VOLUME 3

LANDSCAPE MASTER PLAN

SECTION 14.0 TO 18.0

Queanbeyan CBD Master Plan

Final Report • October 2009

VOLUME 3
LANDSCAPE MASTER PLAN

14.0 LANDSCAPE MASTER PLAN

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14.1 OVERALL MASTER PLAN

1 Articulation of CBD and riverfront

The Master Plan intent is to activate the riverfront interface of the CBD, considered one of its most striking attributes. This would be achieved through an upgrade and activation of the parklands and by activating the built interface with the river.

2 Upgrade of parks and showground

Although outside the Master Plan Study area, the overall definition and quality of the CBD would improve significantly with an increase of amenity, activation and inter connectivity to Queanbeyan and Moore Parks. The edge of the Showgrounds would also be activated through a defined landscaped edge with a new pedestrian / bicycle path and potential gateway treatments.

3 Mid-block developments with active civic core

The new developments within the CBD blocks would include the creation of interconnected civic spaces, achieving improved connection and sense of place. The promotion of cultural axes and defined activities, the celebration of the riverfront connection and retail activation opportunities would form part of the development strategy.

4 Celebrate Monaro and Crawford St

The central areas of Monaro and Crawford Streets, will define the perception of a "Town Centre" through the creation of central civic spaces with pedestrian priority, detailed landscape treatments and the introduction of urban landmarks. This core area would invite activation by improvements to adjacent hospitality land use and events of a civic and cultural nature.

At the main entry precincts to the CBD, landmark elements would mark gateway experiences on Monaro and Crawford St.

5 Improvements in the overall streetscape

The streets within and enclosing the CBD would be improved with overall streetscape works, from simple tree planting to changes in some road configurations and traffic conditions, pavement upgrades, street furniture and lighting. The use of a consistent palette would contribute to a unified perception of the CBD area with a refreshed urban landscape image.

14.2 CBD MASTER PLAN

Summary of Key Streetscape Landscape Initiatives

1. Integrate river with CBD, celebrate gateways and upgrade Queen Elizabeth Park.
2. Activate riverfront along Collett St.
3. Upgrade and activation of Monaro St Public Domain on the approach to the riverfront.
4. Creation of a town centre / civic plaza in Crawford St south.
5. Traffic calming / pedestrian priority for Crawford St north.
6. Upgrade and activation of Monaro St west public domain.
7. Pedestrian links to Performance Arts Centre / river and mid-block developments.
8. Reinforce approach and gateway treatment to Farrer Pl (Monaro St)
9. Introduction of angle parking and reinforce streetscape planting to Morisset St. west
10. Enhance streetscape amenity.
11. Celebrate Crawford St. approach to CBD with increased amenity and gradual introduction of active civic spaces leading to town centre.

Summary of Key Mid-Block Landscape Initiatives

- A Upgrade of existing cultural and civic precinct.
- B Promotion of mid-block network of public spaces and celebration of connection to riverfront.
- C Public domain upgrades to block redevelopment, with central public space and enhanced pedestrian connections.
- D Retention of functional laneway with potential long-term activation from adjacent properties.
- E Upgrade of amenity of accessways to mid-block developments and parking areas.

15.0 DETAILED PLANS, SECTIONS & PHOTOMONTAGES

Queanbeyan CBD Master Plan

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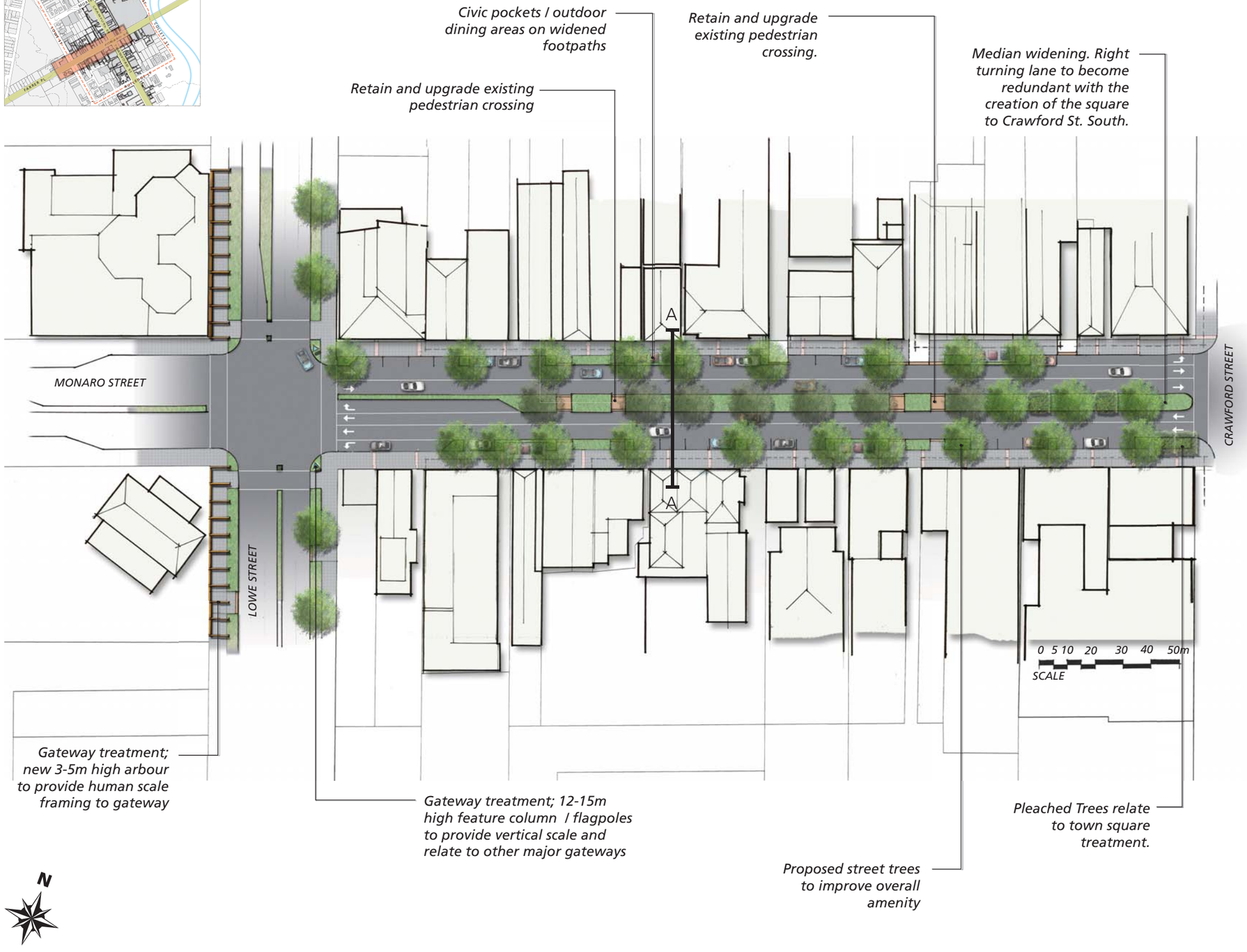
15.1 MONARO STREET WEST



Plan

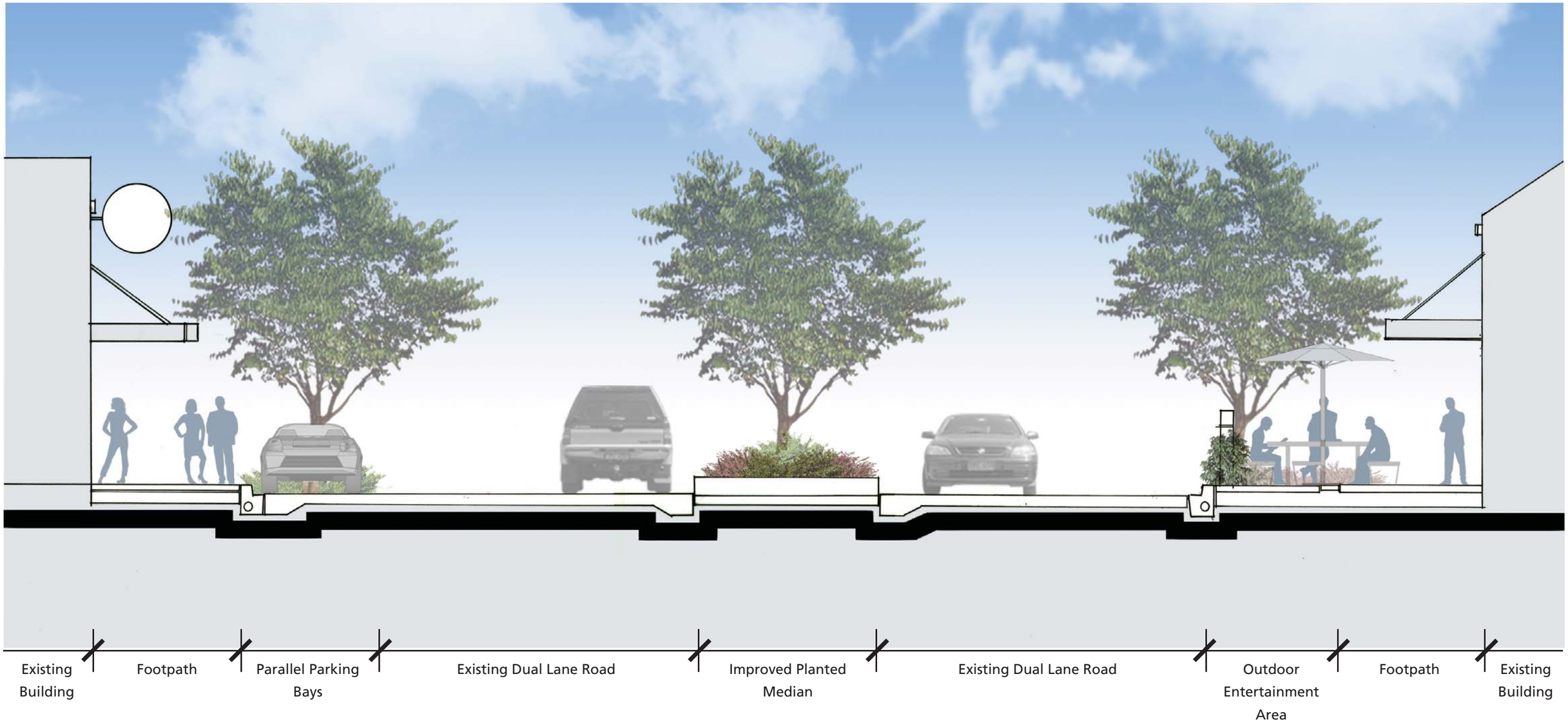
Retaining the traffic and parking function of Monaro Street. It is to be upgraded to a central retail strip within the CBD.

Extended granite surfacing to footpaths and breakout spaces reinforces the importance of the precinct and additional street tree planting to footpath edges and the central median strip improves visual amenity and creates interest.

The footpath is widened at defined locations, creating civic pockets that can be activated as pedestrian refuges or outdoor dining areas. An improved outdoor furniture palette will aid in the creation of a sense of place and contribute to function.

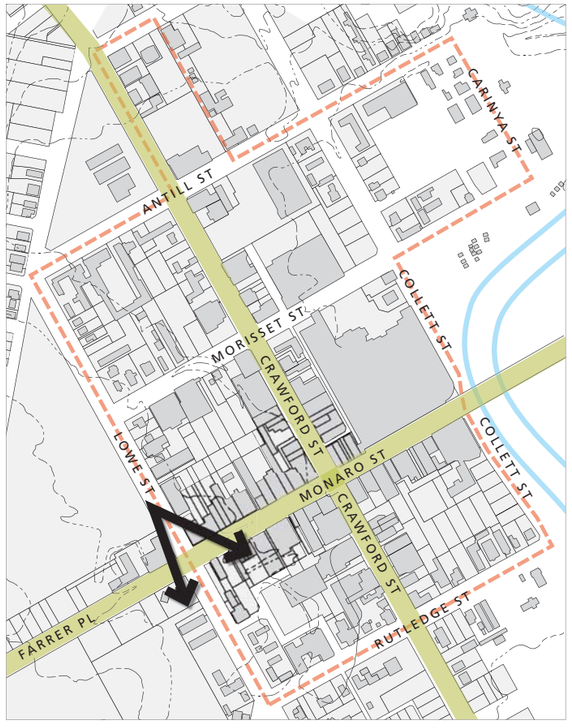
Monaro St. links several landmark experiences

- The gateway treatment with the intersection of Lowe Street.
- The Town Square on Crawford Street
- And further east, the gateway treatment to Queens bridge crossing the Queanbeyan River.



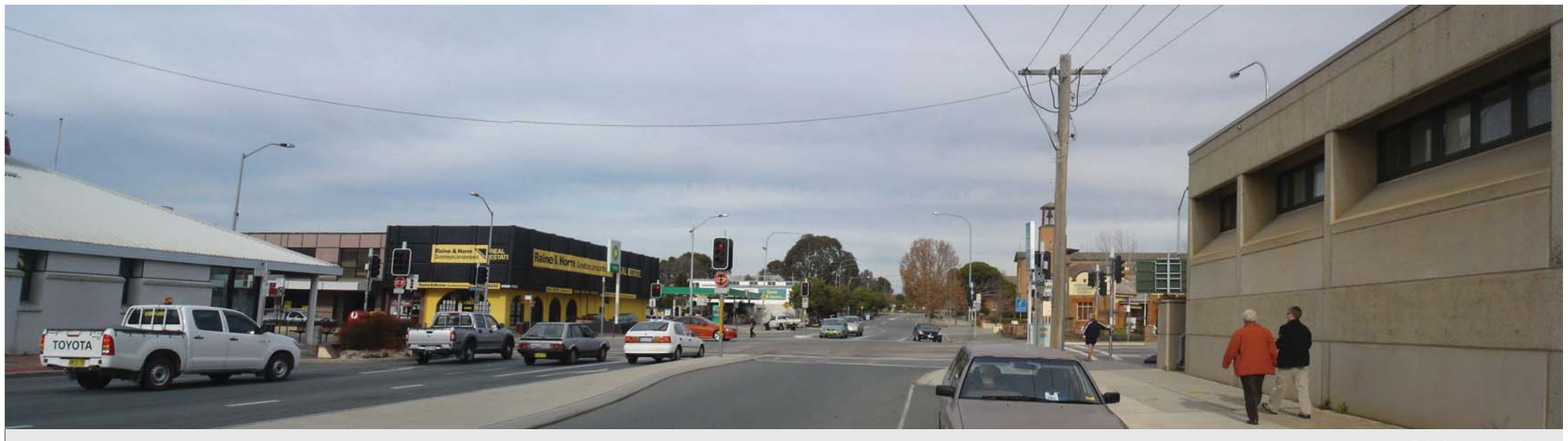
NOTE: Building Outlines and Awnings are Indicative

Artist impression of proposed conditions



View Towards Monaro and Lowe Street Intersection

The intersection of Monaro and Lowe St. is to be treated as a major gateway to the Queanbeyan CBD. Landmark elements would be introduced to create a distinct entrace statement, defining the threshold - a linear arbour structure to either side of Monaro St. along with vertical signature elements, such as flagpoles or sculptural installations. Additional tree planting as well as groundcovers to the medians and road verges would provide a more defined setting for the gateway treatment.

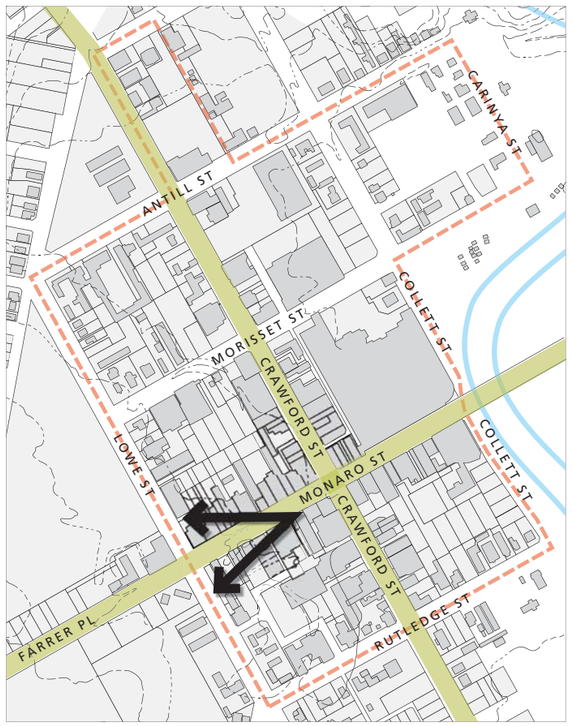


Existing conditions

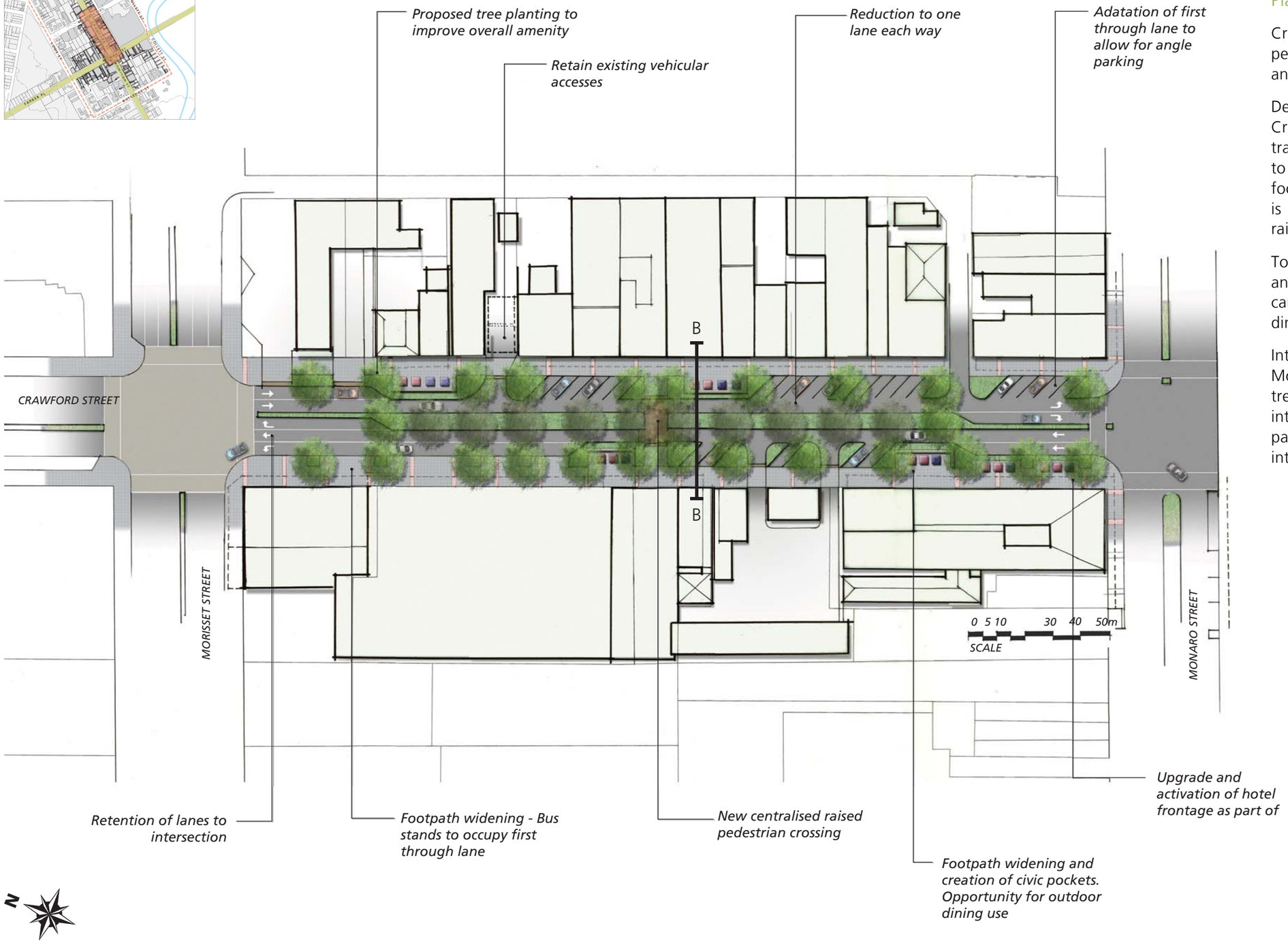
View West Along Monaro Street

In specific locations along Monaro St., the footpaths would be widened to create civic pockets, and therefore conditions condusive to a greater activation. These could be utilised as outdoor dining areas responding to the dynamics of the adjacent retail, or as simple pedestrian refuges. Furniture, buffer planting and screen elements would create conditions that would invite pedestrian use increasing comfort and creating increased levels of safety.

Existing conditions



Artist impression of proposed conditions



15.2 CRAWFORD STREET NORTH

Plan

Crawford Street North is to be treated as an active pedestrian corridor, where significant traffic calming and pedestrian priority measures are put in place.

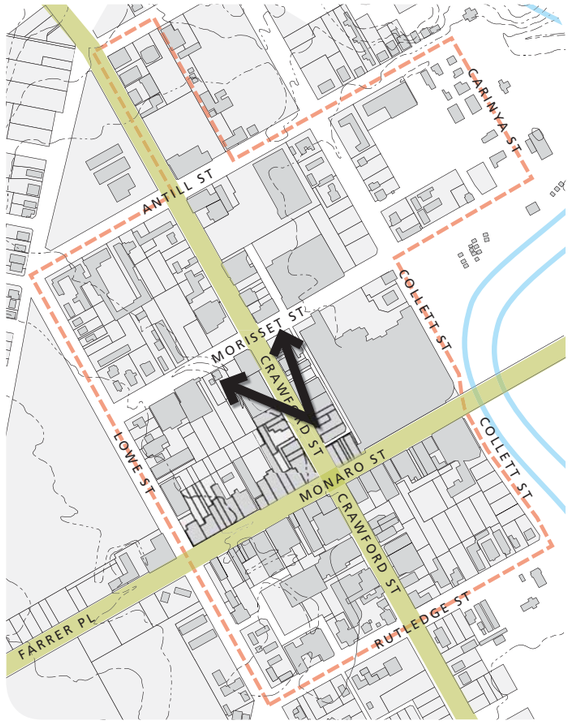
Developed in conjunction with the closure of Crawford St. South and the anticipated increase in traffic for Antill/Collet St, the road configuration is to be reduced to one lane each way only and both footpaths are widened. The pedestrian circulation is therefore optimized and directed to one central, raised crossing.

To the frontage of the predominantly retail buildings, angle parking alternates with wide civic pockets, that can be activated as pedestrian refuges or outdoor dining areas.

Introduced granite paving to footpaths consistent with Monaro St. improvement and new semi mature street trees planted adjacent to footpaths will improve visual interest and vegetative amenity. The outdoor furniture palette will compliment the style of the precinct and introduce council colours/theming.

NOTE: Building Outlines and Awnings are Indicative

Artist impression of proposed conditions



View North Along Crawford Street

Traffic calming and pedestrian priority measures are to be put in place at the northern end of Crawford Street. This includes reduction of the carriageway to one vehicle lane each way as well as the widening of both footpaths and a central raised crossing. Angle parking is alternated with civic pockets or outdoor dining areas. Granite paving to footpaths improves quality and enhances the streetscape. Street tree planting along footpaths will add a boulevard feel to the precinct. Elements such as seating walls and bollards will assist in the definition and safety of the extended pedestrian realm.

Existing conditions

15.3 CRAWFORD STREET SOUTH

Plan

Crawford St. South will be developed as the CBD Civic Centre, expanding on existing qualities from the presence of several civic and cultural facilities.

The intended closure of Crawford Street as part of the longer term strategy, will allow for the creation of a fully defined TownCentre/Civic Plaza.

The Plaza is to have an open design at ground level to maximise safety and enhance multiple usage.

Pleached trees create a formal frame to the square and a combination of feature granite pavements and seating elements will enhance the sense of place.

Focal points such as a central water feature and vertical installations (light poles, sculpture and flagpoles) add interest and create a landmark experience.

The traffic function is largely retained with the creation of a turning head, 90 degree parking, drop off zone and taxi ranks. These areas are to be treated with a possible raised road profile, defining shared vehicular / pedestrian zone and further delineated by bollards and/or planting.

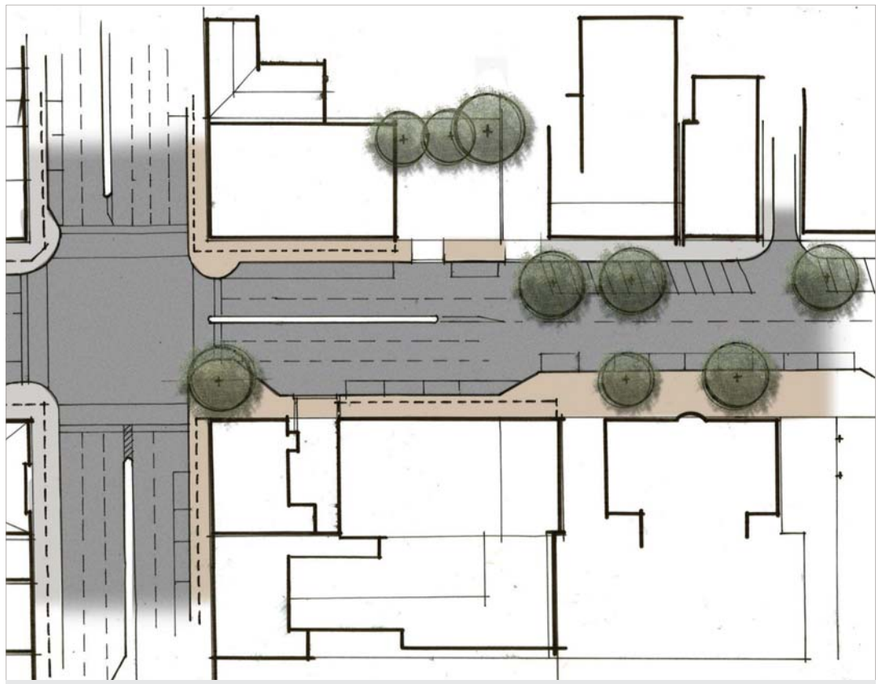
Staging Plans

The creation of the new Crawford Town Square and associated streetscape works to the southern end of Crawford Street are to be staged over a 20 year period. It is anticipated that over time, the street will be closed and emphasis will be placed on the creation of a defined pedestrian precinct.

PLAN A - Shows the current layout of the street. Wide streets and dual lanes to either side in addition to parking, create a busy intersection to Monaro and a more vehicular orientated precinct.

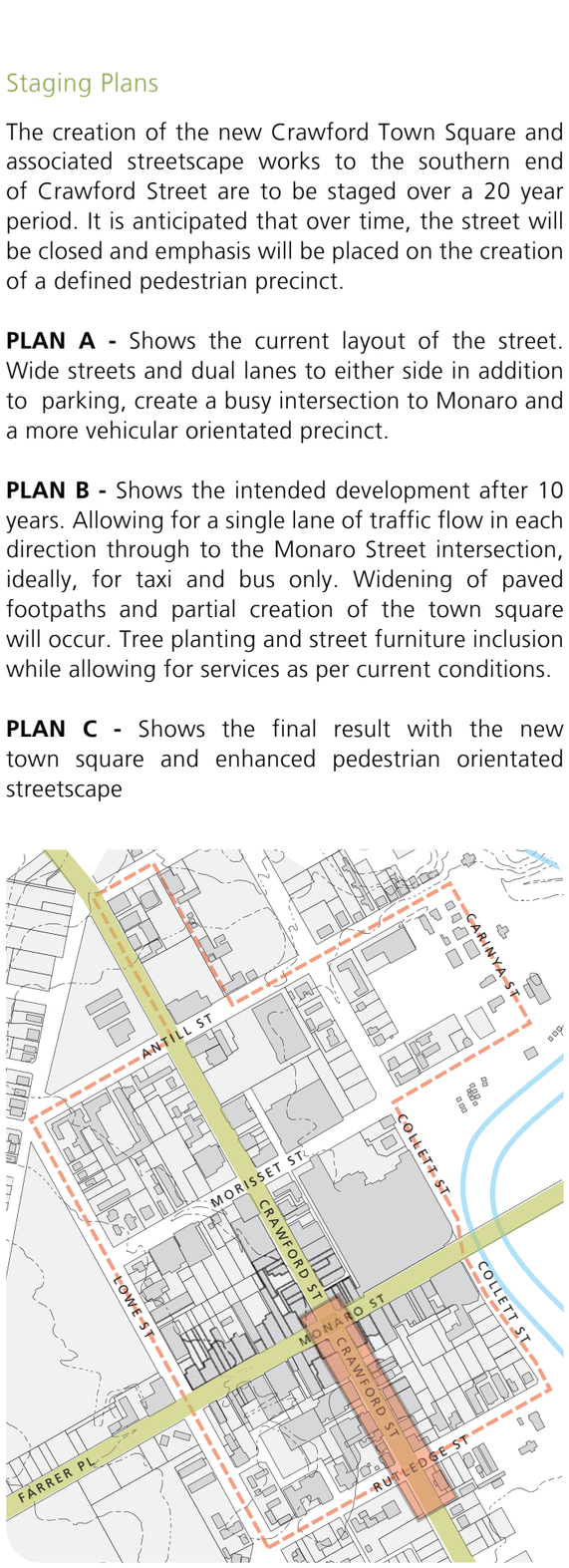
PLAN B - Shows the intended development after 10 years. Allowing for a single lane of traffic flow in each direction through to the Monaro Street intersection, ideally, for taxi and bus only. Widening of paved footpaths and partial creation of the town square will occur. Tree planting and street furniture inclusion while allowing for services as per current conditions.

PLAN C - Shows the final result with the new town square and enhanced pedestrian orientated streetscape



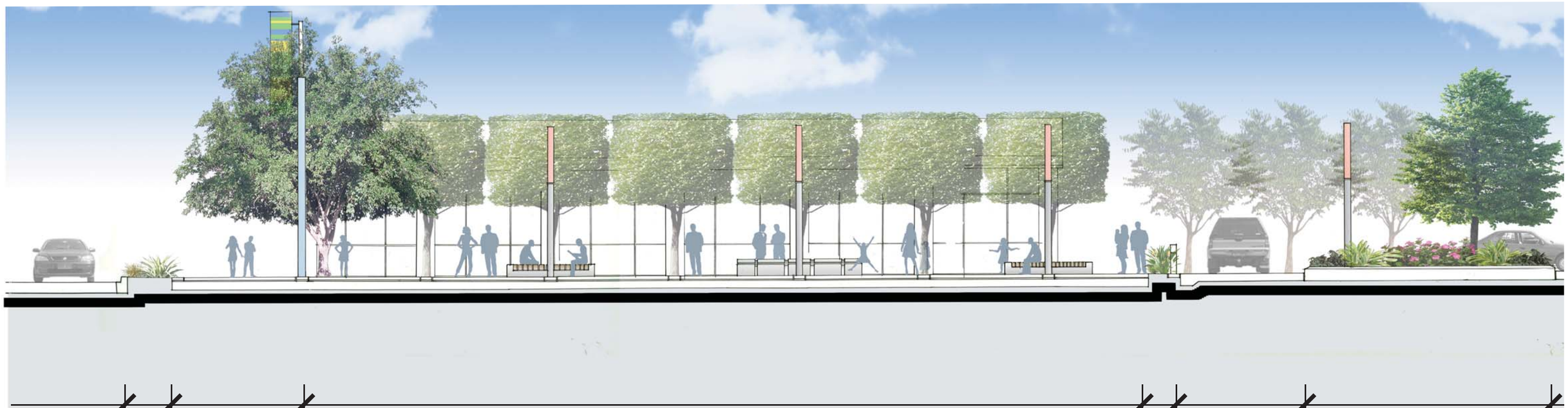
Plan A - Existing Conditions

Plan B - 10 Year Plan



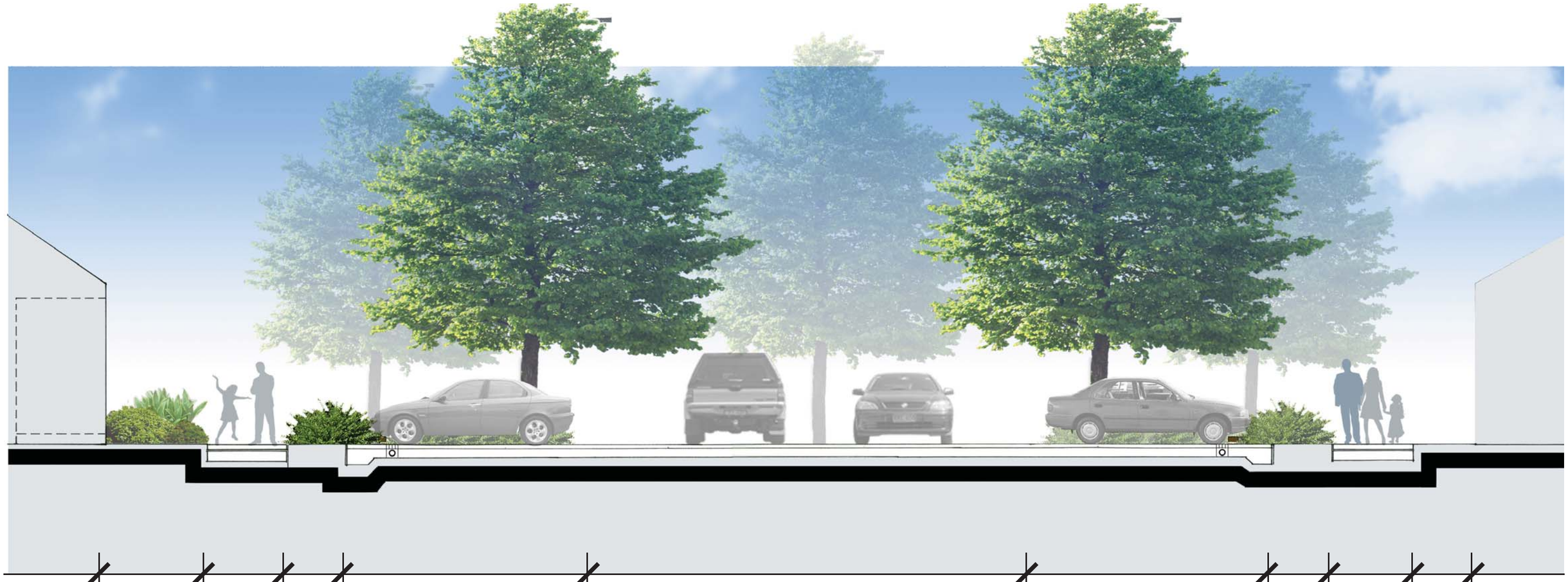
Plan C - 20 Year Plan

Crawford Street South Section C - C



Monaro Street | Screen Planting | Wide Footpath | New Town Square in Quality Natural Stone Paving with Public Art Fixture, Flagpoles, Pole Lighting, Feature Trees, Street Furniture and Water Feature | Bollards and Planting | Loop Road | Planted Roundabout and Pole Light

NOTE: Building Outlines and Awnings are Indicative



Existing Buildings | Existing Planting | Path | Buffer Planting | 90 Degree Parking with Wheel Stops. | Dual Carriageway/Shared Zone to Crawford Street. Crown to Centre or road draining to either side | 90 Degree Parking with Wheel Stops | Buffer Planting | Path | Existing Fence and Forecourt | Existing Building

NOTE: Building Outlines and Awnings are Indicative

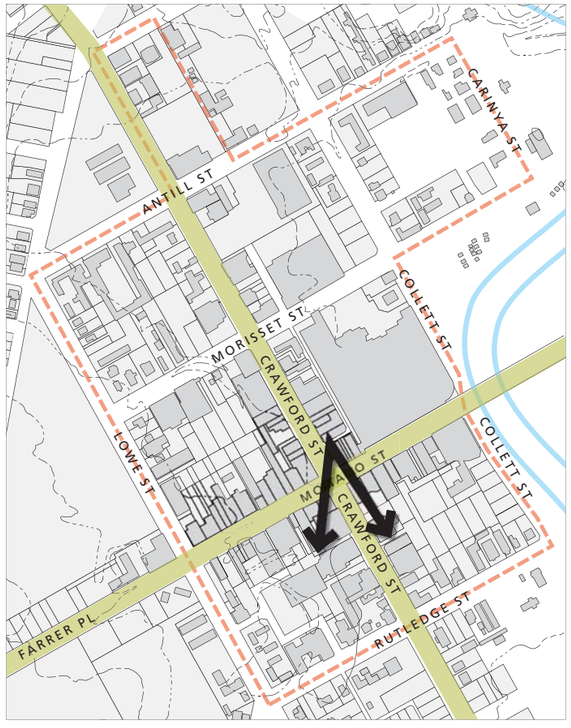
View South Along Crawford Street (Town Square)

The junction of the southern end of Crawford Street and Monaro St. would gradually be closed to traffic, allowing for the creation of a Plaza space in the Civic Centre of the CBD. This town square development would create a centralised destination point clearly visible from all approaches into the town centre.

Smaller pleached trees create a formal frame to the surroundings while allowing open surveilance and focal points such as a central water feature and vertical installations (light poles, sculpture and flagpoles) add interest to this new landmark space.

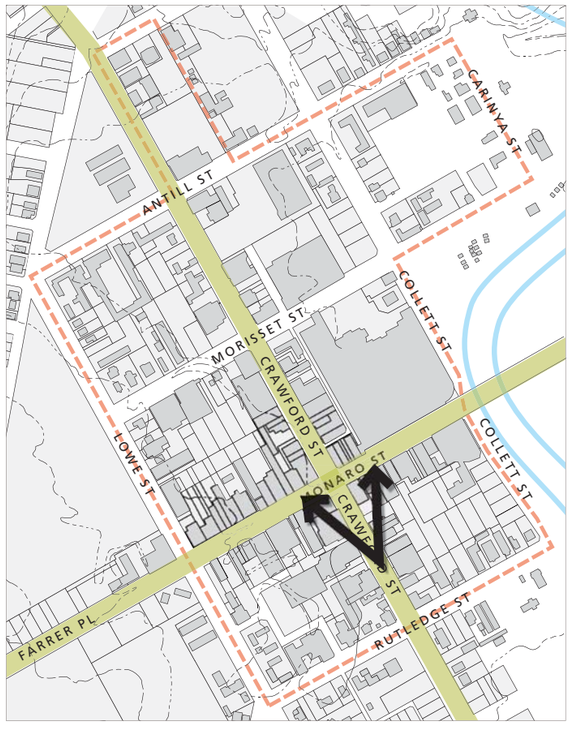
The open design of the square, its feature material treatments and the introduction of low groundcover planting give it a transparent and yet defined articulation and clearly identify the areas of pedestrian emphasis.

Existing conditions



Artist impression of proposed conditions

Existing conditions

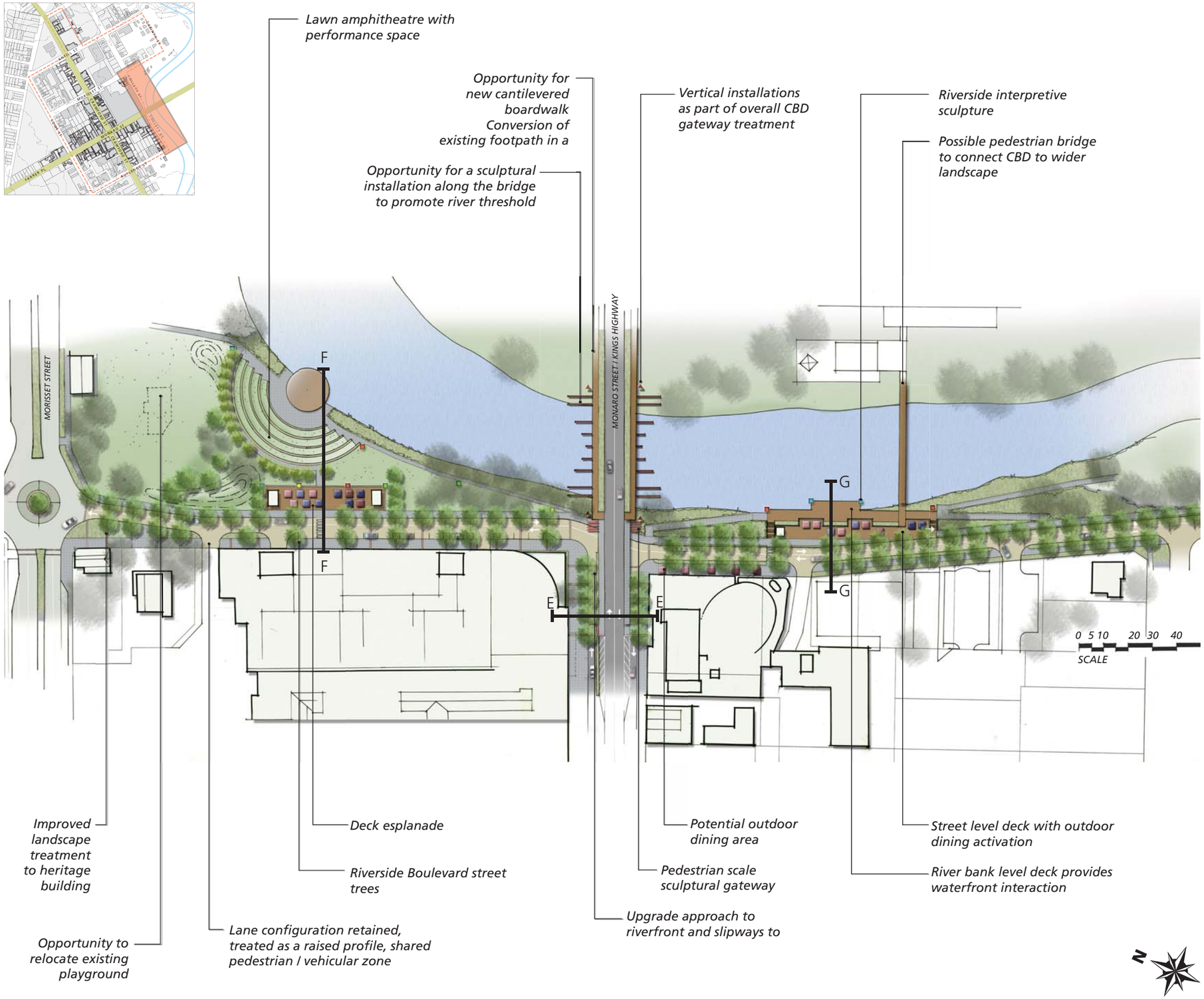


View North From Proposed Town Square

The plaza space is to have an open design to maximise safety and encourage multiple usage activities. The pleached trees enclose the space and a combination of high quality granite paving and themed seating elements enhance and contribute to deliver a unique character.

Focal points such as a central water feature and vertical installations (light poles, sculpture and flagpoles) add interest to the public realm.

Artist impression of proposed conditions



15.4 COLLETT STREET RIVERSIDE

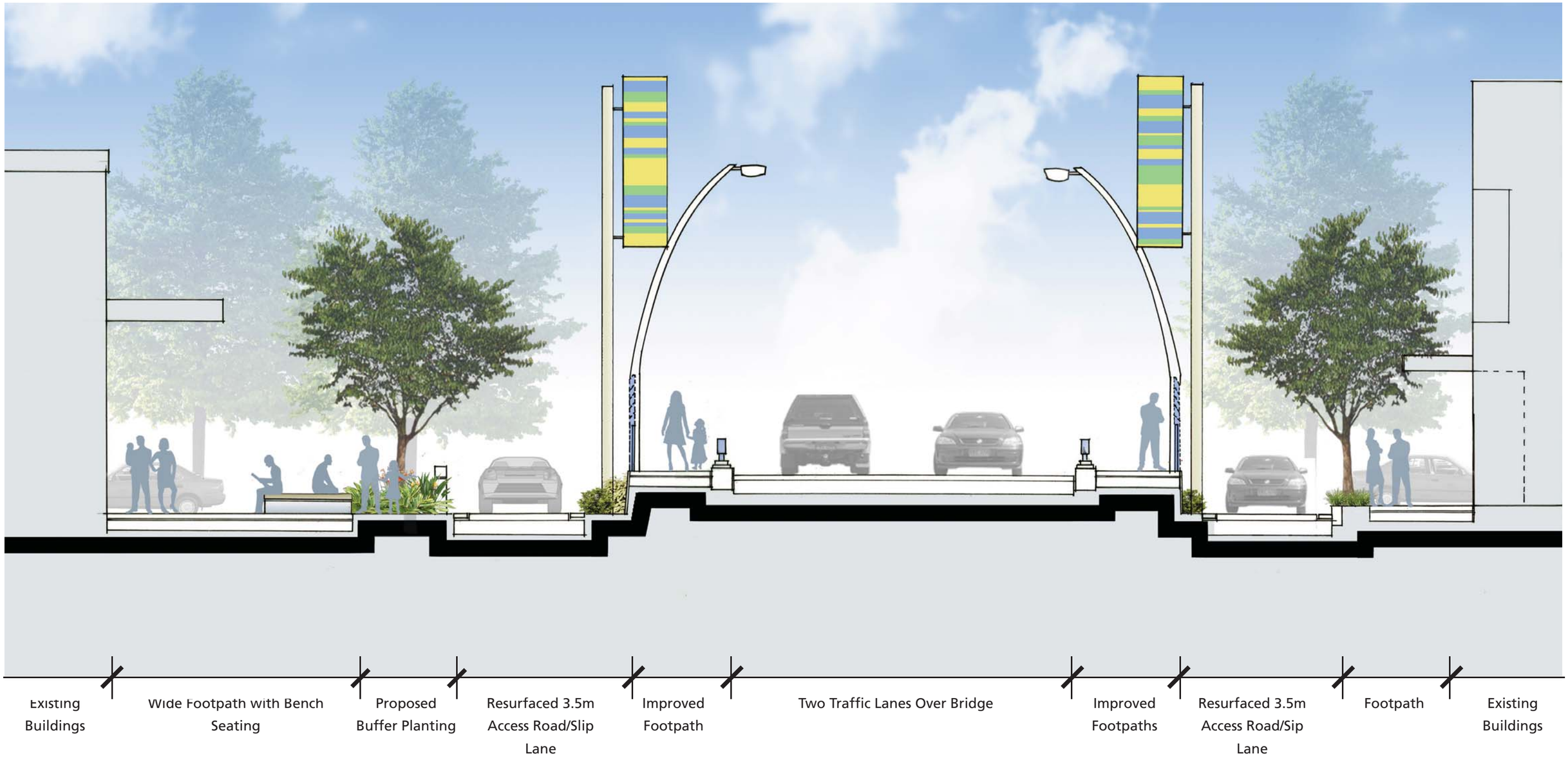
Plan

Collett Street would be upgraded to create an activated and vibrant CBD riverfront. Treated as a shared pedestrian/vehicular zone with a raised road profile, feature road surface and street tree planting, Collett St. would invite the activation of the riverfront with more pedestrian friendly conditions.

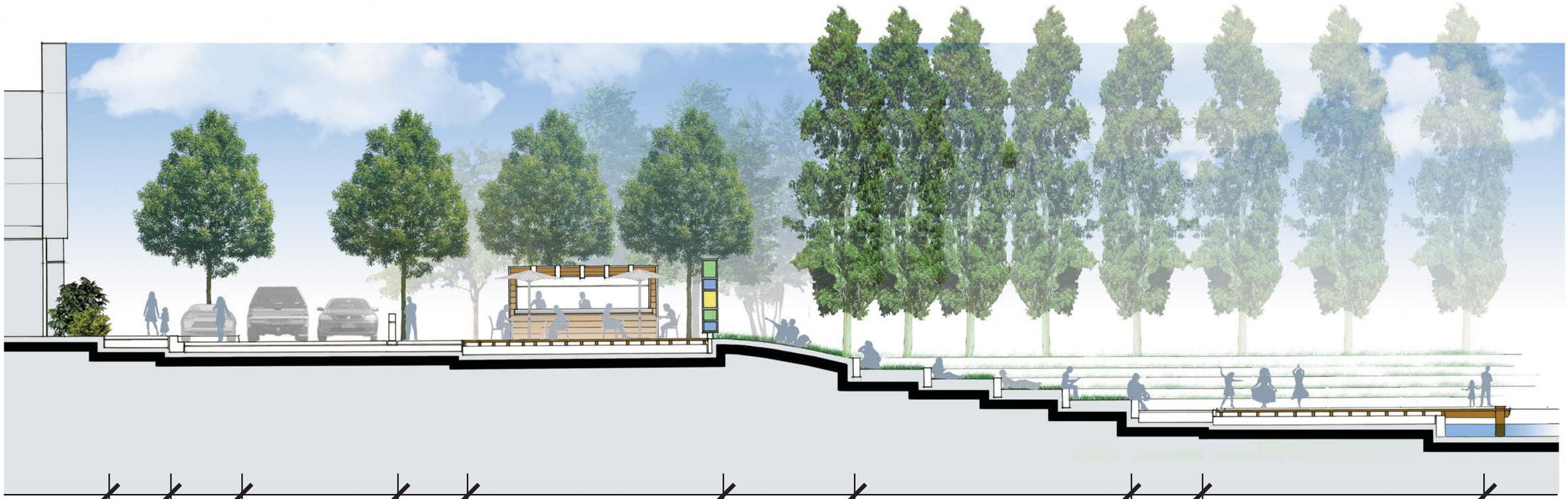
The adjacent Park developments could include raised and river level boardwalks, an informal amphitheater / performance space and new riverside footpaths.

The river crossings could be further improved with a new pedestrian bridge and the integration of a cantilevered boardwalk along Kings Hwy.

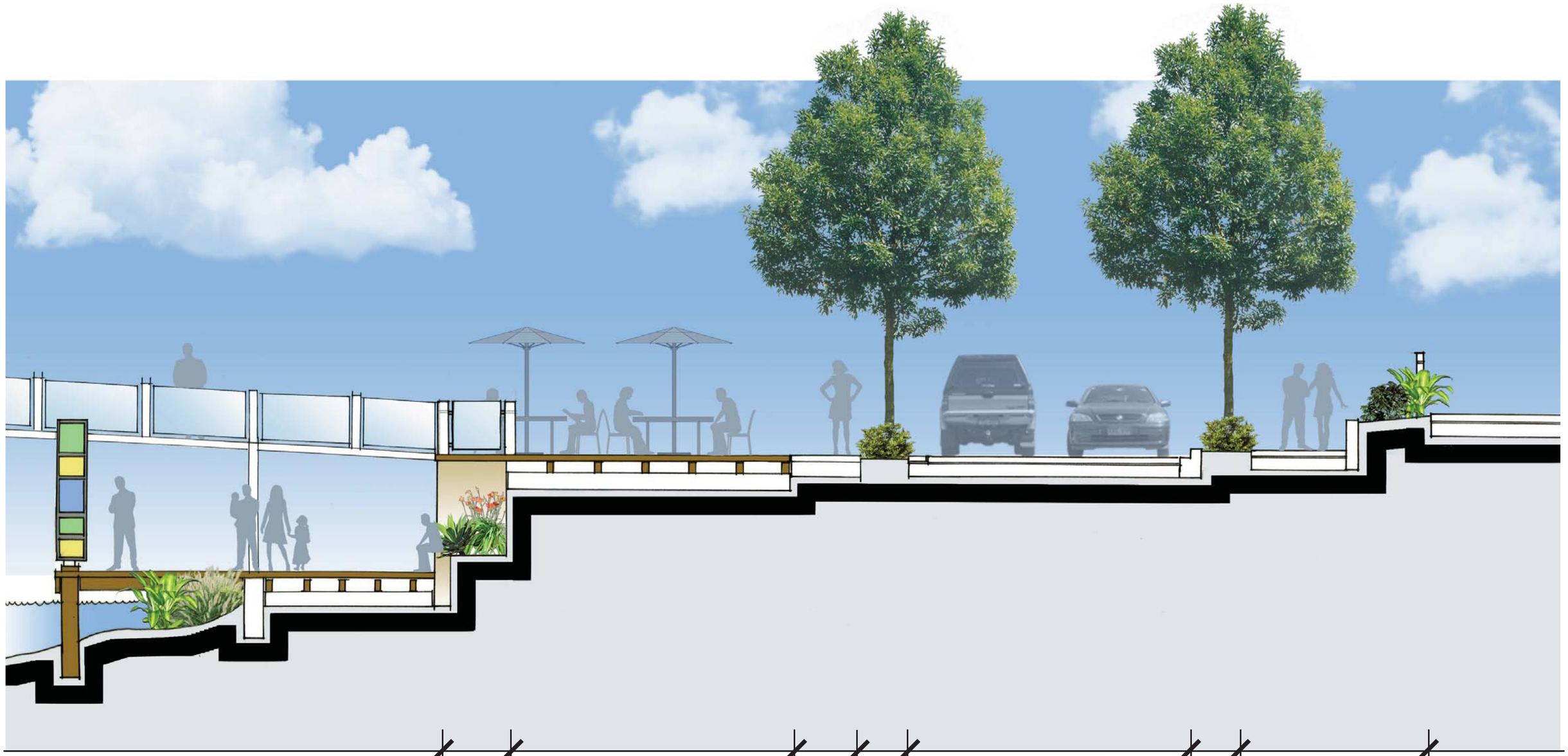
To emphasize the importance of this threshold, architectural treatments to the bridge and gateway elements would be key components.



NOTE: Building Outlines and Awnings are Indicative



NOTE: Building Outlines and Awnings are Indicative



Lower Decking with Sculptural Feature Lanterns and Proposed Pedestrian Bridge

Screen Planting to Retained Edge/ Floodwall

Upper Terrace with Outdoor Dining

Footpath

Verge Planting

Two Lane Shared Road

Verge Planting

Existing Footpath and Low Retaining Wall

Exisiting Parking Lot

NOTE: Building Outlines and Awnings are Indicative

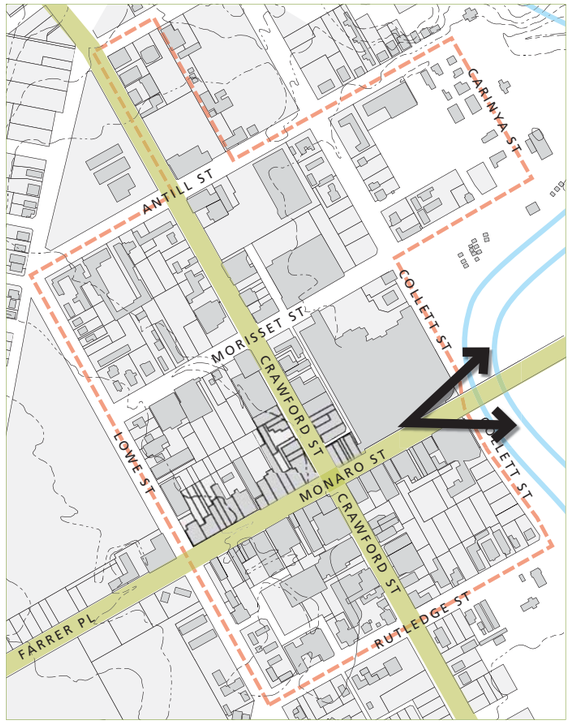
View Towards Monaro Street / Kings Highway Overbridge

The eastern end of Monaro St. is to be treated as a major gateway, marking the threshold between the Queanbeyan River and the CBD.

Sculptural treatments to each side of the Queens Bridge would aid in the creation of a strong entry statement and be linked with other vertical elements within the CBD, such as signature flagpoles or specific sculptural installations within the township.

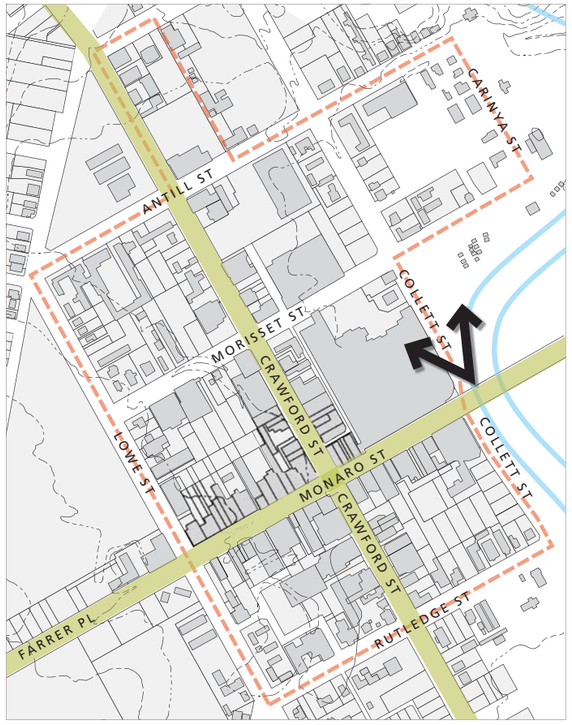
The slip lanes on the approach to Collett St. would be treated with an improved road surface. Low shrub planting and bollards will delineate pedestrian crossing points and increased pedestrian amenity will be created through the use of groundcover and street tree planting, combined with street furniture and lighting.

Existing conditions



Artist impression of proposed conditions

Artist impression of proposed conditions



View North Along Collett Street

Treated as a shared pedestrian /vehicular zone with a raised road profile, Collett St. would become an active CBD riverfront space.

Improved road surface, granite footpaths and street tree planting would create pedestrian friendly conditions and encourage greater use of the space. The adjacent buildings should engage the riverfront in a more positive and active way and the riverside park could potentially include street level decking areas with esplanades for outdoor dining.

The activation of the riverfront would include an informal amphitheater / performance space, new footpath networks, fitness stations, public art and interpretive signage /

Existing conditions

View South Along Collett Street

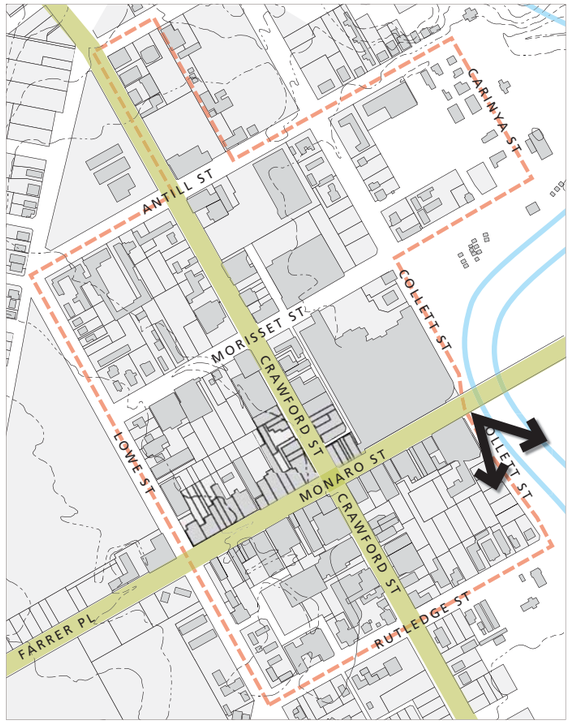
Improved access to the activated river front precinct will be enhanced by a suggested pedestian bridge

Active nodes in distinct locations will enhance the arrival to the river along the cultural spine that links the Queanbeyan Performing Arts Centre to the river.

There are opportunities to create artistic, interpretative and recreational routes along the river front and into the CBD.

Both the river corridor and the urban frontage would benefit from additional planting to help enhance the vegetative character of the precinct within the context of the urban activation development.

Existing conditions



Artist impression of proposed conditions

15.5 VEHICULAR ACCESS AND PARKING IMPLICATIONS

Vehicular Access Implications

This diagram represents possible changes to the existing carriageway and vehicular access arrangements within the CBD as a result of the suggested streetscape enhancements. These have been reviewed and confirmed as acceptable by ARUP (traffic consultants). Refer to Appendix 2 – Volume 4 for general discussion.

On-Street Parking Implications

The table demonstrates the parking supply/loss implications of the various streetscape improvement works for each affected area. The loss would occur overtime (21 years +) as the works are gradually implemented. On-street parking provision is still provided along most CBD streets under the proposed strategy, but some reduction in existing supply is unavoidable if the works are to be implemented. The need for alternative off-street supply should be the subject of further investigation, including a detailed supply/demand analysis.

ON-STREET PARKING SUPPLY CHANGES TO QUEANBEYAN CBD

STREET	SECTION	APPROXIMATE PARKING SUPPLY		BALANCE		STAGE
		EXISTING	PROPOSED	SPACES	CAPACITY	
Rutledge	Collett to Crawford	20	20		100%	2
	Crawford to Lowe	41	41		100%	
Monaro	Collett to Crawford	16	11	-5	69%	1
	Crawford to Lowe	42	25	-17	60%	
Morisset	Carinya to Collett	8	0	-8	0%	3
	Collett to Crawford	22	6	-16	27%	
	Crawford to Lowe	36	54	18	150%	
Antill	Carinya to Collett	52	52		100%	
	Collett to Crawford	8	0	-8	0%	
	Crawford to Lowe	23	12	-11	52%	
Erin	Collett to Crawford	15	15		100%	
Carinya	Morisset to Antill	49	49		100%	
Collett	Rutledge to Monaro	20	0	-20	0%	2
	Monaro to Morisset	27	12	-15	44%	
	Morisset to Antill	37	0	-37	0%	3
Crawford	Rutledge to Monaro	41	41	0	100%	1
	Monaro to Morisset	31	27	-4	87%	1
	Morisset to Antill	27	24	-3	89%	2
	Antill to Erin	36	28	-8	78%	
Lowe	Rutledge to Monaro	27	27		100%	
	Monaro to Morisset	38	24	-14	63%	
	Morisset to Antill	44	28	-16	64%	3
TOTAL		**660**	**496**	**-164**	**75%**	**1 / 3**

STAGED ON-STREET PARKING IMPLEMENTATION

STAGE	TIMEFRAME	APPROXIMATE PARKING SUPPLY		BALANCE	
		EXISTING	PROPOSED	SPACES	CAPACITY
1	1-7 years	130	104	-26	80%
2	7-14 years	236	176	-60	75%
3	14-21+ years	294	216	-78	73%

16.0 LIGHTING REPORT

Queanbeyan CBD Master Plan

Final Report • October 2009

Queanbeyan Town Centre
Lighting Masterplan

Public Domain lighting needs to meet the often contradictory requirements of providing the functional lighting for safe movement of people and traffic with the requirement to provide a space that is visually interesting, comfortable to occupy and that adds to the total night appearance of the space.

The current lighting of the streets is totally functional in its approach and although it probably serves the lighting requirements of the traffic it does little to enhance the space at night.

Functional Requirements

There are several Australian Standards that have relevance to the lighting of the roads and public spaces. Although the standards are not mandatory, they are a requirement for the carriageway of RTA controlled roads and would also be used as a testy of what is reasonable if the lighting ever became a consideration in some court action against the council.

These standards are:

AS/NZS1158.1.1 Road Lighting Part 1.3 Vehicular traffic (Category V) lighting
This relates to the provision of adequate lighting for traffic. There are several categories of lighting. The appropriate category is determined by the extent and nature of the vehicular and pedestrian Traffic.

Table 2.1 in Appendix A gives the categories and the criteria for them.

AS/NZS1158.3.1 Lighting for roads and public spaces Part 3.1 Pedestrian area (Category P) lighting
This relates to the requirements of pedestrians and public spaces. Although the standard says that where the road is lit to a V category there is not additional need for pedestrian lighting as long as the light is not obstructed by awnings it is often desirable to add supplementary lighting to enhance the pedestrian experience.

The appropriate category is determined by the extent and nature of the pedestrian activity, the risk of crime and the need to enhance the prestige of the space at night.

Table 2.2 in Appendix A gives the categories and the criteria for them.

The standard also males recommendations for carparks bases on similar criteria for the pedestrian paths.

Table 2.5 in Appendix A gives the categories and the criteria for them.

AS/NZS1158.4 Supplementary lighting at pedestrian crossings
This standard only relates to the supplementary lighting of pedestrian crossings. It is generally only applied to non signalised crossings.

Although these standards may address the safety requirements it is possible to create an installation that complies with the standards but is not at all comfortable or interesting to occupy at night.

While it is important that the lighting complies with the standards, if people are to use the space at night and spend time in the space, the space must be comfortable and the lighting must make people look and feel good.

The selection of the lighting category depends on the level of activity, the risk of crime and the need to enhance the prestige of the space. The categories will normally be nominated by the RTA and the Council.

We would expect them to be as follows:

Carriageway Lighting	Category V3
Pedestrian Lighting	Category P3
Carpark Lighting	Category P11b

There may be some variation from space to space depending on the level of natural surveillance and the level of night usage.

Quality Requirements

In addition to the requirements of the standards, if a space is to be successful as a night environment then there are some additional requirements that need to be addressed.

These are:

Good Colour Rendering

Colour rendering is a measure of the accuracy with which a light source makes colour of objects appear. Colour rendering is normally measured by the Colour Rendering Index (CRI) where 100 is the maximum score. A good colour rendering light source would normally have a CRI >80.

Colour rendering is important if people are to congregate and stay in a space. Poor colour rendering sources such as mercury vapour and high pressure sodium do not render skin tones well so that people look sick. It reduces the appeal of general gathering and external dining at night.

In addition poor colour rendering flattens the whole colour appearance of the space makes the whole space less colourful or vibrant at night.

Colour Appearance

This is the colour that the light source appears and is generally referred to as the temperature of an equivalent black body radiator in degrees Kelvin.
2700K is the colour of an incandescent lamp and 5000K is the colour of daylight.
At night colours below 2700K appear excessively yellow while colours greater than 3500k appear bluish.

Colours for external spaces should be warm and white colour appearance.

Experience has shown if the lighting is excessively warm or cold then people will not stay the space. Similar spaces overseas showed that were the light is cold the spaces are deserted at night but where they are warm white lighting the spaces are full.

Low Glare

The eye changes its sensitivity, or adaptation level, to suit the ambient lighting conditions. Glare results when the contrast between the lighting and the background being too great for the eye to handle at the same time. As a result the eye adapts to the brighter part of the field of view and other parts look darker. The result is that the space appears darker than the illuminance would indicate.

Glare is harder to control in the external environment as the background is generally black, compared with an interior where the other surfaces of the room are lit.

Glaring lights have a claustrophobic effect at night as people cannot see past the light. It also reduces the perception of safety as the space appears dark.
Figure 1 shows a comparison between a fitting with good glare control (full cut-off) and good colour rendering, on the left, with a fitting with poor glare control and a low colour rendering light source, on the right.
The left hand lights are 35 Watt metal halide while the lights on the right are 125 Watt mercury vapour lamps.

Figure 1: Comparison of luminaire types

Existing Lighting

The existing lighting comprises conventional GEC Optispec fittings on steel poles, where the wiring is underground, and outreach arms on timber poles, where the wiring is overhead. The luminaires are semi-cut off which means that they are designed to maximise the spacing of the luminaires at the cost of some glare.

The carparks are mainly lit with floodlights. The general floodlights used however are forward throw fittings which produce very little glare.

I have not calculated the existing light levels so I cannot confirm whether the existing lighting levels comply with the standard; however the spacing and type of fittings appear to be reasonable.

The current lighting is owned and maintained by Country Energy. The Council effectively leases the fitting from Country Energy by paying an annual charge per fitting that covers the initial supply and installation of the lighting, the maintenance and energy consumption of the lighting.

County Energy will only enter this arrangement if the lighting uses their standard poles, fittings and lamps.

Country Energy has a limited range of posttop and decorative fittings that are approved but these do not include multifunction poles.

Options for Lighting

If lighting other than Country Energy approved fittings is used then Country Energy will generally insist that the power supply is metered and that the supply, installation and maintenance, including emergency maintenance are the responsibility of the Council. There have been some cases where they have agreed to maintain special lights where the council undertakes to supply and store adequate spares.

In areas where there are still overhead power lines it would be necessary to underground the power reticulation before the new lighting can be installed. The major cost of the undergrounding would be borne by the Council.

Many councils however have accepted this responsibility in the desire to produce a quality day and night urban environment.

Under Awning Lighting

Under-awning lighting can add to the general lighting and appeal of the space at night. It also provides lighting to the vertical surfaces which makes the space look brighter. Under-awning lighting can either be council owned or be owned by the shop owners.

Council owned lights gives the opportunity to have a consistent type and spacing of lights.

The main problem is that the lighting is mounted on other people's property.
The permission of every owner is required to achieve a complete installation.

In addition the cabling must be run across all the awnings even if there are no lights to complete the circuit or otherwise the power must be brought up the face of the building at every property. The individual wiring of each or every pair of as it makes the systems independent of the other awnings, which is a problem if somebody refuses to be involved or if one of the awnings or building is demolished at a future date.

Finally if the council installs lights on existing awnings they need to satisfy themselves of the structural integrity of the awnings.

This has been achieved successfully in several area in Sydney.

A variation of this approach is Darlinghurst Road, Kings Cross, where the council installed new awnings at their expense as well as the lighting.

The other option is to have a standard policy on under awning lighting where owners are required to install lighting under the awnings using council nominated fittings.
This process is used by the City of Sydney for new installations. The main limitation

with this lighting is that it is individually controlled by each of the owners and it is difficult to synchronise the switching.

Private Lighting Installations

There are several reasons why a special lighting installation might be installed:

- To create a cohesive unban environment through the use of consistent street furniture, including poles and lights, throughout the space.
- To reduce the clutter of poles by combining the streetlighting, pedestrian lighting, traffic signals, banners etc. onto a single set of multifunction poles.
- To create a quality night visual environment by the introduction of low glare, high colour rendering light into the space.
- To specifically light the footpaths and under-awning areas to create a bright attractive environment for pedestrians at night.
- To make power available for events.

Once it has been decided that the lighting will be owned by the council the options are relatively open provided that the lighting meets the basic requirements of quality of light. The spacing and height of the lights will be determined by the selection of the fitting.

Energy Efficiency and Sustainability

In determining the efficiency and sustainability of the lighting system we need to look at the energy efficiency of the light source, the fitting and the source of the energy.

Light Sources

The common streetlighting lamp is the high pressure sodium lamp. This is a relatively low cost lamp with high efficacy and long life. The main shortcoming is its poor colour performance.

There are still many mercury vapour lamps in use.

These lamps are very low cost and have a long life but they are inefficient and have poor colour performance.

Metal Halide lamps have an efficacy slightly less than high pressure sodium in large wattages and superior to high pressure sodium in wattages less that 150 Watts. They have the best colour performance of any discharge lamp but have a higher cost and slightly shorter life.

There is a new hybrid lamp that has recently been introduced onto the market by Philips. It is called the Cosmopolis and a combination of metal halide and high pressure sodium. It has a life and efficacy that approaches the high pressure sodium but with improved colour performance.

Light emitting diodes (LED) are moving into the lighting market in increasing amounts. The advantages of the LEDs are high intensity light in a direction and long

life, if the fitting is correctly designed to remove the heat from the diode. They are very suited to marker lights and applications such as traffic signals.

Their colour and efficacy is improving but although there are some streetlights and posttop light fittings coming onto the market with LEDs we believe that it is too early to commit to the fittings as a policy as there are a few fundamental problems that have not been resolved:

- There is no international standard for the photometric testing of LEDs so it is not possible to get accurate performance information to enable the design to be certified.
- It is also difficult to ascertain the quality of the LED that is being supplied.
- The LEDs have a very high luminance or brightness due to their small area, the current Australian standard defines luminance as the light output divided by the light opening of the fitting as it is assumed that the fitting will have a large flashed reflector. With LED fittings the light source is relatively small and does not light the whole area of the fitting. The brightness is therefore much higher than a conventional fitting.
- Although LEDs are increasing in efficiency each year they are still much less efficient than metal halide, Cosmopolis or high pressure sodium and are several times the cost per lumen of conventional lamps.

We have summaries the technical characteristics of the lamps in table 1.

Lamp	Wattage	Efficacy Lamp only Lumens/watt	Efficacy Circuit Lumens/watt	Lumen depreciation at rated life	Colour Rendering (CRI)
Mercury	400	55	51	50%	50
Mercury	80	48	39	50%	
Metal Halide	400	80	75	70%	65
Metal Halide	70	94	78	80%	81
Cosmopolis	140	113			66
High pressure sodium	250	105	98	85%	30
High pressure sodium	70	80	67	85%	30
LEDs	1 to 3 Watts		20 to 60 #		

Efficacy depends on the quality of the LED and the thermal design of the fitting

Table 1 – lamp comparison

Luminaire design

A full cut-off fitting or aeroscreen fitting is a fitting that emits no light in or above the horizontal plane. Although the full cut-off fitting requires a close spacing, and therefore increases the total Watts per metre of road, the full cut-off fitting increases the visibility in the space thereby increasing the visual performance and also decreases the upward light that contributes to skyglow.

Energy sources

It is still not viable to operate streetlights directly by solar power. Even in open spaces it is generally not possible to provide a large enough solar collector and battery on a pole to autonomously operate a streetlight to reliably provide light, complying with the levels required by the standard, all night every night. In practice when the fittings are installed in a built up area with building and trees, some locations where lighting will be required will have difficulty achieving enough solar access to even charge in the middle of summer to get through the night.

We believe that the only viable way to provide solar power is to operate the lights in parallel with the power grid and to install a photovoltaic farm to feed into the grid at another location in the grid to offset the energy used by the lights. The roof of the council buildings may be an option.

There are an increasing number of small, quiet wind generators coming onto the market. It may be viable to incorporate a combination of PV panels and wind turbines.

Green power is always a fallback as the minimum step towards sustainability.

Lighting Upgrade

Option 1

The main lighting should be lights with a conventional streetlighting distribution but with metal halide lamps and full cut-off fittings for glare control.

Appendix 2 gives some suggested fittings for both metal halide and Cosmopolis lamps.

These could either be mounted on multi-function poles or special lighting poles to match the light fittings.

Appendix 3 gives some suggested multifunction poles and special light poles.
If the lights are mounted in an opposite arrangement they will reinforce the avenue effect of the streets. With a slightly reduces spacing is should also be possible to provide adequate lighting on the footpath without supplementary lighting other than the under-awning lighting.

This option would give the lighting with least visual impact.

Option 2

If the street lighting was installed at the maximum spacing required to meet the carriageway requirements then it would be possible to install supplementary posttop fittings between the poles to provide the character for the space. This will give the opportunity to introduce a characteristic fitting that could be part of the street furniture to unify the area by day and night.

The fitting should still be a metal halide or Cosmopolis fitting with low glare.

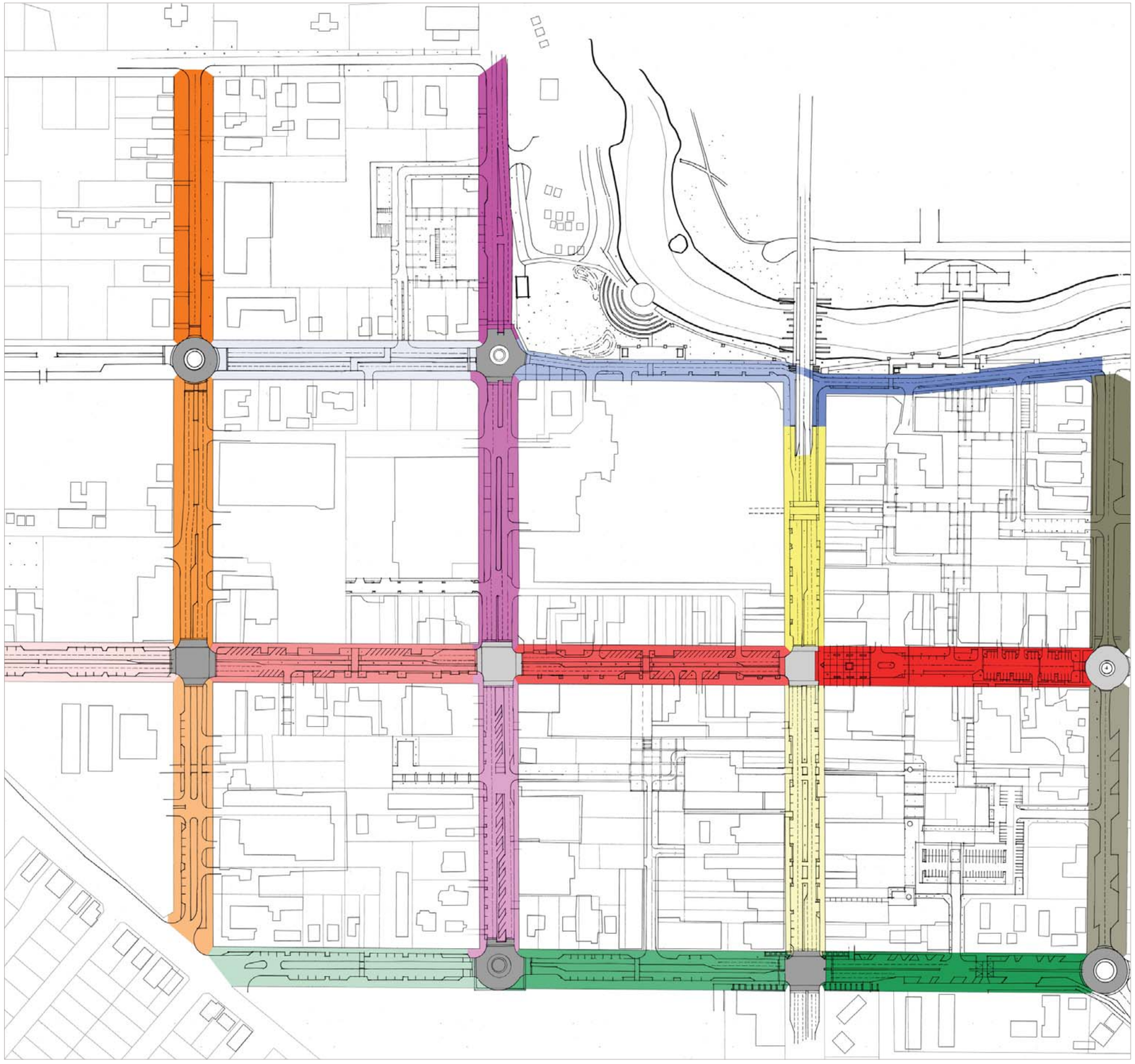
It will not be possible to provide carriageway lighting to AS1158.1.1 using posttop lights alone.

17.0 PRELIMINARY COSTING SUMMARY

Queanbeyan CBD Master Plan

Final Report • October 2009

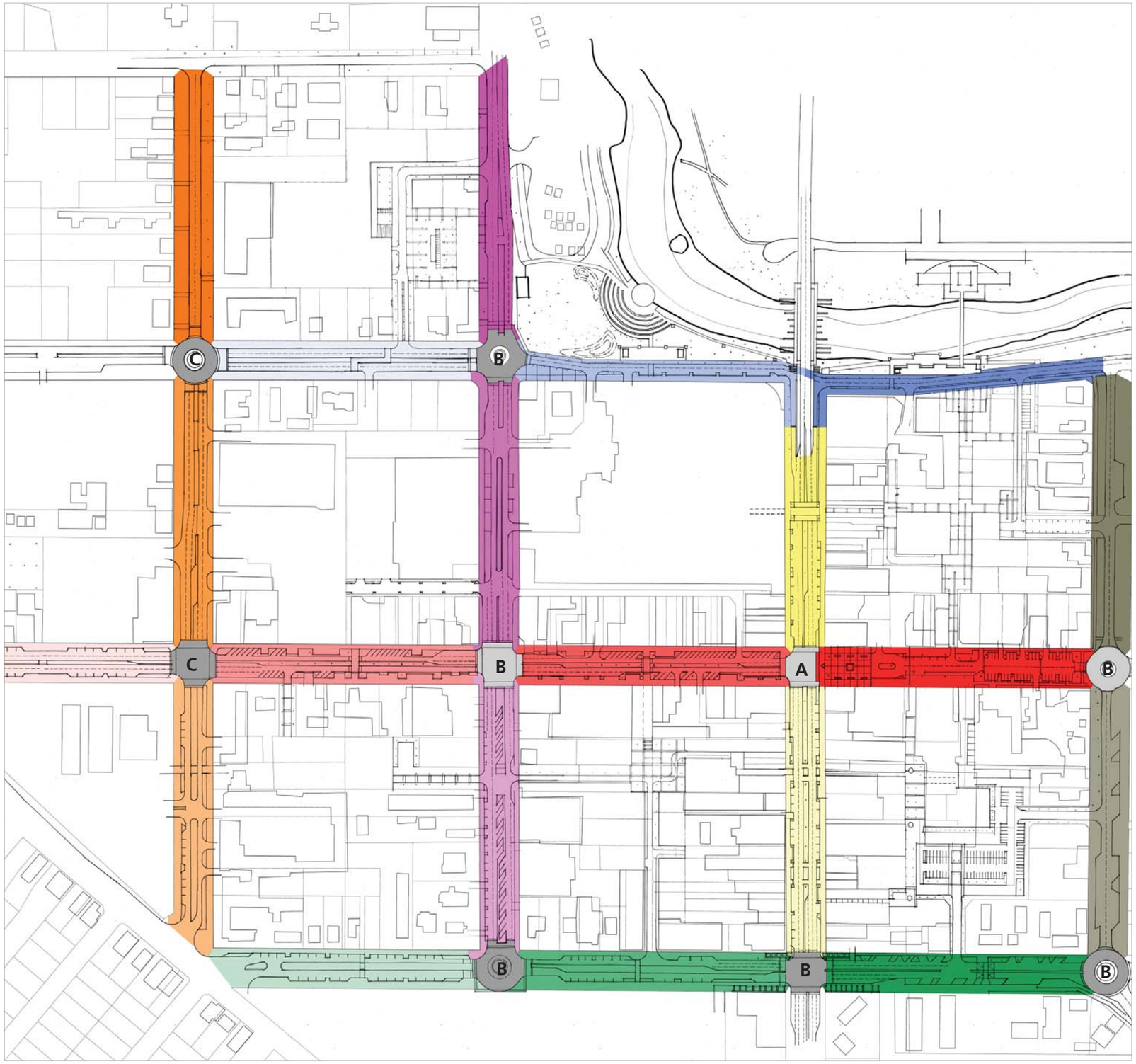
17.1 COSTING BREAKDOWN PLAN



Legend

- Antill Street - Section 1
  Refer to 102 for indicative costing
- Antill Street - Section 2
  Refer to 102 for indicative costing
- Antill Street - Section 3
  Refer to 102 for indicative costing
- Morisset Street - Section 1
  Refer to 101 for indicative costing
- Morisset Street - Section 2
  Refer to 101 for indicative costing
- Morisset Street - Section 3
  Refer to 102 for indicative costing
- Monaro Street - Section 1
  Refer to 99 for indicative costing
- Monaro Street - Section 2
  Refer to 99 for indicative costing
- Rutledge Street - Section 1
  Refer to 100 for indicative costing
- Rutledge Street - Section 2
  Refer to 100 for indicative costing
- Collett Street - Section 1
  Refer to 100 for indicative costing
- Collett Street - Section 2
  Refer to 100 for indicative costing
- Collett Street - Section 3
  Refer to 102 for indicative costing
- Crawford Street - Section 1
  Refer Crawford St staging plan.
  Refer to 99 & 102 for indicative costing.
- Crawford Street - Section 2
  Refer to 99 for indicative costing
- Crawford Street - Section 3
  Refer to 100 for indicative costing
- Crawford Street - Section 4
  Refer to 100 for indicative costing
- Lowe Street - Section 1
  Refer to 101 for indicative costing
- Lowe Street - Section 2
  Refer to 101 for indicative costing
- Lowe Street - Section 3
  Refer to 101 for indicative costing
- Intersections Throughout Site
  Refer to 103 for indicative costing

17.2 TIMELINE BREAKDOWN PLAN



This represents possible time frames only and would be subject to Council consideration.

Legend

1 - 3 YEAR TIMEFRAME (Stage 1)

- Crawford Street Partial Works
- Monaro Street

3 - 7 YEAR TIMEFRAME (Stage 2)

- Monaro Street
- Crawford Street

7 - 10 YEAR TIMEFRAME (Stage 3)

- Crawford Street
- Crawford Street Partial Works
- Rutledge Street
- Rutledge Street
- Lowe Street

10 - 14 YEAR TIMEFRAME (Stage 4)

- Collett Street
- Collett Street
- Lowe Street

14 - 17 YEAR TIMEFRAME (Stage 5)

- Lowe Street
- Morisset Street
- Morisset Street
- Morisset Street

17 - 21 YEAR TIMEFRAME (Stage 6)

- Antill Street
- Antill Street
- Antill Street
- Crawford Street Partial Works

INTERSECTIONS

- A 1 - 7 YEAR TIMEFRAME
- B 7 - 14 YEAR TIMEFRAME
- C 14 - 21+ YEAR TIMEFRAME

17.3 COSTING TABLE

It should be noted that the preliminary cost estimates contained within this section are indicative only.

The costings are based on landscape conceptual designs only and further detailed costing estimates would be required. In particular, a detailed review of the costings would need to take place at various stages throughout the detailed design and implementation process. It should also be noted that the costings do not account for any possible relocation of services or related infrastructure.

STAGE 1 (1 - 7 YEARS)							
STREET	**SECTION**	**ITEM**	**DESCRIPTION**	**QUANTITY**	**UNIT**	**RATE**	**TOTAL ESTIMATED COST**
Monaro Street (1 - 3 Years)	1	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	51	lin. m	$80	$4,080
		Upgrade to raised planters	Overall surface repair, replace capping by granite to match footpath, render and paint.	391	lin. m	$10	$3,910
		Lighting - Primary	Pole Mounted Street Lights to core CBD	10	no	$10,500	$105,000
		- Secondary	Awning Lighting to core CBD	40	PC sum	$800	$32,000
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	16	no	$550	$8,800
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	445	m2	$110	$48,950
TOTAL ESTIMATED COST FOR MONARO STREET SECTION 1							**$202,740**
Monaro Street (3 - 7 Years)	2	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	253	lin. m	$80	$20,240
		Pedestrian Pavement - type 1 to core CBD	Granite pavers	60	m2	$210	$12,600
		Upgrade to raised planters	Overall surface repair, replace capping by granite to match footpath, render and paint.	385	lin. m	$10	$3,850
		New raised planters	Corefilled blockwork structure with render and paint surface, granite capping	86	lin. m	$150	$12,900
		Outdoor Dining Areas -	Includes elements below. (Total Number shown to right)	4	no		
		- Fence	Timber, Steel and Glass	86	lin. m	$1,000	$86,000
		- Benches	Timber / Steel / Stone Construction	8	no	$2,100	$16,800
		- Litter Bins	Timber / Steel to match style of Benches	4	no	$1,500	$6,000
		Lighting - Primary	Pole Mounted Street Lights to core CBD	12	no	$10,500	$126,000
		- Secondary	Awning Lighting to core CBD	40	PC sum	$800	$32,000
		- Tertiary	Uplights to sculptural elements	4	no	$1,300	$5,200
		Sculpture - Flag Poles	P/C Galvanised Steel Poles, Canvas	2	no	$3,000	$6,000
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	22	no	$550	$12,100
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	590	m2	$110	$64,900
		Upgrade to existing planter beds (medians / roundabouts)		547	m2	$60	$32,820
TOTAL ESTIMATED COST FOR MONARO STREET SECTION 2							**$437,410**

STAGE 1 (1 - 7 YEARS)							
STREET	**SECTION**	**ITEM**	**DESCRIPTION**	**QUANTITY**	**UNIT**	**RATE**	**TOTAL ESTIMATED COST**
Crawford Street (Partial) (1 - 3 Years)	1	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	654	lin. m	$80	$52,320
		Vehicular Pavement - Type 1	New Bitumen to Roads	3043	m2	$100	$304,300
		Stormwater drainage works	Allowance for new pits as required	20	PC sum	$300	$6,000
		Pedestrian Pavement - type 1 to core CBD	Granite pavers	2235	m2	$210	$469,350
		Furniture - Litter Bins	Timber / Steel to match style of Benches	6	no	$1,500	$9,000
		- Benches	Timber / Steel / Stone Construction	5	no	$2,100	$10,500
		Lighting - Primary	Pole Mounted Street Lights to core CBD	10	no	$10,500	$105,000
			Uplights to sculptural elements	4	no	$1,300	$5,200
			Steel bollard Lighting to Crawford south	7	no	$2,000	$14,000
		Sculpture - Flag Poles	P/C Galvanised Steel Poles, Canvas	2	no	$3,000	$6,000
		SOFTSCAPE					
		Street Tree Planting - Type 1 to core CBD	100L Tree in pavement (Tree Grille, Pipe, Structural Soils, Support)	14	no	$2,050	$28,700
		- Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	3	no	$550	$1,650
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	723	m2	$110	$79,530
TOTAL ESTIMATED COST FOR CRAWFORD STREET SECTION 1 (1st Stage of Town Square No Road Closure- Refer to Staging Diagram)							**$1,091,550**
Crawford Street (3 - 7 Years)	2	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	364	lin. m	$80	$29,120
		Vehicular Pavement - Type 1	New Bitumen to Roads	2558	m2	$100	$255,800
		Raised crossings - Type 1 to Crawford St north	Granite sets	1	no	$12,000	$12,000
		Stormwater drainage works	Allowance for new pits as required	20	PC sum	$300	$6,000
		Pedestrian Pavement - type 1 to core CBD	Granite pavers	2320	m2	$210	$487,200
		Seating walls	Corefilled blockwork structure with granite cladding and capping	115	lin. m	$450	$51,750
		Upgrade to raised planters	Overall surface repair, replace capping by granite to match footpath, render and paint.	360	lin. m	$10	$3,600
		New raised planters	Corefilled blockwork structure with render and paint surface, granite capping	34	lin. m	$150	$5,100
		Outdoor Dining Areas -	Includes elements below. (Total Number shown to right)	6	no		
		- Fence	Timber, Steel and Glass	75	lin. m	$1,000	$75,000
		- Litter Bins	Timber / Steel to match style of Benches	6	no	$1,500	$9,000
		Lighting - Primary	Pole Mounted Street Lights to core CBD	10	no	$10,500	$105,000
		- Secondary	Awning Lighting to core CBD	40	PC sum	$800	$32,000
		- Tertiary	Uplights to sculptural elements	4	no	$1,300	$5,200
		Sculpture - Flag Poles	P/C Galvanised Steel Poles, Canvas	2	no	$3,000	$6,000
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	24	no	$550	$13,200
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	590	m2	$110	$64,900
TOTAL ESTIMATED COST FOR CRAWFORD STREET SECTION 2							**$1,160,870**
TOTAL ESTIMATED COST FOR STAGE 1 (1 - 7 YEARS)							**$2,892,570**

STAGE 2 (7 - 14 YEARS)							
STREET	**SECTION**	**ITEM**	**DESCRIPTION**	**QUANTITY**	**UNIT**	**RATE**	**TOTAL ESTIMATED COST**
Crawford Street (7 - 10 Years)	3	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	174	lin. m	$80	$13,920
		Raised crossings - Type 2	Concrete pavers	1	no	$8,000	$8,000
		Pedestrian Pavement - type 2	Honed Concrete pavers	1560	m2	$175	$273,000
		Outdoor Dining Areas -	Includes elements below. (Total Number shown to right)	2	no		
		- Fence	Timber, Steel and Glass	31	lin. m	$1,000	$31,000
		- Benches	Timber / Steel / Stone Construction	4	no	$2,100	$8,400
		- Litter Bins	Timber / Steel to match style of Benches	6	no	$1,500	$9,000
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	29	no	$550	$15,950
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	789	m2	$110	$86,790
TOTAL ESTIMATED COST FOR CRAWFORD STREET SECTION 3							**$446,060**
Crawford Street (Partial) (7 - 10 Years)	4	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	250	lin. m	$80	$20,000
		Pedestrian Pavement - type 2	Honed Concrete pavers	1692	m2	$175	$296,100
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	30	no	$550	$16,500
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	935	m2	$110	$102,850
TOTAL ESTIMATED COST FOR CRAWFORD STREET SECTION 4							**$435,450**
Rutledge Street (7 - 10 Years)	1	HARDSCAPE					
		Lighting - Primary	Pole Mounted Street Lights to core CBD	12	no	$10,500	$126,000
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	8	no	$550	$4,400
TOTAL ESTIMATED COST FOR RUTLEDGE STREET SECTION 1							**$130,400**
Rutledge Street 7 - 10 Years)	2	HARDSCAPE					
		Lighting - Primary	Pole Mounted Street Lights to core CBD	12	no	$10,500	$126,000
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	4	no	$550	$2,200
TOTAL ESTIMATED COST FOR RUTLEDGE STREET SECTION 2							**$128,200**

STAGE 2 (7 - 14 YEARS)							
STREET	**SECTION**	**ITEM**	**DESCRIPTION**	**QUANTITY**	**UNIT**	**RATE**	**TOTAL ESTIMATED COST**
Collett Street (10 - 14 Years)	1	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	497	lin. m	$80	$39,760
		Vehicular Pavement - Type 3	Insitu concrete	1670	m2	$120	$200,400
		Raised crossings - Type 2	Concrete pavers	1	no	$8,000	$8,000
		Stormwater drainage works	Allowance for new pits as required	20	PC sum	$300	$6,000
		Pedestrian Pavement - type 1 to core CBD	Granite pavers	1300	m2	$210	$273,000
		Furniture - Litter Bins	Timber / Steel to match style of Benches	6	no	$1,500	$9,000
		- Standard bollards	Timber with steel detailing	131	no		$0
		Lighting - Primary	Pole Mounted Street Lights to core CBD	13	no	$10,500	$136,500
		- Tertiary	Uplights to sculptural elements	2	no	$1,300	$2,600
		Sculpture - Flag Poles	P/C Galvanised Steel Poles, Canvas	1	no		$0
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	41	no	$550	$22,550
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	410	m2	$110	$45,100
TOTAL ESTIMATED COST FOR COLLETT STREET SECTION 1							**$742,910**
Collett Street (10 - 14 Years)	2	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	476	lin. m	$80	$38,080
		Vehicular Pavement - Type 3	Insitu concrete	1773	m2	$120	$212,760
		Raised crossings - Type 2	Concrete pavers	1	no	$8,000	$8,000
		Stormwater drainage works	Allowance for new pits as required	20	PC sum	$300	$6,000
		Pedestrian Pavement - type 1 to core CBD	Granite pavers	1586	m2	$210	$333,060
		Furniture - Litter Bins	Timber / Steel to match style of Benches	6	no	$1,500	$9,000
		- Standard bollards	Timber with steel detailing	120	no		$0
		Lighting - Primary	Pole Mounted Street Lights to core CBD	11	no	$10,500	$115,500
		- Tertiary	Uplights to sculptural elements	2	no	$1,300	$2,600
		Sculpture - Flag Poles	P/C Galvanised Steel Poles, Canvas	1	no		$0
		SOFTSCAPE					
		Street Tree Planting - Type 1 to core CBD	100L Tree in pavement (Tree Grille, Pipe, Structural Soils, Support)	1	no	$2,050	$2,050
		- Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	34	no	$550	$18,700
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	260	m2	$110	$28,600
		Turf Area	EG. Cynodon dactylon 'Legends', associated soils 150mm deep	109	m2	$20	$2,180
TOTAL ESTIMATED COST FOR COLLETT STREET SECTION 2							**$776,530**

STAGE 2 (7 - 14 YEARS)							
STREET	**SECTION**	**ITEM**	**DESCRIPTION**	**QUANTITY**	**UNIT**	**RATE**	**TOTAL ESTIMATED COST**
Lowe Street (7 - 10 Years)	1	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	32	lin. m	$80	$2,560
		Raised crossings - Type 2	Concrete pavers	1	no	$8,000	$8,000
		Pedestrian Pavement - type 1 to core CBD	Granite pavers	1737	m2	$210	$364,770
		Furniture - Litter Bins	Timber / Steel to match style of Benches	6	no	$1,500	$9,000
		Lighting - Primary	Pole Mounted Street Lights to core CBD	11	no	$10,500	$115,500
		SOFTSCAPE					
		Street Tree Planting - Type 1 to core CBD	100L Tree in pavement (Tree Grille, Pipe, Structural Soils, Support)	1	no	$2,050	$2,050
		- Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	9	no	$550	$4,950
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	70	m2	$110	$7,700
TOTAL ESTIMATED COST FOR LOWE STREET SECTION 1							**$514,530**
Lowe Street (10 - 14 Years)	2	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	287	lin. m	$80	$22,960
		Raised crossings - Type 2	Concrete pavers	1	no	$8,000	$8,000
		Pedestrian Pavement - type 1 to core CBD	Granite pavers	1871	m2	$210	$392,910
		Furniture - Litter Bins	Timber / Steel to match style of Benches	6	no	$1,500	$9,000
		Lighting - Primary	Pole Mounted Street Lights to core CBD	11	no	$10,500	$115,500
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	19	no	$550	$10,450
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	274	m2	$110	$30,140
		Upgrade to existing planter beds (medians / roundabouts)		796	m2	$60	$47,760
		Turf Area	EG. Cynodon dactylon 'Legends', associated soils 150mm deep	435	m2	$20	$8,700
TOTAL ESTIMATED COST FOR LOWE STREET SECTION 2							**$645,420**

TOTAL ESTIMATED COST FOR STAGE 2 (7-14 YEARS)	**$3,819,500**

STAGE 3 (14 - 21+ YEARS)							
STREET	**SECTION**	**ITEM**	**DESCRIPTION**	**QUANTITY**	**UNIT**	**RATE**	**TOTAL ESTIMATED COST**
Lowe Street (14 - 17 Years)	3	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	239	lin. m	$80	$19,120
		Raised crossings - Type 2	Concrete pavers	1	no	$8,000	$8,000
		Pedestrian Pavement - type 2	Honed Concrete pavers	1581	m2	$175	$276,675
		Furniture - Litter Bins	Timber / Steel to match style of Benches	6	no	$1,500	$9,000
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	31	no	$550	$17,050
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	162	m2	$110	$17,820
		Upgrade to existing planter beds (medians / roundabouts)		874	m2	$60	$52,440
		Turf Area	EG. Cynodon dactylon 'Legends', associated soils 150mm deep	363	m2	$20	$7,260
TOTAL ESTIMATED COST FOR LOWE STREET SECTION 3							**$407,365**
Morisset Street (14 - 17 Years)	1	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	133	lin. m	$80	$10,640
		Vehicular Pavement - Type 1	New Bitumen to Roads	370	m2	$100	$37,000
		Pedestrian Pavement - type 2	Honed Concrete pavers	695	m2	$175	$121,625
		Furniture - Litter Bins	Timber / Steel to match style of Benches	6	no	$1,500	$9,000
		SOFTSCAPE					
		Street Tree Planting - Type 1 to core CBD	100L Tree in pavement (Tree Grille, Pipe, Structural Soils, Support)	2	no	$2,050	$4,100
		- Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	7	no	$550	$3,850
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	942	m2	$110	$103,620
TOTAL ESTIMATED COST FOR MORISSET STREET SECTION 1							**$289,835**
Morisset Street (14 - 17 Years)	2	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	319	lin. m	$80	$25,520
		Vehicular Pavement - Type 1	New Bitumen to Roads	133	m2	$100	$13,300
		Raised crossings - Type 2	Concrete pavers	1	no	$8,000	$8,000
		Pedestrian Pavement - type 1 to core CBD	Granite pavers	1812	m2	$210	$380,520
		Furniture - Litter Bins	Timber / Steel to match style of Benches	6	no	$1,500	$9,000
		Lighting - Primary	Pole Mounted Street Lights to core CBD	12	no	$10,500	$126,000
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	32	no	$550	$17,600
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	1145	m2	$110	$125,950
TOTAL ESTIMATED COST FOR MORISSET STREET SECTION 2							**$705,890**
Morisset Street (14 - 17 Years)	3	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	664	lin. m	$80	$53,120
		Vehicular Pavement - Type 1	New Bitumen to Roads	3765	m2	$100	$376,500
		Stormwater drainage works	Allowance for new pits as required	20	PC sum	$300	$6,000
		Pedestrian Pavement - type 1 to core CBD	Granite pavers	1449	m2	$210	$304,290
		Furniture - Litter Bins	Timber / Steel to match style of Benches	6	no	$1,500	$9,000
		Lighting - Primary	Pole Mounted Street Lights to core CBD	12	no	$10,500	$126,000
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	11	no	$550	$6,050
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	743	m2	$110	$81,730
TOTAL ESTIMATED COST FOR MORISSET STREET SECTION 3							**$962,690**

STAGE 3 (14 - 21+ YEARS)							
STREET	**SECTION**	**ITEM**	**DESCRIPTION**	**QUANTITY**	**UNIT**	**RATE**	**TOTAL ESTIMATED COST**
Antill Street (17 - 21+ Years)	1	SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	11	no	$550	$6,050
TOTAL ESTIMATED COST FOR ANTILL STREET SECTION 1							**$6,050**
Antill Street (17 - 21+ Years)	2	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	512	lin. m	$80	$40,960
		Vehicular Pavement - Type 1	New Bitumen to Roads	3490	m2	$100	$349,000
		Stormwater drainage works	Allowance for new pits as required	20	PC sum	$300	$6,000
		Pedestrian Pavement - type 2	Honed Concrete pavers	771	m2	$175	$134,925
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	40	no	$550	$22,000
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	1217	m2	$110	$133,870
		Turf Area	EG. Cynodon dactylon 'Legends', associated soils 150mm deep	500	m2	$20	$10,000
TOTAL ESTIMATED COST FOR ANTILL STREET SECTION 2							**$696,755**
Antill Street (17 - 21+ Years)	3	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	782	lin. m	$80	$62,560
		Vehicular Pavement - Type 1	New Bitumen to Roads	2447	m2	$100	$244,700
		Stormwater drainage works	Allowance for new pits as required	20	PC sum	$300	$6,000
		Pedestrian Pavement - type 2	Honed Concrete pavers	1339	m2	$175	$234,325
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	26	no	$550	$14,300
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	2019	m2	$110	$222,090
TOTAL ESTIMATED COST FOR ANTILL STREET SECTION 3							**$783,975**
Crawford Street (Partial) (17 - 21+ Years)	1	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	40	lin. m	$80	$3,200
		Pedestrian Pavement - type 2	Honed Concrete pavers	147	m2	$175	$25,725
		Furniture - Standard bollards	Steel to match style of benches	4	no	$1,200	$4,800
		- Benches	Timber / Steel / Stone Construction	1	no	$2,100	$2,100
		Lighting - Tertiary	Feature light poles to Crawford plaza	4	no	$30,000	$120,000
			Uplights to sculptural elements	2	no	$1,300	$2,600
		Sculpture - Vertical Art Pieces	Description varies dependant on location	1	no	$80,000	$80,000
		Water Feature	Town Square Granite Block with weir and bubble jets, including lighting	1	PC sum	$80,000	$80,000
		SOFTSCAPE					
		Street Tree Planting - Type 1 to core CBD	100L Tree in pavement (Tree Grille, Pipe, Structural Soils, Support)	1	no	$2,050	$2,050
TOTAL ESTIMATED COST FOR CRAWFORD STREET SECTION 1 (2nd Stage of Town Square and Full Closure - Refer to Staging Diagram)							**$320,475**

STAGE 3 (14 - 21+ YEARS)							
STREET	**SECTION**	**ITEM**	**DESCRIPTION**	**QUANTITY**	**UNIT**	**RATE**	**TOTAL ESTIMATED COST**
Collett Street (17 - 21+ Years)	3	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	640	lin. m	$80	$51,200
		Vehicular Pavement - Type 1	New Bitumen to Roads	2808	m2	$100	$280,800
		Raised crossings - Type 2	Concrete pavers	1	no	$8,000	$8,000
		Stormwater drainage works	Allowance for new pits as required	20	PC sum	$300	$6,000
		Pedestrian Pavement - type 2	Honed Concrete pavers	1339	m2	$175	$234,325
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	42	no	$550	$23,100
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	1575	m2	$110	$173,250
TOTAL ESTIMATED COST FOR COLLETT STREET SECTION 3							**$776,675**

TOTAL ESTIMATED COST FOR STAGE 3 (14 - 21+ YEARS)	$4,949,710

INTERSECTIONS - STAGING TO BE ASSESSED BY CONTRACTOR WITH REFERENCE TO STREET STAGING							
STREET	**SECTION**	**ITEM**	**DESCRIPTION**	**QUANTITY**	**UNIT**	**RATE**	**TOTAL ESTIMATED COST**
INTERSECTION	A	HARDSCAPE					
		Kerb Construction	Additional Concrete Pre-formed Kerb	41	lin. m	$80	$3,280
		Vehicular Pavement - Type 2	Concrete pavers on reinforced concrete sub-base at intersections	912	m2	$130	$118,560
		SOFTSCAPE					
		Street Tree Planting - Type 2	100L Tree in garden bed / verge (Pipe, Soils, Support)	1	no	$550	$550
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	134	m2	$110	$14,740
INTERSECTION	B	HARDSCAPE					
		Vehicular Pavement - Type 2	Concrete pavers on reinforced concrete sub-base at intersections	1103	m2	$130	$143,390
INTERSECTION	C	HARDSCAPE					
		Vehicular Pavement - Type 2	Concrete pavers on reinforced concrete sub-base at intersections	1021	m2	$130	$132,730
INTERSECTION	D	HARDSCAPE					
		Vehicular Pavement - Type 2	Concrete pavers on reinforced concrete sub-base at intersections	1048	m2	$130	$136,240
INTERSECTION	E	HARDSCAPE					
		Vehicular Pavement - Type 2	Concrete pavers on reinforced concrete sub-base at intersections	786	m2	$130	$102,180
INTERSECTION	F	HARDSCAPE					
		Vehicular Pavement - Type 2	Concrete pavers on reinforced concrete sub-base at intersections	1132	m2	$130	$147,160
		SOFTSCAPE					
		Shrub Bed	4 Shrubs per m2, mulch, associated soils 450mm deep	85	m2	$110	$9,350
INTERSECTION	D	HARDSCAPE					
		Vehicular Pavement - Type 2	Concrete pavers on reinforced concrete sub-base at intersections	817	m2	$130	$106,210
TOTAL ESTIMATED COST FOR INTERSECTIONS THOUGHOUT SITE							**$914,390**

TOTAL ESTIMATE COST FOR STAGES 1, 2 AND 3 AND INTERSECTIONS	$12,576,170

18.0 TOWN ACTIVATION & PLACE MAKING

Queanbeyan CBD Master Plan

Final Report • October 2009

18.1 INTRODUCTION TO TOWN ACTIVATION & PLACE MAKING

Queanbeyan presents a multitude of dichotomies; of business and pleasure, water and land, heritage and global futures, technology and nature, rural and urban, town and country and more.

A number of place/town activation principles have been developed as a starting point, to be pursued not only by Queanbeyan City Council but by interested business and community organisations.

Suggestions to Visually Improve Existing Streetscape (Particularly Monaro & Crawford Streets)

Possible Themes

- The overall target is to achieve a friendly prosperous country town, proud of its heritage but confident of its identity in the future.
- A human scale pedestrian friendly atmosphere with levels of intrigue and cultural colour that attracts visitors and locals alike.
- Agreed localised flavours driving design principles for streets, lanes and precincts.

Suggested Improvements to Appearance of Main Streets

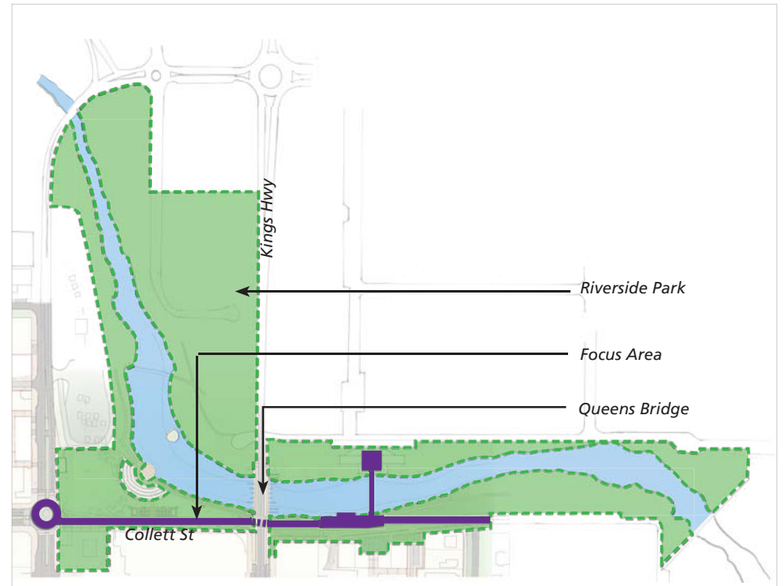
- Heritage & buildings of visual interest need to be properly care for – re-painting, good signage and utilized for a viable use, which is the best form of 'conservation':
- Private gardens, hanging baskets, window boxes, trellises and planters should be actively encouraged.
- Protect interesting character buildings that contribute to the sense of place. Identify and encourage buildings that reflect Queanbeyan culture.
- Coordinated design of awnings, facades and signage. A consistent level and awning bulk offering good continuous shade /shelter for pedestrians and alfresco diners. Underside of awning to be simple (not necessarily identical) with gentle down lighting to pavement.
- Awnings to be related to proposed tree positions and where necessary offer opportunities for additional planters.
- Consistent approach to signage design (- a composed streetscape to avoid visual clutter, while offering three levels of information).
  - Long distance
  - Awning signage – consistent size and positioning. Good quality consistent typography with possible individual 3D elements under awning and above shopfront window.
  - Pedestrian level - More individual quality signage and artwork to enrich the customer experience and/or consistent small wall mounted signage boxes.
  - Draw inspiration from other successful Country town signage but avoid visual clutter or historical inaccuracy.
- Encourage window displays and some window lettering but no blank, poster covered or special offer window painted signs.
- Spruikers or retail loud speakers should be discouraged. Buskers & entertainers should be encouraged but 'approved' for quality by prior contact with Council.

18.2 COLLETT STREET & RIVERSIDE PARKS

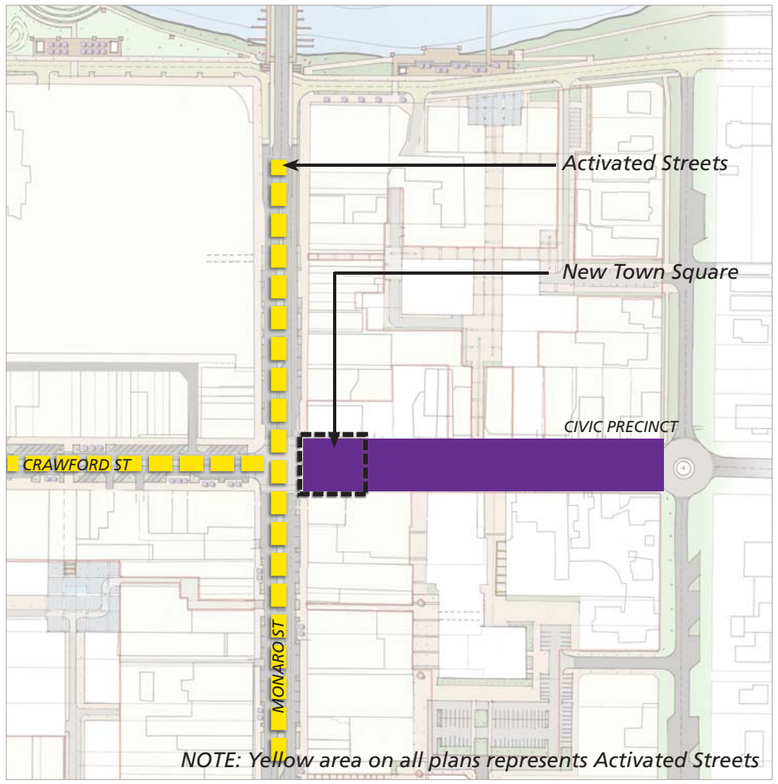
Activating the Riverside is an important key to the activation of the CBD itself:

- The river and its banks (both sides) need to be treated proudly as beautiful natural parkland.
- Collett Street businesses need to feel they are part of any entertainment & event facilities for the Riverside location.
- The proposed amphitheatre can be a regular cultural & entertainment venue – a focus point for riverside activities. The river & opposite bank acting as a backdrop to the stage
- The boardwalk area becoming a lively social hub & meeting place.
- The riverside needs to feel sophisticated and 'gently upmarket' with venues co-operating towards a common tourism outcome.
- Examples of similar venues:
  - Minak Theatre in Cornwall (tourism by day theatre by night), and
  - Riverside bar at Melbourne's Federation Square.

N.B. The Council's recently announced 2009 Queanbeyan Regatta is a perfect example of type of lifestyle the river parklands can & should take on.



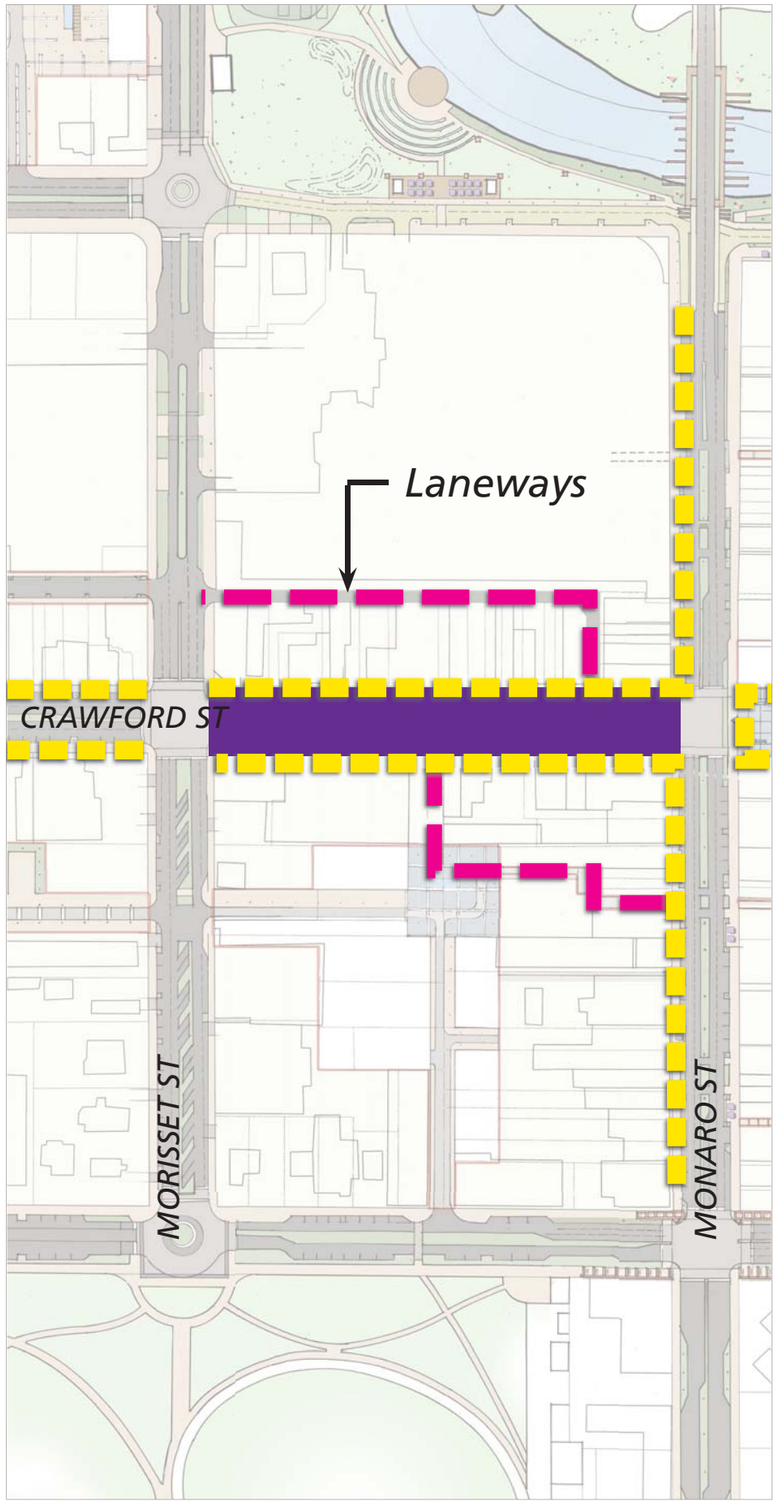
NOTE: Purple area on all plans represents focus area



18.3 NEW TOWN SQUARE

The position of this intersection (Monaro and Crawford Streets) forms a perfect location for a symbolic civic focal point for the CBD:

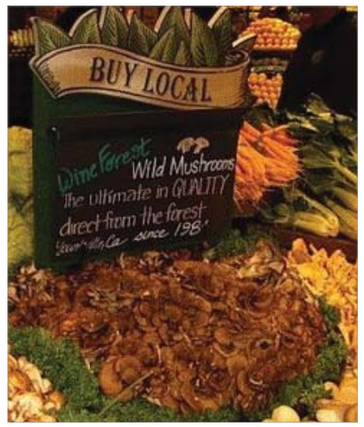
- Culmination of the Heritage Spine that could start at the railway station (via Crawford St):
  - A symbolic meeting point of the towns history and its future, and
  - A logical home for the statue of John Gale.
- Arrival point for visitors travelling by road (Monaro St).
- 'Front door' of the civic precinct & cultural spine:
  - Site for permanent sculpture(s) / water features celebrating present & future local internationally respected talent (e.g. by Robert Foster of Fink Design & Matthew Curtis Glass)
- Heart of a Country Town/CBD:
  - A central civic social space capable of hosting all those events expected in a traditional country town square while looking to the future.
  - The design should be pedestrian and family friendly
  - A modern television screen replaying achievements of Queanbeyan Sporting greats (for example Mark Webber)
  - Interactive community noticeboard.

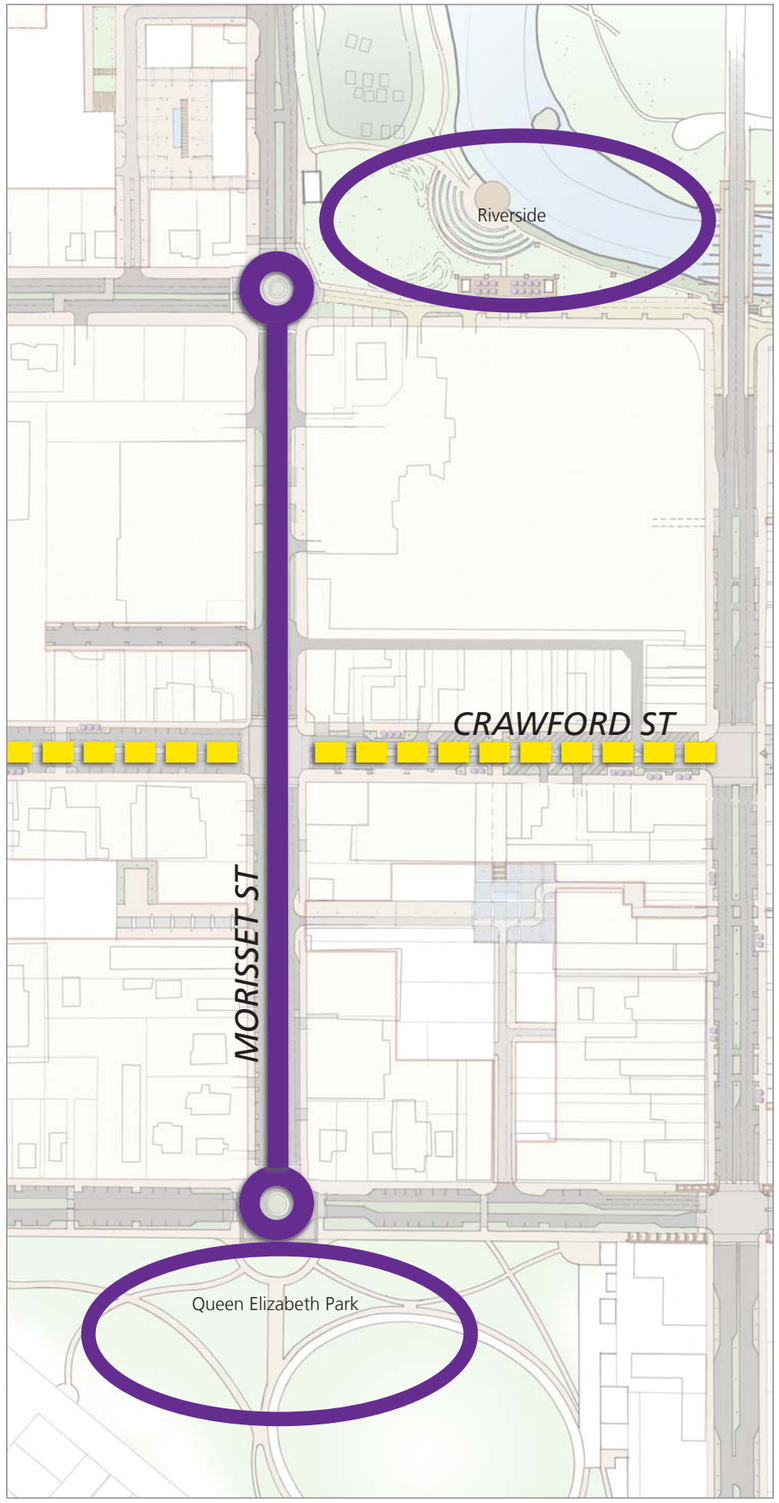


18.4 CRAWFORD STREET

- Crawford Street could potentially become the focal point for the commercial centre:
  - By creating a synergy between outlying activities and venues, and the creation of pedestrian friendly lively streetscapes, the retail health should spread from this point.
  - This change has been seen in similar Regional towns and centres (Majors Bay Rd Concord, Crows Nest, Wagga Wagga and Melbourne CBD)
  - The effect of enlivening this section of Crawford St should spread into quieter parts of Monaro and gradually along the rest of Crawford St.
- Coordinated design of awnings, facades and signage - as described in the Main Street design recommendations.
- Focus on alfresco dining and an active street life.
- Interesting window displays and plenty of character.
- A street to meet people, get a good coffee, buy flowers or chat and listen to good music.

18.5 CRAWFORD STREET SIGNAGE

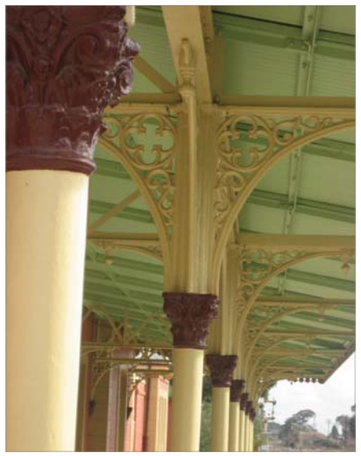




18.6 MORISSET STREET SOCIAL SPINE

Morisset Street provides a strong link between Queen Elizabeth Park and the Queanbeyan River.

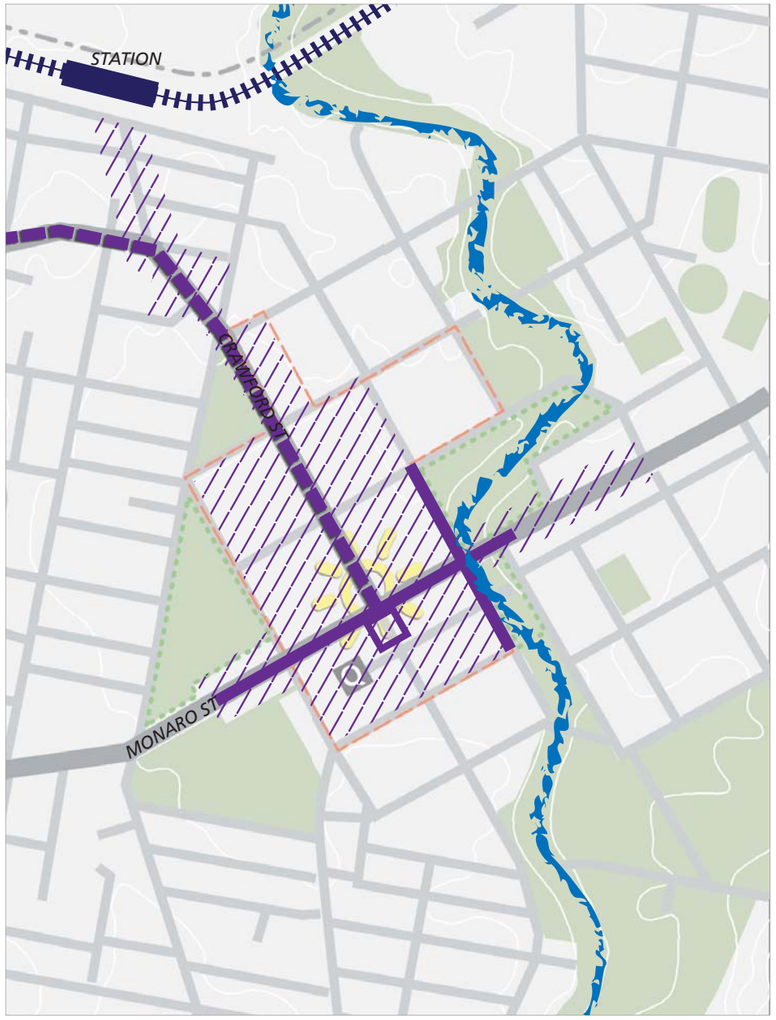
- Regular social events can utilise all or part of this link - drawing business into the cross streets, in particular Crawford.
- Central & northern parking bays could possibly be used as stall locations & venue sites- with the northern lane closed to traffic. The southern lane remaining as a transport route, including possible event transport circuits such as horse & trap, open topped bus, etc.
- Event examples:
  - Markets,
  - Motor Club Meets,
  - Heritage Steam Rallies,
  - Social Days,
  - Dog Walks,
  - Bike Races,
  - Funfairs, Carnivals & Parades, and
  - Country Town Fair.

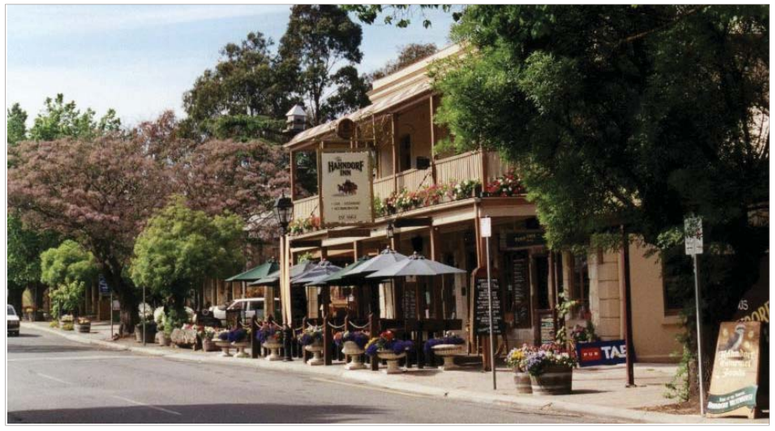


18.7 CRAWFORD STREET HERITAGE SPINE

Historically the CBD has grown out of the spinal link from Railway to Town Centre and also along its main throughfares. In recent times, as with the river, the town has turned its back on/ignored its railway station.

- This historic link chould be invigorated as 'a Heritage Spine':
  - Sculptures, fountains & artworks (permanent & temporary), and
  - Interpretive exhibits, where a strategically placed photo etched glass screens display old images of the town.
- During key events heritage vehicles could provide a visitor transport service:
  - A heritage transport link between the station and Morrisset St (e.g. open topped bus)
  - Visitors from Canberra & Goulburn encouraged using a heritage steam train (with the possible co-operation of the Australian Railway Historical Society (ACT Division) which runs regular steam hauled events to Bungendore).
- With future growth the alfresco style of south Crawford Street could gradually spread along this route.
- This could offer venues for entertainment premises such as a cinema (possibly a small local amateur theatre occupying a heritage building)
- Event Examples:
  - Carnival parades & floats,
  - Anzac Day march,
  - A Country Fair day,
  - Vintage car & commercial vehicle rally,
  - Horse parade, and
  - Bike race.





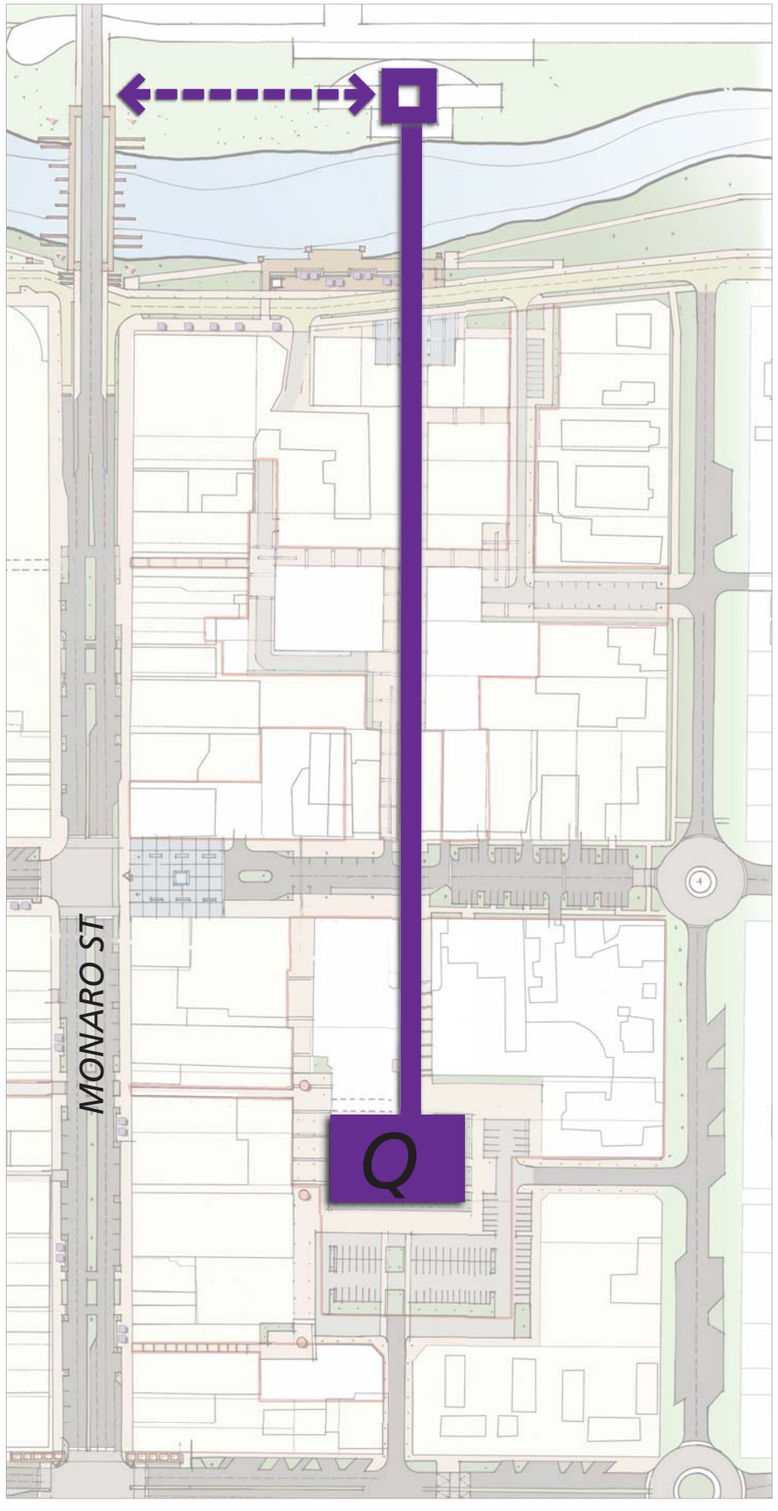
18.8 MONARO STREET COUNTRY TOWN MAIN STREET

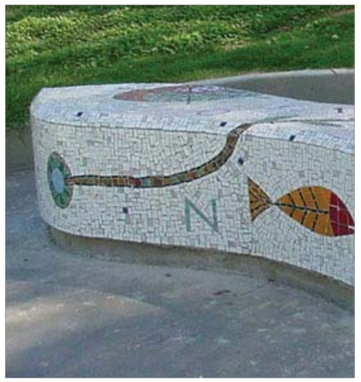
Monaro Street has the important dual roles of -

- Enticing drivers to stop, and
- Intriguing & impressing through-traffic to visit another day.

These objectives could be enhanced by gateway statements, entrance roads, riverside & more impressive central Town Square.

- Main Street character enhanced with well designed awnings, event banners, hanging baskets and quality signage, including:
- A central hub/spine for enticing laneways that lead off on either side.
- Pedestrian environment with enhanced crossings at laneways
- Retail street attractive to through-traffic that flows smoothly through town:
  - Entertain the pedestrian with quality window displays and street level close-up signage.
  - As with Crawford, a lively alfresco pedestrian life is encouraged with the traffic 'buffered' with plants and low screens
- The development of the laneways could enliven the rear of Monaro St shops possibly encouraging double frontages and courtyards. This would add interest to the cultural spine and courtyard area to the 'Q' - Performing Arts Centre.

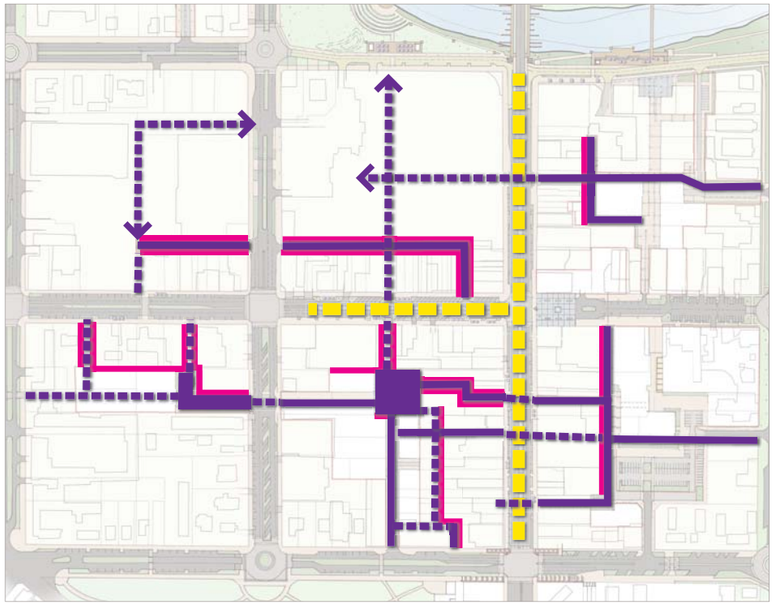


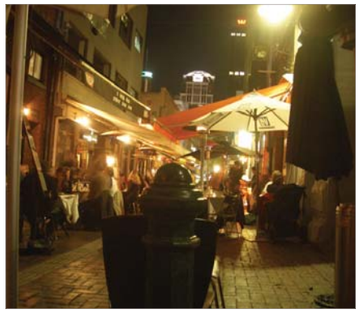


18.9 CULTURAL SPINE - STEPPING OUT IN STYLE

An upmarket pedestrian Arts Boulevard is another suggestion to activate the CBD - extending from the 'Q' building courtyard, to the Riverside West Bank and over the footbridge to the east, river bank.

- It could potentially connect with The Riverside Arts Centre/Gallery and east bank Sculpture Trails.
- Reconnect with Queanbeyan history - the original town Main Street.
- An urban park forming the spine of a creative precinct.
- Marked at key points by permanent sculptures and water features with locations for temporary exhibits.
- Possible uses along the link could include –
  - Dance studio,
  - Art Gallery,
  - Craft & Design Galleries (local show case),
  - Fine dining restaurants, and
  - Small Independent Cinema.
- Event examples:
  - Craft Markets,
  - Puppet theatres,
  - Street Theatre, and
  - Sculpture Walks.





18.10 TREATMENT & ACTIVATION OF LANEWAYS

Melbourne's Laneways should be a benchmark when using dated CBD laneways as a tool for revitalising retail and creating pedestrian connections between key locations. It was in a similar position of needing to re-enliven and strengthen its tourism image. Planners investigated the laneways of European cities & other tourist destinations and successfully applied it to their own 'backyards'.

- Queanbeyan has the makings of a good network of laneways – existing and potential. New developments should be encouraged to build on this network, leading visitor to and through their premises via:
  - Creation of new courtyards, arbours and atriums, and
  - Contributing to the synergy of the CBD
- Strong connections can be made between key locations (for example the 'Q' Centre and riverside improvements).
- As suggested for Monaro, the development of the laneways could enliven the rear of many shops possibly encouraging double frontages and courtyards.
- Entrances should be clearly marked with signage, artwork or canopies.
- High level signs on interesting brackets.
- Well lit with uniform slightly heritage bracket and canopy lanterns.
- Tall thin temporary banners with top quality typography.
- Hanging baskets and large pot planters.
- Controlled busking locations as determined by Council.
- Alfresco dining under market umbrellas/colourful awnings.
- Interesting doors and openings to colourful interiors.
- Encourage and facilitate tiny specialist shops (gift, craft, food, bookshops etc) and attracting shoppers from the ACT catchment.

It is noted that the Shamrock Lane is a well executed council improvement to an existing laneway.

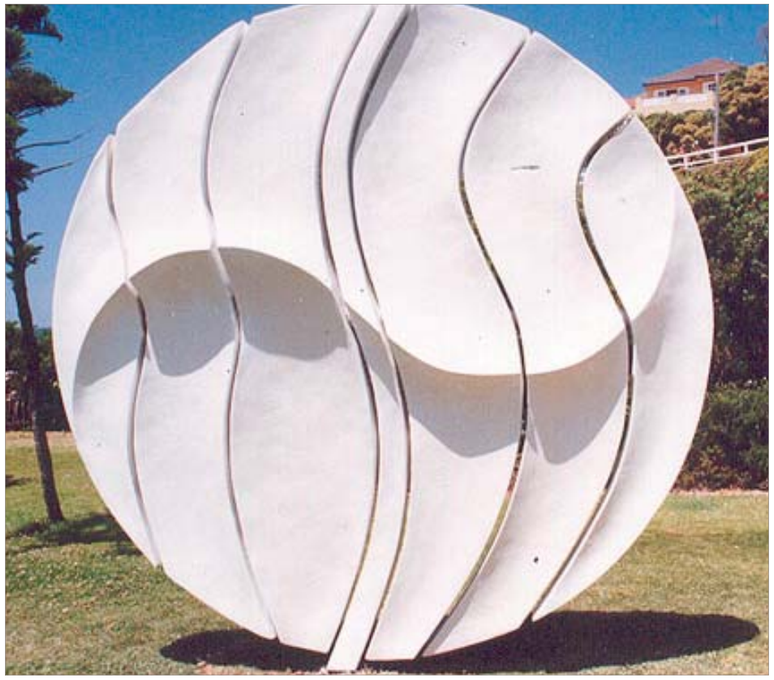
18.11 LANEWAYS SIGNAGE

18.12 PUBLIC ART & CULTURAL INTERPRETATION

Permanent exhibits and decorations

Inspiration & themes may include:

- A Country Town For The Future:
  - Contemporary take on traditional Regional country city/town (proportions, awnings, signage, positions, etc.) - not stuck in the past or copying homogeneous cities but portraying a self confident image.
  - Quality typography & signage.
  - Street furniture.
- Friendly Town:
  - Via entry and directional signage & inviting street furniture.
  - 3D & mural details based on animals, produce and activities.
  - Eccentric elements to discover such as historical but unknown points of interest.
- Heritage/History:
  - Heritage architecture & details.
  - Old photographs: Interpretive photo etched glass & murals.
  - Vintage street furniture & signage.
  - Heritage Machinery & transport.
  - Local Sporting Heroes.
- Fine Art & Craft:
  - Celebrate local skills.
  - Pure Fine Art.
  - Confidence & Future.
  - Community.
  - Family.
  - Fun.
  - Local Colour.



18.13 PREFERRED LOCATIONS

These themes can ‘mix & match’ with more concentration of individual themes in specific zones such as:

- A Country Town For The Future:
  - Main streets particularly Monaro Street.
  - Riverside.
  - Commercial precincts.
- Friendly Town:
  - Laneways ,
  - Social Spine Features,
  - Pavement areas around cafes/restaurants, and
  - Localised pockets to find/discover.
- Heritage/History:
  - New Town Centre - John Gale Sculpture.
  - Heritage Spine.
  - Queen Elizabeth Park.
  - Heritage Conservation Area.
- Fine Art & Craft:
  - Cultural Spine including town centre & east bank Riverside Square.
  - Riverside East Bank – Art Gallery & Sculpture Trail.
  - Laneway Courtyards.
  - Compass point locations (focal points of parks and large plazas).

18.14 CULTURAL MAP

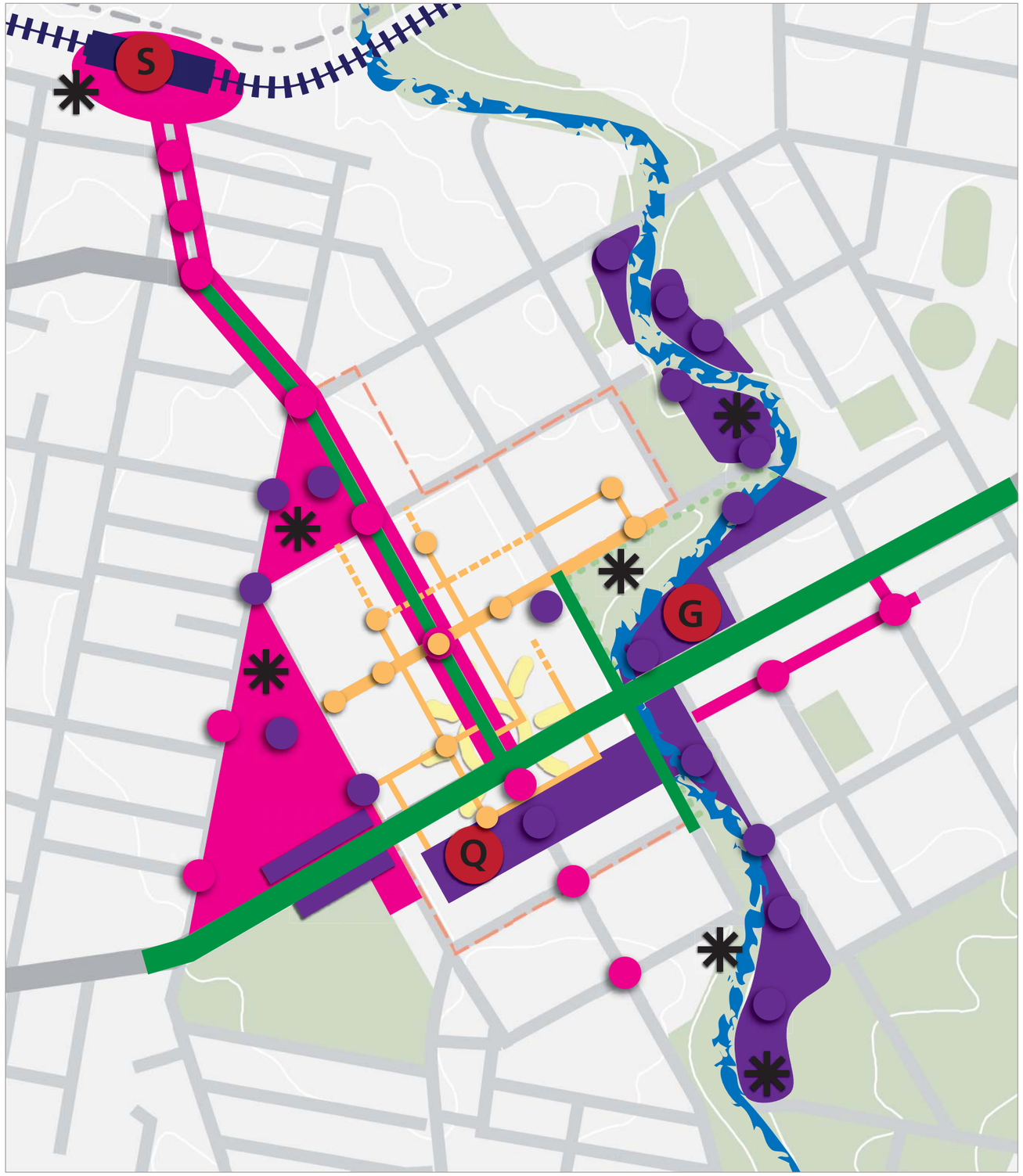
Legend

FACILITATORS OFFICES:

- Q Performing Arts Centre
- S Queanbeyan Railway Station
- G Existing Art Gallery

THEME LOCATIONS:

- Heritage
- Fine Art
- Country Town
- Friendly Town
- ‘Intrigues’

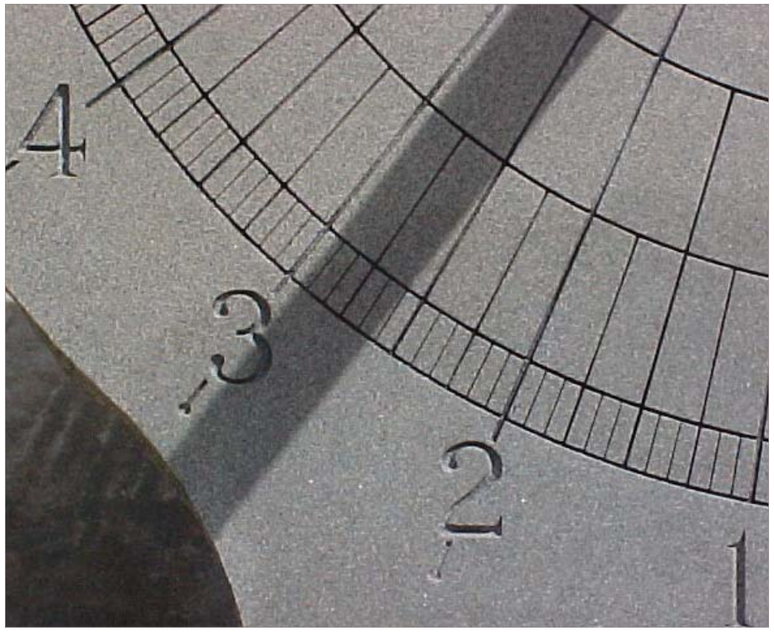


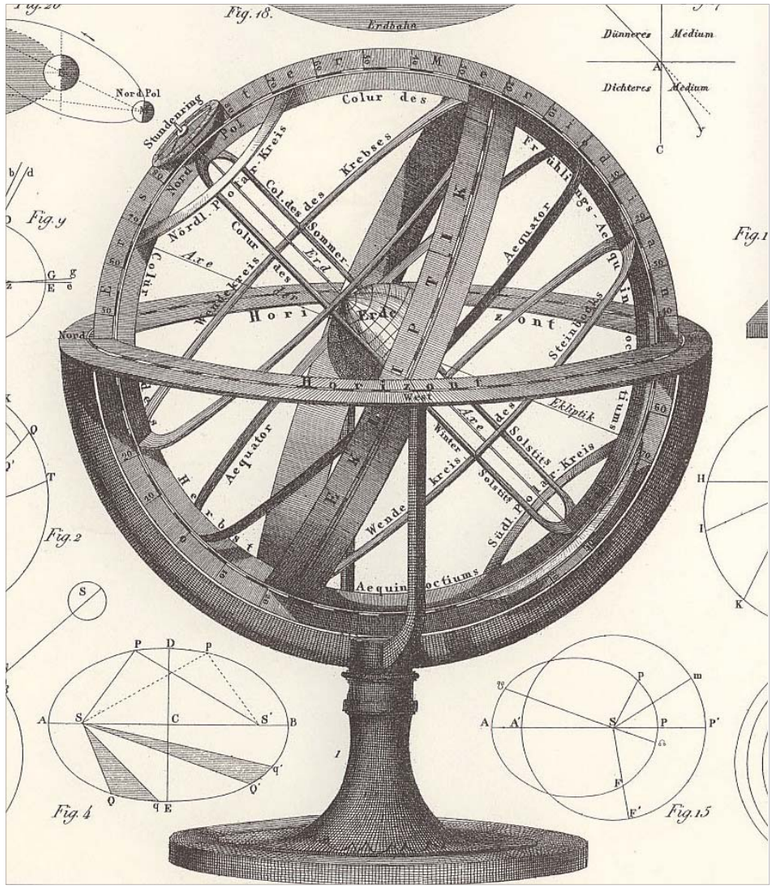
18.15 PUBLIC ART - INTERESTING ELEMENTS

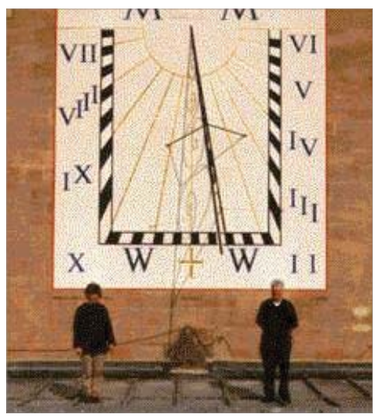
18.16 PUBLIC ART - OBJECTS OF INTRIGUE

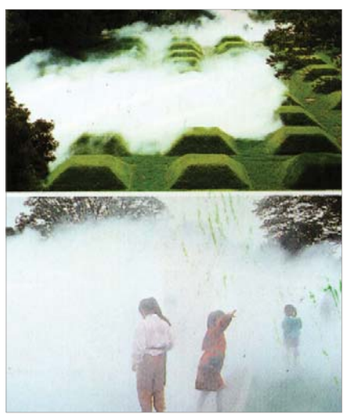
Intriguing objects to discover dotted around the CBD & parks could include:

- Sundials,
- Planetary Model,
- A Hedge Maze,
- Fog Garden,
- Camera Obscura, and
- Interesting signage and street furniture
- Unusual sculptural elements









18.17 PUBLIC ART - SCULPTURE

18.18 ATTRACTING INTEREST IN THE CBD

Community, recreational and tourism related activities:

› Recommend the commissioning of an Attractions / Activities Masterplan Report

Social / Arts Facilitator:

› The traditional role of Events Manager could be mandated to create / encourage & enable / facilitate a social/arts program.

› An easily accessed centrally located facilitator ideally based at the 'Q' building with satellite 'desks' at strategic locations around the CBD:

  › Identifying and encourage synergic combinations of venues.

  › Aiding the set up of local events, venues & the implementation of community or individual ideas.

  › Helping make them happen the first year ~ then leaving the event to grow.

  › Identify, put in place and maintain permanent infrastructure that encourages a holistic approach to events in and around the CBD.

  › Traditional event management (coordinating major events and civic events)

There already appears to be a number of interesting ideas and events generated from within the Council & community. A Facilitator could help combine venues & services to create a greater overall outcome, making a greater success and more viable event (e.g. During events at the Showground encourage supporting efforts around the CBD that build the theme and add to the overall attraction, boosting the results for (The Showground event).

Key Event Locations:

› Park & Riverside (both banks),

› Railway Station,

› Heritage Events, Historic Rallies, Start of Vintage & Motor Club Fun Runs,

› Arts Centre Precinct,

› Cultural Spine (Arts Centre to Riverbank), and

› City Centre.

Social / Arts Locations:

Heritage or interesting buildings could be used as venues for:

› Little Theatre (Amateur),

› Puppet Theatre / Kids Theatre,

› Film Club,

› Dance, Music,

› Craft Centre, (Art Workshops, Professional level and amateur workshops),

› Garden Projects, and

› Sculpture Park.

Social / Arts Circuit:

Park, Street & Riverside Routes:

› Markets possibly working in cooperation with Bungendore, Braidwood, Captains flat & Wamboin Markets)

  › Growers Market,

  › Slow Food Market / Cittaslow Market,

  › Food Festivals,

  › Noodle Market,

  › Wine festivals,

  › Chocolate market,

  › Big Street BBQ, and

  › Craft Market.

› Fun Days - Dog walks, Fairs, Street Parade & Carnival Floats.

› River - River Carnival

  › Regattas (serious & frivolous boat events),

  › Raft Race,

  › Charity Rubber Duck Race, and

  › Lantern Festival.

› Sports Events - Bike runs, Equestrian Days, Fun Family Sports Days,

› Special Interest Events:

  › Steam Rally,

  › Farm Fair, and

  › Vintage Car Run, Motor Club Rallies.

› Kite & Balloon Festival (e.g. Festival of the Winds)

› Buskers (organised changing circuit / timetable based on registered / auditioned buskers & performers).

Cultural Arts Events:

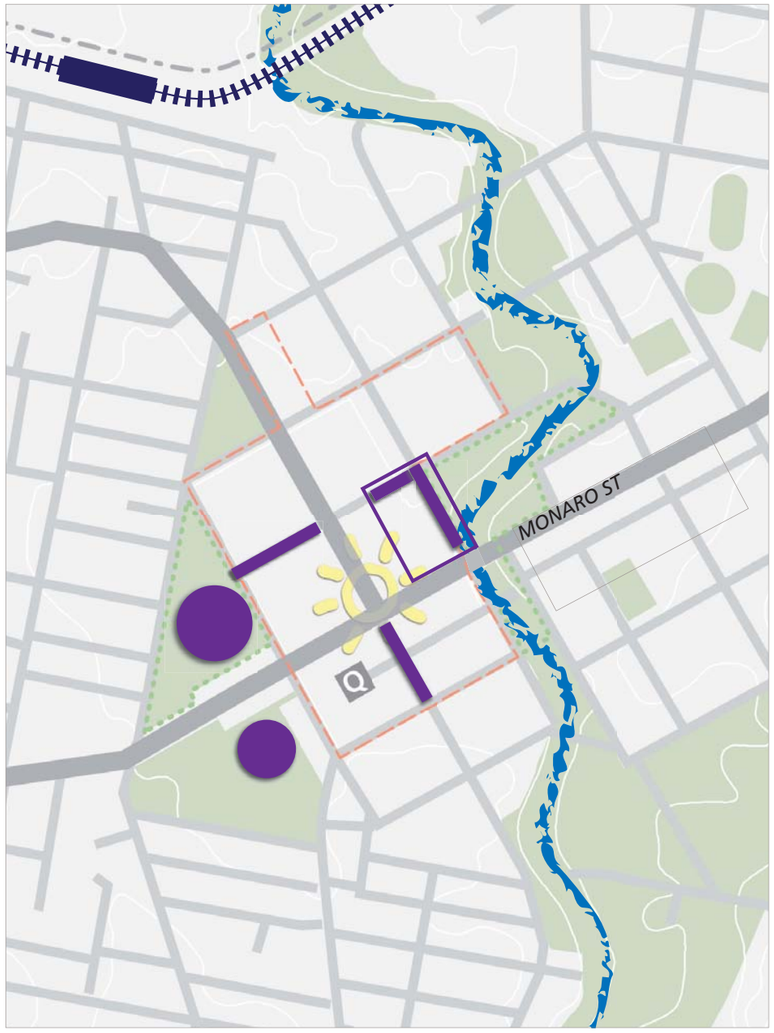
› Sculpture on the River (e.g. Sculpture by the Sea),

› Street Art Projects.

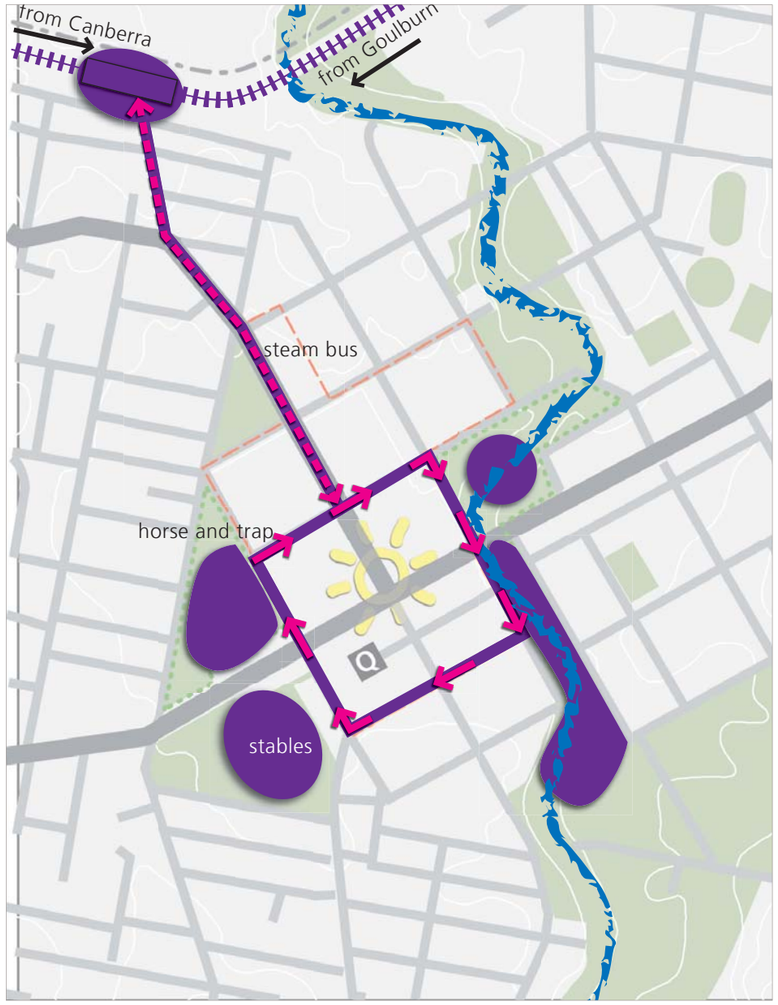
› 'Locals to be Proud of' - Artist / Craftsmen Highlights

Temporary & permanent public displays celebrating good local works.

18.19 MARKETS



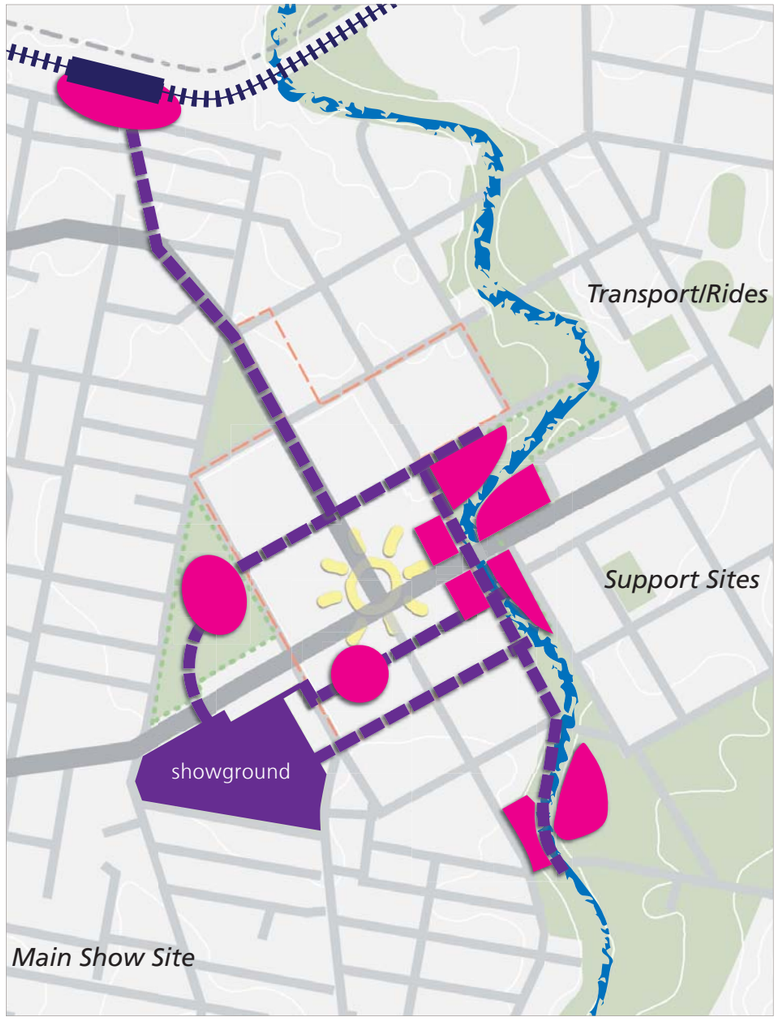
18.20 STEAM RALLY



18.21 COUNTRY FESTIVAL

Possible event activities may include:

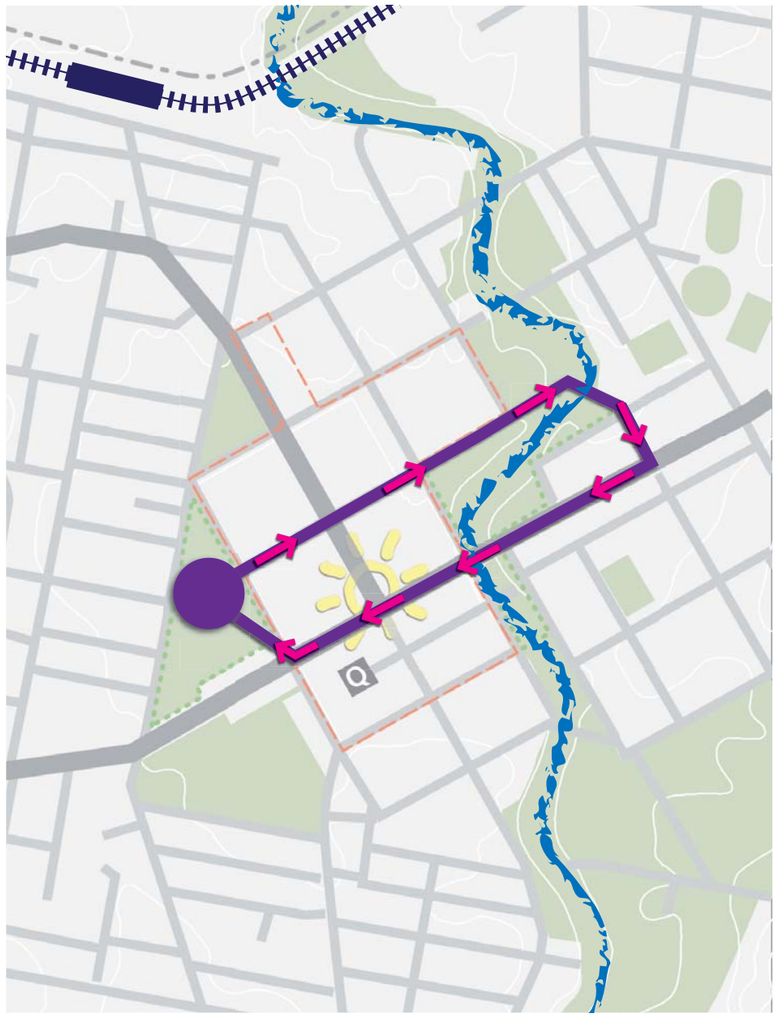
- Encouraging visitors to arrive via rail,
- Country style transport opportunities in & around the CBD,
  - (Hay cart ride, pony & trap circuit, donkey rides along the riverbank).
- Supporting and building upon an existing event,
- Country Fair along Morrisset,
- Matching Country town events – Best Garden etc, and
- Encouraging activity in the central refreshment & retail streets.



18.22 BIKE RUN

Event activities may include:

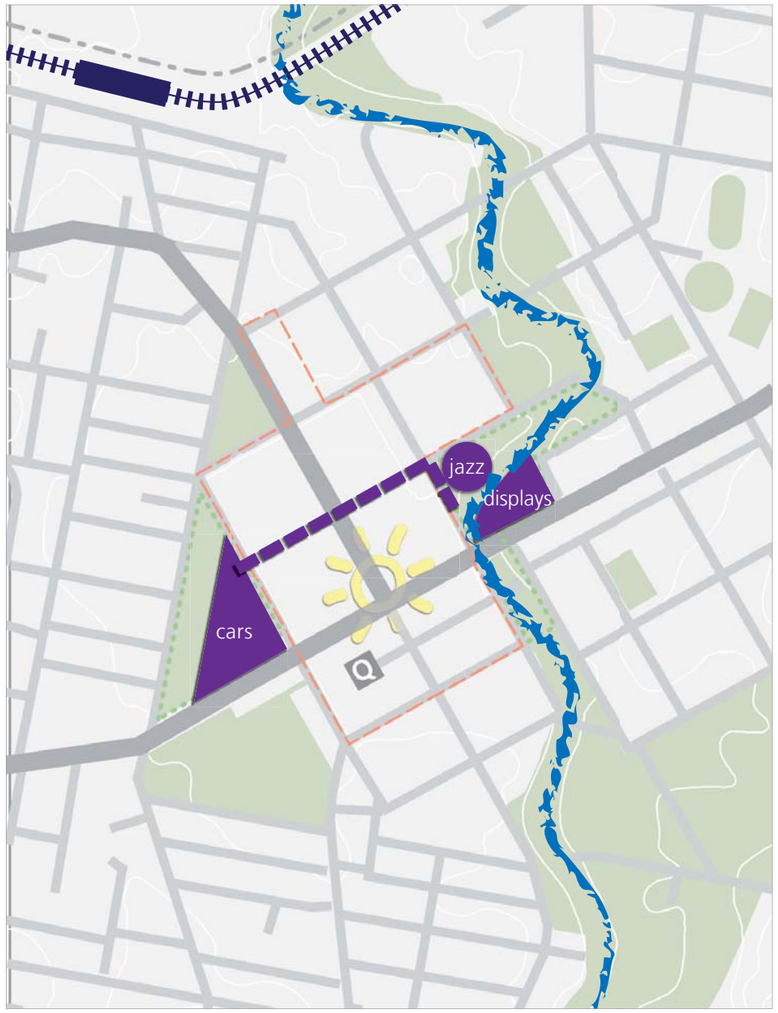
- Community & Cycle Club events
- Races, games & 'Best Dressed' bike carnival
- Existing location (Velodrome) as base for supporting activities around a circuit
- Bike fair along Morrisset
- Encouraging activity in the central refreshment & retail streets.

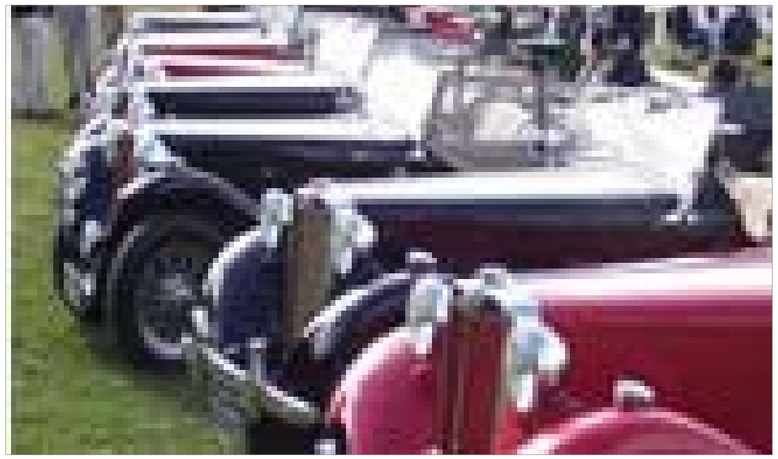


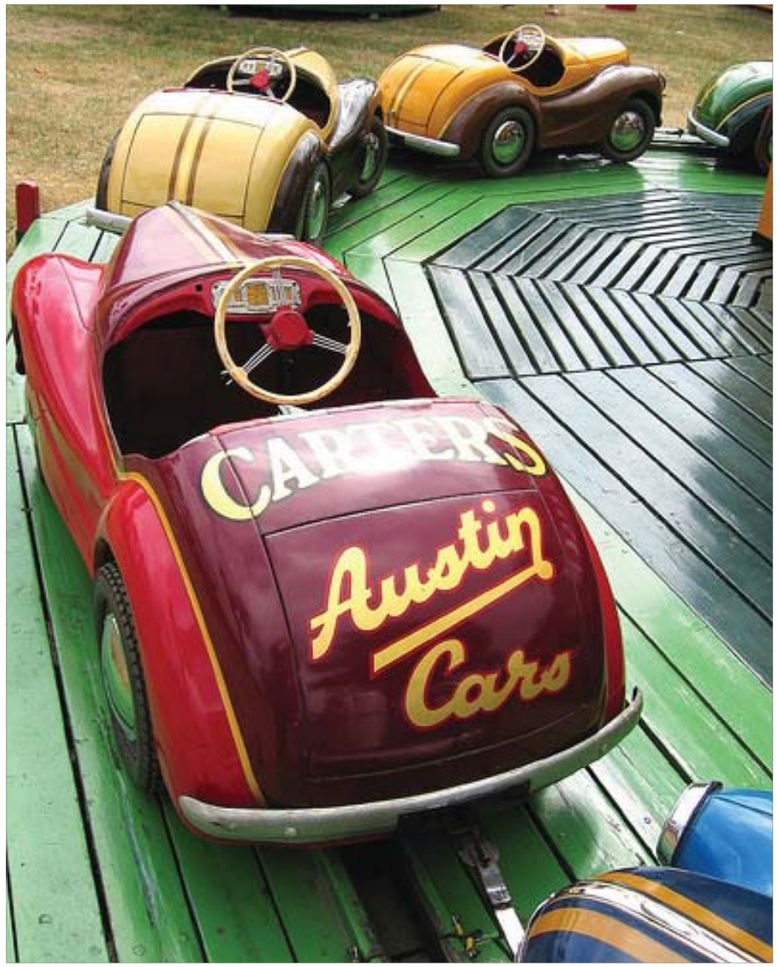
18.23 MOTOR CLUB MEET

Event activities may include:

- Attracting visitors to a central location (Car club meet in Elizabeth Park)
- Parading them through the town (Morrisset St)
- To a matching event/display that would interest them (Jazz and vintage boats/vehicles at the rivers edge).
- Encouraging activity in the central refreshment & retail streets.



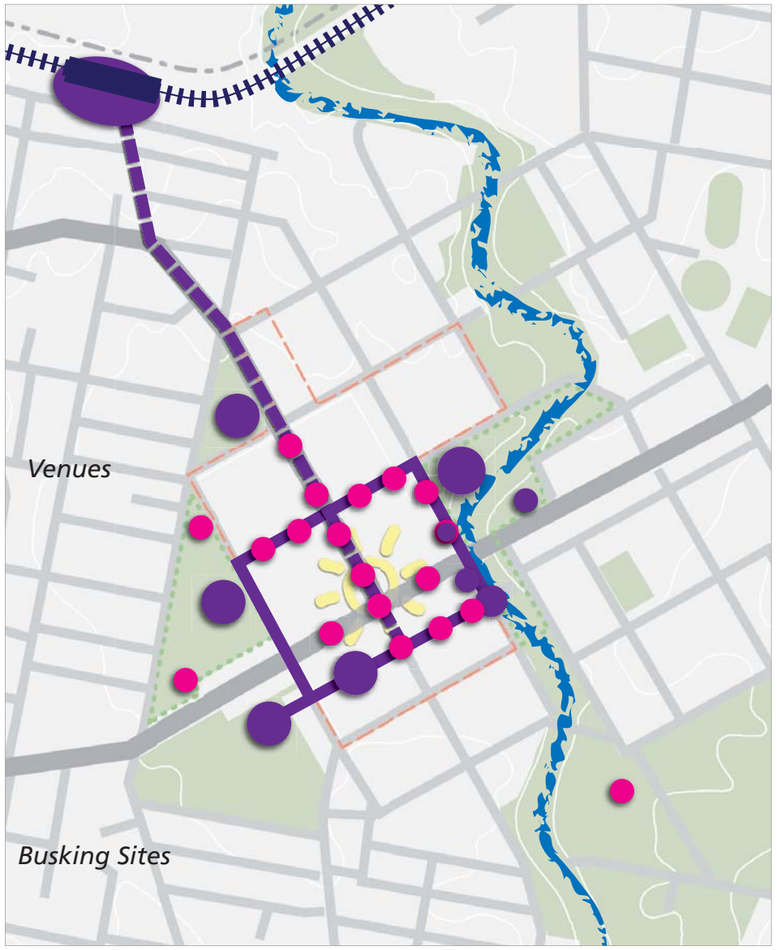




18.24 MUSIC FESTIVAL

Event activities may include:

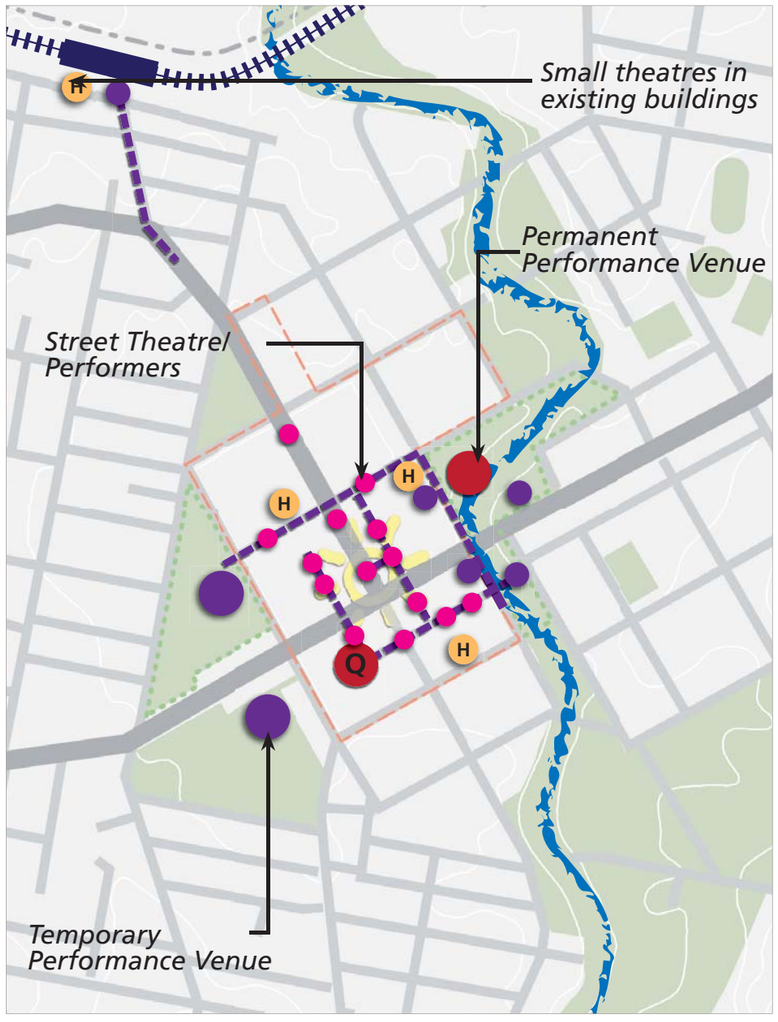
- Riverside amphitheatre concerts:
  - Musicians in restaurants, laneway cafes, city squares & Riverside promenades.
  - Buskers at regulated locations around the town.
  - Community dance
- The Velodrome could be used for a community music & dance events.



18.25 PERFORMANCE

Event activities may include:

- Actors, magicians, jugglers, comedians & clowns performing singly or in troupes – buskers & street theatre
  - As with music, individual performance venues or activities spread across the town.
  - Performers in restaurants, laneway cafes, city squares & Riverside promenades.
  - Professional events at the Q and Riverside amphitheatre
  - Street theatre along the Cultural Spine
  - Pageantry along Morrisset or Crawford streets



18.26 SOCIAL EQUESTRIAN

Event activities may include:

- A monthly social community horse ride circuit through the quieter parts of the CBD/surrounds.
- Pony rides along the rivers edge,
- Stable visits and general horse related events at the Showground

18.27 DOG WALKING & DOG SHOWS

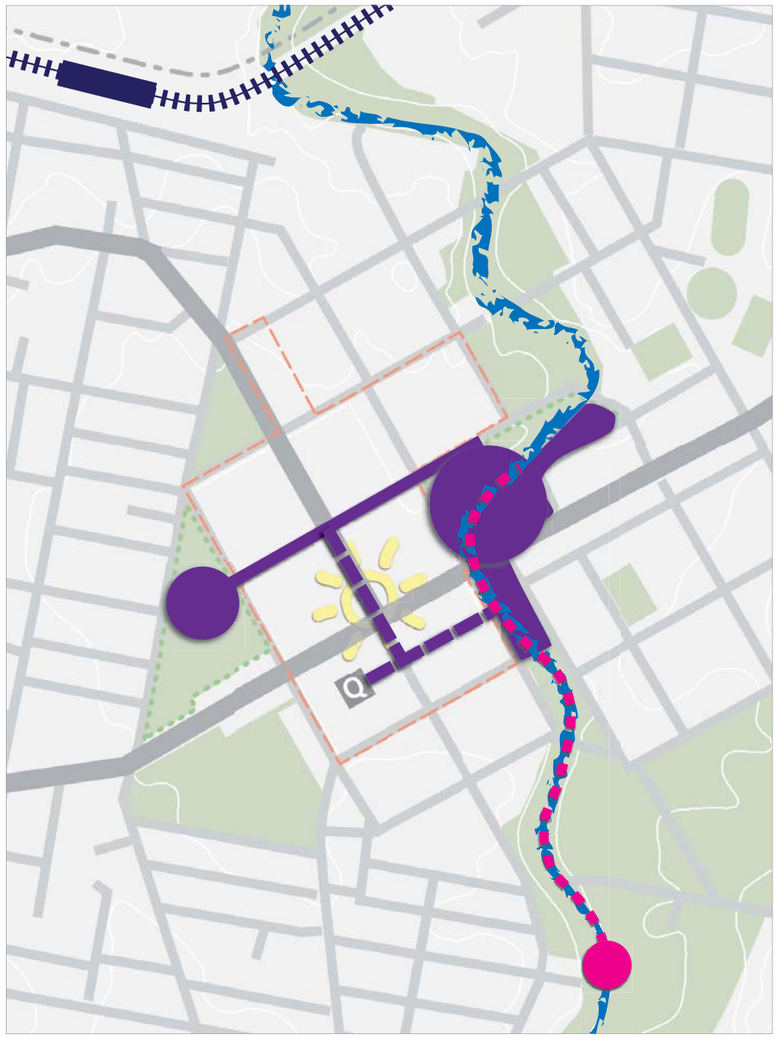
Event activities may include:

- Social dog walk starting at the Velodrome
- Dog Show
- Training & games

18.28 FUN DAY

Event activities may include:

- Dress ups and competitions
- Fun Olympics
- Charity fund raising Duck Race on the river
- Mad Hatters Ball - An unsophisticated home made day of fun



18.29 RIVER ACTIVATION

Event activities may include:

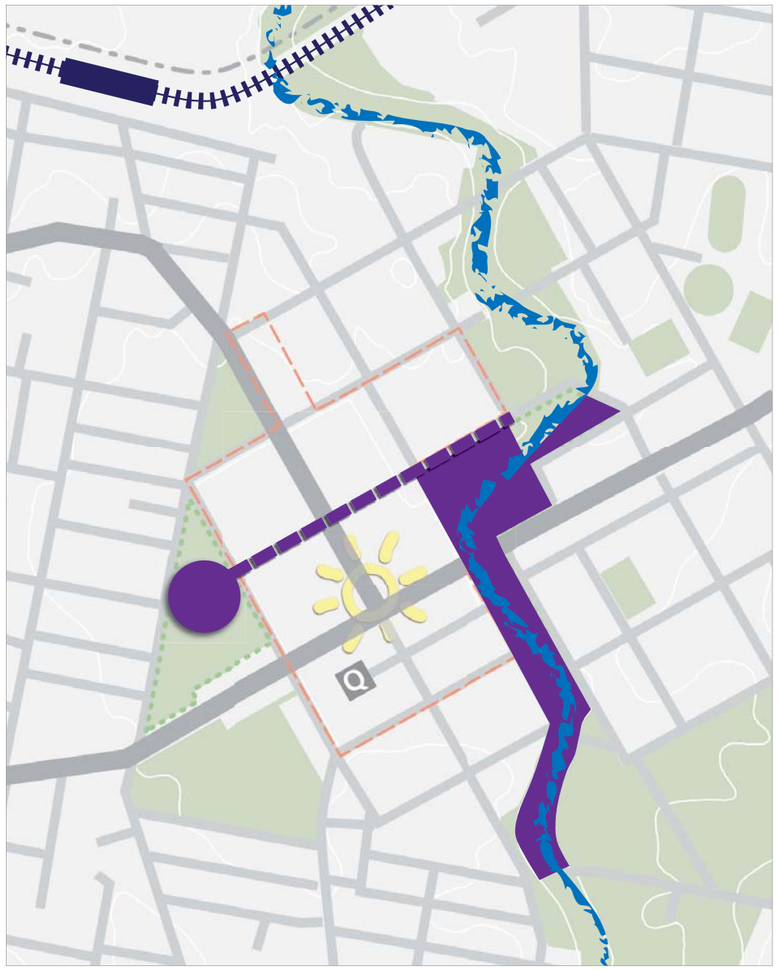
› Regattas, games & displays (Initiatives have already occured including the inaugural 2009 River Regatta)

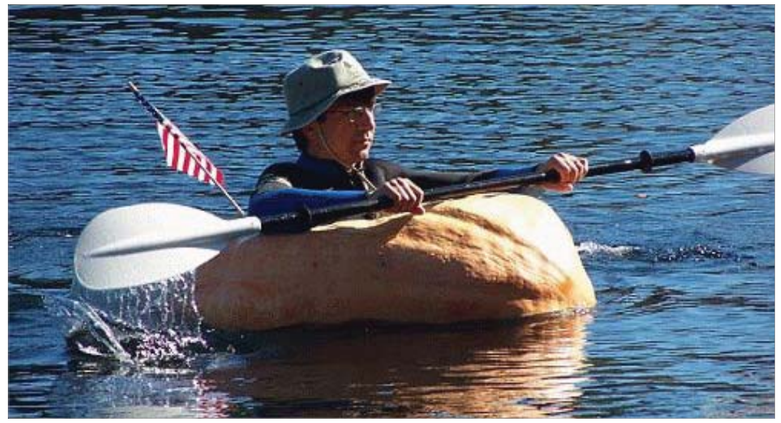
› Raft Races with categories - speed, elegance and creativity, eccentric boats, classic boat displays, sailing and rowing events

Not only can Large and small events utilise the river and its banks but supporting events could be created in Elizabeth Park and along Morrisset Street:

› Model boat pond, radio controlled boats and model displays

› Dry land boat races along Morrisset (Morrisset Street Regatta)





18.30 FLYING DAY

A day celebrating a single theme – but in as many different ways and as many different venues as possible. Events could include:

› Kite Events & markets (e.g. Festival of the Winds Bondi),

› Balloons,

› Model aeroplanes, and

› Pigeon Race.