



GLEN INNES SEVERN COUNCIL CBD Master Plan

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Plan attached.


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General Manager

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.....
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Glen Innes CBD Master Plan

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EXECUTIVE SUMMARY

In December 2009, King & Campbell were engaged by Glen Innes Severn Council to prepare a Master Plan for Glen Innes CBD. The purpose of this Master Plan is to provide a framework to guide the future development of the CBD over a 20 year timeframe.

Community Involvement

This Master Plan has evolved out of a detailed community involvement programme. A key component of this community involvement to-date has been an open day forum in the Town Hall in Grey Street for a 2-day period. In addition, the Consultant Team liaised directly with Councillors, Council Officers and key stakeholders at the outset of the project and during the development of design solutions.

Over sixty (60) people participated in the Open Day Forum. Forty-one (41) completed feedback forms were received, all of which stated that they were generally happy with the preliminary design ideas put forward. The Master Plan proposals contained in this report are fundamentally the same as the preliminary design ideas. However, a number of minor (but nevertheless important) modifications to the Master Plan have resulted from the Community Consultation process.

Master Plan Proposals

The Master Plan proposals have been derived from careful site analysis and the confirmation and adjustment of design concepts through the community consultation process. This section should be read in conjunction with the attached Master Plans (Exhibits 1 to 6 inclusive).

Approaches to the Study Area

It is proposed that the lack of signage indicating the location of the centre of the town be rectified by the installation of four (4) directional signs on the highway approaches to the CBD.

Traffic and Parking

It is generally considered that traffic volumes are moderate and traffic circulation within the town centre does not constitute a major issue.

The Master Plan includes proposals to enhance the mid block crossing in Grey Street, between Wentworth Street and Bourke Street and create a shared space/ Town Square in Grey Street, between Wentworth Street and Meade Street.

Modifications are proposed for a number of intersections to improve pedestrian safety and legibility for all users generally.

The centre parking format in Grey Street is not proposed to be changed. However, the

configuration of car parking is proposed to be modified to allow for street tree planting. This will result in approximately 21 car spaces being lost in Grey Street, between Bourke Street and Meade Street. This on-street parking loss is proposed to be compensated by providing additional off-street car parking opportunity and encouraging retailers to park in off-street locations.

Pedestrian Circulation and Public Transport

It is proposed to improve pedestrian crossing safety by modifying pedestrian approaches to roundabouts and providing crossings at an enhanced mid block crossing and new civic shared space in Grey Street.

All new works are recommended to adhere as much as possible to Australian Standards for mobility and visually impaired people.

Main Street Amenity

Key proposals to improve the amenity of the main street include the creation of a central civic shared space outside the Town Hall, planting street trees down the centre of the road and the provision of new improved lighting. These proposed works have been configured so as not to unduly impact on visual access to significant heritage buildings and awning advertising signage.

Town Square – A Shared Space

A large Town Square is provided outside the Town Hall and celebrates the centre of town. This space will provide for a range of pedestrian and civic functions. Traffic is permitted to pass through the square during its normal operations, albeit at very low traffic speeds.

East Avenue Redevelopment Opportunity

It is considered that this area of the CBD, with its very desirable frontage to open space, constitutes good future redevelopment opportunity. The Master Plan proposes undergrounding existing power lines, narrowing the road pavement on East Avenue, planting small to medium street trees, angle parking to increase on-street car parking capacity and introducing built form and landscaping planning requirements, as a means of enhancing streetscape and street frontage and encouraging future development.

Signage

In addition to the signage recommended on the approaches to the CBD, simple and legible directional signage indicating the location of off-street car parking areas and open space rest opportunities for visitors are recommended to be located on the approaches to key decision points, particularly vehicle intersections.

The existence of limited undesirable above awning advertising signage in the main street is

recommended to be removed and strongly discouraged in the future.

Large Format Retail Development

A zone is recommended in the CBD outside of which future large format development not be permitted. This recommendation recognises the potential threat such development can have in relation to the ongoing viability of existing business in and maintaining the overall integrity of the CBD.

Lighting

Significant improvements to lighting are proposed as part of the Master Plan. It is envisaged that new twin arm lights be installed down the centre of the road within the centre car parking areas. The light standard proposed will also provide for banners and flood lighting of the building facades.

Improved lighting is also recommended in relation to pedestrian lane access to Grey Street, particularly where additional off-street car parking areas are being provided.

Street Furniture and Pavements

The Master Plan recommends a new seat form incorporating painted mild steel seat ends and Australian hardwood timber components. The seating proposed is simple in form such as to be able to be manufactured locally. The seats will also provide an opportunity for public art.

The timber slated wheelie bin enclosures existing in the CBD are recommended to be used in future works.

Due to the large number of existing bollards and their acceptable aesthetic, an alternative to this standard is not recommended.

The Master Plan proposes the use of Permeable Pavement which allows for the penetration of water and air to the roots of growing trees. The proposed limited use of permeable paving and structural soils in the centre of Grey Street will provide an appropriate tree root growing environment for the large street trees proposed whilst allowing car parking over. This will reduce the amount of on-street car parking spaces that will be lost as a result of tree planting;

It is proposed that existing bitumen pavements associated with the centre and parallel parking areas in Grey Street, between Wentworth and Meade Streets, be rehabilitated, including the application of a new asphaltic concrete seal.

Tree Planting and Ground Plane Planting

Super advanced street tree planting in the centre of streets in the CBD area is proposed initially in Grey Street between Meade and Wentworth Streets. However, this planting program should be extended into adjoining streets in the latter stages of the implementation program for the Master Plan of the CBD. Street tree planting is not recommended on

the edges of the streets where greater potential of blocking visual access to heritage building facades and advertising signage exists. The street tree proposed for Grey Street is Claret ash.

Street tree planting within the verge is recommended on the approaches to the CBD on Ferguson and Bourke Streets.

Small to medium street trees are recommended for East Avenue in lieu of power lines which are proposed to be relocated underground.

Opportunities for Public Art and Local Employment

Public art and local employment are seen as integral components of the upgrading of Glen Innes CBD. Effectively implemented public art and the use of local labour engender ownership, pride and sense of place.

Opportunities exist for public art within the roundabouts, on public furniture, with the installation of banners, within the existing footpaths and as part of proposed signage. The Master Plan encourages the continuation of the Celtic theme in this public art.

Services

The Master Plan has considered existing and future services. Provision has been made for the future location of underground electrical services in the centre of the street, including the location of pad mount substations. Existing stormwater infrastructure will need to be extended in conjunction with new works in Grey Street. An existing water main in the centre of Grey Street will likely need to be protected as part of the proposed new street planting.

Crime Prevention

The consultants have been mindful of the need to minimise the opportunity for crime through the application of the principals of Crime Prevention Through Environmental Design (CPTED). These principles include suitable lighting, appropriate plantings and maintenance of sightlines and awareness of concealment opportunities.

Sustainability

A number of the initiatives proposed in the Master Plan are directly consistent with sustainability principles, including the use of permeable paving, the use of street trees which require modest levels of maintenance, the use of locally sourced Australian hardwoods in street furniture manufacture, the use of local labour in the manufacture of street furniture items and the promotion of public art using local artists and artisans.

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Section 1

Introduction

1.1 Preamble

In December 2009, King & Campbell were engaged by Glen Innes Severn Council to prepare a CBD Master Plan.

The purpose of the Master Plan is to provide a framework to guide the future development of the CBD over a twenty (20) year timeframe.

1.2 Project Scope of Works

The requirements of the CBD Master Plan were stipulated in the briefing document to Consultants at the outset of the project. The CBD Master Plan is required to consider the following issues:

- *Importance of the CBD as the heart of the community, taking into consideration the importance of maintaining business establishments in Grey Street;*
- *Delivery of a high level of amenity throughout the CBD with the inclusion of landscaping which will compliment the heritage significance of the Grey Street Precinct;*
- *Usage of the East Avenue to its full advantage, including future development such as a combination of commercial / residential development. Furthering the concept that "Our Parks are our Beach".*
- *Public spaces as civic focal points with particular attention to the concept of a public square in front of the Town Hall;*
- *The linking of the CBD with the New England and Gwydir Highways;*
- *Encouragement of development of Grey Street businesses and behind premises on the western side of Grey Street;*
- *Vehicular linkages as CBD traffic flows;*
- *Facilitate people movement within the CBD, particularly in regard to mobility and access;*
- *Tree preservation within the CBD; and*
- *Inclusion of public art.*

The role of this Consultancy is to:

1. Develop an innovative CBD Master Plan for the study area which responds to the community's vision and objectives and the above issues; and
2. Develop a strategy for project implementation, being mindful of Council budgetary requirements.

1.3 The Consultant Team

The Consultant Team for this project comprises:

King & Campbell - Project Management
- Master Planning
- Community Consultation

TTM Consulting - Traffic Engineering Advice

The Consultant Team also wish to acknowledge the significant contributions made in the preparation of this Master Plan by members of the Community, Councillors and Council staff. With respect to the latter, we wish to especially acknowledge the contribution of Mr Graham Price, Council's Director of Development and Environmental Services.

1.4 Study Area

The study area for the Master Plan, as illustrated on Exhibit 1, is Church Street between Lang and Ferguson Streets, Ferguson Street between Church Street and East Avenue, East Avenue between Ferguson and Wentworth Streets and Lang Street between King George Oval and Church Street. The study is also to consider influences and connections between the Master Plan area and Glen Innes generally. These include vehicular, pedestrian and bicycle circulation, parking and connections to the linear park system between West Avenue and East Avenue.

1.5 Broad Study Process

The project involved the following broad stages:

Site Analysis

At the project outset an analysis of all relevant existing conditions and issues within the study area was undertaken in order to identify development opportunities and constraints. This site analysis involved:

- A physical overview of the study area, including a photographic survey;
- Assessment of existing urban form, streetscape and details; and
- A review of relevant background information and studies.

Preparation of Preliminary Concept Design Ideas

A number of preliminary concept design ideas were developed for the study area. The intention of this work was to stimulate discussions with the community and stakeholders during the initial Community Consultation phase of the project.

The preliminary concept design ideas that were developed as part of this project phase are contained in **Appendix A**.

Community Consultation

The success of urban design projects of this nature is as much dependent on the successful and coordinated involvement of the local community as it is on the quality of the design itself. This is imperative not only from the perspective of fostering community ownership of the scheme, but also in terms of encouraging the Council and the community to financially support the works proposal.

The key component of the community consultation phase of the project, up to the preparation of the Draft Master Plan, has been the "Open Day Forum". For a period of two (2) days, preliminary concept design idea drawings were displayed in the "Town Hall", a Glen Innes landmark building located centrally in the Glen Innes Central Business District (CBD). Project Consultants were on hand to explain the various ideas put forward and to listen and record community views and alternative ideas.

The results of the community consultation phase of the project are presented in Section 2 of this report.

Preparation of Draft Master Plan

Following the presentation of the preliminary concept design ideas to the general public, stakeholders and special interest groups, feedback forms were collated and assessed. Significant issues were highlighted and considered and a Draft CBD Master Plan then developed. The Draft CBD Master Plan is detailed in Section 3 of this report.

1.6 Precinct Studies and Documents

A number of previous studies and documents are relevant to this project. These documents, which have been reviewed by the Consultant Team, include;

- Glen Innes Severn Draft Land Use Strategy February 2009;
- Glen Innes Severn Economic Development Strategy 2008-10;
- Glen Innes Severn Open Spaces Management Plan 2009-19;
- Draft Glen Innes Severn Tourism Marketing Plan 2009-19;
- Glen Innes Severn 10 year Strategic Plan for Community Services 2008-18;

As well as the above documents, the Consultant Teams also reviewed documentation revealing the history of Glen Innes. It is not the role of this Master Plan to re-record the history of Glen Innes which is well documented. However, in very brief terms, particular aspects of Glen Innes' history, which make it unique, include:

- Glen Innes is the home of the Ngoorabul People; and
- It was settled in the late 1830's by a Scotsman Archibald Boyd who was guided into the district by two assigned convicts, Chandler and Duval (The Beardies).

Today the Celtic origins of the settlement of Glen Innes and the Beardies are celebrated in festivals and landmarks that are recognised across New South Wales, and nationally. These festivals and landmarks include:

- Celtic Festival;
- Beardies Festival; and
- The Australian Standing Stones.

Section 2

Community Consultation

2.1 Preamble

The local community can provide a valuable base for the assessment of the needs, function and character of a Town Centre. The community can also provide the consultant team with important information on local processes, community dynamics and historically or culturally significant events and traditions which would not ordinarily be revealed through field studies and document review alone.

Consultation with the people who live, work and visit the Glen Innes CBD, therefore, has been adopted as a fundamental requisite of this study.

2.2 Community Consultation Process

Prior to the finalisation and public exhibition of a Draft Master Plan, community involvement in the Master planning process was sought, via direct meetings and an open day forum. Business traders, property owners, shoppers, special interest groups and residents were invited to participate, through notification in the local newspaper, direct mail, radio broadcast and word of mouth. Project consultants encouraged people to view a range of design ideas for the study area during a two (2) day "Open Day Forum" in the Town Hall, a prominent landmark building in Grey Street, and provide feedback through a feedback form and/or informal comment.

The feedback from this first phase of community involvement was used to develop a Draft Master Plan for the study area, as described in Section 3 of this report.

Facilitation of community comment on the Draft Master Plan will constitute the second phase of community involvement for this project.

Open Day Forum

The venue for the Open Day Forum was in the "Town Hall" in Grey Street, Glen Innes. The Open Day Forum was conducted on 8 and 9 February 2010. The Consultant Team, operated the Open Day Forum.

The Forum was open to the public between the hours of 12 noon to 7pm on Monday 8 February 2010, and 12 noon to 5pm on Tuesday 9 February 2010. The extension of the shopfront operation to 7pm on Monday night was instigated to solicit as wide and effective response as possible from the local community.

Preliminary concept design ideas for the study area were on display in

the Town Hall as part of the Open Day Forum. These are contained in **Appendix A** of this report. During the hours of operation, personnel from the Consultant Team were on hand to explain design concepts, answer questions and receive comments.

Feedback Form

A feedback form was developed to assist with collating of feedback from the Open Day Forum. The feedback form asked respondents to record their background and comments on the design ideas on display in the Forum. The feedback form also requested that other additional or alternative ideas be listed for the consultant's consideration.

A copy of the feedback form is included in **Appendix B** of this report.

2.3 Initial Meeting with Stakeholders and Council

On the 20 January 2010, at the outset of the project, David Tooby from the Consultant Team visited Glen Innes for the purposes of gaining an appreciation of the Study Area and community aspirations for its future development.

A meeting with Councillors and Council staff was conducted in the morning followed by a meeting with key community stakeholders.

Participants at these meetings were as follows:

- Hein Basson, General Manager, Glen Innes Severn Council;
- Graham Price, Director Development & Environmental Services, Glen Innes Severn Council;
- Vanessa Menzie, Director of Engineering Services, Glen Innes Severn Council;
- Lotta Jackson, Director of Corporate & Community Services, Glen Innes Severn Council;
- Tamai Davidson, Senior Town Planner, Glen Innes Severn Council;
- Councillor Steve Toms, Mayor, Glen Innes Severn Council;
- Councillor Col Price, Deputy Mayor, Glen Innes Severn Council;
- Councillors Dan Raymond and Malcolm Schumacher, Councillor Representatives Open Space Committee;
- Jorgen La Cour, Retired Engineer and Advocate for Town Square Concept;
- Howard Eastwood, Past Chair of Celtic Festival Committee and Economic Development Committee Advocate for a CBD Master Plan;
- Nola Taylor, Local Advocate for heritage matters;
- Pat Lonergan, Secretary Manager Glen Innes Severn Tourist

Association;

- Nicole Schafer, Local Business Advocate;
- David Tooby, King & Campbell, Consultant Team Representative.

Following these meetings, the Consultant Team representative also met on site with Council Staff to discuss specific issues.

These meetings were instrumental in the setting of design objectives, and in the subsequent evolution of specific design proposals.

Meeting minutes from 20 January 2010 are included in Appendix C.

2.4 Open Day Forum

Over sixty (60) people came through the Open Day Forum over the two (2) days of its operation and had the preliminary design ideas explained to them by the Consultant Team.



Open Day Community Consultation

Feedback forms were distributed to people who visited the Open Day Forum. Forty-one (41) completed feedback forms were received. In the consultants' experience this is consistent with the typical response rate for community consultation of this nature. This indicates the communities general commitment to and pride in their town and their willingness to participate in, and contribute to, the shaping of their living, working and shopping environment.

Not all respondents indicated preferences and/or made comments on every issue listed in the questionnaire. Some respondents (for example) commented only on whether they were generally happy or unhappy with the proposals put forward. A small number of respondents did not feel comfortable in providing their name and address.

Summaries of the responses contained in the feedback forms are provided below. These summaries aim to be as objective as possible having regard for the nature and variance of response received.

Responses to Questions in the Feedback Form

1. Origin of Respondents

- Live in Glen Innes	35
- Live outside Glen Innes	6
- Shop owner in Glen Innes	1
- Retailer/Business Operator in Glen Innes	12

Are you ☐ happy ☐ unhappy with preliminary ideas put forward during the forum?

- Happy 41 100% of respondents
- Unhappy 0 0% of respondents

2. Are there any specific ideas put forward on which you would like to comment?	No. of Respondents
Happy with the installation of trees	12
Keen for new lighting	6
Like the addition of pavers	3
Pleased that the street will not be closed off	3
Town Square – excellent concept	3
Pleased that there will be more parking behind shops	3
Would like to keep the existing lights	3
More attention to blind people at crossings ie. tactile tiles	2
Would like to see specific motor bike and push bike parking spaces	2
Would like to keep the existing central parking in the street	1
Would like to keep the main street heritage	1
Consider entrance gateways to Grey Street	1
Caution planting trees as the canopy may block the facades if not pruned regularly	1
Lights in the Main Street. Visibility/ industrial looking.	1
Pleased that you are retaining the Celtic theme	1
Pleased with the Wentworth Street sign	1
Would like to have more outdoor dining areas	1
Loss of car parking spaces could encourage people to go to the big supermarkets and close small shops in the town centre	1
Pleased with the low plantings at the roundabouts	1
Need to address the matter of too much office space in CBD and not enough retail	1

3. Have you any alternative ideas that you think could be incorporated into the Master Plan?	No. of Respondents
Instal surveillance cameras	3
Better access/direction to parking areas off Grey Street.	3
Should revisit Woolworths – Grey Street traffic flow (entry/exit)	2
Use more Australian themed design – not just Celtic.	1
Remove bollards at roundabouts and replace with metal cutout – celtic symbols, as in Ingleburn.	1
Involve the "Celtic Council" in discussions about design	1
Suggest Gingko tree be used	1
Need to discuss ways of encouraging community to use in the town space	1
Get rid of the bushes near the roundabouts	1
Need more room for access around chairs in outdoor cafes	1
Suggest the gardens under the trees be planted with bulbs ie. tulips and daffodils	1
Would like to see an ampitheatre in East Ave gardens	1
Consider pushing long vehicular traffic through to East Ave and direction help at Bourke/Grey intersection	1
Would like to see mandatory prominent street numbering	1
Would like to see roadside seating and signage on the "road side" rather than the "shop side".	1
Reduce the parking time from 1 & 2 hours to ½ and 1 hour with some ¼ hours parking in the Town Hall section	1

4. Do you have any comments on the effectiveness of this Community Consultation Forum?	No. of Respondents
Well done, appreciate community being able to have a chance for input before work starts.	22
Would like more people to see the plans and make comments	1
Would like to see the published results	1

5. Request for additional comments:	No. of Respondents
Suggested tree species: Quercus Ilex, Liquidamber; Acer ruber (no nandina), Pin oak	2
Claret Ash (not suitable) drop sticky flowers	2
Would like deciduous and evergreen trees	1

2.5 Consultation with Special Interest Groups

Consultations with people representing special interest groups were conducted during the Open Day Forum. This included representatives of Council's Access Committee, representatives of the Tourism Industry and retailers. Consultation with these special interest groups provided valuable input into the development of design proposals.

2.6 Modification to Master Plan Proposals as a Result of Community Consultation Process

A number of modifications to the Master Plan proposals have resulted from the community consultation process. These include:

- The relocation of signage on Church and Ferguson Streets indicating the direction of the main street of the CBD;
- Modification of entry signage design;
- The inclusion of bicycle and motor bike parking in the Master Plan;
- The relocation of a loading zone in the Town Square shared space, thereby reducing the loss of car parking in Grey Street, between Bourke and Meade Streets, by three (3) spaces;
- Confirmation of suitable tree species for street tree planting in Glen Innes;
- Identification of suitable street reconfiguration for East Street to encourage development fronting the park system to its west;
- Confirmation that the Boer War Memorial in the roundabout on the corner of Mead and Grey Streets cannot be relocated.

2.7 Success of Community Consultation Process

There is no doubting the success of the community consultation process as part of the preparation of the Master Plan. Feedback from shop owners, retailers and special interest groups, through the Open Day Forum operation particularly, has contributed to the positive development of design proposals. Whilst the core concept ideas put forward in the preliminary design idea plans attracted a very good response (100% of respondents from the Open Day operation generally happy with proposals put forward) and remain unchanged, a number of minor (but nevertheless important) modifications to the plans have resulted from the community consultation process. This has effectively made the Master Plan proposals more robust and in keeping with community expectations.

Section 3

Master Plan Recommendations

3.1 Preamble

Following site analysis and a careful review of the community and stakeholder response to the preliminary design ideas put forward as part of the Open Day Forum, the Consultant Team recommends improvements to traffic, pedestrian and bicycle circulation and safety, parking, lighting, signage, shade and general amenity and public art. Specific recommendations for each issue are listed below and illustrated on the attached plans at the end of this Section of the report.

3.2 Site Analysis

On-site analysis was conducted by the Consultant Team on 19 and 20 January 2010 and 7, 8, & 9 February 2010. The Consultant Team walked over the entire study area and undertook comprehensive photographic documentation.

Pertinent issues identified through the site analysis, as well as through community consultation, are discussed at the outset of each section of the Master Plan recommendations.

3.3 Master Plan Proposals

These Master Plan proposals have been derived from careful site analysis and the testing of preliminary concepts through the community consultation process. The recommendations hereunder should be read in conjunction with the attached Master Plans (Exhibits 1 to 6 inclusive).

3.3.1 Approaches to the Study Area

The Gwyder Highway and the New England Highway (via Ferguson and Church Streets) do not pass through the centre of Glen Innes CBD (Grey Street). It is quite common for visitors to the town to pass through Glen Innes without even knowing where Grey Street and the Central Business District is. As evidenced by the author's own experiences in coming to the town for the first time, and from information provided by the community through the consultation process, it is evident that there is a lack of signage which indicates the location of the centre of the town and/or encourages its visitation.

The Master Plan proposes four (4) directional signs on the highway approaches to the CBD. The sign locations are:

- Before Wentworth Street on the southern approach to the CBD from the New England Highway (ie Church Street);
- Before Bourke Street on the northern approach to the CBD from the New England Highway (ie Church Street); and
- Before Grey Street on the eastern approach to the CBD from the Gwyder Highway (ie. Ferguson Street).
- Before Grey Street, on the western approach to the CBD from the Gwyder Highway (ie Ferguson Street).

These signs should be visually prominent and utilise similar graphics to those employed in the recently implemented welcome signs to Glen Innes (sign design by Danthoria Designs). An illustration of a possible signage configuration to satisfy this purpose is included on the Master Plan drawings.

3.3.2 Traffic and Parking

Traffic Circulation and Pedestrian Crossing Conflict

Traffic information provided by Council in Grey Street, between Wentworth and Bourke Streets, indicated that traffic counts are in the order of 4,000 vehicles per day. This is consistent with on site observations. It is generally regarded that traffic volumes are moderate and circulation within the town centre does not constitute a major issue.

The five (5) major intersections along Grey Street within the study area are generally well served with existing roundabouts. However, as with the case of most roundabouts in busy centres, they tend to provide appropriate traffic function, but hinder pedestrian crossing movement. This places a greater reliance on pedestrian street crossing away from the intersections, including providing safe formal mid-block crossings. Pedestrian circulation is discussed further in Section 3.3.3.

As well as the roundabouts on Grey Street a number of intersections within the study area have also been identified as pedestrian conflict points. These intersections include:

- The intersection of Church and Bourke Streets – pedestrian function across the western side of Bourke Street (particularly) is considered dangerous, mainly due to the expansive pavement width and number of traffic lanes that need to be negotiated;
- The intersections of Meade and East Street and Bourke and East Street – these intersections provide for east-west traffic movement and effectively bisect a generally lineal north-south movement of pedestrians utilising the significant open spaces associated with Edwards Park, Anzac Park and Veness Park. The intersections are expansive and difficult for pedestrians to cross safely.

The Master Plan provides suggested improvements to the above listed intersections as follows:

- Intersection at Church and Bourke Streets – the Master Plan recommends the reduction of road pavement width by removing one (1) traffic egress lane from the western side of Bourke Street (from three lanes to two), providing pedestrian refuges in the centre of the road, and a kerb extension on the south western corner.
- Intersections of Meade Street and East Street and Bourke Street and East Street - it is recommended that the large expanse of road pavement be reduced by the introduction of pedestrian refuges and kerb extensions. It is also recommended that pedestrian crossing zones across East Avenue be delineated with a change of road paving. The combined effect of these measures is projected to reduce traffic speeds and pedestrian crossing time and increase safety generally.

Parking

On-street parking in the main streets within the study area is predominantly centre parking format. This parking format works well at present and is generally well accepted by the community. It is noted that centre parking is the most efficient on-street parking format, particularly in relation to maximising the number of car spaces. It is also a flexible parking arrangement allowing for vehicles to enter and egress spaces from two (2) directions. It is recommended that this parking format be retained.

The Master Plan recommends increased amenity in Grey Street, particularly in the core CBD area between Wentworth Street and Meade Street (refer to Section 3.3.4 - Main Street Amenity). To provide for this increased amenity, there will be a projected loss of on-street car parking capacity in the street section Bourke Street to Meade Street (from 97 existing to 76 proposed ie. 21 car spaces). No on-street car parking capacity is projected to be lost in Grey Street between Wentworth and Bourke Streets.

It is necessary to compensate for this loss of car parking by maximising the efficiency of on-street parking and providing better off-street parking opportunities. With respect to maximizing efficiency it is understood that at present there is anecdotal evidence of retailers parking in the main street and parking spaces being utilised for longer than the marked time period. This situation can be addressed through better communication with retailers and encouragement of a greater use of off-street car parking areas, and better policing of CBD parking by Council generally.

With respect to off-street parking opportunities, the Master Plan has identified a number of areas within the CBD which have the potential of providing increased off-street parking with pedestrian lane access to the main street. The following off-street parking opportunities have been identified:

- The extension of the Town Hall Car Park – this extension will provide for approximately 45 additional spaces. Pedestrian access from the Town Hall Car Park to Grey Street exists via a pedestrian lane adjacent on the northern side of the Town Hall;
- The Gum Tree Glen Council Car Park – 28 spaces exist in this car parking area at present, however a reconfiguration of this space could effectively at least double the number of spaces that could be made available. This car park is connected to Grey Street via an existing pedestrian lane.
- A private car park behind the Kwong Sing building, has the potential to provide approximately 200 m² of car parking. This area is also connected via an existing pedestrian lane to Grey Street.

In relation to the above off-street car parking potential it is recommended that at least the Town Hall Car Park extension be implemented in association with any main street works in Grey Street, between Bourke Street and Meade Street.

East Street does not have a formal parking format and cars generally park parallel to the existing kerbs. The encouraged redevelopment of properties fronting East Street (refer to Section 3.3.6 – East Avenue Development Opportunity) may necessitate a re-thinking of the parking format in East Street so as to increase potential on-street car parking capacity. In this regard, it is recommended that angle parking on the eastern side of East Street be considered as parking capacity in this street section will be significantly increased (nearly doubled). It is noted that the parking format illustrated on the drawings does not meet Australian Standards (AS 2890.5-1993 Part 5: On-Street Parking). However, given the character of the street and its relatively low traffic volumes, this configuration should still be considered. It is not recommended that angle parking be encouraged on the western side of East Street. In this regard, this side of the street is recommended to remain parallel parking format for the purposes of accommodating visitors to Glen Innes who are often driving long vehicles and/or towing caravans.

3.3.3 Pedestrian Circulation and Public Transport

Areas of pedestrian conflict associated with traffic circulation have been identified in Section 3.3.2 – Traffic and Parking. In relation to the conflict of pedestrians and vehicles at roundabout locations, the following measures are recommended:

- Improving pedestrian crossing within Grey Street at the immediate approaches to the roundabouts. In this regard, it is acknowledged that pedestrian crossing at roundabouts is inherently difficult and therefore improvements to pedestrian safety in these locations, over the existing situation, will only be modest.
- Providing improved mid-block crossing opportunity, particularly in

Grey Street, between Wentworth and Bourke Streets, and Bourke and Meade Streets. The Master Plan recommends the following with respect to these mid-block crossings:

- The mid-block crossing between Wentworth and Bourke Streets be kept essentially in its current location, and that it remain a marked crossing. The mid-block crossing is recommended to be better configured and better lit at night (to Australian Standards) to improve safety generally, and to enhance the visual appeal of the street in this location;
- It is recommended that the mid-block crossing between Bourke and Meade Streets be replaced by a shared space/ town square arrangement. It is not recommended that this crossing be a marked pedestrian crossing, but a broad open shared space where the speed of vehicles is reduced to 5-10 kph or less via vehicle ramps and narrow marked lanes. The lighting in this location is also recommended to be significantly improved. The configuration of this mid-block crossing opportunity is discussed further in Section 3.3.5 – Town Square.

Pedestrian safety at the three (3) intersection conflict points identified in Section 3.3.2 – Traffic and Parking, will be improved by the measures recommended in that section.

Bicycles

No specific proposals are included in the Master Plan in relation to the provision of dedicated bicycle lanes. Cycling around the CBD area and throughout the Glen Innes township generally should be encouraged via dedicated cycleways. However, it is the recommendation of this Master Plan that no dedicated cycleways be provided through the main street of the town centre. In this regard, it is considered that the current traffic environment provided by the centre parking format and the traffic calming measures proposed in this Master Plan, will provide for the safe accommodation of bicycles for the general population within the vehicle carriageways. This does not accommodate for young children who will need to continue to utilise footpaths.

Bicycle racks are proposed to be located in pedestrian footpaths adjacent the Town Square and mid-block crossing at Grey Street as part of street upgrading works.

Public Transport

This Master Plan makes no specific recommendation in terms of public transport. The Master Plan does not recommend any alteration to the existing system, including the taxi rank on Bourke Street and bus routes, generally. However, the Master Plan encourages any improvement to the public transport system which, as is the case in most rural Australian country towns, would benefit the accessibility of the CBD for the widest range of its population.

Mobility and Visually Impaired

This Master Plan recommends access improvements for mobility and visually impaired people. In this regard the following measures should be adopted in the detailed design and implementation phases of the project:

- That all new works conform as much as possible to access requirements stipulated in Australian Standard AS 1428 – 1428.1-2001;
- That tactile paving be utilized in all new paving works to identify hazards and to indicate direction for visually impaired people, in accordance with Australian Standard AS 1428.4-2002;
- That mobility and visually impaired people be consulted throughout the detailed design and implementation phases of the project.

3.3.4 Main Street Amenity



Grey Street is lined with significant heritage buildings but does have a generally barren feel.

The main feature of Glen Innes CBD, and particularly its main street, Grey Street, is the heritage buildings that front the street and contribute significantly to the streetscape and image of Glen Innes. Otherwise the main street of Glen Innes is characterised by maximisation of on-street car parking and a general lack of trees. The visibility of building frontages from the main street is of high importance, however Grey Street is devoid of effective shade and tree planting and does have a generally barren feel.

Additionally, some streetscape elements within the main precinct, particularly light standards, do not, in this consultancy's view, contribute positively to the amenity of the street. In this regard, the existing lights are small (approximately 4 to 5m high), there are many of them and they are out of scale with the large size of the street space generally. It is acknowledged that some members of the community consider the lights to be a feature of the street and worthy of retention or integration in some way with new works. It is also understood that one of the functions of the existing light standards is to provide some illumination of the building facades which are clearly a feature of the street.

It is noted that Council have been implementing a footpath improvement program over a number stages. The footpath paving incorporates clay paver bands and insitu concrete panels. It is considered that the paving system contributes positively to street amenity.

Overall however, the main street (Grey Street) in the CBD, despite the significant heritage buildings that front it, exhibits a tired and dated feel.

The Master Plan recommends the following measures to improve the amenity of streets in the CBD:

- The provision of advanced tree planting down the centre of the main streets. The type of trees are discussed further in Section

3.3.10 - Tree and Ground Plane Planting.

- **New Street Lighting** – new street lighting is recommended to provide increased levels of light generally throughout the town centre at night. The increased size of the light standards will also likely equate to less lights being required. Lighting is further discussed in Section 3.3.8 - Lighting.
- **Re-configuration of mid-block crossings** in the two main street sections in Grey Street, between Wentworth and Bourke Streets, and Bourke and Meade Streets – the mid-block crossing opportunity within the Bourke to Meade Street section is discussed in greater detail in Section 3.3.5 – Town Square – A Shared Space.
- **The incorporation of better public art and street furniture** – these recommendations are discussed in more detail in Section 3.3.11 Public Art and Local Employment and Section 3.3.8 – Street Furniture.
- **Improvements to pedestrian and vehicle pavements generally** – in this regard it is recommended that the existing parallel and centre parking bitumen paving be rehabilitated, including new line marking, and that the existing footpath paving system employed in the Town Centre in recent times be extended.
- **The incorporation of low colourful ground plane plants** to compliment the tree planting in the street works generally.

3.3.5 Town Square – A Shared Space



Example of shared space in Port Macquarie.

The issue of providing a public space within the main street to encourage street gatherings and activities has been raised previously on a number of occasions. A previous proposal recommended a Town Square within the street space outside the Town Hall to provide for a pedestrian exclusive civic space.

This Master Plan does not recommend a full vehicle exclusion zone but does endorse the concept of providing a significant civic space in the heart of the CBD. In this regard, a large shared space is recommended outside of the Town Hall, a landmark heritage building within the CBD. It is appropriate that this location coincides with the provision of a mid-block pedestrian crossing. In this regard, the town square is providing a multi functional role.

The shared zone space is illustrated on the Master Plan drawings and comprises a shared vehicle/ pedestrian environment where vehicles can traverse the space, but with caution. Traffic speeds are slowed significantly by vehicle ramps and a narrowing of the vehicle carriageway. Whilst the shared space should remain uncluttered, so as to maximize flexibility in catering for as wide a range of civic events as possible, it is recommended that strategically placed seating, lighting, trees, garden beds and public artworks be provided. The resulting space will feel more like a pedestrian space than a vehicle space. In other examples of this application, a safe pedestrian environment has

resulted. No parking is permitted within this zone and the zone can readily be closed off to all traffic to provide for specific civic events. The space may provide for vehicle loading and unloading so long as this does not occur during normal office hours and service vehicle standing time is minimized.

This configuration has been tested in other town centres, including Port Macquarie. A report on the performance of the shared space in Port Macquarie is provided in Appendix D for further reading.

3.3.6 East Avenue Redevelopment Opportunity

East Avenue fronts a significant lineal open space system made up predominately by Edwards Park, Anzac Park and Veness Park. Development of the eastern side of East Avenue includes a mix of commercial and residential uses on generally long and thin allotments. Existing buildings are of varying ages and states of repair and there are a number of vacant sites. There are also numerous accessways to internal carparking areas servicing buildings fronting Grey Street. It has been considered for some time that this area of the CBD, with its very desirable frontage to open space, constitutes good future redevelopment opportunity. Furthermore, Council wishes to encourage redevelopment in this area as part of promoting the ongoing improvement of Glen Innes CBD.

East Avenue has an excellent interface with the parks to its immediate west. The road itself appears excessively wide for its relatively low traffic function. The western side of the street however, is characterized by a narrow verge width which accommodates visually dominant power lines and no street trees.

The Master Plan recommends the following proposals to improve the amenity of East Avenue and hence assist in the encouragement of redevelopment:

- Narrow the East Avenue road pavement by between 0.5 and 1m and provide continuous layback kerb and new and/or modified associated stormwater drainage infrastructure;
- Underground power and introduce an avenue of small to medium sized deciduous street trees;
- Introduce 45° angle parking on the eastern side of the street to increase the capacity of on-street parking generally. This also provides Council the opportunity to offer development incentives in relation to relaxed development car parking requirements;
- Introducing built form and landscaping requirements to ensure that buildings have consistent landscaped setbacks from the street, have direct pedestrian access and appropriately address the street.

The above improvements, coupled with the upgrade recommendations for the Bourke Street and East Avenue and Meade Street and East Avenue intersections (Refer to Section 3.3.2 Traffic and Parking), will significantly improve the street amenity of East Avenue and will assist in the encouragement of redevelopment on the eastern fringes of the CBD.

It is not clear how the above works will be staged and funded however, particularly in advance of any redevelopment proposals. As such these recommendations may be included within a CBD Development Control Plan (DCP) and that any works implemented out of the DCP occur in tandem with future redevelopment.

3.3.7 Large Format Retail Development

As in the case of many rural Australian towns, new large format retail development, including shopping centres, poses a potential threat to the viability of existing businesses in the Glen Innes CBD and the overall integrity of the CBD itself. Ideally, new large format retail development should be located as closely as possible to the town centre to consolidate the centre. There are many instances in the other towns where such development is implemented outside the CBD (often due to the availability of lesser constrained and less costly land), and this has lead to significant adverse impacts.

A zone is recommended on the overall site Master Plan, outside which large format development is not recommended. This zone is bound by Ferguson Street to the north, Wentworth Street to the south, Grey Street to the west and Church Street to the east.

3.3.8 Signage

The Master Plan has recommended signage identifying the CBD from the approaches from the Gwyder and New England Highways. This recommendation is detailed in Section 3.3.1 – Approaches to the Study Area. It is considered that this is the most urgently needed signage in the CBD.

Other miscellaneous signage, including signage indicating off-street car parking areas, signage indicating the location of public buildings and signage directing visitors to public parks should also be considered, however this is not seen to be as urgent at this time. This signage should be simple and legible and located on the approaches to key decision points, particularly vehicle intersections.



Above awning signage should be discouraged.

In relation to advertising signage, a limited number of above awning signs occur in the main street. It is recommended this signage be strongly discouraged. The appearance of signs above awnings constitutes a visual erosion of the building facades which can be extremely detrimental in a town such as Glen Innes, which is well known and visited for its good heritage buildings. The signs that exist now should be removed and future signs discouraged. If these signs are not removed it sends a poor message to other shop owners and retailers potentially wanting to do the same thing.

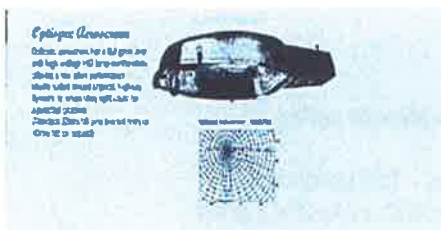
3.3.9 Lighting

Significant improvements to lighting are proposed as part of the Master Plan. New street lighting in the study area should meet the latest Australian Standards for street lighting in street and public domain areas. It is envisaged that the street lighting will be achieved principally by positioning twin arm lights down the centre of the road within the centre car parking areas. Bollards positioned at either side of these light standards, where they are located within car parking areas, is recommended to reduce the risk of vehicle impact and damage of the lights.

Nominal spacing of these lights is 25-30 metres. It is likely that at this spacing the lights will need to be 8-10 metres high, with outreaching arms extending approximately 4 metres either side. This configuration of lighting in the centre of the road will also need to consider the location of street trees. These light standards could also provide the opportunity of mounting of flood lighting to light building facades and the accommodation of street banners. Street banners are discussed further in Section 3.3.11 – Opportunities for Public Art and Local Employment.

It is further recommended that these light standards be simple in form and neutral in colour. In this regard the street lights should be visually less prominent than the existing buildings and new street trees. In effect the light standards should blend into the background as much as possible.

Improved lighting is also recommended in relation to pedestrian lane access, to Grey Street, particularly where additional off-street car parking areas are being provided.



GEC Optispec 'Aeroscreen' as possible light fitting

It is also recommended that consideration be given to the type of light fittings used, including lighting that does not result in the unnecessary waste of light. In this regard it is recommended that flat bed light fittings, such as the GEC Optispec (Aeroscreen) be considered.

3.3.10 Street Furniture and Pavements

Street furniture within the study area is varied in form and age. A variety of seating has been employed, including seating with advertising backs and in more recent times a black coloured mild steel bench seat. A large number of bollards have been used to delineate pedestrian areas from vehicle areas, particularly at roundabout locations. The bollards utilised in these locations is a cast iron bollard painted black. Recently installed litter bins in Grey Street are of a black mild steel construction and are intended to match the more recently installed seating. Wheelie bin enclosures, incorporating timber vertical slats are also in use in the CBD.

The Master Plan recommends the following in relation to street furniture:

- **Seating** – the Master Plan recommends a new seat form, incorporating painted mild steel seat ends and Australian hardwood timber components. In this regard, it is recommended that timber be used as the seating component as opposed to mild steel in that it provides better all year comfort (ie. metal seats get too hot in summer months and too cold in winter months). The seating is also simple in form such as to be able to be manufactured locally. This is seen to be important in terms of generating local employment and ownership generally. The seats will also provide an opportunity for public art. These issues are discussed further in Section 3.3.11 – Opportunities for Public Art and Local Employment.
- **Litter Bins** – the recently installed litter bins in Grey Street are not considered to be of optimal aesthetic quality and lack capacity. However, the timber slated wheelie bin enclosures existing in the CBD are considered appropriate and are recommended to be used in future works. It is recommended that all the metal components of these wheelie bins be painted black to match other street furniture.
- **Bollards** – The existing bollards are considered aesthetically acceptable. There is also a large number of existing bollards which would make their replacement prohibitively costly. To this end the Master Plan recommends the continued use of this bollard standard.



Existing wheelie bins are recommended as a standard with all metal components painted black.

The Master Plan recommends the following in relation to paving:

- **Permeable Pavements and Structural Soils** – This pavement technology is relatively recent (employed initially in Australia at the Olympic Games site in Homebush, Sydney) and has to date proved successful. The paving allows for the penetration of water and air to the roots of growing trees via a combination of concrete pavers with holes and a soil specification which provides for root

growth whilst being structurally able to withstand vehicle loads. The proposed limited use of structural soils in the centre of Grey Street will provide an appropriate tree root growing environment for the large street trees proposed whilst allowing car parking over. This effectively reduces the amount of on-street car parking spaces that will be lost as a result of the tree planting;

- **Asphaltic Concrete Pavement Works** – It is proposed that existing bitumen pavements associated with the centre and parallel parking areas in Grey Street, between Wentworth and Meade Streets be rehabilitated, including the application of a new asphaltic concrete seal. Line marking is also recommended to be applied to the paving to clearly delineate parking spaces.

3.3.11 Tree and Ground Plane Planting

The Master Plan recommends the following forms of tree and ground plane planting:

- Incorporation of street tree planting in the centre of streets in the CBD area. Initially the plantings are proposed in Grey Street, between Wentworth and Meade Streets however, this planting program should be extended into adjoining streets in the latter stages of the implementation program for the Master Plan. It should be noted that street tree planting is not recommended on the edges of the streets where greater potential of blocking visual access to heritage building facades and advertising signage exists. Ideally, the trees should be planted as super advanced specimens (ie. 4m or larger), should ideally be species that are moderate to fast growing and capable of maturing to a height of 10-12m. This is an appropriate size to match the large scale of the street environment.
- The following deciduous tree species is recommended for Grey Street, with the exception of the two trees flanking the proposed shared civic space in front of the Town Hall:
 - Claret ash - (*Fraxinus oxycarpa* 'Raywood') – A fast-growing, hardy tree to 15m. Deep green foliage, turning burgundy in autumn. A dense, bushy tree.
- It is recommended that a single tree species be used for the two trees flanking the proposed shared civic space in front of the Town Hall. An appropriate deciduous tree species for this situation may be selected from:
 - Pin oak – (*Quercus palustris*) – A large conical tree to 18m. Red Autumn foliage.
 - Chinese elm – (*Ulmus parvifolia*) – a grafted variety with fine pendulous leaves and a smooth decorative trunk. Will keep some leaves in winter. Can grow 15m tall and 15m wide, with yellow autumn foliage. Very beautiful, sculptural tree.

- Street tree planting within the verge is recommended on the approaches to the CBD from Wentworth Street and Ferguson Street. In these areas there is a distinct lack of street trees generally and tree planting in these areas is not considered to constitute a high cost because they can be planted into existing grass verges. Tree planting in these areas need not be super advanced (at the time of planting trees should be approximately 2-3m high). Possible deciduous tree planting species for these areas includes:
 - Pin oak – (*Quercus palustris*) – A large conical tree to 18m. Red Autumn foliage.
 - Manchurian pear – (*Pyrus ussuriensis*) – A stunning tree to 8m with deep green, glossy leaves. Bright red autumn foliage and white blossoms in spring. Very hardy and reliable.
 - Sweet gum – (*liquidambar styraciflua*) – A large tree to 18m with a narrow, conical shape. Yellow, red and orange autumn foliage. Requires extra water in dry periods. A known 'drain clogger' in areas with concrete or terracotta pipes. Plant well away from pipes and paving.
- A small to medium street tree is recommended for East Avenue tree planting. An appropriate deciduous tree species for this situation may be selected from the following:
 - Manchurian pear – (*Pyrus ussuriensis*) – a stunning tree to 8m with deep green, glossy leaves. Bright red autumn foliage and white blossoms in spring. Very hardy and reliable.
 - Ornamental cherries, plums, apricots and peaches – (*Prunus species*) – Tough trees 4-6m. Very tolerant of dry, heavy or wet soils. Many flower and foliage colours. Some varieties can produce ornamental fruit.
 - Claret ash - (*Fraxinus oxycarpa 'Raywood'*) – A fast-growing, hardy tree to 15m. Deep green foliage, turning burgundy in autumn. A dense, bushy tree.

It is a further recommendation that all advanced trees provided for planting within the main street, particularly super advanced trees nominated for Grey Street, meet NATSpec specifications. One of the distinct advantages of utilising NATSpec advanced trees is that the staking of trees and the incorporation of tree guards for their stability during the establishment period should not be required, and hence more money is effectively spent on the tree itself.

- Ground plane planting within the CBD is proposed to be of low mature height such as not to block sight lines across the street generally (800mm maximum) or create concealment points. Plant species selected should be colourful and hardy and require minimal watering once established.

3.3.12 Opportunities for Public Art and Local Employment

Public art and local employment are seen as integral components of the upgrading of Glen Innes CBD. Effectively implemented public art and the use of local labour engender ownership, pride and sense of place. This is essential if the works in Glen Innes are going to be broadly accepted and maintained by the local community.

It is a general recommendation that a budget for public art be established at the outset of the implementation stage of the project. This budget is recommended to be a minimum 5% of the total project construction budget.

Significant opportunities for public art include, but should not be limited to:



Example of public art in roundabouts with appropriate scale and quality – Walcha NSW.

- The incorporation of significant public art works within three (3) of the five (5) roundabout locations within the study area - each of these locations provides a very good opportunity to establish artworks in an area of high visibility and on the entry gateway to the CBD main street precinct. It is recommended that the artworks be linked in theme and that this theme may extend the Celtic theme already adopted within the Glen Innes region generally. It is important that these artworks be substantial to be in scale with the street environment. In this regard it is considered the art works need to be a minimum 6m high and ideally larger. A number of suggested forms for these artworks are provided on the Master Plan drawings. These forms should be considered a starting point only. The conceptual design, detail design and implementation of these art works should be undertaken through a dedicated Public Art Program.
- Opportunities for banners associated with the new lighting in the main street - these banners may provide opportunities to celebrate the character of Glen Innes and/or advertise upcoming festival events. The banners should incorporate colourful and eye-catching graphics.
- The use of the proposed bench seat backs as an opportunity for public art - this may take the form of carving into the back seats or an applied finish. In keeping with the established Glen Innes theme, a Celtic pattern may be encouraged.
- The incorporation of public art into new footpath pavements - a simple mechanism to enhance the visual appeal and inject variety to the recently installed footpath pavements may be to cut out random square concrete pavement segments and install ceramic or concrete pavement markers with an engraved or applied motif. The engraved or applied motif may adopt a Celtic theme/ pattern or alternatively, or in addition to, may be an extension to the existing Glen Innes Heritage Walk. The potential for this treatment is illustrated in the Master Plan drawings.
- The use of the entry signage identified in Section 3.3.1 – Approaches to the Study Area, should also be seen as an

opportunity to provide an interesting visual graphic. This visual graphic is recommended to be of a similar theme to recently installed Glen Innes signage on the approach to the township itself.

It is also encouraged that Public Art be designed and implemented in conjunction with the involvement of a suitably qualified urban design consultant. In this regard, public art works should be considered within the context of the scale and character of the street environment such that a seamless and cohesive streetscape solution is achieved.

3.3.13 Services

The Master Plan has been mindful in relation to the location of existing services and the provision of future power services.

Power

With respect to electricity supply in Grey Street it is understood that power lines are located under the awnings of existing buildings and that due to ongoing safety concerns Country Energy wish to relocate the power lines underground and down the centre of the street. Furthermore it is understood that Council Energy will require approximately three (3) pad substations in the centre of the street. The Master Plan has made provision for these substations adjacent roundabouts and in locations which will be most visually acceptable.

Stormwater

Grey Street has limited existing stormwater infrastructure. New pits and extended pipework will be required to accommodate the new mid-block crossings and shared space proposals in Grey Street.

Water Supply

A water main is located in the centre parking area of Grey Street. While the depth of this water main is unknown it can be assumed to be approximately 600mm deep. Given this, even with its off-centre alignment, it is likely that protection of the main (possibly by concrete encasing) will be required in conjunction with proposed street tree planting works.

3.3.14 Crime Prevention

During the development of the Master Plan, Council and the consultants have been mindful of the need to minimise the opportunity for crime through the application of the principals of Crime Prevention Through Environmental Design (CPTED). Features of the design which are consistent with CPTED include:

- Increased levels of lighting in the street and in association with laneways and off-street parking areas;

- Incorporation of suitable planting - all ground plane plants are proposed to be lower than 800mm and trees pruned up to a minimum of 2m to 2.5m high to allow for clear sight lines.
- Employment of design features which do not allow the potential to create concealment opportunity.

It is noted that whilst the Master Plan actively supports the principals of CPTED, this alone cannot be viewed as a solution to any social problems the CBD may experience.

3.3.15 Sustainability

In the development of the Master Plan the consultant team has been conscious of the need to recommend solutions which are consistent with the principals of sustainability. A number of the initiatives proposed in the Master Plan are directly consistent with these principals. They include:

- The use of permeable paving which will reduce road and pavement runoff and provide natural irrigation to street trees;
- The recommended use of street trees which grow well in the Glen Innes CBD and require modest levels of maintenance;
- Recommended use of locally sourced Australian hardwoods in street furniture manufacture;
- Use of local labour in the manufacture of street furniture items; and
- The promotion of public art using local artists and artisans.

GLEN INNES CBD MASTER PLAN
COMMUNITY CONSULTATION FORUM
8 & 9 FEBRUARY 2010

FEEDBACK FORM

Name:

Address:

If a shop owner and/or retailer which building and/or business:

.....

1 Are you generally ☐ happy ☐ unhappy with the preliminary ideas put forward during the forum?

2 Are there any specific ideas put forward on which you would like to comment?

.....
.....

3 Have you any alternative ideas that you think could be incorporated into the Master Plan?

.....
.....

4 Have you any comments on the effectiveness of this Community Consultation Forum?

.....
.....

The back of this form can be used for additional comments.

Please place your completed form in the box at the Forum or return by mail to:

The General Manager
Glen Innes Severn Council
PO Box 61
GLEN INNES NSW 2370

**GLEN INNES CBD MASTER PLAN
MINUTES OF MEETINGS WITH COUNCIL OFFICERS AND STAKEHOLDERS
20 JANUARY 2010
GLEN INNES**

PARTICIPANTS:

Hein Basson	(General Manager, Glen Innes Severn Council),
Graham Price	(Director Development & Environmental Services, Glen Innes Severn Council),
Vanessa Menzie	(Director of Engineering Services, Glen Innes Severn Council),
Lotta Jackson	(Director of Corporate & Community Services, Glen Innes Severn Council),
Tamai Davidson	(Senior Town Planner, Glen Innes Severn Council),
Councillor Steve Toms	(Mayor, Glen Innes Severn Council),
Councillor Col Price	(Deputy Mayor, Glen Innes Severn Council),
Councillors Dan Raymond and Malcolm Schumacher	(Councillor Representatives Open Spaces Committee),
Jorgen La Cour	(Retired Engineer and Advocate for Town Square Concept),
Howard Eastwood	(Past Chair of Celtic Festival Committee and Economic Development Committee Advocate for a CBD Master Plan),
Nola Taylor	(Local Advocate for heritage matters),
Pat Lonergan	(Secretary Manager Glen Innes Severn Tourist Association),
Nicole Schafer	(Local business advocate)
David Tooby	(King & Campbell)

PURPOSE OF STUDY AND PROGRAM

- David Tooby talked about the purpose of the study as specified in the consultants brief and the broad work program. He indicated that the purpose of meeting today was to gather as much information about the site and the people of Glen Innes as possible and also to discuss broad conceptual ideas.
- He indicated that the purpose of the next site visitation in mid February would be to exhibit and discuss with stakeholders preliminary concept proposals that King & Campbell would develop between this time. After the mid February visitation Master Plan documents would be prepared for the purposes of public exhibition and further consultation.

PEOPLE OF GLEN INNES AND CULTURAL IDENTITY

- David Tooby indicated that through his review of the documentation provided with the briefing documents and his understanding generally, Glen Innes, within the last 15 to 20 years particularly, has developed a strong Celtic theme such that Glen Innes is now known as the town which every year has a Celtic Festival. David indicated that this was his and likely other outsiders understanding of Glen Innes and that this identity should be reinforced in any work done in the CBD. It was generally agreed that this approach be adopted.

- David Tooby indicated that various documents provided to him in the briefing material, talked about there being the need for more youth activities within Glen Innes. He asked a question as to whether that pointed to there being a problem with youth unemployment, vandalism and the like. In response it was relayed that there wasn't necessarily any youth problems, in fact evidence of vandalism was generally very low, but that Glen Innes were very conscious as a community that they have to provide for their youth into the future.

ARRIVAL INTO THE CBD

- David Tooby indicated that he arrived at Glen Innes, along the New England Highway from the south and had previously little knowledge of the town i.e. a typical outsider. He observed a distinct lack of signage indicating the location of the CBD. This was perceived as a weakness in relation to the approaches from the Gwydir Highway as well. Participants generally agreed that this was the case and there needed to be additional signage to encourage people to visit the CBD.
- Participants indicated that visitors often mistook Church Street as the centre of Glen Innes and were not even aware Grey Street existed.
- David Tooby indicated that signage to assist in alleviating this problem in relation to the southern approach from the New England Highway would likely best be located on the approaches to Bourke Street or Wentworth Street. Vanessa Menzie indicated that she considered that it was probably better on the approach to Wentworth Street. On later site inspection it was agreed that the approach to Wentworth Street was a preferred location and that signage needed to encroach slightly into the Church Street parking lane to maximise visibility. Signage in this regard should not just be directional signage but should encourage people to visit the CBD.

CAR PARKING

- David Tooby indicated that for there to be amenity gain within main street areas, in terms of street lighting, tree planting and the creation of public spaces and the like, invariably some loss of on-street carparking would result.
- It was also discussed that the creation of additional off-street parking opportunities (i.e. behind the town hall and behind businesses in the block between Bourke Street and Wentworth Street) could potentially offset concerns relating to car parking loss generally, particularly if shop owners could be encouraged to use off-street parking areas.
- Extra policing of on street carparking could also be employed as means of dissuading long term parking in main street areas and increasing carparking turn over generally.
- It was generally considered by participants that an integrated solution to carparking needed to be considered in the Master Plan so as to minimise a potentially negative reaction to on-street carparking loss.

OPPORTUNITIES FOR INCREASING AMENITY IN GREY STREET

David Tooby outlined a number of broad opportunities to increase the amenity of the main street precinct. These included:

- Utilising the four roundabouts on Grey Street for significant public artworks. These artworks need to be appropriate to the scale of the street and need to be well done. The artworks could adopt a Celtic theme as to reinforce the Glen Innes Celtic identity.
- Incorporation of significant tree planting in the centre of the street. Significant tree planting does not necessarily mean lots of trees but a limited number of large trees.
- No trees are recommended on the edges of the street at this stage and in the vicinity of the Town Hall so as to maximise views across the street generally and to the Town Hall.
- Street lighting – replacement of existing street lights with new street lights of 8 to 10 metres high to provide better lighting levels and reduce the number of light poles (and achieve a better visual outcome generally).
- Incorporation of ground plane planting in some of the kerb extensions at roundabouts. This point was discussed at length. Initially, it was considered that planters be placed in these areas to reduce costs and ongoing maintenance associated with removing concrete and creating planted garden beds in these areas. However, it was felt later that perhaps a balanced combination of planters and garden beds would be appropriate.
- Paving – David commended Council on the selection of newly installed footpath paving. It was considered that this paving should continue throughout the town centre.
- Street furniture – David considered that the current bollard used in the town centre should not be changed given that is of generally appropriate form and that there are large numbers of them. David did however raise concerns about the current selection of metal litter bins and seating. He indicated that the metal seat surface would likely be too hot in summer months and too cold in winter months. In this regard David indicated that he would likely provide alternative proposals for consideration that utilise timber, incorporate public art and are able to be manufactured locally.
- Other artwork – David considered that the Celtic artwork theme should be encouraged to be incorporated into as much of the streetscape elements as possible. During an on-site meeting the option of incorporating a Celtic pattern into some of the existing paving was also discussed. This option will be explored further by King & Campbell.

MID –BLOCK CROSSINGS AND TOWN SQUARE PLACE

- The issue of a town square outside the Town Hall was raised and discussed. Mr Jorgen La Cour had previously forwarded a proposal to Council to close off a section of Grey Street outside the Town Hall to create a town square. David Tooby indicated he was aware of that proposal and was supportive of it from the principle of creating a significant public place outside the Town Hall. However, David indicated that he was not necessarily supportive of disallowing traffic through this place altogether. Instead he indicated a preference for creating a calmed pedestrian priority environment which would enable cars to pass through a limited area of the space at traffic speeds of 10 to 15 km or less. In a later site inspection David further indicated that that space may be some 30 metres wide and go across the street and incorporate vehicle ramps to slow vehicles on approaches. The space would be generally simple and incorporate street furniture and trees but keep visibility open across the street.
- The second mid-block crossing in the block between Bourke and Wentworth Streets was also discussed. It was determined that this mid-block crossing maintained its current basic configuration however it be modified such as to make it better integrated with other street upgrading proposals and more visibly pleasing. The above broad proposals were generally accepted by participants of the meetings.

PEDESTRIAN CONNECTIONS

- David indicated that other than the street pedestrian connections, which were generally logical and legible, there was very limited lane access through the blocks, particularly Grey Street to East Avenue. This lack of lane connections did constrain to some degree the effectiveness of the proposal to make better use of off-street car parking areas to the rear of the main street.
- There exists more lane connections on the eastern side of Grey Street than the western and hence better potential opportunity for creating meaningful alternatives to on-street parking.
- Nola Taylor raised a number of pedestrian conflict points particularly at roundabouts and intersections generally. David indicated that it was very difficult to significantly improve pedestrian crossing safety at roundabouts and to some degree safety was encumbant on pedestrians themselves. However he did indicate that in reconfiguring Grey Street there was perhaps some opportunity to improve this situation and this would be considered.
- Also of concern was pedestrian crossing at the intersection of Bourke Street and Church Street. As part of a later site inspection it became apparent that providing kerb extensions and centre median refuges may significantly improve pedestrian safety at this intersection. This would be considered by David in the development of sketch plans.
- Pedestrian safety was also discussed at the bridge crossings of Meade and Bourke Street associated with the significant lineal parks between East Avenue and West Avenue. No obvious solution to improve this situation was evident at the time of site inspection and it was determined that the traffic consultant Glen Holdsworth, who will be visiting the site as part of the second

visitation, will meet on site with Vanessa Menzie to try and come up with a solution to improve this problem.

DEVELOPMENT FRONTING EAST AVENUE

- It is clear that the people of Glen Innes hold the view that 'our parks are our beach'. To this end it was seen that development fronting East Avenue and the parks could take better advantage of this proximity and that this presented an opportunity for significant redevelopment. It was generally considered that development in this area should encourage shop top living and commercial floor space and if done well could have the effective of activating East Avenue and the park.
- David indicated that any living within the CBD should be encouraged to promote the vitality of the CBD beyond normal office hours.

ISSUES RELATING TO VISITATION TO GLEN INNES

- Pat Lonergan raised a couple of issues in relation to tourism and providing facilities for people visiting the town. The first was the provision for long vehicle parking within or within close proximity to the CBD. She indicated that parking for caravans or long recreational vehicles, which were commonly driven by older people, was not currently catered for within close proximity of the CBD and it was considered too far to walk from the outer edges of the CBD, such as East Avenue into Grey Street. In this regard parking for longer vehicles in close proximity to the main street was considered to be desirable. A possible location for such parking may be in the off-street designated car parking areas at the back of main street, and providing ready and well signposted pedestrian access to Grey Street via lanes.

SIGNAGE

- David Tooby indicated that signage generally within the town centre area should be limited to those signs that are absolutely needed - that the proliferation of signage often leads to visual confusion and illegibility overall. All participants agreed with this view.
- David indicated concern that there was a couple of signs starting to appear above awnings which were visually detracting from the heritage value of the buildings and that this signage should be encouraged to be removed as soon as possible, particularly as it could well be creating a dangerous precedent.
- Sandwich board signage was also discussed and it was generally agreed that it was undesirable and should not be encouraged.
- Entry/arrival signage indicating the location and encouraging visitation to the CBD has been previously discussed. Signage may be also incorporated into the CBD indicating the direction of the parklands to the east. Additionally, directional signage to off-street parking areas may encourage better patronage of off-street parking areas. David indicated that he would make general recommendations in relation to signage.

ACCESS AT MCKENZIE BUILDING MALL

- During the site visitation the issue of a pedestrian/vehicle conflict point outside the mall entry from the McKenzie Building on Grey Street was raised. The internal mall connects BiLo and the Target building to the street via an opening of approximately 6.5m. Commonly people with trolleys exit the building at this point and cross the road to load vehicles in the centre of the street. This was creating potentially dangerous vehicle/pedestrian conflict which may result in serious accidents. It was determined at this time that a potential solution involved extending the footpath paving out to the line of the carriageway and incorporating bollards such as to give motorists and pedestrians a visual cue of this pedestrian crossing point. This treatment may enhance awareness for both vehicles and pedestrians and reduce the risk of accident. This is to be considered further in the design.

ELECTRICAL SUBSTATIONS

- David Tooby was made aware of Country Energy proposals to locate up to three pad mount substations within the street and the centre parking areas. This was in lieu of the current electrical reticulation which is attached to the underside of the awnings and which is considered undesirable and a safety hazard.
- Participants raised concerns about the undesirable appearance of the pad mounts and the potential for visual obstruction during centre parking manoeuvring.
- David Tooby agreed that the location of pad mounts in the centre of the street was undesirable. However, if they were located closer to the roundabouts and not in mid block crossing locations there would be more potential for the appropriate visual softening of the structures. He indicated they would always be visible and that planting would not necessarily screen the entire pad mount facility, however, with a combination of appropriate location, low screen planting and painting of the structures an acceptable visual solution could potentially be achieved. He indicated they should not be in locations where visual amenity would be significantly higher, particularly adjacent the Town Hall.
- Council staff also indicated that Country Energy may be willing to assist with the installation of electrical reticulation and street lighting and that overall this may help to reduce costs.

To Inverell ←

→ To Grafton



SCALE: 1:1500 @ A1

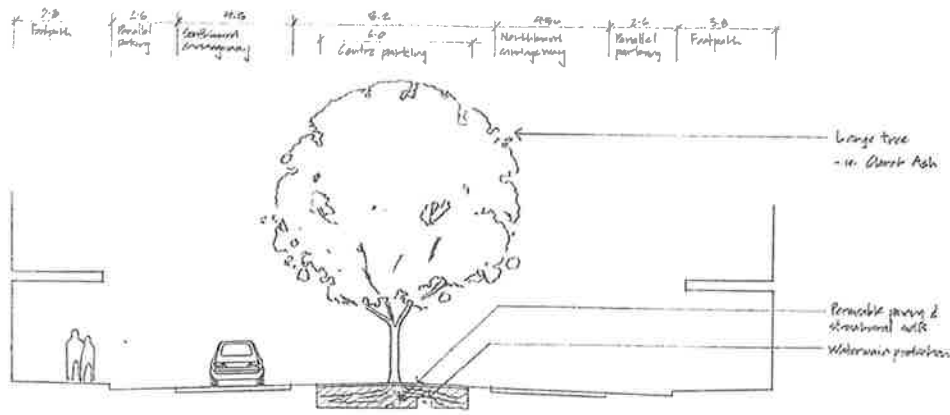


This map is a summary of the information contained in the Glen Innes CBD Master Plan. It is not a legal document and should not be used for legal purposes. The map is for informational purposes only and is not a guarantee of accuracy. The map is subject to change without notice. The map is not a substitute for a professional survey or other technical drawing. The map is not a guarantee of accuracy. The map is subject to change without notice. The map is not a substitute for a professional survey or other technical drawing.

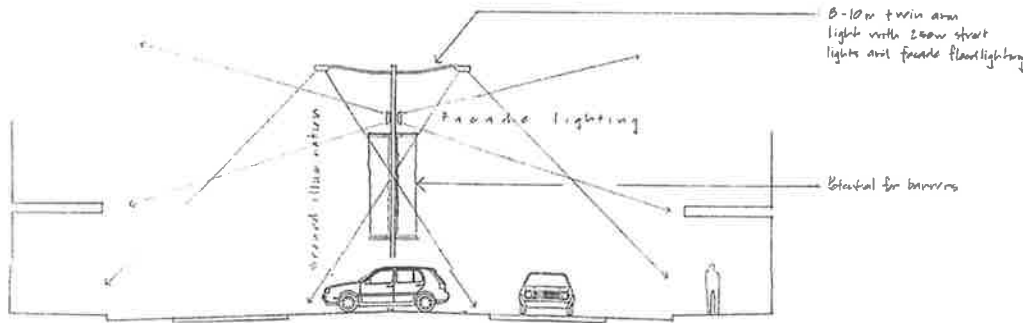
KING + CAMPBELL
PO Box 242 Pottsville NSW 2444 T: 02 1586 2553 F: 02 6583 4064

GLEN INNES CBD MASTER PLAN STUDY AREA

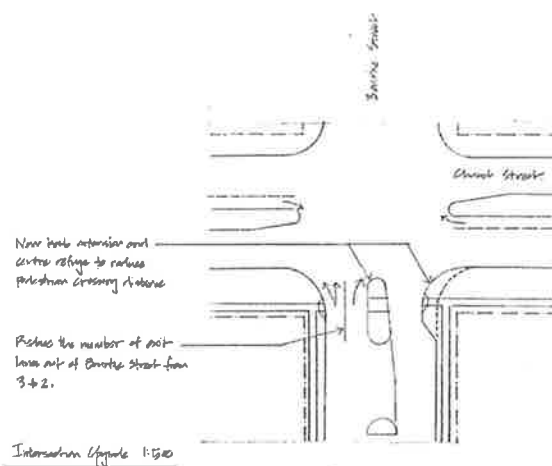




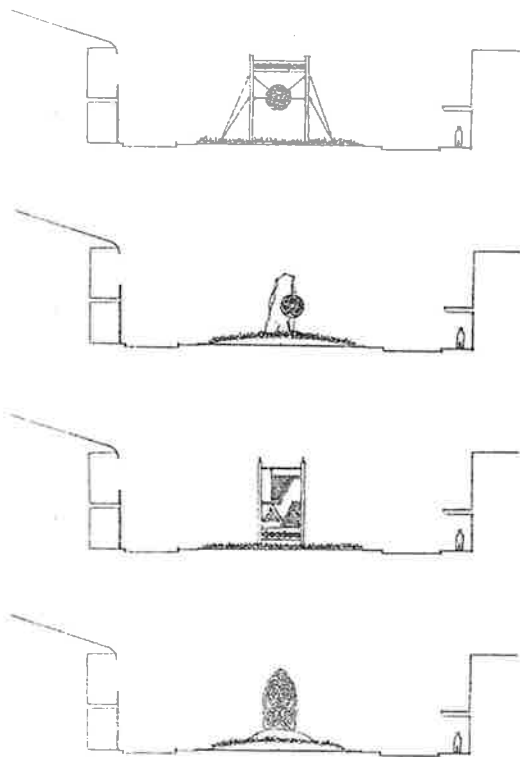
Army Street
Section 1:100



Army Street
Section 1:100



Intersection Upgrade 1:500



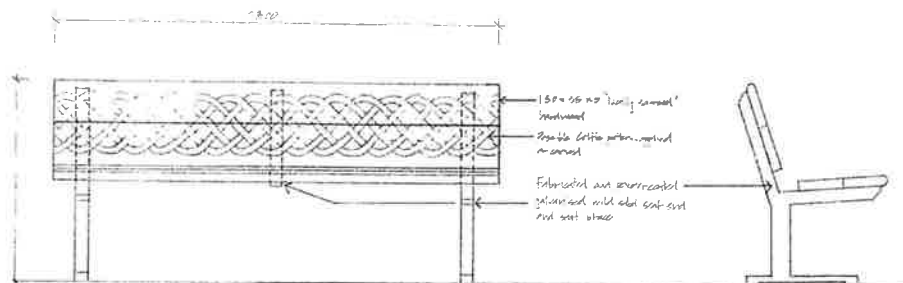
Possible Monument Artworks



Entry Square



Edge of existing square



Seat Detail 1:10



Proposed new litter bin

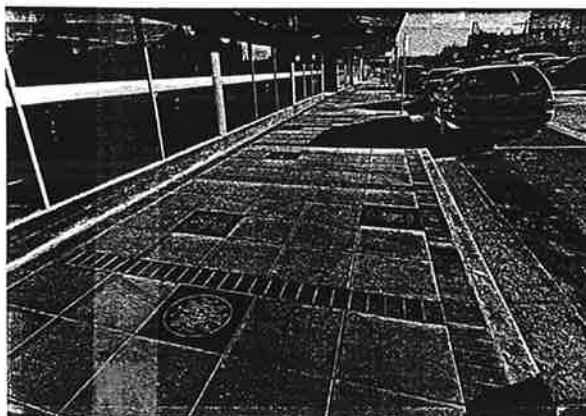


Existing bollard litter bin



Existing stone paving

Typical stone paving squares are not in 1:1 scale existing and should use Celtic patterned stone (or paving) paving





Centre tree planting and Shared zone



Street furniture



Vehicle and pedestrian zone differentiation



Permeable paving



Shared Zone



Permeable paving in road

Section 4

Staging and Costing of Master Plan Proposals

4.1 Preamble

To assist in the budgeting and forward programming associated with the implementation of Master Plan works, a staging plan and preliminary costing for the individual stages identified is provided in this Section.

4.2 Staging

The number of individual stages is intended to indicate at what time, relative to other stages, an individual stage is recommended to be implemented. Thirteen (13) individual stages have been identified for implementation over the next twenty years. The extent of these stages in Grey Street is illustrated on attached **Exhibit 7 – Staging Plan**. The recommended timing of these stages is broadly proposed as follows:

Stage		Timing
1A	Town Square	1-2 years
1B	Entry Signage	1-2 years
2	Grey Street, Meade Street to Bourke Street	2-4 years
3	Grey Street, Bourke Street to mid block crossing	4-6 years
4	Grey Street, mid block crossing	4-6 years
5	Grey Street, mid block crossing to Wentworth Streets	5-7 years
6	Roundabout at Bourke Street and Grey Street, including public artworks	5-7 years
7	Roundabout at Wentworth Street and Grey Street, including public artwork	2-3 years
8	Roundabout at Meade Street and Grey Street, including public artwork	8-10 years
9	East Avenue improvement works	In conjunction with development
10	Tree planting in Ferguson and Wentworth Streets	1-5 years
11	Intersection of East Avenue and Bourke Streets	5-10 years
12	Intersection of East Avenue and Meade Street	10-15 years
13	Intersection of Bourke Street and Church Street	10-15 years

4.3 Costing

The costings provided hereafter for each stage is preliminary only and is subject to detailed site survey and design. In addition, costings may vary markedly depending on Council and service authority requirements (particularly in relation to services).

Costing summary (refer to Opinion of Probably Costs for each stage hereafter):

Stage	Description	Opinion of Probable Costs
1A	Town Square	\$446 222
1B	Entry Signage	N/A
2	Grey Street, Meade Street to Bourke Street	\$368 450
3	Grey Street, Bourke Street to mid block crossing	\$224 198
4	Grey Street, mid block crossing	\$134 174
5	Grey Street, mid block crossing to Wentworth Streets	\$133 924
6	Roundabout at Bourke Street and Grey Street, including public artworks	\$156 280
7	Roundabout at Wentworth Street and Grey Street, including public artwork	\$156 280
8	Roundabout at Meade Street and Grey Street, including public artwork	\$56 280
9	East Avenue improvement works	N/A
10	Tree planting in Ferguson and Wentworth Streets	\$23 000
11	Intersection of East Avenue and Bourke Streets	\$216 065
12	Intersection of East Avenue and Meade Street	\$216 065
13	Intersection of Bourke Street and Church Street	\$62 912

There are no costings provided for Stages 1B and 9. In relation to Stage 1B, an allowance of \$5000 dollars for each entry sign is recommended. In relation to Stage 9, the cost of relocating the power underground is too difficult to determine without detailed consultation with the electrical supplier. It is considered that this consultation occur as part of Council's ongoing liaison with Country Energy, perhaps in conjunction with the Grey Street power line relocation issue.

ESTIMATE OF PROBABLE COSTS
Glen Innes CBD Master Plan - Stage 1A : Town Square

Ref: 5223

Item	Description	Unit	Quantity	Rate	Cost
1.1	<u>Set up costs</u>	say	1	\$10,000.00	\$10,000.00
1.2	<u>Demolition</u>				
1.2.1	Demolition of all paved areas, including pedestrian and road, removal of all trees, disposal to landfill and all safety fencing and pedestrian and vehicular management.	say	1	\$20,000.00	\$20,000.00
1.2.2	Removal of streetlights, and street furniture and stockpile at Council for reuse.	say	1	\$1,000.00	\$1,000.00
1.3	<u>Kerbs</u>				
1.3.1	Supply and install kerb and gutter, including adjustment to road pavement	lm	40	\$90.00	\$3,600.00
1.3.2	Supply and install kerb	lm	20	\$90.00	\$1,800.00
1.4	<u>Pavement</u>				
1.4.1	Supply and install 150mm special finish concrete , including all jointing, reinforcing and finishing	m ²	700	\$200.00	\$140,000.00
1.4.2	Supply and install 100mm special finish concrete (in footpath areas), including all jointing, reinforcing and finishing	m ²	360	\$135.00	\$48,600.00
1.4.3	Supply and install brushed concrete paving to pedestrian access at disabled bays.	m ²	30	\$100.00	\$3,000.00
1.4.4	Supply and install vehicle ramps	each	4	\$4,000.00	\$16,000.00
1.4.5	Asphaltic concrete road pavement (allowance for repairs)	m ²	100	\$25.00	\$2,500.00
1.5	<u>Drainage</u>				
1.5.1	Allowance to supply and install stormwater infrastructure,including new pits and pipework and subsoil drainage	item		\$20,000.00	\$20,000.00
1.6	<u>Street Furniture</u>				
1.6.1	Supply and install tactile and directional surface indicators to AS 1428 (say 40m2)	m ²	40	\$250.00	\$10,000.00
1.6.2	Supply and install bollards	each	24	\$400.00	\$9,600.00
1.6.3	Supply and install litter bin (say 6)	each	6	\$1,800.00	\$10,800.00
1.6.4	Supply and install seats (say 6)	each	6	\$1,600.00	\$9,600.00

Item	Description	Unit	Quantity	Rate	Cost
1.7	<u>Lights</u>				
1.7.1	Supply and install street lights	each	2	\$6,000.00	\$12,000.00
1.8	<u>Landscaping</u>				
1.8.1	Garden bed preparation, including the supply and installation of imported topsoil and mulch and ground plane plants	m ²	110	\$55.00	\$6,050.00
1.8.2	Supply and plant advanced trees				
	- In median	each	2	\$3,000.00	\$6,000.00
1.9	<u>Miscellaneous Items</u>				
1.9.1	Allowance for adjustments to service pit lids	say	1	\$5,000.00	\$5,000.00
	Sub Total				\$335,550.00
1.10	<u>Public Art</u>				
1.10.1	Allowance for Public Art (5% of construction budget)				\$16,717.50
1.11	<u>Detailed Design</u>				
1.11.1	Allowance for detailed site survey and civil and landscape detailed design (8.0% of construction budget)				\$26,844.00
2.1	<u>Plus Contingency (20%)</u>				\$67,110.00
	TOTAL FOR STAGE 1				\$446,221.50

Notes:

- 1 All prices are exclusive of GST
- 2 The above prices are preliminary only and are intended for the purposes of feasibility and budget analysis. All costings are subject to Council approval, detailed site survey and detailed design.
- 3 The above prices do not include for:
 - * Does not include for undergrounding of power and pad mount substations, should such be required
 - * Services work, should such be required, other than the allowances made for stormwater infrastructure.
 - * Electrical reticulation works for street lighting
 - * Additional and/or alternative lighting should such be determined to be necessary by the electrical designer.
 - * Services conduits, should such be required.
 - * Landscaping irrigation, should such be required.
 - * Maintenance period for works, should such be required.
 - * Council tipping fees.
 - * Tree transplanting, should such be required.
 - * Relocation of public phones, should such be required.
 - * Banner design, manufacture and installation.
 - * Construction administration costs.

ESTIMATE OF PROBABLE COSTS

Glen Innes CBD Master Plan - Stage 2 : Meade Street to Bourke Street, not including Town Square.

Ref: 5223

Item	Description	Unit	Quantity	Rate	Cost
1.1	<u>Set up costs</u>	say	1	\$10,000.00	\$10,000.00
1.2	<u>Demolition</u>				
1.2.1	Demolition of all paved areas, including pedestrian and road, removal of all trees, disposal to landfill and all safety fencing and pedestrian and vehicular management.	say	1	\$20,000.00	\$20,000.00
1.2.2	Removal of streetlights, and street furniture and stockpile at Council for reuse.	say	1	\$1,000.00	\$1,000.00
1.3	<u>Kerbs</u>				
1.3.1	Supply and install kerb at roundabout pedestrian crossing points.	lm	132	\$90.00	\$11,880.00
1.3.2	Supply and install flush kerb at centre tree planting areas.	lm	71	\$50.00	\$3,550.00
1.3.3	Supply and install concrete garden edge around trees	lm	54	\$50.00	\$2,700.00
1.4	<u>Pavement</u>				
1.4.1	Supply and install 100mm special finish concrete (in footpath areas), including all jointing, reinforcing and finishing	m ²	100	\$135.00	\$13,500.00
1.4.2	Supply and install brushed concrete paving to garden beds adjacent to roundabout.	m ²	40	\$100.00	\$4,000.00
1.4.3	Supply and install permeable paving, including structural soils*, geofabric, bedding sand, aggregate and Ecoloc pavers	m ²	100	\$300.00	\$30,000.00
1.4.4	Asphaltic concrete road pavement	m ²	1300	\$50.00	\$65,000.00
1.5	<u>Drainage</u>				
1.5.1	Allowance to supply and install stormwater infrastructure, including new pits and pipework and subsoil drainage	item	1	\$20,000.00	\$20,000.00
1.6	<u>Street Furniture</u>				
1.6.1	Supply and install bollards	each	20	\$400.00	\$8,000.00
1.6.2	Supply and install litter bin (say 6)	each	6	\$1,800.00	\$10,800.00
1.6.3	Supply and install seats (say 6)	each	6	\$1,600.00	\$9,600.00

Item	Description	Unit	Quantity	Rate	Cost
1.7	<u>Lights</u>				\$0.00
1.7.1	Supply and install street lights	each	6	\$6,000.00	\$36,000.00
					\$0.00
1.8	<u>Landscaping</u>				\$0.00
1.8.1	Garden bed preparation, including the supply and installation of imported topsoil and mulch and ground plane plants	m ²	200	\$55.00	\$11,000.00
1.8.2	Supply and plant advanced trees	each	5	\$3,000.00	\$15,000.00
					\$0.00
1.9	<u>Miscellaneous Items</u>				\$0.00
1.9.1	Allowance for adjustments to service pit lids	say	1	5000	\$5,000.00
	Sub Total				\$277,030.00
1.10	<u>Public Art</u>				
1.10.1	Allowance for Public Art (5% of construction budget)				\$13,851.50
1.11	<u>Detailed Design</u>				
1.11.1	Allowance for detailed site survey and civil and landscape detailed design (8.0% of construction budget)				\$22,162.40
2.1	<u>Plus Contingency (20%)</u>				\$55,406.00
	TOTAL FOR STAGE 1				\$368,449.90

Notes:

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- 3 The above prices do not include for:
 - * Does not include for undergrounding of power and pad mount substations, should such be required
 - * Services work, should such be required, other than the allowances made for stormwater infrastructure.
 - * Electrical reticulation works for street lighting
 - * Additional and/or alternative lighting should such be determined to be necessary by the electrical designer.
 - * Services conduits, should such be required.
 - * Landscaping irrigation, should such be required.
 - * Maintenance period for works, should such be required.
 - * Council tipping fees.
 - * Tree transplanting, should such be required.
 - * Relocation of public phones, should such be required.
 - * Banner design, manufacture and installation.
 - * Construction administration costs.
- 4 * It is assumed that structural soils can be manufactured locally. If structural soils have to be sourced from outside the region, additional costs may be incurred.

ESTIMATE OF PROBABLE COSTS

Glen Innes CBD Master Plan - Stage 3 : Bourke Street to Mid block crossing

Ref: 5223

Item	Description	Unit	Quantity	Rate	Cost
1.1	<u>Set up costs</u>	say	1	\$10,000.00	\$10,000.00
1.2	<u>Demolition</u>				
1.2.1	Demolition of all paved areas in centre and parallel parking areas, including removal of all trees, disposal to landfill and all safety fencing and pedestrian and vehicular management.	say	1	\$20,000.00	\$20,000.00
1.2.2	Removal of streetlights, and street furniture and stockpile at Council for reuse.	say	1	\$1,000.00	\$1,000.00
1.3	<u>Kerbs</u>				
1.3.1	Supply and install kerb at roundabout pedestrian crossing points.	lm	68	\$90.00	\$6,120.00
1.3.2	Supply and install flush kerb at centre tree planting areas.	lm	46	\$50.00	\$2,300.00
1.3.3	Supply and install concrete garden edge around trees	lm	36	\$50.00	\$1,800.00
1.4	<u>Pavement</u>				
1.4.1	Supply and install 100mm special finish concrete (in footpath areas), including all jointing, reinforcing and finishing	m ²	50	\$135.00	\$6,750.00
1.4.2	Supply and install brushed concrete paving to garden beds adjacent to roundabout.	m ²	20	\$100.00	\$2,000.00
1.4.3	Supply and install permeable paving, including structural soils*, geofabric, bedding sand, aggregate and Ecocloc pavers	m ²	70	\$300.00	\$21,000.00
1.4.4	Asphaltic concrete road pavement	m ²	620	\$50.00	\$31,000.00
1.5	<u>Drainage</u>				
1.5.1	Allowance to supply and install stormwater infrastructure, including new pits and pipework and subsoil drainage	item	1	\$10,000.00	\$10,000.00
1.6	<u>Street Furniture</u>				
1.6.1	Supply and install tactile and directional surface indicators to AS 1428	m ²	10	\$250.00	\$2,500.00
1.6.2	Supply and install bollards	each	12	\$400.00	\$4,800.00
1.6.3	Supply and install litter bin (say 3)	each	3	\$1,800.00	\$5,400.00
1.6.4	Supply and install seats (say 4)	each	4	\$1,600.00	\$6,400.00

Item	Description	Unit	Quantity	Rate	Cost
1.7	<u>Lights</u>				
1.7.1	Supply and install street lights	each	3	\$6,000.00	\$18,000.00
1.8	<u>Landscaping</u>				
1.8.1	Garden bed preparation, including the supply and installation of imported topsoil and mulch and ground plane plants	m ²	100	\$55.00	\$5,500.00
1.8.2	Supply and plant advanced trees	each	3	\$3,000.00	\$9,000.00
1.9	<u>Miscellaneous Items</u>				
1.9.1	Allowance for adjustments to service pit lids	say	1	5000	\$5,000.00
	Sub Total				\$168,570.00
1.10	<u>Public Art</u>				
1.10.1	Allowance for Public Art (5% of construction budget)				\$8,428.50
1.11	<u>Detailed Design</u>				
1.11.1	Allowance for detailed site survey and civil and landscape detailed design (8.0% of construction budget)				\$13,485.60
2.1	<u>Plus Contingency (20%)</u>				\$33,714.00
	TOTAL FOR STAGE 1				\$224,198.10

Notes:

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- 3 The above prices do not include for:
 - * Does not include for undergrounding of power and pad mount substations, should such be required
 - * Services work, should such be required, other than the allowances made for stormwater infrastructure.
 - * Electrical reticulation works for street lighting
 - * Additional and/or alternative lighting should such be determined to be necessary by the electrical designer.
 - * Services conduits, should such be required.
 - * Landscaping irrigation, should such be required.
 - * Maintenance period for works, should such be required.
 - * Council tipping fees.
 - * Tree transplanting, should such be required.
 - * Relocation of public phones, should such be required.
 - * Banner design, manufacture and installation.
 - * Construction administration costs.
- 4 * It is assumed that structural soils can be manufactured locally. If structural soils have to be sourced from outside the region, additional costs may be incurred.

ESTIMATE OF PROBABLE COSTS
Glen Innes CBD Master Plan - Stage 4 : Mid block crossing

Ref: 5223

Item	Description	Unit	Quantity	Rate	Cost
1.1	<u>Set up costs</u>	say	1	\$10,000.00	\$10,000.00
1.2	<u>Demolition</u>				
1.2.1	Demolition of all paved areas in centre and parallel parking areas, including removal of all trees, disposal to landfill and all safety fencing and pedestrian and vehicular management.	say	1	\$10,000.00	\$10,000.00
1.2.2	Removal of streetlights, and street furniture and stockpile at Council for reuse.	say	1	\$500.00	\$500.00
1.3	<u>Kerbs</u>				
1.3.1	Supply and install kerbs and gutters, including adjustment to road pavement	lm	20	\$60.00	\$1,200.00
1.3.2	Supply and install kerb at kerb extensions	lm	30	\$90.00	\$2,700.00
1.3.3	Supply and install concrete garden edge around trees	lm	40	\$50.00	\$2,000.00
1.4	<u>Pavement</u>				
1.4.1	Supply and install 100mm special finish concrete (in footpath areas), including all jointing, reinforcing and finishing	m ²	82	\$135.00	\$11,070.00
1.4.2	Asphaltic concrete road pavement	m ²	90	\$50.00	\$4,500.00
1.4.3	Marked crossing	Item			
1.5	<u>Drainage</u>				
1.5.1	Allowance to supply and install stormwater infrastructure, including new pits and pipework and subsoil drainage	item	1	\$20,000.00	\$20,000.00
1.6	<u>Street Furniture</u>				
1.6.1	Supply and install tactile and directional surface indicators to AS 1428	m2	10	\$250.00	\$2,500.00
1.6.2	Supply and install bollards	each	8	\$400.00	\$3,200.00
1.6.3	Supply and install litter bin (say 2)	each	2	\$1,800.00	\$3,600.00
1.6.4	Supply and install seats (say 2)	each	2	\$1,600.00	\$3,200.00

Item	Description	Unit	Quantity	Rate	Cost
1.7	<u>Lights</u>				
1.7.1	Supply and install street lights	each	2	\$6,000.00	\$12,000.00
1.8	<u>Landscaping</u>				
1.8.1	Garden bed preparation, including the supply and installation of imported topsoil and mulch and ground plane plants	m ²	95	\$55.00	\$5,225.00
1.8.2	Supply and plant advanced trees	each	2	\$3,000.00	\$6,000.00
1.9	<u>Miscellaneous Items</u>				
1.9.1	Allowance for adjustments to service pit lids	say	1	3000	\$3,000.00
Sub Total					\$100,695.00
1.10	<u>Public Art</u>				
1.10.1	Allowance for Public Art (5% of construction budget)				\$5,284.75
1.11	<u>Detailed Design</u>				
1.11.1	Allowance for detailed site survey and civil and landscape detailed design (8.0% of construction budget)				\$8,055.60
2.1	<u>Plus Contingency (20%)</u>				\$20,139.00
TOTAL FOR STAGE 1					\$134,174.35

Notes:

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- 3 The above prices do not include for:
 - * Does not include for undergrounding of power and pad mount substations, should such be required
 - * Services work, should such be required, other than the allowances made for stormwater infrastructure.
 - * Electrical reticulation works for street lighting
 - * Additional and/or alternative lighting should such be determined to be necessary by the electrical designer.
 - * Services conduits, should such be required.
 - * Landscaping irrigation, should such be required.
 - * Maintenance period for works, should such be required.
 - * Council tipping fees.
 - * Tree transplanting, should such be required.
 - * Relocation of public phones, should such be required.
 - * Banner design, manufacture and installation.
 - * Construction administration costs.

ESTIMATE OF PROBABLE COSTS

Glen Innes CBD Master Plan - Stage 5 : Mid block crossing to Wentworth Street

Ref: 5223

Item	Description	Unit	Quantity	Rate	Cost
1.1	<u>Set up costs</u>	say	1	\$10,000.00	\$10,000.00
1.2	<u>Demolition</u>				
1.2.1	Demolition of all paved areas in centre and parallel parking areas, including removal of all trees, disposal to landfill and all safety fencing and pedestrian and vehicular management.	say	1	\$10,000.00	\$10,000.00
1.2.2	Removal of streetlights and street furniture and stockpile at Council for reuse.	say	1	\$500.00	\$500.00
1.3	<u>Kerbs</u>				
1.3.1	Supply and install kerbs and gutters, including adjustment to road pavement	lm	20	\$60.00	\$1,200.00
1.3.2	Supply and install kerb at roundabout pedestrian crossing points	lm	30	\$90.00	\$2,700.00
1.3.3	Supply and install concrete garden edge around trees	lm	40	\$50.00	\$2,000.00
1.4	<u>Pavement</u>				
1.4.1	Supply and install 100mm special finish concrete (in footpath areas), including all jointing, reinforcing and finishing	m ²	82	\$135.00	\$11,070.00
1.4.2	Asphaltic concrete road pavement	m ²	90	\$50.00	\$4,500.00
1.5	<u>Drainage</u>				
1.5.1	Allowance to supply and install stormwater infrastructure, including new pits and pipework and subsoil drainage	item	1	\$20,000.00	\$20,000.00
1.6	<u>Street Furniture</u>				
1.6.1	Supply and install tactile and directional surface indicators to AS 1428	m2	10	\$250.00	\$2,500.00
1.6.2	Supply and install bollards	each	8	\$400.00	\$3,200.00
1.6.3	Supply and install litter bin (say 2)	each	2	\$1,800.00	\$3,600.00
1.6.4	Supply and install seats (say 2)	each	2	\$1,600.00	\$3,200.00

Item	Description	Unit	Quantity	Rate	Cost
1.7	<u>Lights</u>				
1.7.1	Supply and install street lights	each	2	\$6,000.00	\$12,000.00
1.8	<u>Landscaping</u>				
1.8.1	Garden bed preparation, including the supply and installation of imported topsoil and mulch and ground plane plants	m ²	95	\$55.00	\$5,225.00
1.8.2	Supply and plant advanced trees	each	2	\$3,000.00	\$6,000.00
1.9	<u>Miscellaneous Items</u>				
1.9.1	Allowance for adjustments to service pit lids	say	1	3000	\$3,000.00
Sub Total					\$100,695.00
1.10	<u>Public Art</u>				
1.10.1	Allowance for Public Art (5% of construction budget)				\$5,034.75
1.11	<u>Detailed Design</u>				
1.11.1	Allowance for detailed site survey and civil and landscape detailed design (8.0% of construction budget)				\$8,055.60
2.1	<u>Plus Contingency (20%)</u>				\$20,139.00
TOTAL FOR STAGE 1					\$133,924.35

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- 3 The above prices do not include for:
 - * Does not include for undergrounding of power and pad mount substations, should such be required
 - * Services work, should such be required, other than the allowances made for stormwater infrastructure.
 - * Electrical reticulation works for street lighting
 - * Additional and/or alternative lighting should such be determined to be necessary by the electrical designer.
 - * Services conduits, should such be required.
 - * Landscaping irrigation, should such be required.
 - * Maintenance period for works, should such be required.
 - * Council tipping fees.
 - * Tree transplanting, should such be required.
 - * Relocation of public phones, should such be required.
 - * Banner design, manufacture and installation.
 - * Construction administration costs.
- 4 * It is assumed that structural soils can be manufactured locally. If structural soils have to be sourced from outside the region, additional costs may be incurred.

ESTIMATE OF PROBABLE COSTS

Glen Innes CBD Master Plan - Stage 6 : Roundabout at Bourke Street and Grey Street Similar cost for Stage 7: Roundabout at Wentworth Street and Grey Street

Ref: 5223

Item	Description	Unit	Quantity	Rate	Cost
1.1	<u>Set up costs</u>	say	1	\$10,000.00	\$10,000.00
1.2	<u>Demolition</u>				
1.2.1	Cut and remove concrete from kerb extension areas, disposal to landfill and all safety fencing and pedestrian and vehicular management	say	1	\$5,000.00	\$5,000.00
1.2.2	Removal of streetlights, and street furniture and stockpile at Council for reuse	say	1	\$1,000.00	\$1,000.00
1.3	<u>Street Furniture</u>				
1.3.1	Relocate existing bollards (approx 40)	each	40	\$100.00	\$4,000.00
1.3.2	Supply and install litter bins (say 2)	each	2	\$1,800.00	\$3,600.00
1.3.3	Supply and install seats (say 4)	each	4	\$1,600.00	\$6,400.00
1.4	<u>Lights</u>				
1.4.1	Supply and install street lights	each	2	\$6,000.00	\$12,000.00
1.5	<u>Landscaping</u>				
1.5.1	Garden bed preparation, including the supply and installation of imported topsoil and mulch and ground plane plants	m ²	70	\$70.00	\$4,900.00
Sub Total					\$46,900.00
1.6	<u>Public Art</u>				
1.6.1	Allowance for Public Art in roundabout	say	1	100000	\$100,000.00
2.1	<u>Plus Contingency (20%)</u>				\$9,380.00
TOTAL FOR STAGE 1					\$156,280.00

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- 3 The above prices do not include for:
 - * Does not include for undergrounding of power and pad mount substations, should such be required
 - * Services work, should such be required, other than the allowances made for stormwater infrastructure.
 - * Electrical reticulation works for street lighting
 - * Additional and/or alternative lighting should such be determined to be necessary by the electrical designer.
 - * Services conduits, should such be required.
 - * Landscaping irrigation, should such be required.
 - * Maintenance period for works, should such be required.
 - * Council tipping fees.
 - * Tree transplanting, should such be required.
 - * Relocation of public phones, should such be required.
 - * Banner design, manufacture and installation.
 - * Construction administration costs.

ESTIMATE OF PROBABLE COSTS

Glen Innes CBD Master Plan - Stage 8 : Roundabout at Meade Street and Grey Street

Ref: 5223

Item	Description	Unit	Quantity	Rate	Cost
1.1	<u>Set up costs</u>	say	1	\$10,000.00	\$10,000.00
1.2	<u>Demolition</u>				
1.2.1	Cut and remove concrete from kerb extension areas, disposal to landfill and all safety fencing and management.	say	1	\$5,000.00	\$5,000.00
1.2.2	Removal of streetlights, and street furniture and stockpile at Council for reuse.	say	1	\$1,000.00	\$1,000.00
1.3	<u>Street Furniture</u>				
1.3.1	Relocate existing bollards (approx 40)	each	40	\$100.00	\$4,000.00
1.3.2	Supply and install litter bins (say 2)	each	2	\$1,800.00	\$3,600.00
1.3.3	Supply and install seats (say 4)	each	4	\$1,600.00	\$6,400.00
1.4	<u>Lights</u>				
1.4.1	Supply and install street lights	each	2	\$6,000.00	\$12,000.00
1.5	<u>Landscaping</u>				
1.5.1	Garden bed preparation, including the supply and installation of imported topsoil and mulch and ground plane plants	m ²	70	\$70.00	\$4,900.00
	Sub Total				\$46,900.00
2.1	<u>Plus Contingency (20%)</u>				\$9,380.00
	TOTAL FOR STAGE 1				\$56,280.00

Notes:

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- 3 The above prices do not include for:
 - * Does not include for undergrounding of power and pad mount substations, should such be required
 - * Services work, should such be required, other than the allowances made for stormwater infrastructure.
 - * Electrical reticulation works for street lighting
 - * Additional and/or alternative lighting should such be determined to be necessary by the electrical designer.
 - * Services conduits, should such be required.
 - * Landscaping irrigation, should such be required.
 - * Maintenance period for works, should such be required.
 - * Council tipping fees.
 - * Tree transplanting, should such be required.
 - * Relocation of public phones, should such be required.
 - * Banner design, manufacture and installation.
 - * Construction administration costs.

ESTIMATE OF PROBABLE COSTS

Glen Innes CBD Master Plan - Stage 10 : Tree Planting in Ferguson and Wentworth Streets

Ref: 5223

Item	Description	Unit	Quantity	Rate	Cost
1.1	Landscaping				
1.1.1	Supply and plant advanced trees	each	46	\$500.00	\$23,000.00
	Sub Total				\$23,000.00
	TOTAL FOR STAGE 10				\$23,000.00

Notes:

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ESTIMATE OF PROBABLE COSTS

Glen Innes CBD Master Plan - Stage 11 : Intersection of Bourke Street and East Avenue
Similar cost for Stage 12 : Intersection of Meade Street and East Avenue

Ref: 5223

Item	Description	Unit	Quantity	Rate	Cost
1.1	<u>Set up costs</u>	say	1	\$10,000.00	\$10,000.00
1.2	<u>Demolition</u>				
1.2.1	Demolition of all paved areas, including pedestrian and road, disposal to landfill and all safety fencing and pedestrian and vehicular management.	say	1	\$10,000.00	\$10,000.00
1.3	<u>Kerbs</u>				
1.3.1	Supply and install kerb	lm	120	\$90.00	\$10,800.00
1.4	<u>Pavement</u>				
1.4.1	Supply and install 150mm special finish concrete, including all jointing, reinforcing and finishing	m ²	80	\$200.00	\$16,000.00
1.4.2	Supply and install 100mm special finish concrete (in footpath areas), including all jointing, reinforcing and finishing	m ²	173	\$135.00	\$23,355.00
1.4.3	Asphaltic concrete road pavement (allowance)	m ²	800	\$25.00	\$20,000.00
1.5	<u>Drainage</u>				
1.5.1	Allowance to supply and install stormwater infrastructure, including new pits and pipework and subsoil drainage	item	1	\$20,000.00	\$20,000.00
1.6	<u>Street Furniture</u>				
1.6.1	Supply and install tactile and directional surface indicators to AS 1428 (say 15m2)	m ²	15	\$250.00	\$3,750.00
1.6.2	Supply and install bollards	each	24	\$400.00	\$9,600.00
1.6.3	Supply and install litter bin (say 2)	each	2	\$1,800.00	\$3,600.00
1.6.4	Supply and install seats (say 4)	each	4	\$1,600.00	\$6,400.00

Item	Description	Unit	Quantity	Rate	Cost
1.7	<u>Lights</u>				
1.7.1	Supply and install street lights (say 2)	each	2	\$6,000.00	\$12,000.00
1.8	<u>Landscaping</u>				
1.8.1	Garden bed preparation, including the supply and installation of imported topsoil and mulch and ground plane plants	m ²	130	\$55.00	\$7,150.00
1.8.2	Supply and plant advanced trees				
	- In centre parking island (500L)	each	1	\$3,000.00	\$3,000.00
	- On approaches to Intersection (100L)	each	6	\$300.00	\$1,800.00
1.9	<u>Miscellaneous Items</u>				
1.9.1	Allowance for adjustments to service pit lids	say	1	5000	\$5,000.00
	Sub Total				\$162,455.00
1.10	<u>Public Art</u>				
1.10.1	Allowance for Public Art (5% of construction budget)				\$8,122.75
1.11	<u>Detailed Design</u>				
1.11.1	Allowance for detailed site survey and civil and landscape detailed design (8.0% of construction budget)				\$12,996.40
2.1	<u>Plus Contingency (20%)</u>				\$32,491.00
	TOTAL FOR STAGE 1				\$216,065.15

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 - * Services work, should such be required, other than the allowances made for stormwater infrastructure.
 - * Electrical reticulation works for street lighting
 - * Additional and/or alternative lighting should such be determined to be necessary by the electrical designer.
 - * Services conduits, should such be required.
 - * Landscaping irrigation, should such be required.
 - * Maintenance period for works, should such be required.
 - * Council tipping fees.
 - * Tree transplanting, should such be required.
 - * Relocation of public phones, should such be required.
 - * Banner design, manufacture and installation.
 - * Construction administration costs.

ESTIMATE OF PROBABLE COSTS

Glen Innes CBD Master Plan - Stage 13 : Church Street and Bourke Street Intersection

Ref: 5223

Item	Description	Unit	Quantity	Rate	Cost
1.1	Set up costs	say	1	\$5,000.00	\$5,000.00
1.2	<u>Demolition</u>				
1.2.1	Demolition of all paved areas, including pedestrian and road, disposal to landfill and all safety fencing and pedestrian and vehicular management.	say	1	\$5,000.00	\$5,000.00
1.3	<u>Kerbs</u>				
1.3.1	Supply and install kerb and gutter, including adjustment to road pavement	lm	25	\$90.00	\$2,250.00
1.3.2	Supply and install kerb	lm	80	\$90.00	\$7,200.00
1.4	<u>Pavement</u>				
1.4.1	Supply and install applied finish to road pavement	m ²	200	\$80.00	\$16,000.00
1.4.2	Supply and install brushed concrete paving to pedestrian access (10m ² allowance).	m ²	10	\$100.00	\$1,000.00
1.4.3	Supply and install kerb ramps	each	4	\$1,200.00	\$4,800.00
1.4.4	Asphaltic concrete road pavement (allowance for repairs)	m ²	100	\$25.00	\$2,500.00
1.4.5	Allowance for linemarking	Item			
1.5	<u>Landscaping</u>				
1.5.1	Garden bed preparation, including the supply and installation of imported topsoil and mulch and ground plane plants	m ²	80	\$55.00	\$4,400.00
1.5.2	Supply and plant advanced trees	each	1	\$1,000.00	\$1,000.00
	Sub Total				\$49,150.00
1.6	<u>Detailed Design</u>				
1.6.1	Allowance for detailed site survey and civil and landscape detailed design (8.0% of construction budget)				\$3,932.00
2.1	<u>Plus Contingency (20%)</u>				\$9,830.00
	TOTAL FOR STAGE 1				\$62,912.00

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 - * Does not include for undergrounding of power and pad mount substations, should such be required
 - * Services work, should such be required, other than the allowances made for stormwater infrastructure.
 - * Electrical reticulation works for street lighting
 - * Additional and/or alternative lighting should such be determined to be necessary by the electrical designer.
 - * Services conduits, should such be required.
 - * Landscaping irrigation, should such be required.
 - * Maintenance period for works, should such be required.
 - * Council tipping fees.
 - * Tree transplanting, should such be required.
 - * Relocation of public phones, should such be required.
 - * Banner design, manufacture and installation.
 - * Construction administration costs.

Section 5

Conclusion

Glen Innes Severn Council engaged King & Campbell in December 2009 to consult with the Glen Innes Community in the preparation of a Master Plan to guide the future development of the CBD over a twenty year timeframe.

This Master Plan has evolved out of a community involvement programme. Key components of this community involvement has been consultation with Council staff and stakeholders at the outset of the project and an Open Day Forum in the Town Hall in Grey Street for a 2-day period. The community involvement process undertaken as part of the project has been successful and consequently it is submitted that this Master Plan for the future upgrade of the Glen Innes CBD will meet the needs and aspirations of the Glen Innes community.

This Master Plan recommends a comprehensive set of urban design initiatives intended to contribute to the revitalisation of the economic and community heart of Glen Innes. The proposals include measures to enhance the amenity of the CBD without unduly compromising its traffic and parking function. Measures also provide for increased lighting, the creation of a significant central civic space, better signage and provide increased accessibility for mobility and visually impaired people. The proposal is also consistent with sustainability principals. In this regard, the Master Plan scheme includes a number of street furniture and public art items which are intended to be designed and constructed locally, using local materials and local labour. This will not only promote local business but will engender a sense of community ownership of the built works.

We recommend this Master Plan to Council for its consideration and adoption.

To Inverell ←

Gwydir Highway → To Grifton

To Armidale

SCALE: 1:1500 @ A1



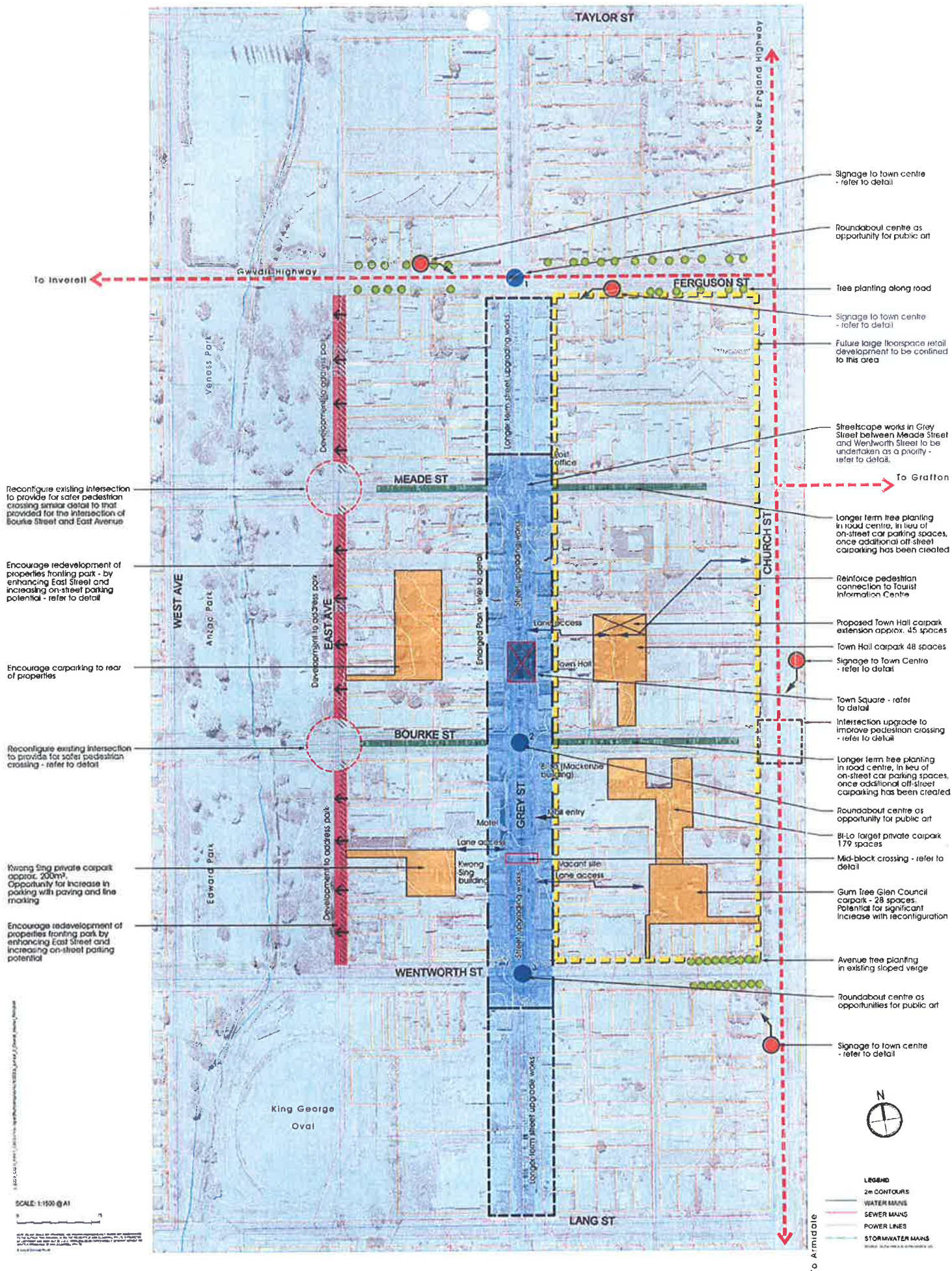
Notes: 1. This map is a plan view of the study area and does not show topography. 2. The map is based on aerial photography and is not a survey. 3. The map is for general information only and should not be used for legal purposes. 4. The map is the property of King Campbell and should not be reproduced without permission. 5. The map is subject to change without notice.



- LEGEND**
- 2m CONTOURS
 - WATER MAINS
 - SEWER MAINS
 - POWER LINES
 - STORMWATER MAINS



EXHIBIT 1
STUDY AREA
GLEN INNES CBD MASTER PLAN



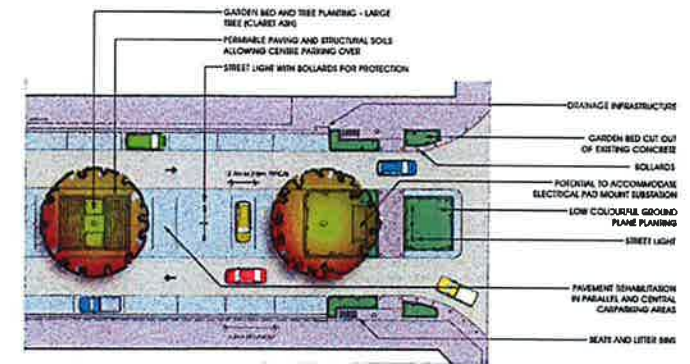
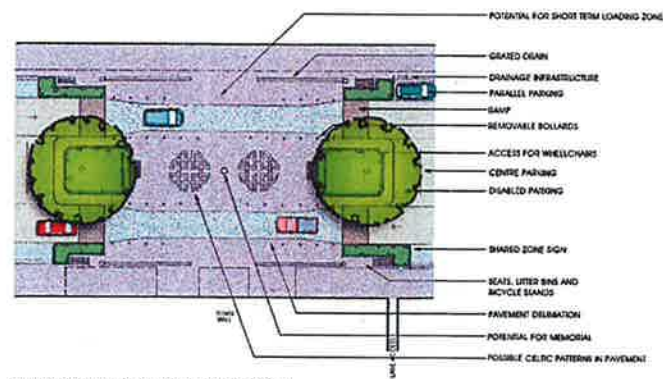
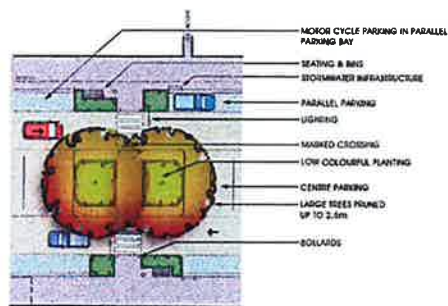
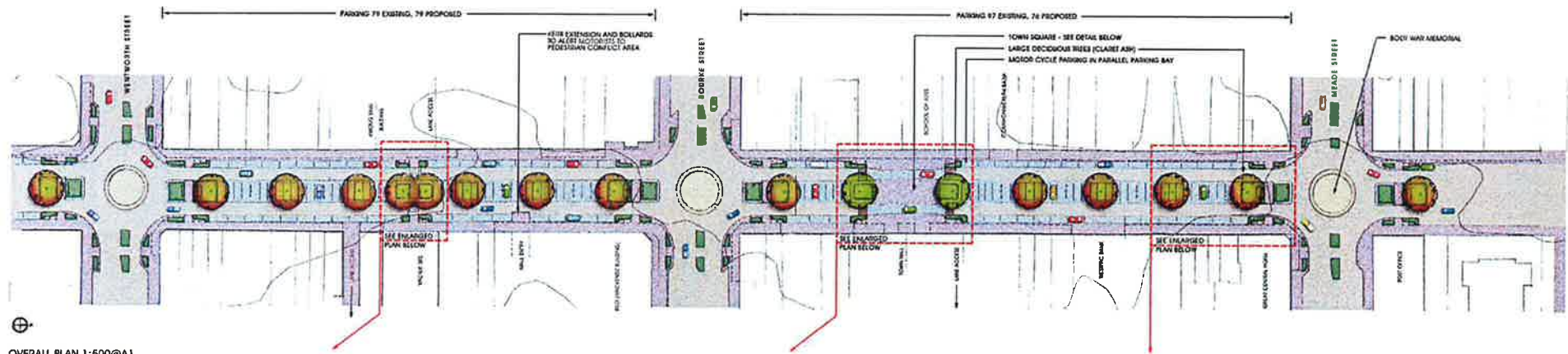
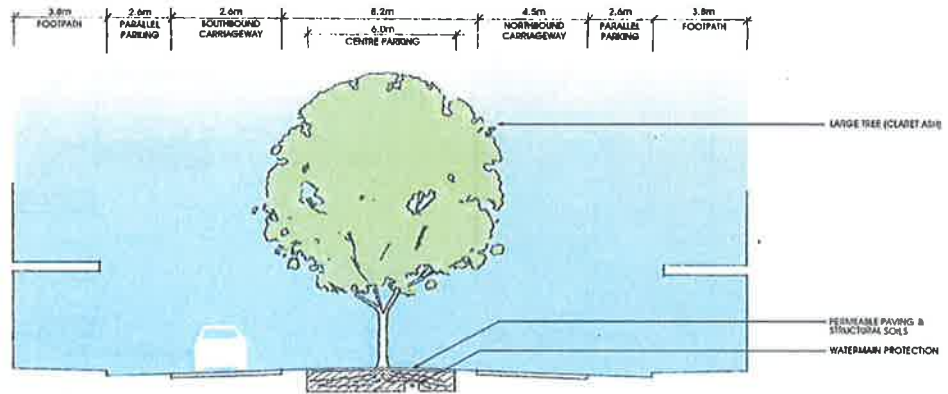


EXHIBIT 3
MAIN STREET UPGRADE
GLEN INNES CBD MASTER PLAN



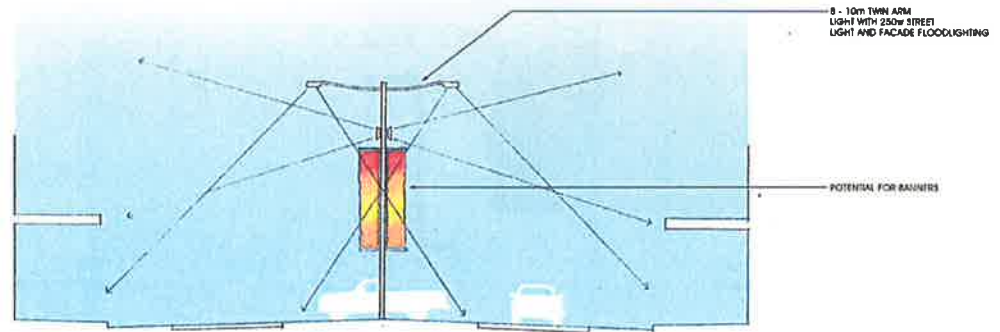
BEFORE



TYPICAL GREY STREET SECTION A - 1:100@A1



AFTER



TYPICAL GREY STREET SECTION B - 1:100@A1



MAIN STREET TREES
1. CLARET ASH (*Fraxinus oxyacantha* 'raywood')
(in Autumn)

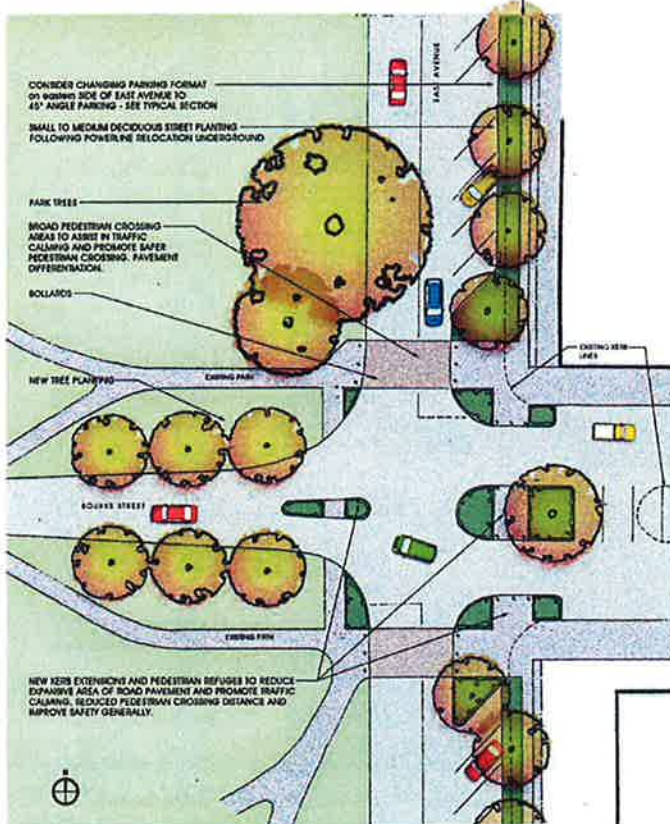


MAIN STREET TREES
2. CLARET ASH (*Fraxinus oxyacantha* 'raywood')
(in Summer)

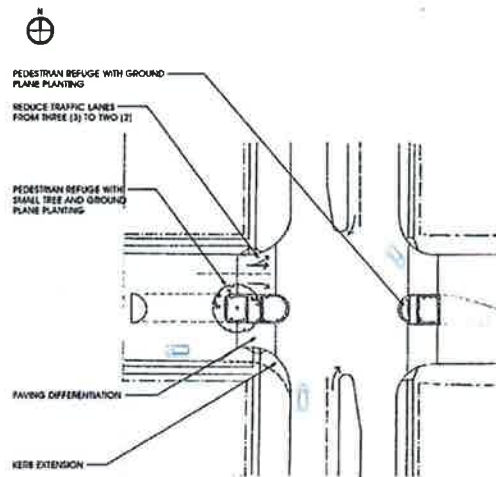


SHARED ZONE TREES
3. PIN OAK (*Quercus palustris*)

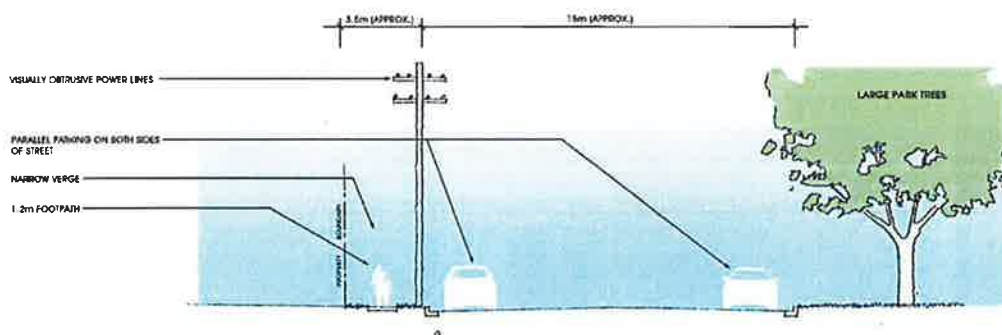
NEW RELOCATED LAYBACK KERB AND GUTTER
AND STORMWATER TO PROVIDE APPROPRIATE
SPACE FOR TREE PLANTING - SEE TYPICAL SECTION



INTERSECTION AND STREET TREATMENT AT CORNER OF
EAST AVENUE AND BOURKE STREET. 1:250@A1



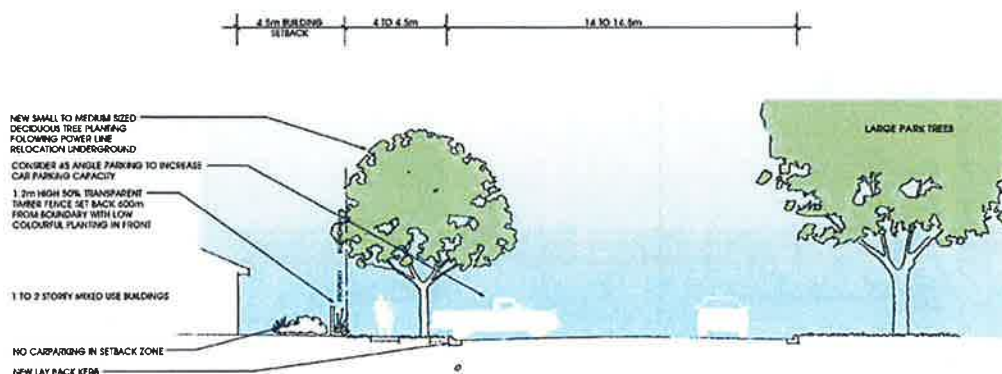
UPGRADE OF CHURCH STREET AND BOURKE STREET INTERSECTION 1:500@A1



EXISTING EAST AVENUE STREET SECTION 1:100@A1

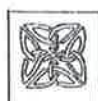
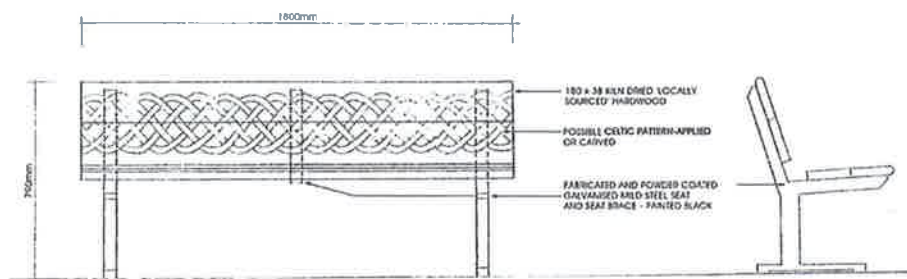
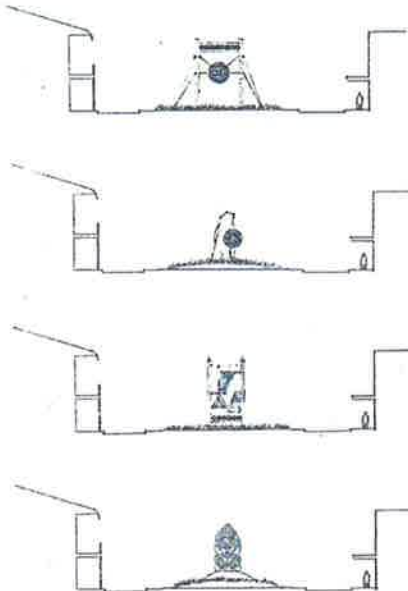


IMAGE OF EXISTING CHARACTER OF EAST STREET



PROPOSED EAST AVENUE STREET SECTION 1:100@A1

EXHIBIT 5
INTERSECTION UPGRADES AND EAST STREET CHARACTER
GLEN INNES CBD MASTER PLAN





Shared Space Performance Analysis, Port Macquarie NSW

by David Tooby

Shared Space is a relatively new name for a concept that involves redressing the balance between traffic and pedestrian function in the street environment to create socially vibrant, functionally efficient and safe places for all users. The majority of the debate and the examples relating to this movement are coming out of Europe. However, an Australian example of this concept, which has been in operation for 14 years, is located in the regional New South Wales town of Port Macquarie.

Preamble

The post war emergence of the private motor vehicle as the principal form of transport for the masses has been attributed to a general decline in the amenity and pedestrian useability of streets. The need for streets to accommodate increased levels of traffic and parking has consequently increased potential conflicts with pedestrians. This has led to a segregation of traffic and pedestrian related functions which have only been exacerbated in recent times by an increasingly risk-adverse culture. Urban environments which have evolved from this trend are often characterised by a proliferation of regulatory signs, traffic signals, barriers and road marking, and an associated alienation of their equally important public space function.

In the 1970's Australia saw some radical experiments to redress this emerging problem. This included full street closure to traffic in town central business districts (CBD) to create open pedestrian

malls. In regional towns particularly these experiments often led to significant economic decline in the commercial sector of the CBD. In a number of cases these pedestrian malls have subsequently been reopened to traffic. This has served to highlight the importance of traffic and parking as essential components of the social and economic fabric of a CBD. Nevertheless, an acceptance that traffic is a vital component of the vitality of a CBD needs to be balanced with the equally important need to provide appropriate spaces for people movement, interaction and wellbeing. In many situations a fresh urban design approach is required to attain this balance.

Shared Space is a relatively new name for an emerging concept, particularly in Europe. It encapsulates a set of principles for the design management and maintenance of streets and public spaces and integration of traffic with other forms of human activity.①



Essentially the concept involves the stripping of signage and barriers for movement, generally de-cluttering the street environment, and the creation of a mixed space for motorists, cyclists and pedestrians. This deregulation may on the surface appear to be a recipe for chaos and potentially unsafe. However, the theory behind the concept is that this mixed environmental condition actually influences the behaviour of people much more powerfully than can be achieved through either legislation or formal rules. Hans Monderman, a traffic engineer who provided advice in relation to a Shared Space scheme in Kensington High Street, London, argued that;

'designs that increase the perception of risk of personal injury reduce actual risk by forcing all users of the space to slow down, take more care and be more vigilant'.^②

In the Kensington High Street case post construction analysis has shown a significant reduction in accidents.

This deregulatory approach has to date not been embraced in Australia. Street upgrades tend to focus on the upgrading of traffic and pedestrian facilities and the general aesthetics of the street, whilst maintaining a segregation of functions. The underlying risk-averse thinking which underpins this approach dictates that there should continue to be a clear delineation of right of way, responsibility, and ultimately, culpability.

In an increasingly litigious society it takes bold vision and initiative to implement any scheme which is not founded in traditional regulatory risk-averse thinking. Without proven examples of the performance and overall benefits of Shared Space schemes it is very difficult for community leaders and authorities to advocate the concept as a potential solution for street environments.

A long established Shared Space area in town centre upgrading works in Port Macquarie, on the mid north coast of New South Wales, provides such an example.

The Context and Pre-Construction Situation

The intersection of Horton and Clarence Streets in Port Macquarie's CBD was undertaken as part of the Port Macquarie Town Centre Master Plan (TCMP). The TCMP was an initiative of Hastings Council, through its Economic Development Board, to redress the steady economic decline of the CBD, characterised by low building investment and minimal building development. The TCMP was prepared in 1992 and implemented in a number of stages from 1995.^③

The majority of the works programmed in the TCMP have now been completed, at a cost of approximately \$10 million. The intersection of Horton and Clarence Streets (the intersection) was constructed as part of the first stage of the TCMP.



The intersection is 30 metres wide and extends 60 metres in its east west dimension. The intersection accommodates five lead in roads which attributes to its expansive configuration. It opens onto the Town Green foreshore open space to its north and has strong visual connections to the Hastings River through the Town Green and to the east along Clarence Street. Two to five storey buildings with commercial ground floor frontage address all intersection corners. Whilst the intersection may not be the geographic centre of the CBD it is certainly the social and commercial centre of the CBD.

In 1995 the intersection was characterised by a conglomeration of uncoordinated signs, an abundance of white painted concrete median strips and islands and an overall poor aesthetic. Pedestrian crossing was facilitated by two marked crossings on the southern and western sides of the intersection.

Traffic Accident Statistics provided by Port Macquarie Hastings Council indicated that between 1986 and 1995 there were no accidents that resulted in injury or death at or adjacent the intersection.^④ However, anecdotal information from a number of sources indicate that the intersection experienced a relatively high frequency of minor vehicle accidents and vehicle queuing, due in large part to high pedestrian crossing demand which was only able to utilise limited pedestrian crossing opportunity at the two existing marked crossings. The need to address this poor configuration was identified in the Port Macquarie Town Centre Traffic Study in 1995.^⑤

Intersection Design and Implementation

In 1995 a design team led by consultants The Geolink Group was engaged by Council to undertake the detailed design of the TCMP, including the intersection of Horton and Clarence Streets.

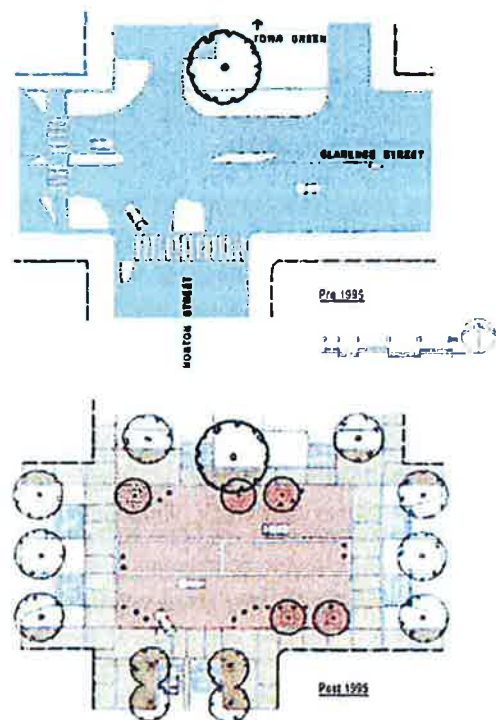
The key objectives of the design of the intersection were to:

- provide safe conditions for all
- afford general priority and directional freedom to pedestrians within a calmed traffic environment
- reduce the need for regulatory signage
- link the design to the overall themes generated for the TCMP

What evolved through the design process was the notion of a 'civic square' where pedestrians and vehicles co-exist and the divisions between them

are largely nullified. To maximise the effectiveness of this space the intersection was raised entirely to footpath height (generally 150mm above existing road surfaces).

A subtle definition of the space was achieved through the use of materials and elements not normally associated with road environments. This included the use of bollards in place of kerb and gutter and paver inlays in place of line marking. To reduce traffic speeds to 15 kmph or less, traffic ramps, incorporating a series of effective but subtle rumble strips, are located on all vehicle approaches. Unmarked pedestrian walkways are strategically located at the head of each of the ramps where vehicle speeds naturally slow to a crawl.



Of most importance to the design team was the realisation of the objective to reduce signage to a minimum and to avoid any signage that indicated right of way to any one user group.



The design was presented to the Town Centre Master Plan Committee (TCMPC) which was formed by Council to oversee the implementation of the TCMP. The design was recognised as being unique and issues relating to safety and risk management were openly debated by the TCMPC and the design team.

The TCMPC endorsed the design in mid 1995 and the works were fully implemented by Christmas 1995.

Post Construction Analysis and Discussion

The first year of establishment of the intersection attracted an understandable level of controversy. The NSW Staysafe Committee echoed the sentiments of many members of the community when they applauded the work in terms of traffic calming and aesthetics but described the Horton Street intersection as 'confusing'. The local newspaper reported that:

'At present, it is a bit of a puzzle and pedestrians and motorists don't know whether to stop or keep going. Pedestrians should know if they have the right to cross in front of cars'. ©

However, in the first year of establishment, apart from the occasional collision with bollards early in the piece, there were no accidents reported and traffic congestion appeared to be rare.

In an article written on early observations of the performance of the intersection it was noted that:

'....the new intersection requires pedestrians and motorists to look and think before proceeding across the intersection. Everyone traverses the space cautiously and slowly. Whilst vehicles more commonly give way to pedestrians, the converse also occurs. Pedestrians are able to cross at all four corners – even diagonally if required. They can do so safely. There is far less vehicle congestion, as vehicles enter a continuum where pedestrian numbers are spread across the civic space and over a variety of crossing points and vehicles

'mingle' with the traversing pedestrians. In other words, that (so called) confusion is the very thing that calms the traffic and thereby promotes safety, as well as noise reduction and general civic geniality.' ⑦

This early observation concluded that the new intersection actually challenges the way in which motorists and pedestrians perceive traffic function and priority. At the time this article was written however, it was too early to report conclusively on the performance of the intersection, particularly in terms of safety.

Now, almost fourteen years since the intersection was constructed, it is appropriate to assess all aspects of its performance, both at a statistical level, and through interviews with users and authorities.

In broad statistical terms the use of the intersection has changed little since its implementation in 1995. In June 1997 traffic volumes passing through the intersection were surveyed at approximately 800 and 600 vehicles per hour respectively during the lunch and afternoon peak hours. In 2001 these volumes had increased only slightly. A further survey in 2009 continues to indicate that little or no traffic growth has occurred at the intersection. ⑧ The intersection continues to be crossed by a high number of pedestrians, a total of 766 crossings being recorded in a weekday peak hour period in April 2009. Since 1995 there has been a single reported accident resulting in minor injury. ⑨



The true worth of the Shared Space concept however has been borne out through discussion with a number of authorities and users in recent times. Port Macquarie Hastings Council representatives have indicated that whilst the intersection is confusing for some users, particularly tourists and older people, it works on the principle of a need for heightened awareness. A senior representative of the local NSW Police indicated that there was significantly more confusion in the tourist season owing to the unfamiliarity with the intersection but considered on the whole that the intersection worked well. Importantly, this representative could not think of an alternative solution, including a roundabout or traffic lights, which would serve the intersection and its users better.

Informal interviews were also conducted with a large number of users. All indicated similar observations to Council and the police. It is important to note that all people interviewed recognised and appreciated the significant role the intersection has played in re-establishing a valuable public space in the heart of town.

Glen Holdsworth is a traffic engineer who was closely involved with the development of the intersection design concept in 1995. Glen offers a slightly different view of the operation of the intersection. He argues that the intersection is based on an "intrusion" principal which is to some degree at odds with the "Shared Space", design concept. He states that:

The "intrusion" design principle effectively rejects "sharing" in favour of a competition for vehicular and pedestrian space in which neither the motorist nor the pedestrian are granted any privilege. This discomfort which generates out of this intrusive competition is interpreted by both pedestrians and motorists as a lack of safety, when in fact it makes the most critical contribution to creating a safe environment. It is a dichotomy that in order to create a safe pedestrian/vehicular environment, it is necessary to make it feel unsafe to some degree. Community acceptance of designs based on these

principles will always lie in the art of finding balance between the perception of safety and the reality. Support for this approach is found in the tendency for local street intersections which residents often describe as being unsafe to show little or no history of accidents. ⑨

Whether the concept is "Shared Space" or "Intrusion", is in many ways a moot point, in that the behavioural consequence of the intersection configuration is not disputed - That being to significantly emphasis duty of care of all users, to minimize the probability of conflict.

Two people interviewed, one a former senior Council staff representative, raised the issue of a user group which is potentially disadvantaged by the intersection configuration. In the absence of traffic signals or marked pedestrian crossings visually impaired people cannot cross the intersection with absolute surety that motorists will give way. Unfortunately, providing right of way to visually impaired people invariably means giving right of way to pedestrians generally. This would undoubtedly erode the whole Shared Space concept.

In 1997, a representative of locally visually impaired people cited discrimination, on the grounds that the intersection originally had two marked pedestrian crossings. The matter went first to Council and then, with the support of the National Federation of Blind Citizens of Australia, court action was threatened. The matter was resolved by constructing marked pedestrian crossings in nearby locations, but not at the intersection.

In 2001, Council commissioned a CBD Intersection Analysis report to review the current and future management strategies of three intersections in the CBD, including the intersection of Horton and Clarence Streets. The review was required to consider concerns which had been expressed in relation to the provision of safety and amenity for visually impaired people and other handicapped persons. The review included consideration being given to the installation of traffic signals at the

intersection. In relation to the intersection treatment the report concluded that:

'...traffic signals would operate satisfactorily at the intersection for some years with respect to providing solely for vehicular demands. However, this would be at the expense of having impact on accessibility of kerb and centre-of-road parking in the east, west and south approaches to the intersection. Also, delays and inconvenience to pedestrians would increase significantly and significant proportions of pedestrians would ignore the signal instruction'



Further, and importantly, the report concluded that:

'Analysis of the existing intersection indicates that the intersection will continue to operate satisfactorily in respect to vehicular capacity for many years'. ⑩

What is important to draw from this analysis is that, despite the perception and argument that the intersection does not provide adequately for visually impaired people, Council had understood as early as 1997, and continues to understand, the fundamental importance of the Shared Space concept of not assigning right of way to any one user group. In essence this is an endorsement of the Shared Space concept. However, it also recognises that the success of the Horton Street and Clarence Street intersection is not absolute.

Conclusion

The Intersection of Horton and Clarence Street has, since its construction in 1995, attracted a significant amount of comment and debate. However, despite the debate and the analysis that been instigated from it, the configuration of the intersection remains unchanged from its original conception.

Whilst no concrete statistical data exists to support an emphatic claim that the intersection is safer than it was prior to 1995, discussions with a number of people who understood the operation of the intersection prior to its reconstruction indicate that there have been less accidents and it is generally safer for users. What is certain is that the new Horton Street intersection actually challenges the way in which motorists and pedestrians perceive traffic function and priority.

Sadly, in an increasing litigious society, civil laws have recently tended (perhaps unwittingly) to condone diminished personal responsibility, resulting in risk-averse design solutions which employ segregation of user groups and over regulation as immovable standards. This design solution and the Share Space concept generally, effectively challenge this increasingly evident and disturbing legal (and hence behavioural) trend. Instead, through the use of an intrinsically low traffic speed environment, the design facilitates and requires a level of intuitive judgment on the part of each individual motorist and pedestrian. It is this behavioural response, from all users, that has resulted in the enhanced performance of the intersection.

What has never been questioned in the case of the Horton Street and Clarence Street intersection, and the constructed greater Port Macquarie Town Centre Master Plan works generally, is its enormous contribution to the much needed resurgence in both business centre confidence and redevelopment. The Town Centre is now pleasant and attractive, and boasts a vibrant business sector.

- ① About Shared Spaces; www.shared-space.org
- ② CABI 2007, Living With Risk: Promoting Better Public Space Design – P57.
- ③ Port Macquarie Town Centre Master Plan, Tract Consultants and Gazzard Sheldon, 1992
- ④ Traffic Accident Statistics, Horton and Clarence Streets 1986 to 2006, Port Macquarie Hastings Council, 2009
- ⑤ Port Macquarie Town Centre Traffic Study, TTM Consulting Pty Ltd, 1995.
- ⑥ Port Macquarie News, 1996.
- ⑦ Intersection Renewal Challenges Conventional Practice, David Tooby and Rupert Milne Home, Landscape Australia 4/1997.
- ⑧ Various traffic surveys 1997 to 2009, TTM Consulting Pty Ltd.
- ⑨ Traffic Engineering Concept: Horton/Clarence Street Intersection, Glen Holdsworth, 2009 (unpublished).
- ⑩ Port Macquarie CBD Intersection Analysis, TTM Consulting Pty Ltd, 2001.

APPENDIX E – Submissions Received from Public Exhibition of Plans
