 - Arrange the built form of taller buildings to maximise westward views.
- Avoid development on land significantly affected by flooding: No re-development is proposed on land that is located 2.5m below the 1-in-100 year flood level. Specifically this applies to the lots with an address to Riverstone Parade located between King Street and Church Street.

The implementation outcomes are illustrated in Figures 4.11 and 4.12.

RIVERSTONE WEST POTENTIAL FUTURE

Riverstone Park

300m

WEST SCHOFIELDS SCHOFIELDS LEGEND - · - Study Area IIIIIIII Railway Primary Town Centre Arrival 0 Secondary Town Centre Arrival * Landmark Arrival Plaza Key Open Space Recreation Destination Heritage Curtilage

•••• • Main Street" Axis <----> Secondary Axis

RIVERSTONE

WEST

100

200



FIGURE 4.11 RIVERSTONE TOWN CENTRE MASTER PLAN - BUILT FORM - TOWN CENTRE LEGIBILITY (PRE-OVERPASS)



FIGURE 4.12 RIVERSTONE TOWN CENTRE MASTER PLAN – BUILT FORM – TOWN CENTRE LEGIBILITY (POST-OVERPASS)

FIGURE 4.13 RIVERSTONE TOWN CENTRE MASTER PLAN – BUILT FORM – SOLAR ACCESS WINTER



MID-WINTER 9AM

MID-WINTER 12PM



MID-WINTER 3PM



4.3 Character Areas

A DIVERSE, FINE-GRAINED TOWNSCAPE

The Master Plan accommodates a diversity of development typologies intended to provide housing choice. Development typologies are organised into distinctive precincts and neighbourhoods. These character areas illustrated in Figure 4.14, provide an overarching framework for guiding the built form and public domain design, contributing to a diverse sense of place.

FIGURE 4.14 RIVERSTONE TOWN CENTRE MASTER PLAN – BUILT FORM – CHARACTER AREAS





LEGEND

- · - Study Area

IMPLEMENTATION:

- » Riverstone 'Heart': Mixed use precinct with ground floor retail, commercial and community uses; with apartments above potentially up to 10 storeys (and 15 storeys on gateway/key sites).
 - Anchored by the Marketown upgrade, Community Hub, Riverstone Swimming Centre Re-development, and the train station.
 - Mixed use development to feature a 2 to 4 storey base with upper levels setback significantly from the street.
 - Activate building edges at the street level where possible and avoid long blank walls.
 - Establish a fine-grain streetscape through compact retail frontages.
 - Parking and service zones to be screened so as to be not visible from the public domain.
 - Reference Riverstone's heritage through interpretative elements in the public domain and establishing a heritage curtilage for key heritage items.
 - In principle, mixed use development in the 'heart' should feature ground floor retail, commercial or community uses. However, in certain areas such as the Village Green and the section of Market Street between George Street and Piccadilly Street, ground floor residential uses may be permitted if determined by market demand. These units should be designed to be adaptable to non-residential uses in the future and entries should be off the street.
- » Town Centre Living: A high density, contemporary and vibrant living environment within convenient proximity of Town Centre services, amenities, open space and transport options. Provides a diversity of unit types to broaden housing choice in Riverstone.
 - 6 to 9 storey apartment buildings with upper level setbacks to break down the perceived building mass.
 - The ground floor to address the street through residential units that feature dedicated entries off the street to present a fine grain rhythm to the streetscape and maximise passive surveillance of the public domain.

- » Heritage Themed Living: High to medium density residential area with a heritage theme evoked through the architecture, massing, landscape character, public domain, and heritage curtilages.
 - Balance traditional styles with contemporary architecture.
 - 6 storey apartments along Garfield Road East form a buffer zone between the busy road and the quiet residential areas to the south.
 - 3 storey townhouses with building entries that address the street and establish a consistent rhythm of façades, entries and front gardens along the street. Vehicular access from rear lanes.
 - Street setbacks to allow for private front garden planting that are characteristic of existing streetscapes.
 - Express the heritage character through choice of street planting species and their arrangement along the street.
 - Materiality that is sympathetic with traditional architecture.
- » Contemporary Village Living: A quiet, medium density residential area at the transition zone between high density living and existing low density residential areas.
 - 3 storey townhouses with building entries that address the street to establish a consistent rhythm of façades, entries and front gardens along the street.
 - Contemporary, fine grain architecture articulated with sustainability features.
 - Vehicular access from rear lanes and parking areas screened from view.

The indicative architectural styles envisaged for each of the Character Areas are shown in Figure 4.15.














4.4 Access and movement strategies

A MORE ACCESSIBLE, INCLUSIVE AND PEOPLE-FRIENDLY TOWN CENTRE

The existing Riverstone Town Centre street grid establishes an efficient movement framework for the existing Town Centre. This base condition is the starting point for a coordinated suite of strategies bringing together all modes of transport: pedestrians, cyclists, public transport, cars, heavy vehicles, service vehicles and parking.

These transport options are considered holistically to achieve the right balance between competing requirements, with the focus on improving the Town Centre for pedestrians, cyclists and public transport. This is the key to establishing a healthy, sustainable Town Centre designed for people. The broad principles to this strategy are illustrated in Figure 4.16.



FIGURE 4.16 RIVERSTONE TOWN CENTRE MASTER PLAN – ACCESS AND MOVEMENT – PRINCIPLES

(A) VEHICULAR CIRCULATION

A WELL-CONNECTED VEHICULAR NETWORK WITH IMPROVED PEDESTRIAN AMENITY

The road hierarchy for Riverstone is a key element in defining its character and legibility. It is designed to distribute traffic efficiently throughout the Town Centre with the safety of pedestrians in mind. It retains the existing permeability of the road network within Riverstone, as well as connectivity to surrounding NWGC precincts and beyond.

Key Town Centre locations are easily accessed by residents and visitors. Shifting the Town Centre focus from Garfield Road East to Market Street removes through-traffic from the Town Centre 'heart', creating the opportunity for a calmer, more pedestrian-friendly Town Centre environment. This opportunity is reinforced by directing fast-moving and heavy vehicle traffic to the periphery of the Study Area, away from residential areas and the Market Street spine.

The proposed road hierarchy is designed to absorb increases in traffic levels arising from development envisioned by the Master Plan in the future. It also establishes a road network that can remain unchanged should the Garfield Road overpass be constructed, minimising disruption to the Town Centre in the future. (Refer to Figures 4.17 and 4.18.)

Implementation:

- » Legible street hierarchy: Define a hierarchical network of streets differentiated by their function and made legible by the design of the street.
 - Arterial Roads connect the Town Centre to the regional arterial road network.
 - Sub-arterial and Minor Collector Roads connect the Town Centre to surrounding precincts.
 - Primary Local Streets take traffic from higher order roads and distribute them within the Town Centre.
 - Local Streets complete the road network to provide access to all properties.
 - Laneways are shared zones serving a variety of functions depending on their location, such as service access and rear lane access to residential development.

- » New intersection: Establish a new, signalised intersection at the George Street / Piccadilly Street junction.
 - In the short term this creates a safe crossing opportunity for pedestrians to better integrate the areas to the north and south of Garfield Road East.
 - As the residential population grows, the increased traffic levels will warrant signals in this location.
 - When the overpass is constructed, George Street becomes the key entry point into the new Town Centre structure, particularly when approaching from the west.
- » Prioritising Market Street for pedestrians: Upgrade Market Street to prioritise the pedestrian experience in the Town Centre 'heart'.
 - Between Pitt and Piccadilly Streets, Market Street becomes a 40km/h High Pedestrian Activity Zone.
 - Market Street is extended to Riverstone Parade and established as a one-way shared zone and linear plaza between Pitt Street and Riverstone Parade.
 - Service access and bus traffic will generally not be permitted along Market Street.
- » Improve existing intersections: Alleviate congestion at the intersection of Garfield Road East with Riverstone Parade / Railway Terrace by developing strategies to improve intersection performance.
- » Discourage heavy vehicle traffic: Make it less convenient for heavy vehicle traffic to travel through the Town Centre to create a safer and more conducive environment for people to walk around and spend time in the Town Centre.
 - Prevent heavy vehicles from using Market Street, Primary Local Streets and Local Streets.
 - Establish a pedestrian crossing at Riverstone Parade connecting the train station to Market Street. This slows down traffic to discourage heavy vehicles from using Riverstone Parade, particularly once Bandon Road is upgraded and a rail crossing established at this location.

FIGURE 4.18 RIVERSTONE TOWN CENTRE MASTER PLAN - ACCESS AND MOVEMENT -**ROAD HIERARCHY (POST-OVERPASS)**



FIGURE 4.17 RIVERSTONE TOWN CENTRE MASTER PLAN - ACCESS AND MOVEMENT -**ROAD HIERARCHY (PRE-OVERPASS)**

» Post-Overpass: Consider at-grade, local road connections across the railway line to address the significant deterioration in local connectivity envisaged should the overpass be realised in its current form. The overpass could also create the opportunity to downgrade the traffic function of Riverstone Parade as vehicles are directed to other north-south routes which provide access across the railway line. This can further improve the pedestrian amenity of Riverstone Parade in the long term, specifically with regards to the connection between the station and the Market Street retail precinct.



LEGEND

	Study Area
	Railway
	Arterial
	Sub Arterial
	Minor Collector
	Primary Local Street
	Local Street
	Shared Zone/Laneways
	Slip Lane
	40km/h High Pedestrian Activity.
	Pedestrian/Bicycle Only Path
**	Existing Intersection



Proposed Intersection

Area

(B) PEDESTRIAN MOVEMENT

A SAFER, MORE ATTRACTIVE PLACE FOR PEDESTRIANS – 80% INCREASE IN PEDESTRIAN PATHS Pedestrian activity is central to animating a Town Centre and creating vitality. Walking amongst people imparts a sense of being part of a community, increases the possibility of chance encounters, and creates a safer public domain through passive surveillance.

The proposed Town Centre structure is fundamentally designed to promote walking by enhancing the overall street environment for pedestrians and locating key functions within easy walking distance of each other, along an easily navigable main street. The consolidation of each use – such as retail, community and recreational – in discrete locations along the Market Street spine is designed to stimulate people to walk between these locations. This is intended to create a buzz of pedestrian activity along Market Street. Local businesses benefit from increased levels of passing foot traffic (Refer Figures 4.19 and 4.20).

Implementation:

- Connect the dots along Market Street: Extend Market Street to connect the train station to the Riverstone Swimming Centre and points in between, including the Marketown upgrade, Community Hub, Village Green, and the Riverstone Schofields Memorial Club.
- Upgrade Market Street by widening footpaths and instituting a coherent landscape design to create a high amenity environment for pedestrians. Incorporate traffic calming measures to control vehicular speeds.
- Allow for a pedestrian bridge connection to the future Riverstone West precinct from the train station at the end of Market Street.
- Prevent bus services along Market Street to maximise the space in the road corridor allocated to pedestrians.
- » Improved permeability for pedestrians: Establish activated mid-block pedestrian and cycle routes to redress the relative lack of pedestrian permeability in the north-south direction.
 - The new mid-block connection between Park Street and Market Street creates additional opportunities for residents north of Market Street to access the 'heart'.
 - The new mid-block connection and upgraded laneways between Garfield Road East and Market Street integrates the Market Street spine with the existing Garfield Road East retail / commercial strip. This integrates the two areas into one retail / commercial precinct.
 - Require mid-block, publicly accessible pedestrian routes through significant residential or mixed use development that occupies the width of an urban block.

- » More walkable local streets: Extend footpaths along all streets within the Town Centre where there are none presently to establish a neighbourhood conducive to walking. Plant new trees to create a pleasantly shaded environment for pedestrians that define a distinctive, attractive sense of place.
- » New pedestrian crossings: Implement new pedestrian crossings to improve pedestrian safety and the walkability of the Town Centre.
- Zebra-crossings as part of the proposed Garfield
 Road East George Street signalised intersection.
- A raised pedestrian crossing across Riverstone
 Parade connecting the train station to Market Street and calm traffic.
- A raised pedestrian crossing connecting the Village Green to the Riverstone Schofields Memorial Club.
- Zebra-crossings at all street intersections within the Study Area.
- Construct an overhead pedestrian crossing across the railway line at the station.
- A fully accessible Town Centre: Design all pedestrian routes to be accessible, taking advantage of the relatively gentle grades of the Town Centre.
- » Post-Overpass:
 - Consider at-grade, pedestrian connections across the railway line to address the significant deterioration in local connectivity envisaged should the overpass be realised in its current form.
 - Establish a safe pedestrian environment along pedestrian routes under the overpass.

The principles and desired indicative outcomes for pedestrian movement are illustrated in the images.





FIGURE 4.19 RIVERSTONE TOWN CENTRE MASTER PLAN - ACCESS AND MOVEMENT - PEDESTRIAN MOVEMENT (PRE-OVERPASS)

FIGURE 4.20 RIVERSTONE TOWN CENTRE MASTER PLAN – ACCESS AND MOVEMENT – PEDESTRIAN MOVEMENT (POST-OVERPASS)



Proposed Bridge Link to Riverstone West

(C) CYCLING

DEVELOP CYCLIST-FRIENDLY INFRASTRUCTURE

Improving the streets for cyclists provides people with greater transport choice and encourages more people to cycle. Incorporating exercise into people's daily routine to go grocery shopping will contribute to healthier lifestyles and reduce car use in the Town Centre (Refer Figures 4.22 and 4.23).

Implementation:

» Separated bicycle path along Garfield Road East: Provide a segregated bicycle path along Garfield Road East as part of future road upgrade works. This will connect the Town Centre to regional cycle routes along Windsor Road and Richmond Road, as well as to a potential cycle route through the Riverstone West precinct.

- » On-road, marked cycle paths: Provide designated cycle paths along key Town Centre streets, including Market Street.
- » A safe environment for cyclists: Provide wide kerbside travel lanes, traffic calming to reduce vehicle speeds and onroad bicycle symbols to make motorists aware of cyclists.
- » A cyclist-friendly public domain: Provide bicycle parking strategically throughout the Town Centre.
 - Provide bicycle racks as part of catalyst projects for Town Centre regeneration such as the Marketown Upgrade, the Community Hub, the Riverstone Swimming Centre, and along Market Street.
 - Provide bicycle racks on streets serving existing community infrastructure such as the Riverstone Schofields Memorial Club, St Andrews Uniting Church and the Casuarina School.
- Provide bicycle lockers at the train station for commuters.

- Bicycle racks and lockers should be well-designed to make a positive contribution to the character of the public domain. They should be located in well-lit areas and subject to passive surveillance.

Typical cycle infrastructure to be provided in the Town Centre is illustrated in the images in Figure 4.21.



RIVERSTONE TOWN CENTRE MASTER PLAN - ACCESS AND MOVEMENT - CYCLE NETWORK (POST-FIGURE 4.23 **OVERPASS**)





FIGURE 4.22 RIVERSTONE TOWN CENTRE MASTER PLAN – ACCESS AND MOVEMENT – CYCLE NETWORK (PRE-**OVERPASS**)

FIGURE 4.21 RIVERSTONE TOWN CENTRE MASTER PLAN - ACCESS AND MOVEMENT - INDICATIVE **IMAGES – CYCLE INFRASTRUCTURE**





	0 L	50	100	200	300m
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LEGEN

	Study Area
	Railway
	Arterial
	Sub Arterial
	Minor Collector
	Primary Local Street
	Local Street
	Shared Zone/Laneways
44444	40km/h High Pedestrian Activity Area
	Pedestrian/Bicycle Only Path
**	Existing Intersection
*	Proposed Intersection

(D) PUBLIC TRANSPORT

service frequencies are low. Train services are constrained by the single-track configuration of the railway line. The provision of bus services is limited by the low density urban development of Riverstone.

IMPROVE THE APPEAL OF PUBLIC TRANSPORT

Improved levels of service will occur if demand for public transport increases. This will largely be driven by an increased population, but also by improving the ease of access to public transport, and by creating a high quality environment around public transport stops.

The extension of Market Street to Riverstone Parade improves the integration of the train station into the Town Centre.

Integrating public transport services with other transport modes such as walking, cycling and cars will make public transport easier to access and more convenient. The long term strategy is to increase the usage of public transport to reduce dependence on private vehicles as Riverstone and surrounding areas experience growth (Refer Figure 4.24).

Implementation:

- Intensify development around the train station: Permit high density development within easy walking distance of the train station (400m) to maximise the number of people with good access to public transport in the future.
- Develop the bus / rail Interchange: Reinforce the existing train station's function as an interchange between rail and bus services.
- Improve the public domain upon exiting the train station to create a safe, attractive environment for public transport users awaiting the bus or the train.
- Improve the existing bus stops by providing bus shelters and more seating.
- Re-locate the existing bus stop on the eastern side of Riverstone Parade northwards so that it is located by the new pedestrian crossing across Riverstone Parade.

- Provide signage and information boards in the train station and bus stops that clearly communicate the available transport options, destinations, and timetables.
- Retain retail activity by the train station to activate the station grounds and provide convenience for public transport users.
- Increase existing bus service frequencies: The whole of the Town Centre is located more-or-less within walking distance (400m) of an existing bus stop. Existing bus routes are expected to remain as they are, but with service frequencies increasing in line with future population growth.
- **Rail duplication:** In the long term, lobby for the revival of proposals to duplicate the railway line to allow for increased rail service frequencies.
- Provide high quality bus stops: Replace existing bus stops with bus shelters.
- Provide seating with bus shelters for better comfort while waiting.
- Ensure bus stops are well-lit to create a sense of safety.
- Ensure that bus stops are accessible.
- Provide information boards displaying service information and transport choices.

Figure 4.26 contains images of bus shelter infrastructure that could be provided in the Town Centre.

» Post-Overpass: In the post-overpass scenario one of the existing bus routes will need to be re-routed. Use this opportunity to establish a route to service the Town Centre 'heart' more directly, with a new bus stop proposed on George Street (Fig. 4.25, "Public Transport (Post Overpass)").



(PRE-OVERPASS)



FIGURE 4.24 RIVERSTONE TOWN CENTRE MASTER PLAN – ACCESS AND MOVEMENT – PUBLIC TRANSPORT



FIGURE 4.25 RIVERSTONE TOWN CENTRE MASTER PLAN – ACCESS AND MOVEMENT – PUBLIC TRANSPORT (POST-OVERPASS)



43

FIGURE 4.26 RIVERSTONE TOWN CENTRE MASTER PLAN – INDICATIVE IMAGES – BUS SHELTER INFRASTRUCTURE

6 10

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10 10 P

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LEGEND

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---- Study Area

Bus Routes

Interchange

Existing Bus Stops Proposed Bus Stops Re-located Bus Stop 400m From Bus Stops Railway Station

100

300m

200



- ---

- -

(E) PARKING AND SERVICING

RATIONALISE PARKING AND SERVICE ACCESS

Parking in Riverstone needs to meet the needs of residents, workers, shoppers, visitors, commuters and those accessing community and recreational services. Whereas locals living near the Market Street spine are encouraged to walk to the Town Centre, sufficient parking needs to be provided for those visiting from further afield to ensure that the Town Centre is convenient to access for all.

Consolidated parking facilities are proposed as part of the Marketown upgrade and Community Hub catalyst projects to meet much of the parking demand in the Town Centre. Parking facilities are located where they are easy to find when driving through the Town Centre. Off-street parking areas will be screened from view to minimise the sterilising effect of parking on the public domain. For similar reasons, access for servicing will be restricted to certain streets where possible.

Existing on-street parking will remain to continue the convenience of these spaces and to avoid disruption to the existing parking behaviour and expectations of locals and businesses (Refer Figures 4.27 and 4.28).

Implementation:

- » Marketown upgrade consolidated parking: Incorporate multi-storey parking within the Marketown upgrade development to provide parking for shoppers, commuters and residents of the development.
 - Potential capacity for an estimated 150 commuter parking spaces in addition to meeting the parking requirements for shoppers, workers and residents. This offsets the loss of informal commuter parking on the site and increases it by approximately 50 spaces. More spaces are possible through the addition of a parking floor.

- Seek contributions from Transport NSW to finance the commuter parking component of the development.
- Sleeve the parking with retail / commercial uses at the ground level along Market and Pitt Streets. Parking and loading areas to be screened from view.
- » Locate the Community Hub consolidated parking to increase pedestrian traffic: Incorporate multi-storey parking on the Community Hub site to accommodate parking for visitors to the Hub, Town Centre and Riverstone Swimming Centre. The parking requirement for the pool will be partially met by surface parking within the Swimming Centre site. When this parking area is full, visitors to the pool will park in the Community Hub car park. This requires them to walk along Market Street to get to the pool, increasing pedestrian traffic along the street.
 - Sleeve the parking with retail / commercial / community uses at the street level.
- » Time-limited street parking: Street parking along Garfield Road East and Market Street are to be timelimited to encourage high turnover of vehicles.
- » Clear signage to parking options: Identify parking areas with clear signage at intersections arriving into the Town Centre to reduce traffic caused by visitors looking for parking spaces.
 - Provide signage at the intersections of Garfield Road East Road with Railway Terrace, George Street, and Piccadilly Street.

- Off-street parking for high, medium density and mixed use development: Parking for these development types is to be provided on-site and screened from view from the public domain.
- » Provide accessible parking: All parking areas to provide the required number of accessible parking spaces.
- » Service access: To be from rear laneways and nonactivated streets wherever possible.
- Future opportunities at Riverstone Park: Riverstone Park is identified to become a regional sporting field. This will require the establishment of parking to serve the park. Sports fields are typically used in the evenings on weekdays, and during weekends. Outside of these hours, spare capacity can be expected in the sports field car park during the period when there is demand for commuter parking. If the car park can be located near the train station, it could serve this commuter parking demand, maximising its utility as a car park.



FIGURE 4.27 RIVERSTONE TOWN CENTRE MASTER PLAN - ACCESS AND MOVEMENT - PARKING AND SERVICING (PRE-OVERPASS)

OVERPASS)

45



FIGURE 4.28 RIVERSTONE TOWN CENTRE MASTER PLAN - ACCESS AND MOVEMENT - PARKING AND SERVICING (POST-



FIGURE 4.29 RIVERSTONE TOWN CENTRE MASTER PLAN – LANDSCAPE AND OPEN SPACE – **OPEN SPACE IN THE NWGC - CONTEXT**

4.5 Public Domain and Open **Space Strategy** A NETWORK OF VIBRANT PUBLIC SPACES -MORE THAN TWICE THE ACTIVATION

The public domain includes streets, parks, recreation areas, plaza and urban spaces, which are publicly accessible. The public domain is the forum for everyday activity, socialisation, recreation and movement in and around the Town Centre, For Riverstone as a Town Centre, which will grow in both density and diversity of urban activity, the public domain needs to cater for a wide range of users, ages and abilities and be active at different times of the day and the week.

The main public domain spaces are inexorably linked to the uses of the built environment which they frame and anchor. The activation of the public domain is determined by the interaction of building uses which open out to the streets, lanes and public spaces. Retail and commercial frontages at street level provide surveillance of the public domain and encourage pedestrian use and movement.

The activated street frontages and laneways will be defined with awnings, lighting and screening to car parking to ensure pedestrian amenity. Tree planting, furnishings and seating also contribute to the pedestrian quality of the public domain to support the public domain activation.

The core spaces of the public domain include the Market Street streetscape spine, Market Street Plaza, the connecting lanes and through links as well as the Village Green and nearby Mill Street Reserve. Figures 4.30 and 4.31 illustrate the proposed outcomes of the Public Domain Strategy.

Indicative outcomes for the public domain that could be implemented in the Town Centre are illustrated in the images in Figure 4.32.

The planning of open space in the development of the Riverstone Town Centre is undertaken with an understanding of district level open space provision, including the future planned open space in the North West Growth Centre, whereas larger open spaces would be within 5-10 minutes drive.

DISTRICT OPEN SPACE PROVISION

A significant amount of open space is provided throughout the district catchment for Riverstone, within 5km of the Town Centre. The variety of parks and open spaces provide for activities and spaces such as recreation, picnic and play areas. The regional open space provision includes the Rouse Hill Regional Park to the east, and a network of open spaces along Eastern Creek to the west.

The developing precincts around Riverstone within the North West Growth Centre include significant provision of open space which is focussed on sports and recreation facilities (Fig 4.29 "Riverstone Town Centre Master Plan – Landscape and Open Space - Open Space in the NWGC - Context").

A variety of types of open space are typically provided at a district level, and have different functions according to scale, amenity and character. A key aspect of planning for open space is the connectivity and proximity to residents and other users. For instance, neighbourhood local parks should be provided within 5 minutes' walk of any residence.

TABLE 4.1 OPEN SPACE PROVISION PER CAPITA (BASED ON NWGC OPEN SPACE GUIDELINES AND ACT ESTATE **DEVELOPMENT CODE**)

Benchmark population targets
Broader catchment
1 per 30,000 ppl
1 per 30,000 ppl
1 per 10,000 ppl
1 per 5,000 ppl
Within 5 min walk (approx. 450m)
1 per 20,000 ppl
Broader catchment
Broader catchment

PLANNING FOR OPEN SPACE AREA IN RIVERSTONE TOWN CENTRE

The open space and public domain area in Riverstone Town Centre study area (49.8ha) is proposed as 4.2ha in total. The areas include park space, recreation facilities and urban spaces in the core of the town centre. The total area nominated above would also be increased if the Council Depot land (1.4ha) were to be dedicated as open space in the future. The types of open spaces are in response to the urban conditions of the town centre, providing amenity for civic uses as well as, informal recreation, play and sports.

The open space areas planned for Riverstone include:

TABLE 4.2 RIVERSTONE PUBLIC DOMAIN AND OPEN SPACE QUANTITIES

Open Space	Туре	Size
Village Green	Town Park	0.5ha
Mill Street Reserve	Local Sports Grounds / Neighbourhood Park	1.3ha
Council Depot (Potential additional future open space) adjacent Mill Street Reserve	Local Sports Grounds / Neighbourhood Park	(1.4ha)
Lions Park, Recreation and Swimming Centre	District Sports	2 ha
Marketown Plaza	Urban Plaza	0.2ha
Through links	Urban Plaza	0.2ha

In addition to the public spaces, consideration should be given to the dedication of private land for pocket parks. In this scenario, controls could be established whereby developers who benefit from increased density will be required to provide publicly accessible pocket parks at the street level. These could, for example, be co-located with through-site links that introduce greater permeability to the Town Centre.

The proposed provision of open space in Riverstone is considered appropriate to the needs of the Riverstone Town Centre. However, it is important that the existing networks of open space which are in close proximity to Riverstone (in particular Eastern Creek and First Ponds Creek) are Based on projected population of the Riverstone Town Centre, enhanced in guality to maximise the benefits to the growing the ratio of open space to population is 0.53ha per person. residential community of Riverstone and the wider precinct.

Within more dense urban areas, such as the proposed Riverstone Town Centre, the proportion of open space per population is less than low density residential areas. The reason being that district level uses such as large sporting facilities, recreation trails and habitat areas would not be located within the heart of a town centre. Instead open space within town centres concentrates on civic areas and small scale quality park and play spaces.

TABLE 4.3 OPEN SPACE PER CAPITA COMPARISONS

District Scale Planning of open space	Urban Town Centre Open Space (Green Square in Sydney)	Riverstone Town Centre (Proposed Provision)
	13.74ha	49.7ha
	Population 6700 res + 7600 working (estimate)	Population 8000 (estimate)
2.83 ha per 1000 people	0.28 ha per 1000 ppl (resi)	0.53 ha per 1000 ppl
	0.13 ha per 1000 ppl (resi + working)	

The following table compares typical district provision of open space to a new urban centre in Sydney (Green Square) and the proposed Riverstone Town Centre.



FIGURE 4.30 RIVERSTONE TOWN CENTRE MASTER PLAN – PUBLIC DOMAIN – KEY FEATURES (PRE-OVERPASS)

FIGURE 4.31 RIVERSTONE TOWN CENTRE MASTER PLAN – PUBLIC DOMAIN – KEY FEATURES (POST-OVERPASS)



Plaza (Market Street/Station) Pedestrian Laneway Links

TO

SCHOFIELDS

— · — Study Area

Park

Shared Zone

Council Depot

Village Green

Main Street Spine

Recreation Destination

Heritage Curtilage

Railway

LEGEND

FIGURE 4.32 RIVERSTONE TOWN CENTRE MASTER PLAN – INDICATIVE PUBLIC DOMAIN OUTCOMES





KEY ELEMENTS OF PUBLIC DOMAIN STRATEGY:

1. MARKET STREET PLAZA

The Market Street Plaza is the anchor to the main street spine for Riverstone. It is the 'front door' to the revitalised Town Centre. The Plaza provides the link between the new Marketown, adjacent retail uses, the Riverstone Train Station and the adjacent Community Hub.

As a main pedestrian linking space for these uses, the plaza will be a highly active urban space. The plaza use is closely connected to the retail and commercial uses fronting the space. It will integrate areas for seating and eating so that it becomes a plaza with high amenity for the people using the space.

Implementation:

- » Shared pedestrian and traffic zone: The plaza is designed with a pedestrian priority to emphasise ease of movement between these uses. To enable a flexible structure for the plaza, it is proposed that vehicles have a one way and limited access through the plaza to enable casual parking, drop off and street loading. This occurs through a Shared Zone, which is treated with flush pavement to visually read as a contiguous plaza space. During special events or busy times of the day and week, the plaza could be closed to traffic to allow the space to function as a fully pedestrianised space.
- » Connection to Marketown: The plaza directly connects to the main Marketown entry. This allows ease of access for pedestrian who are travelling along Market Street and to the train station.
- » Pedestrian connection to the train plaza: Pedestrian movement to the train station and entry plaza emphasised with a direct crossing.
- Wide footpaths for seating: The one way traffic flow and designated parking areas within the plaza create opportunities for seating, planting and usable outdoor spaces. The retail and commercial uses can spill out to the footpaths, with outdoor seating opportunities from street fronting cafés.

2. MAIN STREET

Market Street is the main civic spine for the Riverstone Town Centre. The main street connects the main use of the Town Centre and therefore provides a clear and legible urban structure.

The main street provides a focus for pedestrian access and movement. Market Street maintains traffic flow and function, however with the narrowed travel and parking lanes, the street has an emphasis on a slow speed traffic environment.

Market Street extends through the Market Street Plaza at the western end of the town centre.

The Market Street upgrade can be undertaken in stages to meet the needs of the redeveloping Town Centre. The staged implementation allows the upgrade of the main street to be undertaken as a catalyst project for the renewal of Riverstone.

Implementation:

- » Wide footpaths for pedestrian amenity: Pedestrian footpaths are widened to allow for pedestrian movement as well as space for street tree planting and outdoor seating.
- Reduced traffic speed and impact of vehicles: Traffic lanes are narrowed to allow widening of footpaths. The car parking bays are spaced between tree planting. The tree planting between the parking bays assists to reduce the impact of the car parking and the overall width of the road.
- » Street tree planting: The widened footpaths along with undergrounded power provide opportunity for implementing a significant street tree scheme for Market Street.

3. VILLAGE GREEN

The Village Green is the focus for community activity, providing a venue for gathering, events, social activity and recreation. Market Street runs alongside the Village Green, which provides pedestrian access and visual connection. The Green contributes to the sense of 'openness' and 'community' along the main street, which is important to maintaining the country town feel to Riverstone.

The Village Green is contained by the Community Hub on one side and mixed use development on the surrounding built edges. It has been located to relate to the Riverstone Schofields Memorial Club. The mix of uses is important to the functioning of the Village Green to ensure it acts as both an active plaza and a place of recreation and respite.

Implementation:

- » Connection to Market Street: The Village Green is to be physically and visually connected to the main street of Riverstone.
- » Variety of functions: The Green contains a variety of offerings to address the needs of the local community and visitors to the Town Centre.
- » Sized to accommodate a variety of uses: The overall dimensions of the Village Green have been determined to ensure that it can function in different ways.
- » Connection to the Community Hub: The Village Green offers a strong connection to the Community Hub. The Green forms a plaza in front of the Hub, for potential outdoor gatherings, exhibitions and performances associated with the Hub. The Green can also offer outdoor space for reading, WiFi access and meeting space associated with the Hub uses.
- Movement and interaction: To ensure activity and vitality in the Green, the space is located strategically to facilitate through movement to Market Street, the Community Hub, connection to the retail and commercial uses of the Town Centre.

- Places for recreation: The Green provides spaces for recreation, which is most important for residents in the immediate Town Centre, but also for visitors and passers-by. For those living in apartments within Riverstone, it is necessary to have access to green open space, relaxation areas and play spaces in close proximity to their homes. The Village Green will become their 'backyard'.
- » A sense of 'Green': Within the active and developing Town Centre it is important to maintain an openness and respite to the urban activity. The Village Green ensures a generous tree canopy and park space is integrated into the future of Riverstone.

4. CONNECTING PEDESTRIAN LANES

Pedestrian through links connect side streets to the Market Street spine. These pedestrian spaces provide fine grain connectivity in the Town Centre, reinforcing the walkability of the Centre and the importance of Market Street as the primary thoroughfare and urban place.

The existing urban block pattern of the Riverstone Town Centre is comparatively long, and therefore the connecting pedestrian lanes are important to enhance permeability through the Centre.

Implementation:

- » Pedestrian amenity: The laneways include seating, lighting, trees and quality pavements to ensure that they feel like important civic spaces. The quality and amenity of the lanes will encourage fronting building uses to open out to the laneways.
- » Safety and security: The laneways are to be well lit and designed with clear and open sight lines. The laneways connect to streets with passing traffic to enhance passive surveillance.

5. MILL STREET RESERVE

The existing Mill Street Reserve is retained to provide a park with a sports and recreation focus. The Reserve is an important open space resource in walking distance to the Town Centre. The location of the Reserve in viewing distance at the end of Pitt Street helps to reinforce the visual containment of the Town Centre and the character of 'green and openness' from within the Centre.

The use of the open space will increase with greater residential density in the local area. By upgrading the quality of the existing park space and associated playground and pathways, the Reserve will be able to meet the needs of the growing community.

Implementation:

- » Enhance the open space quality: Upgrading the quality of the space with tree planting, pathways, lighting, play equipment and turf management will ensure that the Reserve is used to its fullest potential. The increased demand on open space can be managed through the design and management of what is provided.
- » Pathways for pedestrian connection: The provision of pedestrian paths and lighting through the park enhances walkability of the Town Centre, in particular through to Pitt Street leading to Marketown and the Community Hub.
- » Future relocation of Sports Uses: In the future, the structured sports use of Mill Street Reserve may be relocated to Riverstone Park, which would allow Mill Street Reserve to be used for other park uses.

Indicative outcomes from the implementation of the Public Domain and Open Space Strategy are illustrated in the images in Figure 4.34.

6. OVERPASS INTERFACE

The fundamental concept underlying the Master Plan is to shift the Town Centre away from Garfield Road East to minimise the impact of the overpass. The Master Plan is designed so that the key functions of the Town Centre operate equally well whether or not there is an overpass. This reduces the level of uncertainty over the future of Riverstone for prospective investors.

The interface between affected properties and the overpass is different for the northern and southern side of Garfield Road East:

» Properties on the northern side of Garfield Road East: Affected properties have the opportunity to adapt or re-develop their sites to address Bambridge Lane and turn their backs to the overpass. The lane is envisioned to become part of a network of intimate, activated laneways connected to the Market Street Plaza. The Garfield Road

- Assuming the overpass is a dual carriageway, ensure that there is a gap between the carriageways to maximise the penetration of natural light under the bridge.

Figure 4.33 illustrates a typical cross section through the overpass showing how the interface areas could be treated.

East frontage becomes the rear of the development, used for service access.

Properties on the Southern Side of Garfield Road East: According to the current understanding of the overpass, most of these properties will be resumed. The remaining land will be irregularly shaped. It is proposed that these lands be amalgamated with the lots that back onto it. Six storey apartments are proposed on these lots to form a buffer and scale transition to nearby dwellings.

The following strategies are proposed to further minimise the impacts of the overpass.

Implementation:

- » Landscape buffer on the southern side: Establish a significant landscape buffer as part of the re
 - development of the lots on the southern side. This establishes some distance between the apartments and the overpass to ameliorate noise and visual impacts. The vegetation also screens the overpass from view from the lower levels of the development.
- » Screen the overpass: Establish vegetation such as trees on either side of the overpass to screen it from view. Alternatively, consider green walls for the abutment walls and any other retaining walls if there is limited room for screening vegetation.
- » Minimise visual and noise impacts: Incorporate transparent noise walls as part of the overpass design to reduce noise transmission while minimising the visual impact of the acoustic barrier.
- » Well-lit spaces below: Pedestrian routes under the bridge will become a key way of getting to the Town Centre 'heart' from areas south of the overpass.
 - Ensure routes are well-lit to maximise the sense of safety.
 - Employ innovative methods of illumination such as artwork based on lighting.



FIGURE 4.33 RIVERSTONE TOWN CENTRE MASTER PLAN – ILLUSTRATIVE CROSS SECTION – CONSTRUCTED OVERPASS

SECTION THROUGH OVERPASS

0 2.5 5 10 18



FIGURE 4.34 RIVERSTONE TOWN CENTRE MASTER PLAN – INDICATIVE IMAGES – PUBLIC DOMAIN OUTCOMES

4.6 Landscape strategy DEVELOP THE GREEN INFRASTRUCTURE FOR RIVERSTONE

The landscape of the Riverstone Town Centre includes the parks, streets, public spaces as well as landscape within the private domain. The landscape helps to define the overall impression and character of the Town Centre.

The proposed landscape structure for Riverstone is designed to reinforce the key characteristics of the Town Centre and embellish them to address the changing urban form, density and population growth. The Landscape Strategy for the Town Centre Master Plan area is shown in Figures 4.35 and 4.36.



FIGURE 4.35 RIVERSTONE TOWN CENTRE MASTER PLAN - LANDSCAPE AND OPEN SPACE - LANDSCAPE STRATEGY (PRE-**OVERPASS**)

FIGURE 4.36 RIVERSTONE TOWN CENTRE MASTER PLAN – LANDSCAPE AND OPEN SPACE – LANDSCAPE STRATEGY (POST-OVERPASS)



LEGEND

TO

SCHOFIELDS

N 0 50 100 200 300m

	Study Area
	Railway
	Village Green
	Park
	Open Space
000	Existing Public Domain Trees
00000	Proposed Trees - Urban Character
	Proposed Trees - Residential Character
	Landscape Setback to Private Property
	Heritage Curtilage
XXXX	Council Depot

(A) STREET TREE PLANTING

The street tree planting in the Town Centre will reinforce the difference in Main Street, mixed use and residential areas. The street trees provide scale to the built form and amenity for pedestrians with shade, shelter and visual quality. Typical street cross sections showing street tree planting are provided in Figure 4.37.

Implementation:

- Define Main Street: The widened footpaths along Market Street provide opportunity for implementing a significant upgrade to the street tree planting. The trees are planted between parking bays to assist in reducing the visual scale of the street. The main street also contains planting areas and additional street trees where possible to enhance the significance of the green corridor. The overall impact will be a defined and structured main street.
- Residential streets: The residential streets are proposed for groups of tree planting in an informal spacing and patterning. This is to contrast the urban core of the Riverstone. The informal nature of the residential streets allows the existing street trees to be retained and supplemented over time. The informal spacing and tree selection creating a more casual character to the street.



53

2.5

LANDSCAPE STRATEGY KEY SITES: (A) VILLAGE GREEN

The Village Green in the heart of the Town Centre provides an important open space that caters for residents, visitors to the Centre and passers-by. The large community park space is a mix of hard paved plaza areas under tree canopy, along with defined grassed areas for recreation use. The mix of spaces allows a variety of uses to occur and occupy different areas of the Green.

Implementation:

- » Community Park: The Village Green will become a destination and meeting place for the local community. This Green is designed as a mosaic of green spaces that form places to gather and relax whilst allowing movement into and between the green spaces.
- Shaded Plaza: The gathering and event spaces are design as shaded plazas to ensure that a tree canopy is continued throughout the Village Green and that amenity is provided to the users of the space.

(B) MILL STREET RESERVE

The Mill Street Reserve is an open green park in the northern area of the Town Centre. It has primarily sports and recreation uses.

The character of the park will be enhanced with additional tree planting to provide definition, enhance the visual quality and shade amenity.

Implementation:

» Tree planting to define the Reserve: Tree planting within the areas of open space in the Town Centre are important for shade, visual quality and urban habitat. Tree planting to the edges of the Reserve will create visual separation from busy roads and adjacent land uses.

(C) RIVERSTONE SWIMMING CENTRE **RE-DEVELOPMENT**

The development of Lions Park with an improved swimming centre and enhanced sports provisions creates a destination recreation precinct in the eastern end of the Town Centre.

The development of the facilities builds upon the existing uses, and creates opportunity to link to the heritage building on the site. The development of Lions Park will need to ensure a publicly accessible 'campus' which is designed with respect to the park setting.

Lions Park forms another important link in the Market Street civic spine character. It denotes the entry to the main street at Piccadilly Road, which will become one of the primary vehicle entry points into Riverstone.

Implementation:

- » Respect the heritage curtilage of the buildings on site.
- » Carefully design and develop the new built form to be sited amongst the park.
- » Create opportunities for the new buildings to open to the park.
- » Maintain the overall 'green' character of the site.
- » Develop the park as an important 'bookend' to Market Street.

(D) RESIDENTIAL FRONTAGES: HERITAGE **THEMED CHARACTER AREA**

Implementation:

- housing.

(E) ECOLOGICAL FRAMEWORK AND WATER SENSITIVE URBAN DESIGN

- reuse.

The residential frontages to Castlereagh, Elizabeth and Oxford Street are important in enhancing the distinctiveness of the residential area in this precinct. Increased setbacks to the planned residential development in this area will allow retention of trees and planting of new trees and gardens throughout the precinct. Given the heritage character and values associated with the Church and School in this precinct, it is desirable that new housing is developed in an empathetic manner.

» Generous setback from the front boundary for new

» Create a framework of front gardens and tree planting distinctive to the precinct.

» The open spaces within the Town Centre create opportunities for Water Sensitive Urban Design to be integrated to the renewal of the spaces. These initiatives can includes water capture, storage and reuse, or bioswales to filter water runoff.

Implementation:

» Public spaces to be integral to the WSUD framework: Utilise the on-grade park and open space areas to enhance water infiltration and potential harvesting and

» Utilise WSUD in streets and links: Integrate WSUD to new streets and through links being created in residential development precincts.



















4.7 Cultural + Recreation Strategies

ENRICH THE TOWN CENTRE THROUGH COMMUNITY PARTICIPATION

The Master Plan is designed to encourage community expression and participation in cultural and recreational activities. Placing these activities in the 'heart' of the Town Centre serves to activate Town Centre spaces in myriad ways. Promoting the visibility of these activities in the Town Centre increases local awareness of the cultural and recreational opportunities available to them. The activities are also easier to access, encouraging the community to participate.

Heritage items and / or interpretation are integrated into the sites where cultural and recreational activities take place. This creates opportunities for heritage items to be utilised better, making them more relevant on a day-to-day basis to a broader cross-section of the community. The heritagerelated measures of the Master Plan are but one form of local cultural expression.

The overlaying of cultural events, recreational activities, and heritage references is intended to develop a rich and locally relevant sense of place that is defined strongly by the expressive activities of the community. The consolidation of these activities is designed to create as many reasons as possible for people to want to be in the Town Centre.

(A) HERITAGE STRATEGY

REGENERATION THAT ACKNOWLEDGES RIVERSTONE'S HERITAGE

Respect for Riverstone's heritage will be emphasised in the heritage overlay zone identified in Figures 4.38 and 4.39. The zone integrates the Market Street spine into the existing areas in which Riverstone's heritage is expressed most strongly. The acknowledgment of Riverstone's heritage in the Town Centre 'heart', and its juxtaposition with contemporary development, will be a key part of Riverstone's sense of identity and place.

Heritage will be celebrated in a number of ways. These are detailed following, but will be expressed chiefly through the treatment of the public domain and the careful massing of buildings. These measures are vital to evoke a country town feel in the Town Centre.

Implementation:

- » Establish a curtilage around key heritage buildings: The buildings subject to a heritage curtilage are identified in Figures 4.38 and 4.39. The choice of sites is based on their potential to become place making markers within the Town Centre.
 - Highlight heritage items by using landscape to frame views of the building and establish a heritagesensitive setting.
 - Employ feature lighting to light up key façades in the evenings.
 - Establish a high quality public domain around heritage sites.
 - Establish a buffer for example, landscape where heritage items adjoin incongruous uses.
- Establish a plaza around Parrington Terrace: To improve the setting of this listed item, provide a space for rest, and mark the Pitt Street gateway into the Town Centre 'heart'.

- » Re-develop the Riverstone station forecourt: Establish a shared zone plaza to replace the existing driveway to create a setting befitting of the listed Riverstone Memorial and improve the sense of arrival at the station.
- » Heritage-inspired streetscapes and public space: Incorporate visual cues that communicate a sense of heritage in the design of streets and public space through the selection of:
 - Tree species and vegetation that are consistent with local heritage.
 - Materials that are consistent with local heritage for elements such as paving in key locations.
 - Street furniture in key locations.
- » Heritage interpretation in the Town Centre: Integrate heritage signage and interpretation celebrating both Aboriginal and European heritage into the design of public spaces and streets, in particular Market Street and the Village Green.

HERITAGE (POST-OVERPASS)

Integrate the Bicentennial Museum with the Riverstone Swimming Centre: Incorporate the Bicentennial Museum into the re-development of the pool complex. The Museum benefits by becoming part of a regional recreation destination while helping to define a distinctive sense of place for the re-developed swimming centre.

FIGURE 4.38 RIVERSTONE TOWN CENTRE MASTER PLAN - CULTURE AND RECREATION -HERITAGE (PRE-OVERPASS)







Building setbacks to accommodate front gardens: Apply 6m to 10m street setbacks to development on Castlereagh Street and Elizabeth Street. The setback is to be used as front gardens to echo the existing characteristics of these streets and contribute to the definition of a heritage-inflected streetscape.

» Heritage interpretation walk: Promote an informal route marked by signage around the Town Centre connecting key heritage items, punctuated by information displays and interpretative elements.

FIGURE 4.39 RIVERSTONE TOWN CENTRE MASTER PLAN - CULTURE AND RECREATION -



LEGEND

	Study Area
	Railway
	Heritage Overlay
	Heritage Curtilage
	Heritage Curtilage - Plaza
	Heritage Items
	Heritage Interpretation Zone
dipulip.	Recreation Destination
\rightarrow	Integration With Swimming Centre
«····»	Heritage Interpretation Walk
	Front Garden Streetscape
•	Diverstone Station

	Riverstone Station
2	Parrington Terrace
3	St Andrews Uniting Churd
4	Casuarina School

Bicentennial Museum

(B) CULTURAL STRATEGY

ENABLE GRASSROOTS-DRIVEN CULTURAL GROWTH

The Master Plan proposes a variety of public spaces and facilities, indoors and outdoors, to support and sustain local cultural expression. The spaces are to be flexible, multi-functional and, where appropriate, intended for use throughout the day and evening. Riverstone's culture and heritage can be celebrated through:

- » Facilities such as the existing Bicentennial Museum and the proposed Community Hub.
- » Public spaces such as the Village Green.
- Public domain design. >>
- » Public art and heritage interpretation.

Market Street, as well as being a retail street, forms the primary cultural space. The street and its associated spaces such as the Village Green and the Market Street Plaza are established as civic spaces. The street's function as a vehicular corridor is de-emphasised to create a space that is more amenable to outdoor café seating and activities.

Implementation:

- » Locate the Community Hub in the centre of the town: The proposed Hub will consolidate a range of community, arts, and learning spaces in one location.
 - Locate the Hub in the centre of the Town for ease of access and symbolically express the vision of a community-focused Town Centre.
 - Establish the hub as a forum and meeting space for cultural, community and arts groups.
 - Provide facilities that appeal to all ages to establish a fully inclusive hub.

- » Multi-functional public spaces: The two key public spaces along Market Street are the Village Green and the linear plaza / shared zone that forms the forecourt to the Marketown upgrade. These have a different scale and character that together create opportunities for a range of activities.
 - Village Green: Large scale events such as the Riverstone Festival, as well as outdoor cinemas, outdoor exercise, and market days. Given the history of the site as a centre of food production in the days of the Meatworks, food / farmer's markets would be particularly appropriate for Riverstone.
 - Market Street can be partially closed on special occasions to expand the Village Green into the street.
 - Market Street Plaza: A more intimate, linear space suitable for outdoor dining, small scale performance such as busking and temporary market stalls (these could be an extension of the activities of the supermarket or the speciality retail units).
 - Riverstone Train Station Plaza: An improved setting for the ANZAC Day Dawn Service.
- Establish Market Street as the 'Event Spine': Market Street forms the main route for ceremonial events such as the Riverstone Festival parade.
- » Create synergies between the Bicentennial Museum and the Riverstone Swimming Centre: The Museum can continue its current function so that the new swimming centre becomes a cultural as well as a recreational destination. Alternatively, it may be adaptively re-used and integrated into the function of the swimming centre, for example as a café or entry office into the complex.
- » Integrate public art into the public domain: Strategically locate public art throughout the Town Centre 'heart', with a mix of permanent, temporary and seasonal works. These should be developed by, or with the participation of, the local community, schools and arts groups. Opportunities could include:
 - Public art in the laneways, Village Green and Market Street.
 - Light projections on the Community Hub.
- Develop a Public Art Policy and Cultural Plan: Develop the policies and plans with community input specific to the Riverstone Town Centre.







300m

	Study Ared
	Railway
	Event Space
	Cultural Facilitie
.///.	Temporary Road
	Potential Parade
	Laneway Art
恣	Public Artwork
	Recreation Dest

25 d Closure le Route

tination

(c) Recreational Strategy **DIVERSITY OF RECREATIONAL OPPORTUNITIES FOR ALL**

The notion of a leisure-focused Town Centre is proposed to enhance Riverstone's liveability and attract new residential development into the area. The integration of recreational opportunities into the Town Centre 'heart' provides a layer of activity in addition to the proposed retail, community and cultural uses, forming another facet to the future identity of the Town Centre.

A range of active and passive recreational opportunities are catered for in the Master Plan. This establishes a wellbalanced Town Centre and supports health lifestyles.

Implementation:

- » Riverstone Swimming Centre re-development: The proposed re-structuring of the Town Centre enables this key development for Riverstone and beyond to be integrated into the Town Centre 'heart'.
- Utilise the Village Green for passive and active recreation: The flexibility of Village Green allows the space to be used as a place for repose, as well as a venue for outdoor exercise such as fitness classes and informal kickabouts.
- Provide shaded seating areas.
- Provide unencumbered space to accommodate a variety of physical activities.
- Provide BBQ facilities.
- Mill Street Reserve: In the future, the sports use of Mill Street Reserve may be relocated to Riverstone Park, which would more informal and flexible park uses to occur in Mill Street Reserve.
- Cycle-friendly streets: The Cycling Strategy is designed to encourage more cycling both as a recreational activity and as a means of practical transport.
- Establish Riverstone Park as a regional open space: Implement the proposal to establish new playing fields at Riverstone Park so that it functions as a regional open space.
- Create family- and youth- friendly leisure infrastructure: Provide playgrounds in new public space and upgrade playgrounds located in existing open space.

- Provide a playground in the Village Green.
- Design the Market Street Plaza as a space for informal play for children and youths.
- Upgrade playgrounds at the Mill Street Oval and Riverstone Park.
- Provide a skate park and playground as part of the Riverstone Swimming Centre Re-development or in the space adjacent to the overpass in the long term.
- Provide public toilets and amenities.
- Integrate play into the public domain: Incorporate >> elements of play into the public domain. Examples include:
 - Outdoor ping pong.
 - Outdoor chess.
- » Post-Overpass: Provide at-grade pedestrian crossings across the railway line to maintain easy pedestrian access to Riverstone Park.

Figure 4.41 provides images of indicative outcomes that could be implemented in the Town Centre.

FIGURE 4.41 RIVERSTONE TOWN CENTRE MASTER PLAN - CULTURE AND RECREATION - INDICATIVE IMAGES





FIGURE 4.42 RIVERSTONE TOWN CENTRE MASTER PLAN – CULTURE AND RECREATION – RECREATIONAL STRATEGY – **IMPLEMENTATION (POST-OVERPASS)**





LEGEND



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 Study Area Railway Active Open Space Active + Passive Open Space M Informal Play **Riverstone Swimming Centre** Re-Development Playground Public Toilets Skate Park At Grade Pedestrian Link

4.8 LAND USE PLANNING IMPLEMENTATION STRATEGY

Implementation of the Master Plan will require a number of changes to the current planning controls in the Town Centre to deliver the nature and scale of feasible development that is required to drive regeneration.

The following amendments to development standards contained within the Blacktown LEP are recommended to support implementation of the Plan.

These land use implementation recommendations are based on a built form strategy based on varied heights up to 9 storeys and do not account for Council's approval of development up to a maximum of 10 storeys along the Market Street spine with a potential of a maximum of 15 storeys on key gateway sites. The Planning Proposal process will enable further consideration of the 10 and 15 storey height of buildings.

TABLE 4.4 LAND USE PLANNING STRATEGY

Planning Control	Current Controls	Proposed Change and Explanation
Zoning	 The Town Centre is currently zoned a mix of: B2 – Local Centre R2 – Low Density Residential RE1 – Public Recreation RE2 – Private Recreation SP2 – Infrastructure (mainly roads, the railway and schools) These underlying zones reflect a 'typical' town centre and promote concentration of retail and commercial along main roads. The low density residential zone does not generally allow residential development at the densities required to deliver the changes required to implement the Master Plan. 	 Council should consider the following z » B4 – Mixed Use Council may need to consider expan with consent' under the land use tak 'Residential Accommodation', the buildings, attached dwellings, and m of uses within the B4 zone to permit of residential uses within the group to consolidation and redevelopment with provisions relevant to the Riverstone accommodation achieved in its LEP » R3 – Medium Density Residential » R4 – High Density Residential Changes to the underlying residentiat higher density forms required to pro support improved retail, commercial
Height of Buildings	The Town Centre is currently subject to a maximum building height of 9 metres in both the B2 and R2 zones. A 9 metre height limits development to 2-3 storeys in most cases. The scale of development this allows does not provide the density required to support change in the Town Centre necessary to implement the Master Plan.	 Figure 4.43 identifies broad precincts were commended. To deliver the built form it is proposed to Centre. The control will be result in a ration of storeys (approximately 30 metres) 8 6 storeys (approximately 18 metres) station; and 3 storeys (approximately surrounding areas of low density result of the gradation of building heights will as and mixed use development on the surrounding the surrounding areas of a mendments to the store of proposed amendments to the store of the store of the gradation of the store of the

zones to facilitate the implementation of the Master Plan:

anding the range of uses that would be 'permissible able. Council's current B4 – Mixed Use zone prohibits broad land use definition which includes residential flat multi-dwelling housing for example. Expanding the range it include residential accommodation (or specific types term) could provide the flexibility necessary to promote within the Town Centre. Council can include additional local ne Town Centre to further tighten the form of residential P and DCP.

tial zoning are required to support the development of ovide the critical mass of population in the town centre to al and employment uses.

within the Town Centre where changes to zoning are

to amend the Height of Building controls across the Town ange of permitted maximum heights ranging from:

) on sites closest to the railway station;

) on remaining sites within about 40 metres walk of the train ely 9 metres) on sites bordering the Town Centre and the esidential development.

assist in minimising the impacts of higher density residential rrounding Riverstone community.

to the Height of Building controls is illustrated in Figure 4.44.

Planning Control	Current Controls	Proposed Change and Explanation
Floor Space Ratio (FSR)	Floor space ratio is considered in conjunction with the height of a building and the site area to determine the maximum amount of floorspace that may be possible to achieve on a site. Currently the Town Centre has no controls relating to FSR on sites.	A range of FSR controls are recommended across the Town Centre.
		A number of options are available to Council for FSR controls. These options will need to be considered further during the process of amending the LEP through a Planning Proposal and once agreement on the height and other built form elements has been reached. Options may include:
		 Setting FSR controls for sites individually in the Town Centre;
		 Setting FSR controls for precincts within the Town Centre where similar built form outcomes are being sought;
		 Setting FSR controls which vary based on the area of a development site to encourage lot amalgamation;
		» A combination of the above.
Minimum lot size	There is currently no minimum lot size identified in the B2 Local Centre Zone. There is a minimum lot size of 450 sqm currently applying to the R2 zoned areas of the Town Centre.	Minimum lot size controls should be reviewed in line with the intended built form outcomes across the Town Centre.
		Minimum lot sizes in the proposed B4 zone would need to be tied appropriate FSR and building height controls to ensure that the gross floor area (GFA) that can be achieved from the site provides a feasible outcome for a developer.
		Further work on establishing minimum lot sizes is recommended during the process of amending the LEP through a Planning Proposal. However, the flexibility that is provided by not introducing a minimum lot size should also be considered further.
Heritage	The study area is not located within a Heritage Conservation Area however there are a number of locally significant heritage items within the study area and within close proximity to the study area.	
Land Reservation	There are a number of properties along Garfield Road affected by land acquisitions for road widening. Garfield Road is a classified Road. Pursuant to Clause 5.1 the relevant acquisition authority is Roads and Maritime Services.	No changes are proposed to the current extent of identified heritage items or to land to be acquired.

- te Open Space and Balconies
- ng and Walls
- ce Lanes and Accessways

- Access and Overshadowing
- ing Separation and Boundary Setbacks
- r Level Setbacks and Roof Design
- scaping and Communal Open Space
- age and Outdoor Advertising

The strategies included in this Section of the Master Plan identify the preferred outcomes for the Town Centre for the above matters. Current provisions will need to be reviewed to test their appropriateness for the Town Centre. Additional development controls may also be developed to apply specifically to the Town Centre.

DMENTS TO CURRENT DEVELOPMENT **ROL PLAN PROVISIONS**

ent provisions applying to development in the Town ill require a comprehensive review and update to ne Master Plan outcomes can be implemented. 4.0 of Council's existing DCP sets out general design guidelines for all development. These include

- es and controls relating to:
- gamation and Subdivision
- Residential Land Uses
- nd Level Active Frontages
- des and articulation
- ss and Adaptability
- I and Acoustic Privacy
- al Ventilation
- Management
- ing Form and Height
- ngs and pedestrian amenity
- te parking
- ling Mix
- » Safety and Security
- » Energy Efficiency and Sustainability
- » Building services.

IMPLEMENTATION

Investigate appropriate statutory implementation approach: Council to investigate options to amend zoning development standards and planning controls required to implement Master Plan. Options may include:

- » Council initiated LEP amendment: This approach involves Council delivering a comprehensive update to all relevant controls in the Town Centre. This would include rezoning of land, as well as changes to controls in the LEP related to building height, minimum lot size, and FSR. A concurrent amendment to the DCP would be required to update controls relating to car parking, landscaping, streetscape outcomes and public domain outcomes. This option could be implemented in stages based on identified precincts, or as comprehensive single amendment to the entire Town Centre.
- » Landowner initiated LEP amendments: his approach involves Council adopting a 'policy' position of supporting a planning proposal to amend zoning or a development standard within the Master Plan area provided it is generally consistent with the intent and identified outcomes of the Master Plan. Site specific DCP controls may also be required with this approach.
- » Include a 'Design Excellence' clause in the LEP: Design excellence clauses are commonly applied to key sites within Town Centres to encourage high quality,

well designed development which responds to the site and its role in the town centre. Clauses of this nature generally require certain benchmark criteria to be achieved in the design or alternatively may require that a design competition be held for that site. While design competitions can be costly, the principles underlying the outcomes sought by holding a design competition (including review by an independent panel) could be incorporated into a specific LEP clause. This would apply to the Catalysts Sites for example and also to key 'gateway/entry' entry sites to the Town Centre and to areas of the public domain.

Undertake detailed parking study: The opportunity to include differential car parking rates across the Town Centre should be investigated. A detailed parking study should be undertaken. The study should consider the type and location of proposed uses where differential car park rates may be appropriate. For example, a site within 200 metres of the train station proposed for residential development should be subject to lower minimum car park requirements. If the site is to be developed for mixed-use purposes, then a different rate would be applied again to the development. The intent of this approach is twofold in that it may make development of these sites more feasible and it may also promote public transport use.

» Commence review of existing s94 Development Contributions Plan: A s94 Development Contribution Plan will be a key tool in delivering many of the public domain, open space and streetscape improvements identified in the Plan and provide funding for any upgrades to essential services and social/community infrastructure. Council should commence a review of the existing plans based on the Plan to inform the development of a s94 Plan for the Town Centre. This review should occur now to ensure an integrated delivery framework including LEP amendments, DCP amendments and s94 can be considered by Council.



Plotted by: swadmin

incts	Zoning	
Core Commercial and retail precinct	Amendments to zoning should promote flexibility in terms of the range of uses permitted with retail/commercial at ground level and residential on the upper levels. Potential zones options include:	
Higher Density Residential Precinct	Amendments to zoning should promote flexibility in delivering higher density forms of residential development consistent with the Master Plan	
	Potential zones options include: » B4 Mixed Use	
	» R4 High Density Residential	
Medium Density Residential (transitional precinct)	Amendments to zoning should promote flexibility in delivering medium density forms of residential development consistent with the Master Plan A potential zone option includes R3 Medium Density Residential.	



CURRENT HEIGHT OF BUILDING DEVELOPMENT STANDARD

Maximum Building Height (m)

maximum Banang noigin (in)					
H 7.5	N 14	R 21	V 38	Z 56	
J 9	O 16	S 24	W1 40	AA1 64	
K 10	P 18	T 26	W2 44	AA2 72	
M 12	Q 20	U 32	Y 50		



PROPOSED HEIGHT OF BUILDING DEVELOPMENT STANDARD

NOTE The above building heights are proposed, noting up to 10 storeys along the spine and up to 15 storeys for certain gateway/key sites can be considered through the Planning Proposal process. All heights are proposed maximums and so may not be achievable dependent on assessment criteria.

FIGURE 4.44 RIVERSTONE TOWN CENTRE MASTER PLAN – LAND USE PLANNING IMPLEMENTATION – HEIGHT OF BUILDINGS

Precincts		Building Heights		
1	Core Commercial and retail precinct	Heights within the precinct should reflect the objectives of the Master Plan and more specifically the core retail and commercial functions envisaged for this precinct.		
		Potential height range up to 32 metres, noting some additional height potential on Key/Gateway sites.		
0	Higher Density Residential Precinct	Heights within the precinct should reflect the objectives of the Master Plan and more specifically the higher density residential and mixed use outcomes proposed for this precinct. Heights could also be transitioned towards the edges of these precincts to 'step down' to the adjoining precincts to reduce potential impacts.		
		Potential height range up to 20 metres, noting additional height potential along the Market Street spine.		
3	Medium Density Residential (transitional precinct)	Heights within the precinct should reflect the objectives of the Master Plan and more specifically to achieve a built form that steps down to and reflects the lower density outcomes of the adjoining precinct.		
		Potential height range up to 16 metres.		
4	Lower Density Residential Precinct	Heights within the precinct should reflect the objectives of the Master Plan and more specifically to achieve a built form that steps down to and reflects the lower density outcomes of the adjoining precinct.		
		Potential height range up to 10 metres.		

05 Catalyst Sites

5.1 Introduction

Re-vitalising the Town Centre through selected catalyst projects is a key pillar of the Master Plan strategy. A number of catalyst projects have been identified for the Town Centre. The catalyst projects are critical to establishing the new Town Centre 'heart' along the Market Street spine. These catalyst projects include:

- » Marketown upgrade
- » Community Hub
- » Market Street public domain upgrade
- » Riverstone Swimming Centre re-development (see Figure 5.1).

These will be vital to realise the vision for Riverstone. The restructuring of the Riverstone Town Centre to future-proof it against the proposed overpass is shaped to a large degree by these projects.

The projects selected – the Marketown Upgrade, Village Green / Community Hub, Market Street, and the Riverstone Swimming Centre Re-development – are Council projects on mainly Council-owned or controlled land. This creates the opportunity to control development such that the outcomes are considered holistically within the Master Plan framework.

The designs should be sustainable exemplars that set the tone and standard of design in the Town Centre, improve the public domain, and demonstrate good urban design outcomes. The outcomes should shape a Town Centre environment that encourages private sector investment on nearby sites and beyond.

This chapter illustrates indicative concepts that explore the development potential of these sites and sets out key principles that should be considered in any future design.

Key Catalyst sites identified in the Riverstone Town Centre Master Plan area are identified in Figure 5.1.



Riverstone Town Centre – Master Plan

Market Street Public Domain Upgrade

5.2 Key Catalyst Sites: Summary

A) MARKETOWN UPGRADE

The Marketown site is strategically located. Adjacent to the train station, it anchors one end of the Market Street axis and is connected visually and physically to the existing retail / commercial strip along Garfield Road East.

The substantial site has the potential to provide the floor space that will significantly expand the Town Centre's retail offer, as well as accommodate an expanded commuter car park for the adjoining Riverstone Train Station. There may also be the opportunity to develop apartments on top of the retail podium.

The former Bowling Club site to the north is a significant parcel of land under single ownership. Exploring some form of partnership to develop the two sites holistically could potentially result in better utilisation of the land.

The key constraint affecting the site is the 1-in-100 year flood level, which extends across more than half of the site. Development on the site will therefore have to adopt mitigation measures.





65

A concept plan illustrating how the site may be developed has been prepared (Refer figure 5.2). The concept is contained within the proposed building envelope for the site and includes the following components:

- » 4,000sqm supermarket and approximately 3,000sqm of speciality retail on the ground floor.
- Two storey podium and the potential for four storeys of residential above.
- » Approximately 300+ semi-basement parking spaces within the undercroft of the retail floor to meet the parking requirements of the retail units and supermarket.
- » Approximately 150 parking spaces, roughly at existing grade, for commuter parking.
- » Parking on top of the retail floor to meet the residential parking demand.

The retail and supermarket floor space provided caters for what is estimated to be required for a future population of 8,000-plus in the broader Riverstone and surrounding areas. The extent of any potential residential development on the retail podium is constrained by the parking demand generated by the residential component. However, given the sites' location adjoining the railway station car park rates could be reduced to increase the feasibility of developing this site. More retail / commercial floor space could be provided if there was no residential component.

Note – The Gateway/Key Sites concept described on page 27 the Marketown redevelopment and upgrade. The development outcomes shown in the Plans for these sites does not include any additional development potential that may be achieved.

KEY PRINCIPLES OF SITE REDEVELOPMENT:

- » Activate the Public Domain Strategically: Sleeve the supermarket with retail units to activate the Market Street Plaza and Pitt Street, avoiding a 'big box' development with blank walls (Refer Figure 5.3).
 - The supermarket entry is located so as to be clearly legible on the Market Street Plaza.
 - Screen parking and loading areas from view. Design screening façades as feature walls.
- » Variety of Retail Unit Sizes: Provide a variety of retail unit sizes to accommodate a range of retail and commercial tenancies.
 - Locate convenience retail and cafés near the train station or along walking routes to the station.
 - Larger units could be used for facilities such as gyms.

- 01 The plaza is designed with a pedestrian priority to emphasise ease of movement between the retail and commercial uses.
- The wide footpaths create areas for outdoor seating. The retail activity can spill out to the footpaths, as well as provide for informal meeting places.
- An avenue of tree planting creates a shaded and sheltered pedestrian space along the plaza. The street trees provide continuity from the Market Street spine. Different tree planting spacing in front of the Marketown Main Entry allows visual permeability though the plaza to the Marketown entry.

04 Raised garden beds create different zones for seating and spaces for cafés.

05 Simple furniture and tree planting create pedestrian amenity along the pedestrian street.

🔶 Main Entry

Principal pedestrian link

↔ Secondary pedestrian link



- » Flood Mitigation: Design the development to minimise flood impacts on the development and changes to flood behaviour.
 - All retail floors and residential entries to be at a minimum RL17.8m (1-in-100 year flood level + 0.5m freeboard).
 - Undercroft parking under the supermarket / retail floor to minimise obstruction of the overland flow. Access to the undercroft areas from the public domain to be prevented by fencing. Establish vegetation to screen the fence from view.
- » Access: Rationalise access points to maximise foot traffic along activated frontages.
 - Supermarket entry off the Market Street Plaza.
 - Retail units accessed off the Market Street Plaza and Pitt Street.

- Access to potential residential development on the podium to be via dedicated lobbies off Pitt Street and from within the parking area.
- The primary route for commuters from the parking area to the train station is via Pitt Street and the Market Street Plaza to encourage commuters to walk past the retail units on the way to the train station.
- Parking and service access from the north of the site and/or Riverstone Parade, with the former preferred. Loading dock area to be above the 1-in-100 year flood level.
- » Provide Public Open Space: Consider establishing the roof of the retail and parking floors as publicly accessible open space.

B) MARKET STREET

The Market Street public domain upgrade is an 'outsidein' approach to the regeneration of the Town Centre, as opposed to the 'inside-out' approach embodied by the development of individual catalyst sites. The linearity of the street creates a simple, legible route between the train station and key town centre uses, supported by a streetscape designed to enhance pedestrian amenity.

Re-designing Market Street to improve the streetscape will establish a more attractive environment for businesses to establish themselves. In return, the expectation is that private development will contribute to the public domain by activating their street edges and maintaining frontages to a high standard. Design guidelines are suggested to regulate the implementation of colours, materials, signage and street furniture. Private development should be designed holistically, keeping in mind their effect on the character of Market Street.

KEY PRINCIPLES

- » Changing Character: Clearly demarcate changes in the character of the street, which is defined by the crossstreets of Pitt and George. This breaks up the length of Market Street to create a sense of journey along the street.
 - Shared zone plaza space between Riverstone Parade and Pitt Street that relates to the Marketown Upgrade.

FIGURE 5.4 RIVERSTONE TOWN CENTRE MASTER PLAN – CATALYST SITES – INDICATIVE IMAGES – MARKETOWN AND MARKET STREET PLAZA



- Main Street character integrated with the Village Green between Pitt and George Streets.
- Main Street character with a defined street edge between George and Piccadilly Streets.
- » High Amenity Public Domain:
 - Activated streetscape closely integrated with built form.
 - Generous footpaths for pedestrian amenity and spillout space for businesses.
 - Footpaths shaded by continuous awnings and tree plantings to provide a comfortable walking environment and echo the main street character of country towns.
 - Create a slow speed traffic environment.
- » Connectivity to Pedestrian Paths: Integrate the laneways south of the Marketown Upgrade and the new north-south pedestrian connections by the Village Green into the Market Street design. This can be achieved for example by extending the Market Street paving treatments to these north-south paths.
- Staged Implementation: Upgrade Market Street in conjunction with the development of the catalyst sites to establish a coherent streetscape outcome.
- Expedite the development of the Marketown Upgrade and Market Street Plaza to effect visible improvements to Riverstone and start the creation of a new focus for the Town Centre.
- » Connectivity across the Street: The shared zone of the Market Street Plaza, the pedestrian crossings elsewhere (including a raised pedestrian crossing by the Village Green), and the designation of the street as a High Pedestrian Activity Area ensures that it is easy for pedestrians to cross the street.

C) VILLAGE GREEN / COMMUNITY HUB

The Village Green is the key public space of Riverstone and strongly associated with the proposed Community Hub. The interplay of indoor community, cultural, and educational uses with a multi-functional outdoor public space underpins Riverstone's positioning as a community centre for the NWGC (Refer Figure 5.6).

COMMUNITY HUB

According to Council, the Community Hub is currently proposed to be a 5,290sqm facility comprising the following core functions:

- » Neighbourhood Centre and Community Development
- Youth Centre >>
- » Arts Centre
- Informal Indoor Recreational Centre
- » Library
- Children and Family Services and Facilities

The building should have a sense of openness and inclusiveness that encourages people to use the building, participate in activities, and encourage learning. The ground floor in particular should be activated, permeable and transparent, with a strong visual connection to the Village Green and Market Street. Flexible spaces suitable for use by a range of community groups for a variety of activities should be provided.

It is proposed that the Community Hub is consolidated into a four storey building. This leaves the remainder of the Hub site available for the development of a four storey parking structure, maximising the utilisation of the site. It is estimated that 180 to 240 parking spaces could be accommodated in such a facility, catering to the parking needs of the Community Hub and the re-developed Riverstone Swimming Centre.

Building up the Community Hub to four storeys allows the upper floors to benefit from views westwards to the rural landscape and the Blue Mountains beyond.

Indicative images for the Community Hub Concept are provided in Figure 5.5.

VILLAGE GREEN

The landscape design of the Village Green as illustrated in Figure 5.6 breaks down the space into several zones of varying character through the use of different materials, vegetation, public furniture and pedestrian paths.

This breaks down the scale of the space and allows a variety of activities from active uses to passive activities to occur during daily use. The Village Green is a destination space for locals, residents and visitors to the area. Although the

FIGURE 5.5 RIVERSTONE TOWN CENTRE MASTER PLAN - INDICATIVE IMAGES - COMMUNITY HUB REDEVELOPMENT











FIGURE 5.6 RIVERSTONE TOWN CENTRE MASTER PLAN - CATALYST SITES - VILLAGE GREEN/ COMMUNITY HUB - INDICATIVE SITE REDEVELOPMENT PLAN

design of the Green is broken down into different zones, the space itself contiguous. This allows flexibility in the use of the Green, allowing the entire space to be used for events when necessary.

The Village Green is slightly larger than the existing Lions Park.



69

KEY PRINCIPLES

- » Enclose the Village Green: Ensure a consistent built edge to define a strong sense of enclosure to the Village Green through the application of Build-to lines.
- » Establish a Landmark: Design the Community Hub to establish a local landmark through its massing and design to contribute to the legibility of the Town Centre.
- » Upper Level Setbacks: Setback the upper levels of the 6 storey mixed use development to reduce overshadowing of the Village Green in winter.
- » Activate the Village Green Edges: Activate the ground floor of the Community Hub and the mixed use development enclosing the Green to create a sense of activity and provide passive surveillance.
- » Extend the Public Domain into the Community Hub: Establish spatial continuity between the ground floor of the Community Hub and the Village Green so that Hub activities can spill out into the Green and vice versa.
- » Screen the Parking Structure: Activate the ground level of the parking structure where possible. Alternatively, design the walls that screen the parking structure as feature walls, incorporating for example artwork, interpretative heritage elements, or green walls. The screening should extend to all the parking floors.
- » Flexibility in Development Controls: Design the ground floor of the mixed use blocks to allow conversion from retail to residential uses (or vice versa) to suit the viability of the development.
- » Public Amenities: Integrate public toilet facilities accessible from the Village Green into the Community Hub.
- » Flood Mitigation: Approximately half of the Hub site is affected by the 1-in-100 year flood. Design the habitable spaces at a minimum RL of 17.8m AHD and ensure that the driveway into the parking level is above the flood level.

Outdoor area associated with the Hub for seating and reading. The raised deck offers a protected and quiet space overlooking the plaza.

01 The Green forms a plaza in front

gatherings, exhibitions and

the Hub.

of the Hub, for potential outdoor

performances associated with the

Hub. The plaza is the forecourt to

The plaza terraces provide a venue for outdoor events within the plaza. The terrace steps provide informal seating for daily use as well as spectator seating during events.

04 The 'backyard' of Riverstone is a green open space with informal relaxation and recreation areas. The open space is defined by a series of cross paths to allow pedestrian movement and connectivity through the Green.

05 Integrated play space

06 Park kiosk

- ▲ Connection to the Hub
- Principal pedestrian link
- Secondary pedestrian link

The Village Green is defined through containment by buildings on three sides. It has been located to address Market Street and the Riverstone Schofields Memorial Club. The location of the Village Green enables the Community Hub to be located on the corner of Pitt and Market Street. This allows the Hub to relate to both the Marketown Upgrade and the Village Green, as well as being visible from Garfield Road East.

The Village Green should:

- » Create opportunities activation on three sides.
- Relate to the existing Riverstone Schofields Memorial Club. >>
- » Create a node between the Marketown Upgrade and the Riverstone Swimming Centre Re-development.
- » Create a strong definition at the Pitt and Market Street intersection in conjunction with the Marketown Upgrade. This helps to establish Market Street as the new Town Centre heart at an early stage in the development of Riverstone, maximising early opportunities for regeneration.
- Enable the Community Hub to relate strongly to the Marketown Upgrade. This consolidation of catalyst developments addresses the existing fragmentation of uses in the Riverstone Town Centre.

Planning for the Village Green and investigations to amend the LEP will need to take into account the following constraints:

- » The northern part of the Community Hub site is flood-affected, requiring mitigation measures for development on the affected part of the site.
- » Although the Village Green satisfies at least the minimum solar access requirements in mid-winter, the space is overshadowed at various times in the day by the buildings proposed around it.
- » The enclosure of the Green on three sides is not best practice in terms of Crime Prevention Through Environmental Design principles and can potentially result in the Village Green being perceived as a privatised space.



FIG. 5.7 VILLAGE GREEN

As part of the master planning process, two alternative configurations for the Village Green were considered.

VILLAGE GREEN ALTERNATIVE 1: DUAL STREET FRONTAGE

The Village Green is re-configured so that it has an address to Market Street and Park Street.

Pros

Additional benefits of this configuration are:

- » Potential for better solar access. The majority of the space would be in the sun between approximately 11am and just after 2pm in mid-winter.
- » The Village Green is bound by roads on two sides, improving safety and establishing the space as a public space.
- » Creates a visual connection to the Market Street spine from Park Street, integrating future residential development north of Park Street into the future Town Centre 'heart'.

Cons

» Opportunities to activate the Village Green edge are limited to two sides only. These activated edges are located on opposite sides of the Village Green, making it difficult to achieve the potential for a continuously activated edge as allowed for in the Current Master Plan configuration.



71



VILLAGE GREEN ALTERNATIVE 2: CORNER LOCATION

In this alternative the Village Green is proposed in the same location as the existing cleared open space bounded by Market Street, Pitt Street and Park Street. The existing open space would be upgraded into the Village Green.

Pros

- » Open space is an appropriate use for the flood-affected northern parts of the land.
- » The majority of the space would be in the sun between approximately 11am and 2pm in mid-winter.
- » The Village Green is bound by roads on three sides, improving safety and establishing the space as a public space.
- » The Village Green relates to both the Marketown Upgrade and the Community Hub. The Green would also be visible from Garfield Road East. This creates the opportunity to establish the Village Green as the key focal space in the new Town Centre heart at an early stage in the future development of Riverstone.
- » If required, the existing RSL building could be retained.
- » The Community Hub relates to the existing Riverstone Schofields Memorial Club, creating a cluster of buildings that provide amenity to the community.

Cons

- » In the long term when the entire length of Market Street is re-developed, the location of the Village Green places it somewhat far from the block defined by George Street and Piccadilly Street, which includes the Riverstone Swimming Centre Re-development. This may potentially inhibit the connection of uses along the length of the Market Street spine.
- » Opportunities to activate the Village Green edge are limited to one side only.
- » The location of the Village Green causes the Community Hub to be located away from the Marketown Upgrade. This does not address the fragmentation of Town Centre uses in the short term. It potentially inhibits the establishment of a recognisable Town Centre identity and a new Town Centre 'heart' in the early stages of Riverstone's future development.




D) SWIMMING CENTRE SITE REDEVELOPMENT

The Riverstone Swimming Centre is located on a substantial urban block approximately 2ha in size. The scope of the proposed facility is presently not fully known. An indicative sketch concept has been prepared to illustrate potential opportunities and design principles for consideration in such a facility (Refer Figure 5.11).

Importantly, the Swimming Centre Redevelopment should not 'turn its back' on development along adjoining streets. Multiple entry/Exit points and areas of open space / cafés should be included in the redevelopment plan to integrate this key eastern anchor site with the rest of the Town Centre.

The new swimming centre could be a campus style development with multiple buildings – including the existing Bicentennial museum - located within a parkland setting.

PRINCIPLES FOR CONSIDERATION

- » Built Form: The built form and scale of the development should relate positively to the public domain, and be designed as a landmark on Garfield Road East.
- » Indoor-Outdoor Connection: The interior spaces should be light and airy, with a strong visual connection to the outside. This will showcase the activities of the recreational development upon the public domain.
- » Multiple Buildings: Splitting the development up into multiple buildings could facilitate staged development of the site as well as operation of the various facilities by entities other than Council (if desired).
- Access and Permeability: The re-developed swimming centre should be accessible from a number of directions to ensure ease of access from all directions and provide permeability through the block.
- Integrate the Bicentennial Museum through a Heritage Curtilage: This could consist of a plaza that leads to the entrance of the recreational facility. The curtilage could also consist of a landscaped open space that could be used as a spill-out space for one of the sports buildings, where people could participate in activities such as outdoor fitness classes. The curtilage should be designed to establish a sympathetic setting for the museum and, at the same time, integrate it into the rest of the development.
- Potential Adaptive Re-use of the Bicentennial » Museum Building: The building could continue to function as a museum, or be adaptively re-used for



FIGURE 5.10 RIVERSTONE TOWN CENTRE MASTER PLAN – INDICATIVE IMAGES – SWIMMING CENTRE SITE REDEVELOPMENT









- facilities that are complementary with the swimming centre, such as a café. If the building is adapted, the museum component could be integrated into the new swimming centre or the Community Hub.
- » Skate Park: Provide a skate park as part of the development.
 - Parking: Surface parking could be provided that partially meets the expected parking demand of the facility. When the on-site parking area is full, visitors to the facility can park in the parking structure attached to the Community Hub, encouraging more walking in the Town Centre. For reference, the parking area shown in the indicative sketch could accommodate 50 to 60 spaces.

Indicative images for the future Swimming Centre are provided as Figure 5.10.

OTHER COUNCIL SITES

In addition to the sites and projects identified above, Council also owns other properties in the Town Centre. When opportunities are presented for these sites to be redeveloped (eg the Council Depot site), Council should consider how to best use the site to ensure it supports and delivers the structural land use changes, built form, urban design and public domain outcomes necessary to achieve the Vision for the Town Centre.

FIGURE 5.11 RIVERSTONE TOWN CENTRE MASTER PLAN - CATALYST SITES - SWIMMING CENTRE SITE - INDICATIVE SITE REDEVELOPMENT PLAN





06 Conclusion and Way Forward

6.1 The Master Plan – Summary

This Plan provides the framework for the regeneration and future growth of the Riverstone Town Centre. It provides a recommended land use planning and development strategy to ensure that the Riverstone Town Centre is positioned to take advantage of future growth in the NWGC and in Council's planned investment to make Riverstone a destination – a community services hub for residents in the north of the City.

In summary, the Plan provides:

- A recommended land use and zoning strategy that will provide opportunities to develop higher density residential and mixed use development in close proximity to the Riverstone Railway Station;
- A strategy that provides a framework to accommodate future residential growth in the Riverstone area in a coordinated and managed way;
- A strategy that reflects the character of the existing Riverstone Town Centre by providing a re-focused 'main street' taking advantage of a regenerated and reinvigorated Market Street;
- » A plan that demonstrates the Town Centre can continue to thrive and be a vibrant, lively and activated urban centre by taking advantage of the Garfield Road Overpass as the 'trigger' to re-invent the Town Centre with a new focus;

- A strategy that integrates new development with existing key social and community infrastructure to ensure future development 'respects' the existing social fabric of the centre;
- » A strategy which demonstrates that higher density development is feasible in the Town Centre and that it is needed to drive the provision of improved retail, social, and community services for residents; and
- » A strategy that provides a framework for good urban design and public space outcomes to ensure the Town Centre is provided with an integrated network of high quality, accessible, and usable open spaces and public areas.

The strategies included in the Plan provide the base to accommodate some of the approximately 8,000 – 9,000 residents who will ultimately live in the Riverstone area. The mix of residential densities and built form outcomes envisaged in the Plan will provide opportunities for a range of housing types to be provided and existing areas of lower density residential development will continue to provide the 'suburban' character that existing residents value.

6.2 The Way Forward

A number of Actions are recommended for Council to consider as part of its future planning for the Riverstone Town Centre. These Actions are necessary to support and inform the ongoing development and implementation of the Master Plan and will provide a more detailed implementation framework for the Plan. The immediate Actions for consideration are detailed in Table 6.1.

TABLE 6.1 RIVERSTONE TOWN CENTRE MASTER PLAN: IMPLEMENTATION – ACTIONS

Action	Objective	Who/Timing	Action	Objective	Who/Timing
Rezoning process (Planning Proposal)	Investigate amendments to development standards contained within the Blacktown LEP to implement the Master Plan. This action will include further investigations into the concept of 10 storey maximum heights and 15 storeys on gateway/key sites as approved by Council.	Who: Council; planning, urban design, traffic and feasibility consultants Timing: Commence early 2018	Continue review of current Council Works Program to identify opportunities to deliver Master Plan outcomes	Council's existing Works Program for the Riverstone Town Centre area should be reviewed with a view to identifying opportunities for including works and programs that will deliver the Master Plan outcomes. This includes reviewing proposed infrastructure works; streetscape improvement programs; roadworks	Who: Council Timing: Commence early 2016
Consultation for planned redevelopment and rezoning	Undertake community consultation as required by the EP&A Act to ensure that stakeholders and members of the public can provide feedback on proposed LEP amendment. This may include pre-Gateway consultation to identify any issues that are likely to be generated by the proposal with the stakeholders.	Who: Council; consultation and engagement consultant; State government agencies; community Timing: 2018	Council Asset Management StrategyAs noted in the Plan Council owner in the Town Centre. M sites including Marketown, th Centre and existing communidentified as 'catalyst' sites. or redevelopment of these site key to the successful implem Plan. In addition, Council cat role in establishing the bench built form outcomes and quat Town Centre when redevelop Council should consider dev Asset Management Strategy in the Town Centre which compared by the success of the suc	and other relevant matters and programs. As noted in the Plan Council is a significant land owner in the Town Centre. Most of Council's sites including Marketown, the Swimming Centre and existing community facilities are identified as 'catalyst' sites. The development	Int land Who: Council cil's Timing: Ongoing are ment ered he ng sired he ey sites. tailed oldings ons for rames
Continue detailed site planning for redevelopment of the Swimming Centre	The Swimming Centre is a key anchor for the Town Centre. Its future redevelopment should ensure it is integrated with surrounding development, easily accessible and that it provides the range of features to support the future residents of Riverstone. Ongoing development of the site plan for the proposed redevelopment of this key site should continue taking into consideration the outcomes of the Plan.	Who: Council Timing: Ongoing		or redevelopment of these sites is considered key to the successful implementation of the Plan. In addition, Council can play a leading role in establishing the benchmark for desired built form outcomes and quality across the Town Centre when redeveloping these key sites. Council should consider developing a detailed Asset Management Strategy for its landholdings in the Town Centre which considers options for each of its sites as well as potential timeframes	
Continue detailed site planning for new Community Hub/Village Green	This site will become the focus for the regenerated Town Centre. Future planning should take into consideration the outcomes identified in the Plan. A review of the proposal should be undertaken to consider consistency with the Master Plan from a design perspective and also to ensure the range of proposed facilities is commensurate with the expected population growth envisaged under the Plan.	Who: Council Timing: Ongoing		for redevelopment in line with the outcomes of the Master Plan. This is not suggest that Council should divest of or redevelop its landholdings in the Town Centre immediately. The Asset Management Strategy will provide the framework for Council to consider its long term strategy for Riverstone holistically so that it can assist in delivering the Vision for the Riverstone Town Centre.	
Continue infrastructure capacity analysis for Town Centre	Future growth in the centre will need to be supported by appropriate infrastructure. A more detailed infrastructure analysis should be undertaken to identify current supply issues, existing capacity and potential solutions which can be considered in finalising the Town Centre Master Plan.	Who: Council; infrastructure suppliers including water, sewer, roads; telecommunications. Timing: Ongoing			



Options Considered

This section provides an overview of the options that were considered in the process of preparing the Master Plan. Three options were initially considered, with a fourth option added prior to consultation following a presentation of the draft plan to Council. Options were assessed against a number of criteria related to urban design, planning, transport planning and feasibility of delivery. The outcomes of that assessment are provided in this Appendix.

A.1 The framework for developing the options

A.1.1 A VISION FOR THE RIVERSTONE TOWN CENTRE

Having a strong, clear vision for a centre is the key to its future success. Proposals for future development should be assessed against the vision for that centre.

Following a review of existing information, an assessment of the characteristics of the Town Centre, and after considering feedback and comments from initial consultation and engagement, a Vision for the Riverstone Town Centre was formulated.

The Vision is:

"A vibrant, sustainable centre with opportunities for the community"

A.1.2 FORMULATING DESIGN PRINCIPLES

Design Principles were developed to support the formulation of the options. The principles further articulate how the Vision for the Riverstone Town Centre may be delivered. The principles were also used to assess the options.

The Design Principles are:

Define a new Town Centre 'heart'

Define a recognisable, inclusive 'heart' that establishes a strong identity for Riverstone and forms a focal point around which future development can focus.

Consolidate and diversify land uses

Create opportunities for new land uses to develop in the Town Centre and consolidate these around the 'heart' to generate a critical mass of activity and people in the Town Centre.

Become the community focus for the North West Growth Centre

Emphasise the Town Centre as a community focus for the NWGC by integrating community and recreational development into the 'heart'. Leverage the opportunity to provide facilities that attract people from beyond the Riverstone area. This will differentiate Riverstone from other NWGC centres and broaden the catchment of the Town Centre.

Enable the place for socialising, festivities and celebration

Increase opportunities that bring the community together by establishing a place where people can meet and socialise, with the capacity to host festivities, events and celebrations.

Value the old and the new

Enable contemporary development that respects the country town character and retains links to Riverstone's heritage.

Retain the connection to the rural landscape

Retain the sense of connection to the rural landscape to integrate the sense of place that is derived from this connection into the future identity of Riverstone. This can be achieved by retaining key view lines to the mountains and surrounding area.

A healthy, walkable Town Centre

Improve walkability and access to public and active transport to broaden transport choice and the inclusivity of the Town Centre.

Connected open space and recreational opportunities

Enhance liveability through better access to leisure opportunities by way of a connected network of open space and recreational uses.

A safe and attractive public domain

Establish a safe, secure and attractive public domain that people can feel comfortable in as well as stimulating private investment in the Town Centre.

A resilient Riverstone

Re-structure the Town Centre to spark regeneration in the short term while allowing for the overpass to be integrated in the long term.

Integrate with the existing and future context.

Connect the Town Centre to surrounding residential and industrial areas, as well as the potential employment lands of Riverstone West. The Town Centre should serve these areas to benefit from the patronage of people living and working in these areas.

Initially, three options were developed to test different approaches to the regeneration of the Riverstone Town Centre. Following a presentation of the draft plan, Council proposed an additional option for consideration, as well as the identification of key sites which may be suitable for taller buildings. The fourth option and potential for key sites were included in the draft for consultation and feedback. Taking the Design Principles as the starting point, the four options explored how the Town Centre could be re-organised to:

- functions.

Council is a significant land owner within the Town Centre and has plans to upgrade or redevelop its assets over the lifetime of the Plan. The options that were developed, utilised these sites and the intended upgrades as potential catalysts to trigger and invigorate development.

The projects and sites considered in this context are the Marketown shopping centre site and potential upgrade, a new Council Community Hub, and re-development of the Riverstone Swimming Centre. In addition, the options build off the existing strengths of the Town Centre.

A.2 Developing the Options

» Create a new Town Centre focus as part of a strategy to address the fragmentation of existing Town Centre

Integrate the future overpass which will enable the retail and commercial focus of the existing Town Centre to shift away from Garfield Road East.

» Consolidate and concentrate the various land uses to generate a critical mass of activities and population. This is essential to create a vibrant Town Centre and improve its economic viability.

Critically, the options provide a framework for the regeneration of the Town Centre that is applicable to both a "No Overpass" Scenario and a "Post-Overpass" Scenario.

The Four options considered were:

OPTION 1: "THE HUB"

"The Hub" is based on the concept of consolidating future growth around a new Town Square that becomes the clearly defined 'heart' of Riverstone.

The space is defined by arranging catalyst developments in the form of the Marketown upgrade and the Community Hub around the Town Square. The Town Square is activated by a mix of retail and community uses on all four sides to establish it as a community-oriented public space.

The Town Square is located at the corner of Market and Pitt Street. The proposed site is mostly vacant at the moment and largely owned by Council.

Following construction of the overpass, the 'Hub' concept establishes a clear framework to guide the re-location of businesses affected by the overpass on the southern side of Garfield Road East. These businesses can re-locate into retail / commercial space around the Town Square and along the Pitt Street axis. The resulting increase in development intensity around the Town Square generates additional critical mass and reinforces the identity of the 'Hub' as the heart of Riverstone.

Affected businesses north of the overpass between Riverstone Parade and Pitt Street can be re-developed to face away from the overpass and address the proposed Marketown upgrade.

TABLE A.1 SUMMARY OF ESTIMATED YIELD DATA - OPTION 1

Option 1 'The Hub' Summary of Estimated Yield Data	a (No Overpass scenario)
Total GFA	220,000sqm
Residential GFA	175,000sqm
Estimated No. of Residential Units	1,600 units
Retail GFA	15,500sqm
Supermarket GFA	3,500sqm
Commercial GFA	21,000sqm
Community Hub	5,000sqm

Please note all values are and based on research undertaken in 2015









OPTION 2: "THE MAIN STREET"

The "Main Street" option is based on the concept of establishing a street as the 'heart' of Riverstone. Future growth is consolidated along Market Street, which becomes the new mixed use Main Street of Riverstone.

The "Main Street" model replicates the historical function of Garfield Road East, ensuring that the future 'heart' of Riverstone links back to the heritage of the town. The "Main Street" evokes and perpetuates Riverstone's country town character by reflecting the typical urban structure of country towns, which are characterised by town centres organised along a central retail / commercial strip.

Market Street will become a pedestrian-focused environment. A clearly legible pedestrian connection is created between the train station and the Riverstone Swimming Centre, punctuated by a varied mix of community, retail, commercial and recreational uses.

The displacement of the retail / commercial heart away from the heavy traffic along Garfield Road East creates conditions that are more conducive to establishing an activated street environment.

Market Street will replace Garfield Road East as the retail / commercial focus in this scenario. A broad range of retail, commercial, community and recreational uses will be consolidated along the street to create a vibrant, linear 'heart' for Riverstone.

Businesses affected by the overpass on the southern side of Garfield Road East have the opportunity to re-locate along the Market Street spine. Given the length of the street, a significant amount of street-level retail / commercial floor space will potentially be available to absorb these re-located uses.

Affected businesses north of the overpass between Riverstone Parade and Pitt Street can be re-developed to face away from the overpass and address the proposed Marketown upgrade.

The "Main Street" option is illustrated pre overpass construction in A.3 while Figure A.4 illustrates how the scenario will develop following construction of the overpass.

TABLE A.2 SUMMARY OF ESTIMATED YIELD DATA - OPTION 2

Option 2 'The Main Street' Summary of Estimated Yield D	ata (No Overpass scenario)
Total GFA	270,000sqm
Residential GFA	202,000sqm
Estimated No. of Residential Units	1,700 units
Retail GFA	28,000sqm
Supermarket GFA	3,500sqm
Commercial GFA	31,000sqm
Community Hub	5,000sqm

Please note all values are approximate and based on research undertaken in 2015

OVAL **NEW MAIN** STREET BOWLING CLUB SITE LIONS OMMUNITY PARK HUE **IOPIAI** MARKETOWN UPGRADE GATEWAY / KEY SITES

FIGURE A.3 RIVERSTONE TOWN CENTRE MASTER PLAN - OPTION 2 - "MAIN STREET" (PRE-OVERPASS)

FIGURE A.4 RIVERSTONE TOWN CENTRE MASTER PLAN – OPTION 2 – "MAIN STREET" (POST-OVERPASS)



Riverstone Town Centre – Master Plan





OPTION 3: "PRECINCTS"

This option provides a precinct-based approach to managing future growth in Riverstone, with development organised into retail and community Precincts.

Future development is organised into two precincts, each with its own recognisable character, to establish a legible Town Centre.

The overpass will come down to grade roughly near Pitt Street, according to current understanding. This option acknowledges that, in this event, George Street becomes the first opportunity to establish an intersection to enter the Town Centre when approaching from the west along Garfield Road East. The proposed Community Precinct is therefore organised around the intersection of George Street and Market Street. This establishes a new community 'heart' for Riverstone that shifts the Town Centre's centre of gravity away from Garfield Road East. Figure 3.5 illustrates the "Precincts" option prior to the construction of the overpass.

The Retail Precinct builds off the existing concentration of retail / commercial uses near the train station. The Marketown upgrade will be the significant anchoring development for the Precinct, defining its sense of place as the retail 'heart' of Riverstone.

George Street becomes the main entry point into the Town Centre, providing convenient access into the community 'heart' of Riverstone. It is envisioned that the Community and Retails Precincts will be well-established by the time the overpass is in place. Businesses affected by the overpass on the southern side of Garfield Road East have the opportunity to re-locate into the Retail Precinct. They may also re-locate into the Community Precinct which is intended to be a mixed use area.

Affected businesses north of the overpass between Riverstone Parade and Pitt Street can be re-developed to face away from the overpass and address a network of pedestrianised laneways activated by new speciality retail spaces. Figure A.6 illustrates the "Precincts" option following construction of the overpass.

TABLE A. SUMMARY OF ESTIMATED YIELD DATA - OPTION 3

Option 3 'Precincts' Summary of Estimated Yield Data (No Overpass scenario)
Total GFA	209,120sqm
Residential GFA	152,370sqm
Estimated No. of Residential Units	1,380 units
Retail GFA	22,000sqm
Supermarket GFA	3,500sqm
Commercial GFA	26,250sqm
Community Hub	5,000sqm

Please note all values are approximate and based on research undertaken in 2015



FIGURE A.5 RIVERSTONE TOWN CENTRE MASTER PLAN – OPTION 3 – "PRECINCTS" (PRE-OVERPASS)



FIGURE A.6 RIVERSTONE TOWN CENTRE MASTER PLAN – OPTION 3 – "PRECINCTS" (POST-OVERPASS)

OPTION 4: "CENTRAL COMMUNITY PRECINCT"

Following a presentation of the draft plan prior to exhibition, Council proposed an additional Option for inclusion, consideration and feedback. Option 4 co-locates the proposed Riverstone Swimming Centre redevelopment with the Community Hub and Village Green. In addition to providing complementary community uses, the option creates an opportunity to consolidate car parking and the potential for administrative efficiencies in operating the two facilities from one office. It also positions the swimming centre more centrally within the Town Centre core.

Co-locating the two facilities as above ground facilities will leave limited space to accommodate a Village Green. Establishing a Village Green is fundamental to the Master Plan concept and is a key element of creating a vibrant town centre environment along the length of Market Street. Therefore, if this Option is to be considered further, the recommendation is to locate the swimming centre facilities in whole or in part underground. Locating the pool fully or partially underground, potentially combined with the provision of underground parking as well, will create space for a Village Green. Precedents include the Cook + Phillip Park Aquatic and Fitness Centre in the Sydney CBD and the proposed Green Square Library and Plaza.

Undergrounding the facilities will have significant cost implications, which may impact upon the feasibility of

delivering Option 4. In addition, the following urban design aspects need to be addressed:

- Underground facilities will require ventilation shafts above ground. The design and locations of these shafts need to minimise the amenity and visual impacts on the public domain.
- >> Parts of this area of the Town Centre may be subject to flooding, which adds additional technical complexity and cost to providing underground facilities, including car parking.
- » Natural light and preferably natural ventilation should be provided to underground spaces, particularly if used for recreational or community purposes. This may be challenging, especially if the option of allowing a 10 storey height limit in the Core Town Centre area is adopted.
- Planning and designing the above ground components of the development of the block would need to maximise activation and passive surveillance opportunities of the surrounding public domain.
- » Planning and designing this block would also have to consider how integrated, activated through-site link connecting Market Street to Park Street could be provided.

Additional considerations for this Option include:

» The block of land allocated for the Riverstone Swimming Centre Re-development in the Preferred Option is

proposed to be designated for mixed use and high density residential development. Part of this block is owned by the Department of Lands which may limit the potential to deliver this option and/or reduce the financial return Council may achieve for its portion of the site.

- » The feasibility of Council providing an integrated community/recreation centre would need to be considered.
- » The potential impacts on traffic flows within the core Town Centre area would need to be considered. While the Option does potentially increase the opportunity for single, multi-purpose trips for residents and visitors to the Town Centre, this benefit would need to be considered further and considered against the potential impacts concentrating traffic movements in this part of the Town Centre may have, especially at peak travel times.

Market Street will retain the pedestrian focus in this option with businesses affected by the overpass on the southern side of Garfield Road East having the opportunity to re-locate.

Affected businesses north of the overpass between Riverstone Parade and Pitt Street can be redeveloped to face away from the overpass and address the proposed Marketown Upgrade.

The "Central Community Precinct" option is illustrated pre-overpass construction in Figure A.7 and post-overpass in Figure A.8.

TABLE A.4 SUMMARY OF ESTIMATED YIELD DATA - OPTION 4

Option 4 'Central Community Precinct' Summary of Estimated Yie	eld Data (No Overpass scenario)
Total GFA	277,500sqm
Residential GFA	219,000sqm
Estimated No. of Residential Units	1,900 units
Retail GFA	23,000sqm
Supermarket GFA	3,500sqm
Commercial GFA	27,000sqm
Community Hub	5,000sqm

Please note all values are approximate and based on research undertaken in 2015



FIGURE A.7 RIVERSTONE TOWN CENTRE MASTER PLAN – OPTION 4 – "CENTRAL COMMUNITY PRECINCT" (PRE-OVERPASS)

FIGURE A.8 RIVERSTONE TOWN CENTRE MASTER PLAN – OPTION 4 – "CENTRAL COMMUNITY PRECINCT (POST-OVERPASS)

A.3 Assessment of the Options

The four options were assessed:

- » against the Master Plan Design Principles (see A.1.2);
- » in terms of their capacity to deliver improved retail and employment growth and feasible housing opportunities; and
- » in terms of their traffic and transport network implications.

Table A.5 illustrates how well each option satisfies given Design Principles.

TABLE A.5 RIVERSTONE TOWN CENTRE MASTER PLAN - ASSESSMENT OF OPTIONS)

Design Principle	Option 1 "The Hub"	Option 2 "The Main Street'	Option 3 "Precincts"	Option
Define a new Town Centre 'heart'	The new Town Square, activated by a diverse mix of uses including the Marketown Upgrade and the Community Hub, is a clearly legible 'heart' for the Town Centre.	The Main Street typology is a readily recognisable 'heart' that reflects the traditional 'heart' of the Town Centre (the Garfield Road East retail / commercial strip).	The delineation of the Town Centre into Retail and Community Precincts dilutes the 'heart' across two discrete areas of the Town Centre. The concept of a Village Green in the Community Precinct however creates a strong core around which the Precinct can be organised.	strip. T meetin comple pool. Street areas w the Vill the pos block b where for resi centre George centre
Consolidate and diversify land uses	The major Town Centre uses are consolidated around a Town Square. However, there is relatively limited space for uses generating critical mass to be located as these would ideally need to be located around the Town Square. In addition, the re-development of the Riverstone Swimming Centre, a key component of the future Riverstone, is located at the periphery of the 'heart' and somewhat isolated.	All the major Town Centre functions, existing and proposed, are located on Market Street, consolidated along this linear public space. The length of Market Street ensures that there is significant potential floor space for businesses to locate along the street over time and increase the diversity of land uses.	The retail and community / recreational uses are consolidated in different areas of the Town Centre. The option therefore forgoes the full benefits arising from consolidating diverse uses in one place which reduces the chances of generating critical mass.	The rel common street a block o pool ar

on 4 "Central Community Precinct"

Similar to the Main Street typology, the Central Community Precinct option reflects the traditional 'heart' of the Garfield Road East The potential of the Village Green to provide a ing place within the 'heart' will depend on the plexity and cost of undergrounding the swimming

et level retail activation would be contained to s west and south of the Village Green block as /illage Green itself would not have any shops (with possible exception of cafes). In this option, the k between George Street and Piccadilly Street re the existing pool is located will be developed esidential. In effect, the future footprint of the town re is contained to between Riverstone Parade and rge Street. This may impose constraints on town re expansion in the long term.

All the major Town Centre functions, existing and proposed, are located on Market Street, consolidated along this linear public space.

relocation of the swimming pool, means that munity and recreational uses dominate the main et and retail and commercial opportunities in the k containing the community hub and swimming are constrained

Design Principle

Option 1 "The Hub"

events, large and small.

Option 2 "The Main Street'

Option 3 "Precincts"

community focus for the North West **Growth Centre** Enable the place for socialising, festivities and celebration

Become the

Value the old

and the new

The Town Square as the focal public space of Riverstone does not have a local precedent and potentially represents a significant departure from the traditional Riverstone character.

NWGC Community focus.

of reasons to activate the Square. It forms an obvious

The Square is a significant size and intended to be a

flexible public space that can be used for a variety of

meeting place and setting for people to socialise.

The mix of uses around the Town

Square draws in a variety of people that

are visiting the Town Centre for a range

Given its length, the Main Street provides numerous opportunities for cafés and other street-level entertainment uses that can become the setting for social interaction.

The street can be used for events such as parades, and is augmented by the Village Green, which establishes the Town Centre's main public open space along this axis. The Green also creates opportunities to host a wide variety of events in the Town Centre.

The Main Street typology is a legacy of the historical development of Riverstone. It creates opportunities for contemporary development to plug into a heritage-focused spine, creating the potential for interesting juxtapositions in the Town Centre.

The option features a Village Green of significant size that lends itself to accommodating a variety of events.

The Village Green addresses the Riverstone Schofields Memorial Club. As such it is the extension of an existing focus of social interaction and community. This will be reinforced through the new uses proposed to contain the space, which includes the Community Hub.

The Green is a clearly identifiable meeting place for the Town.

heritage.

The Central Community Precinct replicates the The option's Precincts urban structure does main street typology that is a legacy of not have an evident connection to Riverstone's Riverstone and, like Option 2, provides opportunities for interesting juxtapositions. However, The Village Green however evokes a rural, country town with the swimming pool relocated to the busiest part of character with opportunities to celebrate local heritage. the Main Street and occupying a significant street frontage, there will be fewer opportunities on the north side of the street for diversity and juxtapositions. This option maintains vistas down all The linearity of Market Street, and the

Retain the connection to the rural landscape

Westward vistas down east-west streets to the rural landscape, near and far, are one of the key ways in which the existing Town Centre establishes a sense of connection to the surrounding landscape.

The 'Hub' option terminates these vistas at Park and Market Streets. The plan is inward-looking, focused around the Town Square.

consistent street wall that is envisioned as part of the concept reinforces the vista westwards.

However, the option will likely block vistas down Park Street.

The linearity of Market Street, and the

A healthy, walkable Town Centre

Improved pedestrian permeability in the form of north-south mid-block pedestrian links.

The various Town Centre uses are located along the Main Street, encouraging people to negotiate the Town Centre 'heart' on foot.

Improved pedestrian permeability in the form of northsouth mid-block pedestrian links.

The connection between Market Street and the train station is improved by way of a pedestrianised zone to encourage walking.

Improved pedestrian permeability in the form of north-south mid-block pedestrian links and through formalised pedestrian routes where previously there was none, such as at Park Street.

Separation of uses into the Retail and Community Precincts encourages people to walk between the two.



Option 4 "Central Community Precinct"

In all four options the Community Hub and Riverstone Swimming Centre Re-development are integral to the regeneration of Town Centre. The options therefore have similar potential to become established as the



The Main Street can provide opportunities for cafes and other street-level entertainment uses.

The swimming pool development will need to be designed in a way that allows for the establishment of the Village Green so that a space for social gatherings and festivities can be delivered. This may require undergrounding of certain parts of the swimming pool, resulting in a high development cost to achieve a space that is enabled for social interaction.

> consistent street wall that is envisioned as part of the concept reinforces the vista westwards.

However, the option will likely block vistas down Park Street.



This option concentrates the Town Centre around the main street, creating a highly walkable and mixed use centre.

Relocation of the swimming pool provides an opportunity to create high quality facilities and to encourage visitation to the swimming pool and healthy lifestyles.

If the swimming pool is not located underground, the interface between the swimming pool and community hub will need to accommodate a north-south pedestrian link.

Design Principle	Option 1 "The Hub"	Option 2 "The Main Street'	Option 3 "Precincts"	Option	
Connected open space and recreational opportunities	The Town Square is centrally located and easily accessible from other areas of the Town Centre. The Square is situated on the route between the Riverstone Swimming Centre and the Mill Street Oval, while the route to Riverstone Park across the railway line is legible.	Market Street integrates the Riverstone Swimming Centre into the Town Centre. It establishes a pedestrian-friendly route that connects this recreational facility to the Mill Street Oval and Riverstone Park. The Village Green is a focal open space along this principal route connecting open space and recreational areas.	The Village Green is located approximately midway between the Riverstone Swimming Centre and the Mill Street Oval, providing an even distribution of open space and recreational opportunities across the Town Centre. The route to Riverstone Park is clearly legible.	Howeve Green, t Market	
	All options are structured so that key streets and public spaces benefit from passive surveillance through activated frontages. Each option places a distinctive public domain typology at the core of the scheme, creating the potential for high quality public domain to be realised.				
	 It is assumed that only the Marketown Upgrade and the Community Hub has any relative certainty of being developed in the short term. If this is the case, the full realisation of the Town Square will only occur once private development completes the missing edge to the Square. Until then the Community Hub will be somewhat of an island within the Town Centre. In a post-overpass scenario the main point of entry into the Town Centre core will be George Street. Compared to the other options, this street does not relate as well to the 'heart'. Relative to the other options, less floor space is available for businesses displaced by the overpass to 	The option allows for the underlying structure of the Town Centre to be established in the short term through the Marketown Upgrade, Community Hub and Main Street public domain upgrade. This creates a framework for other development to occur. In the post-overpass scenario, the option integrates well with George Street as the new entry into the Town Centre. There is potentially more floor space available to absorb businesses displaced by the overpass.	In the short term, the location of the Community Hub will be relatively isolated from the Marketown Upgrade, assuming private infill development occurs later. This perpetuates the existing fragmented character of the Town Centre. In the post-overpass scenario the George Street entry is integral to the Town Centre, making this option more suited to a post-overpass development scenario.	Street p These for provide occur al It should location and the depended In the po- well with	
	re-locate into the new Town Centre. The permeable road network of the existing Town Centre ensures that it is well-connected to the rest of Riverstone and surrounding areas. The 'Hub' option maintains this permeability and allows for a pedestrian connection to future development in Riverstone West. Relative to the other options, the 'heart' is slightly less integrated with its context.	Existing permeability is maintained. Since the 'heart' is based around a street, it is intrinsically well integrated with surrounding areas via the existing street network.	Improves upon existing permeability and is well-connected to surrounding areas by having the Community Precinct along George Street.	intrinsic the exis betweer importa	

n 4 "Central Community Precinct"

/ Recreation opportunities are central to this option with the swimming pool taking priority on Market Street.

ever, if this is implemented without the Village en, the relocation of the swimming pool will deprive ket Street of access to open space.

/ The catalysts in this option will be the Marketown Upgrade, Community Hub, relocation of the pool next to the hub and Main t public domain upgrade.

e four key moves will create a framework and ide a strong incentive for other development to and relocate to Market Street.

ould be noted that the swimming pool retion implies a significant investment to realise, he creation and definition of the Village Green is ndent upon the delivery of this facility.

post-overpass scenario, the option integrates with George Street as the new entry into the Town re.



Existing permeability is maintained.

Since the 'heart' is based around a street, it is sically well integrated with surrounding areas via xisting street network. North-south permeability een the community hub and swimming pool will be rtant to ensure connectivity with Park Street.

ECONOMIC AND FEASIBILITY ASSESSMENT

OPTION 1 – DEVELOPMENT SCENARIO OVERVIEW

Development typologies envisaged are mainly 4 storey retail/commercial buildings along Garfield Road East and a mixture of 6 storey mixed use and residential buildings along Market Street and Park Street, as well as on the southern side of Garfield Road East.

Lower density residential, i.e. 3 storey townhouses are envisaged along the fringe of the Town Centre along George Street and Mill Street.

OPTION 2 – DEVELOPMENT SCENARIO OVERVIEW

Development typologies envisaged are mainly 4 storey retail/commercial buildings along Garfield Road East and a mixture of 6 storey mixed use and residential buildings along Market Street and Park Street, as well as on the southern side of Garfield Road East.

Lower density residential, i.e. 3 storey townhouses are envisaged along the fringe of the Study Area along George Street and Mill Street on the northern side of Garfield Road East and along Castlereagh Street to the south of Garfield Road East.

OPTION 3 – DEVELOPMENT SCENARIO OVERVIEW

Development typologies envisaged are mainly 4 storey retail/commercial buildings along Garfield Road East and one storey specialty retail along Market Street in close proximity to Market Town. A mixture of 6 storey mixed use and residential buildings are along Market Street on the eastern side of the Study Area around George Street, as well as on the southern side of Garfield Road East. Lower density residential, i.e. 3 storey townhouses are envisaged along the fringe of the Town Centre along George Street and Mill Street.

Includes a number of identified 'anchors' at each end – being the redeveloped swimming centre complex (eastern) and the redeveloped Marketown (western) providing for a series of 'stepping stone' civic/cultural uses and mixed use development with active ground floor uses between the two anchors as a way of creating a spine of pedestrian activity. It also provides opportunities for 'anchor' uses along both the re-activated Main Street as well as in a north-south orientation from the train station/ Marketown north to the oval and Council depot site which presents significant future redevelopment potential.

OPTION 4 - DEVELOPMENT SCENARIO OVERVIEW

Development typologies envisaged are mainly 4 storey retail/commercial buildings along Garfield Road East and 1 storey specialty retail along Market Street in close proximity to Marketown. Residential flat buildings (6 storeys) are proposed along Market Street and Park Street, as well as on the southern side of Garfield Road East. Lower density residential, i.e. 3 storey townhouses are envisaged along the northern fringes of the Study Area on Mill Street.

Note: The potential to go to 10 storeys and up to 15 storeys on identified Key/Gateway sites will need further assessment and consideration through any subsequent Planning Proposal.

Option 1

Layout of uses

The option provides for concentration of retail activity around Market/Pitt Street. A redevelopment/upgrade of Market Town that interacts with Pitt Street is required to facilitate through pedestrian flows between the train station and community hub.

Development feasibility

Development of 4 storey retail/commercial buildings and 3 storey townhouses are not feasible, considering existing-use values in the Study Area. 6 storey mixed use and residential buildings could be feasible in certain parts of the Study Area depending on existing-use values.

Delivery timeframe

The quantum of retail, particularly commercial floor space will likely be difficult to sustain even if 4 storey retail/ commercial buildings are feasible to develop. It is likely that this theoretical amount of commercial floor space (21,382sqm) will remain unrealised.

Majority of the retail floor space is provided for in Market Town with some space in mixed uses adjacent on Pitt Street. From a delivery standpoint, this is positive as a smaller number of lots are required.

Residential yield within 3 storey townhouse developments are unlikely to be realised.

Option 2

Layout of uses

The option provides for elongation of retail activity along Market Street as well as along the southern side of Garfield Road East. Retail uses operate most successfully when they have the ability to cluster and co-locate. By 'stretching' the location of retail uses to Piccadilly Street in the east, retail and pedestrian activity could be diluted. Unless there is a significant catchment/density of population, this poses a challenge for vibrant and sustainable retail activity in the Study Area.

Development feasibility

Development of 4 storey retail/commercial buildings and 3 storey townhouses are not feasible, considering existing-use values in the Study Area. In addition, 1 storey retail buildings would effectively represent existing built form, not offering any incentive for redevelopment. 6 storey mixed use and residential buildings could be feasible in certain parts of the Study Area depending on existing-use values.

Delivery timeframe

The quantum of retail, particularly commercial floor space will likely be difficult to sustain even if 4 storey retail/ commercial buildings are feasible to develop. Like Option 1, it is likely this theoretical amount of commercial floor space (31,948sqm) will be unrealised.

Residential yield within 3 storey townhouse developments are unlikely to be realised.

A large proportion of retail floor space is envisaged at ground level of mixed use buildings along Market Street and Garfield Road East. Comment on the sustainability of retail space in all mixed use buildings is made following.

Option 3

Layout of uses

For many retail and commercial type uses to be viable it is important that these uses benefit from being able to leverage high levels of visibility/exposure and have the ability to accommodate cluster of occupiers.

In this option, the retail and commercial offer is dispersed throughout the centre. A dispersed retail/commercial within the centre would dilute retail spend and consequent economic activity and should be avoided. A design that is conducive to 'drawing in' of visitors and retail trade will contribute to the successful activation of the area.

Development feasibility

The feasibility of 4 storey retail/commercial buildings and 3 storey townhouses are likely to be negative, considering existing-use values in the Study Area. In addition, 1 storey retail buildings would effectively represent existing built form, not offering any incentive for redevelopment. 6 storey mixed use and residential buildings are likely to be feasible.

Delivery timeframe

The guantum of retail, particularly commercial floorspace will likely be difficult to sustain even if 4 storey retail/commercial buildings are feasible to develop. Like Options 1 and 2, it is likely that this theoretical amount of commercial floorspace (26,253sqm) will remain unrealised.

Residential yield within 3 storey townhouse developments are unlikely to be realised.

A large proportion of retail floorspace is envisaged within 1 storey retail buildings along Market Street in close proximity to Market Town, this yield unlikely to be realised.

Option 4

Delivery timeframe

Layout of uses

The option provides for concentration of retail activity around Market/Pitt Street. A redevelopment/upgrade of Marketown that interacts with Pitt Street is required to facilitate through pedestrian flows between the train station and community hub.

Development feasibility

Development of 4 storey retail/commercial buildings and 3 storey townhouses are not feasible, considering existinguse values in the Study Area. Residential flat buildings (6 storeys) could be feasible in certain parts of the Study Area depending on existing-use values.

Whilst the quantum of retail and commercial floorspace proposed is substantially lower than the other options, development would be difficult to sustain even if 4 storey retail/commercial buildings are feasible to develop. It is likely that the theoretical amount of commercial floorspace (18,000sqm) will remain unrealised.

The majority of the retail floorspace is provided for in Marketown which from a delivery standpoint is positive as a smaller number of lots are required to facilitate development. Residential yield within 3 storey townhouse developments are unlikely to be realised owing to existing use values.

TRAFFIC AND TRANSPORT ASSESSMENT			
Option 1	Option 2	Option 3	Optio
Should Market Street be the focus of activity it is recommend this remain open to vehicular traffic.	Pedestrianisation of the western end of Market Street, between Pitt Street and Riverstone Parade, providing a	Pedestrian priority should be focused around the Market Street / Riverstone Parade intersection to provide good	Closi impro
Closing Market Street as indicated would place a high reliance on George Street for access and on-street	direct connection to Riverstone train station will improve connectivity to the centre.	access for people travelling between the train station and town centre. This option indicates the pedestrian crossing to be located just south of this intersection which does not	is fea vehic Mark
parking serving the town centre – particularly following the introduction of the overpass which will restrict access into	Some traffic and transport upgrades and improvements will be required. These include additional pedestrian crossings,	meet the pedestrian desire line.	The p
Pitt Street. Some form of pedestrian crossing facility (potentially zebra	intersection upgrades, traffic lights, and other traffic calming measures.	Closing Pitt Street to vehicular traffic between Market Street and Park Street reduces the overall level of permeability through the town centre – directing more traffic towards	Road conn betwo
crossing) should be provided at the Market Street / Pitt Street intersection to emphasise the priority pedestrian route between the town centre and the train station	A new pedestrian through link between Park Street and Garfield Road East is a positive outcome to promote permeability in the Town Centre.	George Street which is already expected to accommodate significant increase in traffic volumes. This measure would also limit opportunities for vehicle access into an upgraded	howe facilit pede
	A calmed traffic environment on Market Street would create a more 'hospitable' pedestrian and cyclist environment.	Marketown. A better outcome in terms of the functionality of the town	
	New pedestrian crossing opportunities across Garfield Road East would improve connectivity.	centre would be to provide a north-south pedestrian link between Pitt Street and George Street adjacent to the Village Green	
	Volumes of traffic generated by option would need monitoring for further potential impacts.		

otion 4

by the western end of Market Street to support proved pedestrian connectivity to Riverstone Station feasible and supported. This will however require all hicular access (private vehicles and service vehicles) to arketown to be via Pitt Street.

e proposal for a pedestrian pathway between Garfield ad East and Market Street will improve pedestrian nnectivity and permeability, providing a valuable link tween the Village Green and Garfield Road East. It will wever require the provision of a new pedestrian crossing sility on Garfield Road East to accommodate the new destrian desire line.

A.4 Assessment Summary

The Options Assessment revealed that Option 2, "The Main Street", was the preferred option and the best framework to realise the Vision and Design Principles for the Riverstone Town Centre. Option 1, "The Hub," was likely to be the least successful in delivering the Vision for Riverstone.

At the Community Information session residents stated that the retail / commercial strip of Garfield Road East is the 'heart' of Riverstone. In a situation where this may be compromised with the overpass being constructed, establishing a new 'Main Street' – a block to the north along Market Street – is a significant opportunity to re-imagine an urban framework that is familiar and relevant to the existing community.

The 'Main Street' concept was also clearly preferred at the workshop with Council staff and in discussion with other stakeholders. Traditionally, country towns are organised around a main street. Replicating this in Riverstone was identified to be a key benefit, since this would help to maintain Riverstone's identity as a 'country town'.

In addition to the advantages identified above, the key strengths of this preferred option can be summarised as follows:

- The catalytic impact of the Marketown upgrade and the Community Hub is maximised under this framework, improving the likelihood that meaningful change and regeneration can occur in the short term.
- 2. A flexible framework with sufficient capacity along the length of Market Street to accommodate future floor space demand.

Market Street becomes the 'spine' along which the rest of Riverstone plugs into. This integrates the Town Centre with the rest of Riverstone, both in the pre and postoverpass scenario.

A.5 Refining the Master Plan

The Master Plan refines the Main Street option to incorporate the strengths of the other options – namely the integration of into the Main Street structure. This will expand the ability of the Town Centre to accommodate a broad range of activities. This focal public space takes the form of a Village Green that will strengthen the feeling of a sense of place that is evocative of a country town. Its location relates to the Community Hub and the Riverstone Schofields Memorial Club, joining the existing with the new.

Option 2 was also further refined due to the outcomes of the feasibility analysis that revealed that the proposed planning controls would be insufficiently attractive to displace existing, valuable uses. The Master Plan refines the number of stories to envisage mainly 6 and 9 storey mixed use buildings along Market Street and Garfield Road East.

A number of key principles and challenges that were identified in the initial information gathering and analysis stage and tested in consultation with the community and other key stakeholders were applied to further refine the preferred option. These principles address the fundamental challenges facing the Town Centre and its future redevelopment and growth. The principles establish a 'framework' to assist in delivering the vision for Riverstone and are described below.

RETAIL FOR LOCALS; A COMMUNITY HUB FOR THE NWGC

The Town Centre's attractiveness as a centre will be based on an expanded retail offer that serves a local catchment, co-located with significant new community and recreational facilities designed to attract regional populations to Riverstone.

- » Co-location will be Riverstone's significant point of difference from existing, developing and proposed town centres in the North West Growth Centre (NWGC). The community-focus of the Town Centre will be central to its sense of place and identity. The objective is two-fold:
- » Encourage new population to settle in Riverstone, attracted by the liveability and convenience of access to a mix of retail, community and recreational uses.
- » Improve foot traffic through the Town Centre by drawing in greater numbers of visitors to Riverstone.
- » The combined effect is to increase both the permanent and visitor population in the Town Centre to create more conducive conditions for businesses to establish themselves in Riverstone. It will also generate a critical mass of people whose movements and activities create greater vitality in the Town Centre.

INCREASE THE LOCAL POPULATION

As the demand for retail will continue to be largely derived locally, the local resident population needs to increase to support an improved retail offer in the Town Centre and attract new businesses. Under NWGC planning, precincts in the vicinity of Riverstone are intended to accommodate larger populations, which will contribute to the Town Centre's retail catchment over time. Similarly, the number of residents in the Town Centre will need to increase, and at a higher density to capitalise upon proximity to the train station and Town Centre amenities. Town Centre development controls must be amended to enable and accommodate the required densities.

CONSOLIDATE AND SHIFT THE TOWN CENTRE

The existing fragmentation of key Town Centre uses is addressed through consolidation into a single place. This will create a strong Town Centre identity and improve the viability of businesses by enabling them to benefit from proximity and co-location with complementary uses.

The retail / commercial strip of Garfield Road East has traditionally been the 'heart' of Riverstone. The Master Plan shifts this 'heart' to Market Street by transforming it into a Main Street through the consolidation of a diverse mix of Town Centre uses along its length.

Establishing Market Street as the spine of the Town Centre removes the uncertainty currently limiting development over construction of the Garfield Road Overpass. By shifting the focus of the Town Centre away from Garfield Road East, the impact of any future overpass on the Town Centre is minimised.

EVOLVE THE RIVERSTONE 'SENSE OF PLACE'

To attract the resident population needed to sustain Riverstone's envisioned growth, the Town Centre needs to be enticing and vibrant with a unique identity to compete with other centres.

Compared to newly developing or future centres in the NWGC, Riverstone has the advantage of an existing community with established social bonds, and a history dating to the 19th century. The proposed intensification is another layer in the historical development of Riverstone. The Town Centre identity and its sense of place are to be an evolution of the existing. It builds off the underlying social and historical capital of the Town Centre to maintain its relevance to the existing community while offering something unique to future residents.

A place where these qualities are combined with activated, and vibrant Town Centre spaces welcoming to all, and where residents enjoy high standards of community, recreational, entertainment and retail amenity is created.

REGENERATION CATALYSTS

The first steps in the regeneration of the Town Centre will be Council-driven. This creates the opportunity for a development outcome that is community-focused and achieves a broader set of development goals than might be expected of development driven by the private sector.

The development projects, described in section 5, anchor the proposed precincts that comprise the Town Centre 'heart' – the Retail, Community and Recreation Precincts. The precincts are tied together by the public domain upgrade of Market Street, which becomes the Town Centre spine (see Figure A.10). Defining clear precincts in this way improves the legibility of the Town Centre, breaks up the linearity of the street and encourages pedestrian movement along the spine.

The first three projects are particularly important to establish the underlying character and amenity of the Town Centre in the short to medium term. They are the physical manifestation of the commitment and investment in the evolution of the Riverstone Town Centre. The projects are critical to attracting new residents to Riverstone.

SUSTAINABLE DEVELOPMENT

(ESD) principles, specifically aiming to:

- » Encourage people to use active and public modes of transport by establishing a safe.
- » Well-connected and attractive public domain; Orientate new development to capture passive solar opportunities and prevailing breezes
- » Create a pleasant micro-climate by minimising overshadowing in winter.
- » Landscaping the Town Centre.
- » Integrating Water Sensitive Urban Design (WSUD) infrastructure.





FIGURE A.9 RIVERSTONE TOWN CENTRE MASTER PLAN - MAIN STREET OPTION - KEY NODES









---- Study Area

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LEGEND