JRPP No.	2012HCC024
DA No.	DA 178/2012
Proposal	Staged redevelopment of an existing building, known as 'Campbell's Corner', comprising refurbishment and extensions to provide for commercial premises and a community facility (Conservatorium of Music)
Property	Lot 101 DP606303, 60 Bridge Street, Muswellbrook
Applicant	Stephen Rose Architects
Report By	Darryl Fitzgerald
Checked by	Glenn Bunny Director Environmental Services Muswellbrook Shire Council

Assessment Report and Recommendation

1.0 Executive Summary

1.1 Reason for Report

The development application is reported to the Joint Regional Planning Panel in accordance with the provisions of clause 4 of Schedule 4A of Environmental Planning and Assessment Act 1979, as the development has a capital investment value of more than $5 million and Muswellbrook Shire council is the owner of the land and the development is to be carried out by the Council.

cl. 4 Council related development over $5 million

Development that has a capital investment value of more than $5 million if:

(a) a council for the area in which the development is to be carried out is the applicant for development consent, or

(b) the council is the owner of any land on which the development is to be carried out, or

(c) the development is to be carried out by the council, or

(d) the council is a party to any agreement or arrangement relating to the development (other than any agreement or arrangement entered into under the Act or for the purposes of the payment of contributions by a person other than the council).

1.2 Proposal

The application is for the staged redevelopment of an existing building comprising of:

- Reinstatement of heritage features
- Rationalisation of commercial floor space on the ground level to create a new public entrance and installation of a lift
- Adaptation of the first floor level to accommodate the Conservatorium of Music.
- Demolition of existing buildings in Brook Street and construction of a new two storey building

1.3 Permissibility

The site is zoned B2 Local Centre pursuant to Muswellbrook Local Environmental Plan 2009 and 'commercial premises' and 'community facility' are permissible land uses with consent.

1.4 Site

The site has an area of 6,119 m^2 and is bounded by Bridge Street (SH9) to the east, Brook Street to the north, the Hunter rail line to the west and existing commercial buildings to the south. The site contains an existing two storey heritage listed building and a single storey building, with the complex known as 'Campbell's Corner'.

1.4 Public Participation

In accordance with the provisions of Section 4 - Notification of Muswellbrook Development Control Plan 2009, the application was notified for a period of fourteen days from 20th August 2012 to 5th September 2012. A notice was also placed in the local newspaper, the Hunter Valley News at the commencement of the notification period.

No submissions were received.

1.5 Key Issues

The main issues identified in the assessment of this application are:

- Heritage
- Traffic Management
- Car parking

1.6 Recommendation

That Development Application No. 178/2012 be granted conditional approval.

2.0 DESCRIPTION OF PROPOSAL

The proposal is for a three stage development comprising:

Stage 1

- Reinstatement of decorative cast iron columns, brackets and frieze along with a multi-faceted timber parapet to the Bridge Street and Brook Street facades.
- Installation of a lift and modification to the stair access to provide access for persons with a disability and comply with current BCA provisions.
- Amalgamation of existing commercial space on the ground level to accommodate the installation of the lift and to create a new public entrance to the shopping arcade and a separate entrance to the lift.
- Provision of new public amenities.

There is no increase in gross floor as a result of Stage 1.

Stage 2

- Refurbishment of the first level to create teaching rooms and a small performance space for the Conservatorium of Music

This stage involves a change of use from commercial to community facility but there is no increase in gross floor as a result of Stage 2.

Stage 3

- Refurbishment of some of the ground floor shops in the existing Arcade.
- Re-development of the site to the west of the heritage building in Brook Street with the demolition of existing single storey commercial buildings and the construction of a two storey building comprising commercial space on the ground floor and an additional 738 m2 of floor area for the Conservatorium of Music of the first floor.

Stage 3 results in the reduction of 40m2 of commercial floor area on the ground level and the addition of 738 m2 for 'community facility' purposes.

The development does not propose any additional on-site car parking or any changes to the existing onsite car park.

A copy of the submitted plans and elevations are included in **Appendix B**.

3.0 SITE DESCRIPTION & LOCALITY

The subject land is located on the south-western corner of the intersection of Bridge Street (SH9) and Brook Street in Muswellbrook's central business district.

The site contains an existing two-storey building which currently accommodates a Franklins supermarket, a butcher, a liquor sales outlet, various food vendors, two building societies and a commercial office on the ground level. The first floor level is vacant and has been vacant for an extended period of time. The building is heritage listed under Muswellbrook Local Environmental Plan 2009 and is of local significance.

The Muswellbrook Heritage Study of 2000 indicates that the building known as Campbell's Corner was a multi-staged development with the first stage being the centre portion of the building on Bridge Street with the decorative and dated pediment. The similar style buildings

on both sides of this building were added later in the 19th century. The more prominent building located on the corner of Bridge and Brook Streets which "empathetically claims the corner with a grand tower structure" being built in 1910 by architect John Charles Luscombe. "The new addition being of a different style of architecture also dominated the original building in scale and size. The Campbell's firm continued to operate until the early 1970's until it was purchased by Western Stores and sold off. The building underwent major retail reconfiguration in the early 1990's, creating a 'walk through' mall arcade from the original entrance to the rear of the property.

The existing development partially consists of the Campbell's Corner building, which is heritage listed, and an ad-hoc series of additions that adjoin and surround it. On Bridge Street the additions have filled in the space between the Campbell's Corner building and a similar aged building at the southern end of the site. Similar additions have occurred at the western end of the Campbell's Corner building in Brook Street and it is these additions that are proposed for demolition in stage 3 of this development.

The site has an area of 6,119 m^2 while the existing building (ground and first floor) has a gross floor area of 4,658 m^2. A rear car park accommodates a total of 51 car spaces as well as providing loading and servicing facilities for the retail uses within the complex.

Pedestrian access to the building is available from both street frontages and the rear car park. Vehicular access to the constructed formal car parking area is provided from Brook Street west of the building. The car parking area interconnects with the adjoining Council car park such vehicles are able to drive through from Brook Street to Market Street south of the site.

The Hunter rail line adjoins the western boundary of the site with an at grade road crossing of the railway line on Brook Street immediately west of the site. The railway level crossing is controlled by gates, bells and signals.

Site area:	6,119 m2
Gross Floor Area:	4,658 m2
FSR:	0.76:1
Car Parking:	51 spaces

The adjacent Council owned public car park to the south of the site contains 52 parking spaces.

Figure 1: Aerial Photo identifying the site outlined in blue

Figure 2 – Campbell's Corner building looking west in Bridge Street

Figure 3 - Campbell's Corner building looking southwest from Bridge St/Brook St intersection

Figure 4 – aerial view of the site looking south from Brook Street

Figure 5 – Campbell's Corner car park. Looking south from Brook Street.

4.0 BACKGROUND

The application was referred to the Roads & Maritime Services on 4th October 2012. The referral was made under clause 104 (Schedule 3) of State Environmental Planning Policy (Infrastructure) 2007 as the development constituted commercial premises more than 2,500m^2 in area with access to a road that connects to a classified road and the access is within 90 metres of the classified road. The development application was not accompanied by a traffic study.

The RMS requested a Traffic Impact Assessment to identify road safety / traffic impacts and any subsequent road upgrade requirements. The traffic impact assessment was submitted to Council in February 2013.

The assessment of the application also identified the need for additional information in relation to heritage and onsite car parking. The additional heritage information was received in October 2012 and the car parking information was received in February 2013.

5.0 ADEQUACY OF APPLICANT'S SUBMISSION

In relation to the Statement of Environmental effects, the plans and other documentation submitted with the application or after a request from Council, the applicant has provided adequate information to enable an assessment of this application

The applicant has included the following ancillary reports within the submission documentation:

- Colour Plates and Colour schedule
- Statement of Heritage Impact (8th August 2012), prepared by John Carr Heritage design

- Waste Management Plans for the demolition and construction stages
- Acoustic Report - Acoustic Guidelines Campbell's Corner Building Refurbishment Muswellbrook NSW (September 2012), prepared by Reverb Acoustics
- Traffic Impact assessment (February 2013), prepared by intersect Traffic Pty Ltd

6.0 STATUTORY CONSIDERATIONS

The site is zoned B2 Local Centre pursuant to Muswellbrook Local Environmental Plan 2009 and 'commercial premises' and 'community facility' are permissible land uses with consent.

The respective definitions are:

'commercial premises' means any of the following:
(a) business premises,
(b) office premises,
(c) retail premises.

'community facility' means a building or place:
(a) owned or controlled by a public authority or non-profit community organisation, and
(b) used for the physical, social, cultural or intellectual development or welfare of the community, but does not include an educational establishment, hospital, retail premises, place of public worship or residential accommodation.

The following Environmental Planning instruments (EPI's), Development Control Plans (DCP's), Codes or Policies are relevant to this application:

- State Environmental Planning Policy (Infrastructure) 2007
- Muswellbrook Local Environmental Plan 2009
- Muswellbrook Development Control Plan 2009

There are no draft environmental planning instruments that affect the site.

7.0 STATEMENT OF COMPLIANCE

The Statement of Compliance below contains a summary of applicable development standards/controls and a compliance checklist relative to these:

Standard/Control	Required	Proposed	Compliance (%Variation)
Muswellbrook Local Environmental Plan 2009			
Clause 4.3 – Building Height	13 metres (max.)	No change to existing building height	yes
Clause 4.4 - FSR	2:1 (max)	0.76:1	yes
Clause 5.10 - Heritage	Consent required	Application lodged	
Muswellbrook Development Control Plan 2009			
Section 9.1.1 - Building Design	• New buildings to reflect & enhance existing buildings • Building facades to relate to context of buildings in the area • Building entrances to be well	Discussed in report under heritage	yes

	defined and well lit		
Section 9.1.2 - Building Height	Compliance with LEP 2009 height limits	See clause 4.3 above	yes
Section 9.1.3 - Setbacks	• Provision of a continuous street frontage • New development to respect setbacks of existing development	Stage 3 new development provides a continuous street frontage in Brook Street	yes
Section 9.1.4 -Accessibility (adaptation and modification of an existing building)	• Compliance with AS 1428.1 • Continuous accessible path of travel from parking areas to building entrances	New AS 1428.1 complaint amenities being provided on both floors and a lift being installed.	yes
Section 9.2.1 -Landscaping	To be incorporated where appropriate to enhance streetscape character	n/a	
Section 9.2.2 Car Parking	Compliance with parking rates in Section 17 of the DCP	51 spaces	No (see report)
Section 9.2.4 - Signage	Compliance with Section 14 of the DCP	Application for signage not part of this DA. Requirement for future DA's a condition of consent	
Section 14 - Outdoor Signage		See section 9.2.4 above	
Section 15 - Heritage	Statement of Heritage Impact required	Statement of Heritage Impact submitted	yes
Section 16.6 - Car parking rates	The development generates the requirement for an additional 55 parking spaces	No additional onsite parking provided	No (see report)
Section 24.2 - waste minimisation & management	Submission of a site waste minimisation & management plan	site waste minimisation & management plan submitted and accepted	yes

8.0 SPECIALIST COMMENTS AND EXTERNAL REFERRALS

8.1 External Referrals

8.1.1 Roads & Maritime Services

The application was referred to the Roads & Maritime Services under clause 104 Schedule 3 of State Environmental Planning Policy (Infrastructure) 2007, being commercial premises more than 2,500m^2 in area with access to a road that connects to a classified road and the access is within 90 metres of the classified road.

The RMS requested that a traffic impact assessment be prepared, with a specific focus on the impact of the development upon the signalized intersection at Bridge Street/Brook Street and the level crossing in Brook Street. The Traffic Impact Assessment was prepared by Intersect Traffic Pty Ltd and submitted to the RMS in February 2013.

By correspondence dated 23 April 2013 the RMS advised that it had "reviewed the TIA provided and has no objections to or requirements for the proposed development as it is considered the proposed development will not have any significant impacts on the classified (State) road network".

A copy of the Roads & Maritime Services' comments are included in **Appendix C**.

8.2 Internal Referrals

8.2.1 Water & Waste

Council's Water and Waste section have advised that it is expected that the proposed work, which will add seven water closets to the existing building, will create additional Water and Sewage loadings on the system as follows:

- Water – 2.48 ETs
- Sewer- 3.00 ETs

The Water and Waste section have advised that the Developer is required to obtain a Notice of Requirements under Water Management Act 2000 for the proposed development and to make arrangements for the upgrading of water service if necessary. This requirement has been included in the recommended conditions of consent.

8.2.2 Traffic Engineer

Council's Traffic Engineer has advised that the proposal is satisfactory subject to the imposition of appropriate conditions.

8.2.3 Heritage Advisor

Council's heritage Advisor has advised that the proposal is satisfactory subject to the imposition of an appropriate condition requiring an archival record before commencement of new work, including demolition.

9.0 ASSESSMENT

Following a detailed assessment of the application having regard to the Heads of Consideration under Section 79C of the Environmental Planning and Assessment Act 1979, the following matters are considered important to this application.

9.1 Zone Objectives

The land is within Zone B2 Local Centre pursuant to Muswellbrook Local Environmental Plan 2009. The objectives for the zone are:

- To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area.
- To encourage employment opportunities in accessible locations.
- To maximise public transport patronage and encourage walking and cycling.

- To maintain the status and encourage the future growth of the Muswellbrook established business centre as a retail, service, commercial and administrative centre while maintaining the centre's compact form.
- To enable a wide range of land uses that are associated with, ancillary to, or supportive of the retail and service functions of a business centre.
- To maintain the heritage character and value and streetscape of the business centre of Muswellbrook.
- To support business development by way of the provisions of parking and other civic facilities.

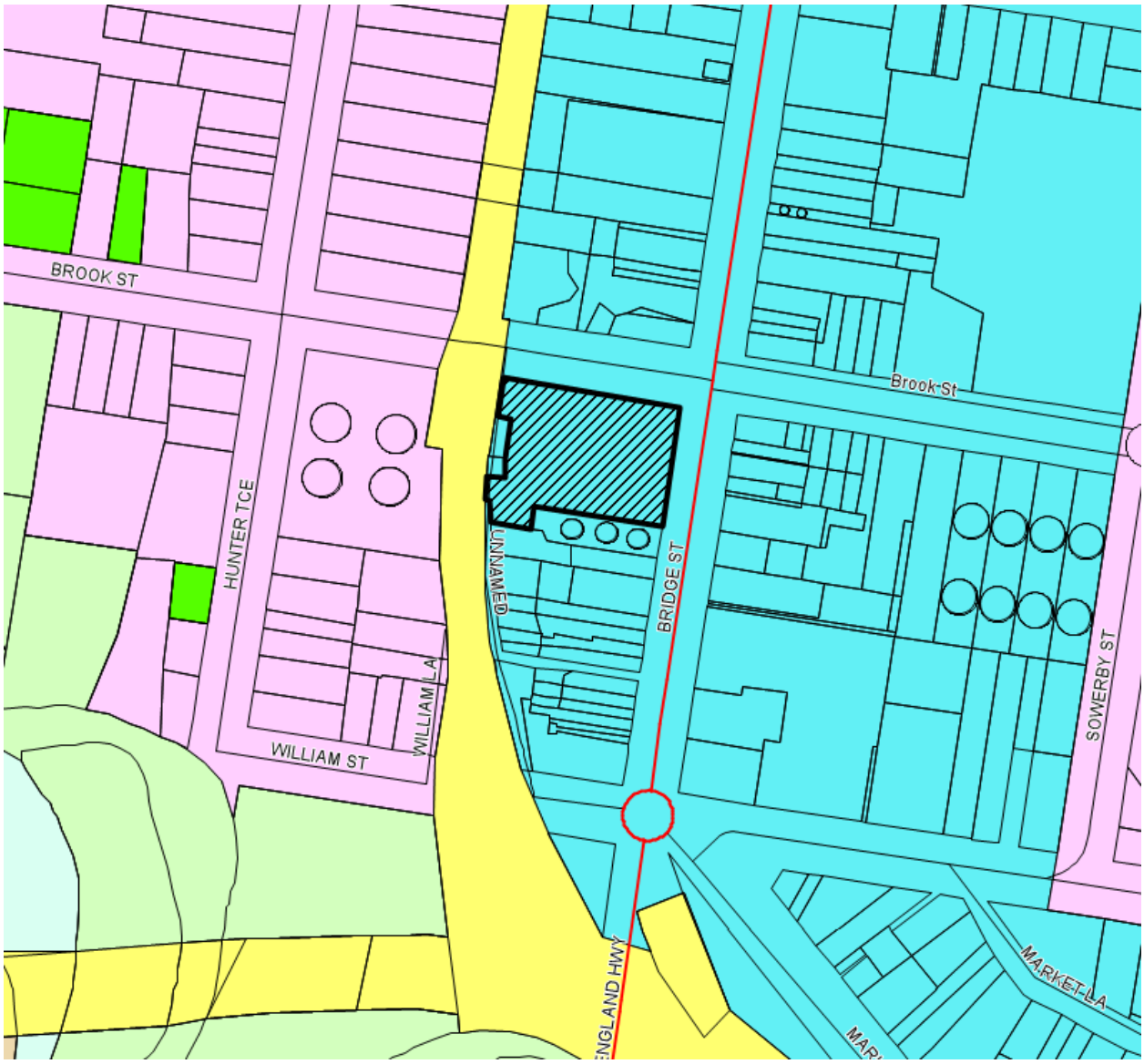


Figure 6: Extract from Muswellbrook LEP 2009 zoning map

It is considered that the proposal is generally consistent with the objectives of providing for a range of retail, business and community uses in the B2 zone, of encouraging the future growth of Muswellbrook's established business centre and maintaining the heritage character and value of the business centre's streetscape.

The site and buildings are prominent in the main street and the Business Heritage Conservation Area. However, the building is currently under utilised with the first floor level having been vacant for an extended period of time.

The redevelopment and refurbishment of the building is a critical plank in the council's strategy of sustaining the viability and vitality of Muswellbrook's central business district.

9.2 Heritage

The Campbell's Corner building is a heritage item of local significance listed in Schedule 5 (Environmental Heritage) of Muswellbrook LEP 2009. The building and land are also located within the Business Heritage Conservation Area listed in Schedule 5 of the LEP.

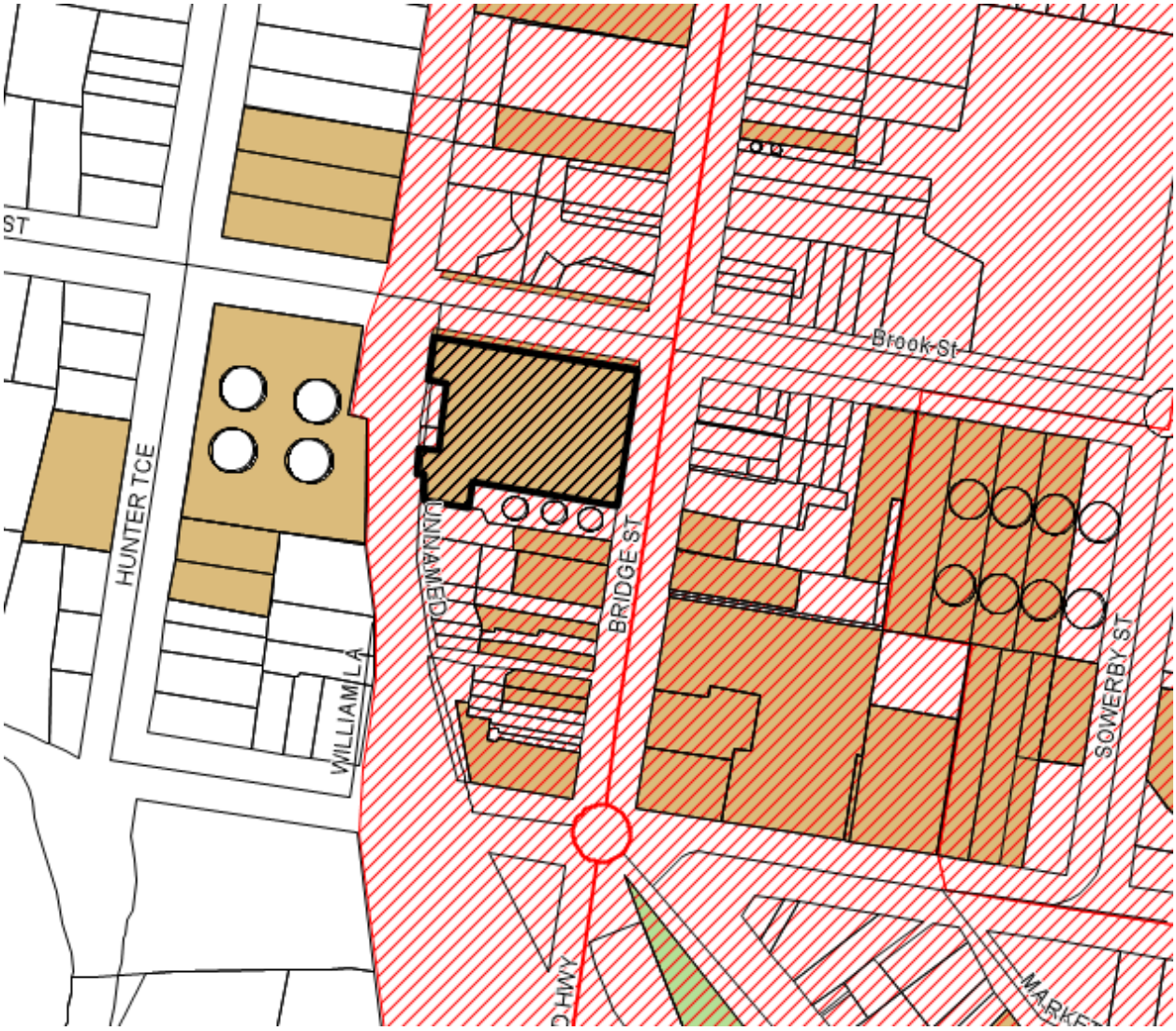


Figure 7: Extract from Muswellbrook LEP 2009 heritage map

The Statement of Significance (see **Appendix D**) prepared by the EJE Group for the Muswellbrook Heritage Study (2000) states that:

Campbell's Corner is representative of the development of the commercial precinct of Muswellbrook over 130 years. The building has expanded significantly since its establishment. The building comprises major components of all its development periods. It is an outstanding example of a continuously evolving commercial development in the town; the building is of local Historic Significance.

With the only corner tower structure along the main street in Muswellbrook, Campbell's corner represents a rare aesthetic contribution to the town's commercial centre in terms of streetscape and is a nodal landmark. The level of aesthetic significance is rare to the town as the building is a unique example of a combination of Victorian and Federation styles of Architecture. The building's proportions (especially the late corner addition) are large, giving a "civic" presence to the street. The massing of the forms is composed to "build-up" to the corner emphasising the monumental gesture of the tower. The period detailing of the building along with special material treatment such as the metal shingled tower dome place importance on the overall aesthetical value. Internally there is very little of the original building's character left to value of any aesthetic significance. One area remaining intact, but in poor condition, is the entrance corridor and stair to the upper level off Brook Street.

The strong presence of the building provides the local community with a sense of identity. The "Campbell" name has a strong association with a history of service to the town's people and toward the town's development. As an ongoing representation of a commercial centre to the people of Muswellbrook the building is of Local Social Significance.

Original period detailing of the external components of the building and tower along with the structural component of the tower itself represent local Technical significance.

The development application and Statement of Heritage Impact was referred to Council's Heritage Advisor, who advised that:

- Stage 1 and Stage 2 of the proposed development will enhance the significance of this building. The restoration of the verandah to the street frontage and the colour scheme are all positive elements that will promote the heritage values of this building.

- In Stage 3 the proposed demolition and rebuilding will improve the existing streetscape. The proposed windows and parapet are in proportion to the existing building. The colours for Stage 3 should be shown and neutral colours should be considered.

However, the Heritage Advisor considered that the Statement of Heritage Impact assessed the 'strong room' as the only significant item to be demolished and requested additional information in relation to original walls, doors and windows that will be removed or altered to enable a full assessment of the impact on significant fabric.

A copy of Council's Heritage Advisor's comments are included in **Appendix E**.

In response to the request for additional information, the applicant's heritage architect (John Carr) advised as follows (**Appendix F**):

> "The Statement of Heritage Impact addressed the demolition of the safe walls to the first floor level as it was felt that this was the major item of original building fabric to be demolished. Unfortunately, one timber window and two timber vents to the first floor toilets were overlooked. It is unlikely the toilets to the first floor were originally part of

the design but rather they were added as the use of the building changed over the years.

The proposal is to convert this area to modern toilet facilities, expanding into the existing corridor to provide for an access toilet and the required number of male and female toilets to service the facility. As a consequence, Stage One and Stage Two requires the removal of the window and louvre vents to allow for construction of the new facilities. The window and vents are not unique and are of a later detail to the early double hung timber windows that are to be preserved in the building.

While the vents are clearly later than the window as determined by the existing sandstone sill in the brick wall, I recommend the timber window be removed and used if required to repair other deteriorated timber windows in the building provided the detail sections match. The sandstone sills are not unique and could be cut back to the face of the brick wall for the Stage Two additions.

All other existing windows and doors to the ground and first floor areas that are from the original construction periods are to remain. Previously removed masonry walls are not proposed to be re- built. Introduced timber walls and panelling are to be removed to expose the original plasterwork and metal ceilings. These timber partition walls are not considered to be of heritage value and their removal will benefit the various spaces in the building.

Existing windows on the external western and southern walls to the first floor shown to be enclosed by the Stage Two addition will remain exposed as an internal window within the new rooms.

The existing skylights are to be retained and re-used where possible. Where they are not required they will be retained and a false ceiling suspended under them to allow for possible re- use in the future."

Council's Heritage Advisor considers that the response from John Carr and the Statement of Heritage Impact adequately describes and assesses the impacts of proposed work and requires only that the building and in particular sections of the building that are proposed to be demolished, be the subject of a digital archival photographic record before the commencement of new work, including demolition. This requirement has been included in the recommended conditions of consent.

9.3 Traffic Management

Upon receipt of a referral, the Roads and Maritime Services (RMS) requested a Traffic Impact Assessment to address the following:

- The anticipated additional vehicular traffic generated to/from the proposed development
- Determine onsite parking requirements for all activities within the development
- The distribution on the road network of the trips generated by the proposed development. It is requested that the predicted traffic flows are shown diagrammatically to a level of detail sufficient for easy interpretation.
- Consideration of the traffic impacts on existing and proposed intersections including the level railway crossing on Brook Street and the capacity of the local and classified road network to safely and efficiently cater for the additional vehicular traffic generated by the proposed development. The study shall also give consideration to the cumulative traffic impacts of the proposed and approved developments in the area.

- Traffic analysis of the existing intersection of the New England Highway / Brook Street, using SIDRA or similar traffic model, including
  - Current traffic counts and 210 year traffic growth projections
  - With and without development scenarios
  - 95th percentile back of queue lengths
  - Delays and level of service on all legs
  - Use of SIDRA or similar traffic model
  - Electronic input/output data files for RMS review
- Consideration of the impacts of construction traffic on the road network in the vicinity of the development and measures to minimize any identified impacts.
- Any other impacts on the local, regional and state road network including consideration of pedestrian, cyclist, bus transport facilities and provision for service vehicles.
- The study should identify and recommend the need for any intersection / vehicular access upgrades and provide strategic concept layouts where required.
- Turning templates for the largest design vehicle should be provided.

Following a meeting with the RMS in November 2012 it was agreed that the key focus of the traffic study was to be an assessment of impact upon the signalized intersection at Bridge Street/Brook Street. It was also agreed that the assessment was to include the level crossing in Brook Street in relation to the potential for the queuing of traffic to impact upon the level crossing.

The applicant engaged Intersect Traffic Pty Ltd to undertake the traffic impact assessment, which was submitted in February 2013. The report made the following findings:

- From the data collected in the traffic surveys carried out by RMS and Parsons Brinckerhof as described in ***Section 4***, both Bridge Street (SH9) and Brook Street has spare two way mid-block capacity to cater for additional traffic generated by the proposal without adversely impacting on current levels of service (LOS) experienced by motorists on the roads;
- Sidra analysis of the signalised intersection of Bridge Street (SH9) / Brook Street intersection indicates the additional traffic generated by the proposal has little or no impact on the operation of this signalised intersection.
- Sidra analysis of the signalised intersection of Bridge Street (SH9) / Brook Street intersection indicates that the current intersection may experience capacity issues just with background traffic growth however further turn lane length increases for the Bridge Street right turn movement and the Brook Street east right turn movement may improve intersection performance.
- The Brook Street railway level crossing is constructed to the highest possible standard for a level crossing with gates, lights, bells, a raised concrete median and pedestrian protection therefore the risk of collision at the railway gates would be considered low.
- An assessment of the car parking provisions of the Muswellbrook DCP Chapter 16 – Car parking and access indicates the proposal is required to provide the additional on-site car parking – 0 spaces in Stage 1, 18 spaces in Stage 1 and 56 spaces in Stage 3.
- The proposal does not provide any additional on-site car parking therefore a car parking deficiency occurs for Stages 1 and 2 of the development.
- It is however considered that the provision of additional on-site car parking is not required due to the cross-use of facilities within the complex, multi-purpose trips to the CBD area and the availability of adjacent public on and off-street parking in the area. The peak parking demand for the Conservatorium of Music is also likely to be lower than for the normal community facility land-use described in the DCP and is likely to occur outside the peak parking demand period for many of the other businesses within the Campbell's corner complex and other parts of the CBD.

- Overall it is considered there is sufficient available car parking within the vicinity of the development to cater for the likely parking demand generated by the development.
- The existing CBD loop bus service is considered adequate for this development and there would be no requirement for additional or changed services as well as additional public transport infrastructure.
- Existing pedestrian facilities in the area are considered satisfactory for the proposed development ensuring as safe as possible passage for pedestrian traffic to and from the development.
- Apart from the provision of bicycle racks within the development there would appear little nexus to require the provision of additional on or off road cycle infrastructure in the vicinity of the site.

A copy of the Traffic Impact Assessment by Intersect Traffic is included in **Appendix G**.

Based on these findings the Traffic Impact Assessment and intersection analysis undertaken by Intersect Traffic concluded that the proposed redevelopment of Campbell's Corner, including the relocation of the Conservatorium of Music, can be supported from a traffic impact perspective as it will not adversely impact on the local and state road network and complies with all relevant Muswellbrook Council, Australian Standard and RMS requirements.

By correspondence dated 23rd April 2013 the RMS advised that it had "reviewed the TIA provided and has no objections to or requirements for the proposed development as it is considered the proposed development will not have any significant impacts on the classified (State) road network".

9.4 Car Parking

Based upon the current parking rates in section 16 of DCP 2009, the existing development enjoys a historical shortfall of 167 spaces in onsite car parking.

The proposed development generates the requirement for an additional 56 parking spaces. Stage 1 of the development generates no additional parking requirements. The change in use associated with the stage 2 redevelopment of the first floor to accommodate the Conservatorium of Music (Community Facility) generates a car parking requirement of 50 parking spaces, representing an additional 21 parking spaces. The stage 3 redevelopment of the site on the Brook Street frontage results in the reduction of 40m2 of commercial floor area on the ground level and an additional 738 m2 of floor area for 'community facility' purposes (Conservatorium of Music), generating an additional car parking requirement of 34 parking spaces.

Car Parking rates (Section 16, DCP 2009)

Community facility	1 space / 20 m2 of gross floor area
Business Premises	1 space / 35 m2 of gross floor area
Retail Premises	1 space / 15 m2 of gross floor area

Existing Development:

	Gross Floor Area	Parking requirement
Retail Space	2,474 m2	165
Commercial Space		
Ground Floor	798 m2	23
First Floor	985 m2	29
Residential Flat		1

	Total	218
	Existing spaces	51
	Shortfall	**167 spaces**

Proposed Development:

	Gross Floor Area	Parking requirement
Stage 1	No change	No change
Stage 2		
Retail Space	2,474 m2	165
Commercial Space Ground Floor	798 m2	23
Community Facility First Floor	985 m2	50
	Total	238
	Existing spaces	51
	Shortfall	**187 spaces**
Stage 3		
Retail Space	2,474 m2	165
Commercial Space Ground Floor	758 m2	22
Community Facility First Floor	1,723	87
	Total	274
	Existing spaces	51
	Shortfall	**223 spaces**

The development does not provide any additional on-site car parking. It is proposed to resurface and line mark the car park as part of the stage 2 works and it is considered that this will improve the efficiency of the car park that currently is poorly line marked. It is possible that re-line marking may create a few additional parking spaces.

The applicant submits that historical parking deficiency has not adversely impacted on the local road network or the function of the Muswellbrook CBD area, and that additional car parking is not required for the following reasons:

- Due to the location of the site within the Muswellbrook CBD there are other suitable public parking areas are in close proximity, including the adjoining Council owned public car park that contains 52 spaces.

- The theoretical peak parking demand is over-estimated because of the cross-use of facilities, combined trip purposes with customers visiting more than 1 retail space within the complex or more than 1 site within the CBD as part of their visit and customers parking elsewhere in the CBD.

- The peak parking demand for the Conservatorium of Music is likely to be lower than for the normal community facility land-use described in DCP 2009.

- The main teaching period for the Conservatorium of Music is between 3:30pm to 8:00pm weekdays, which is generally outside the peak parking demand period for many of the other businesses within the Campbell's corner complex and the CBD.

- The local road network around the site has wide carriageways allowing multiple traffic lanes as well as the provision of on-street parking lanes that only have minimal impact on road network capacity. Consequently, within convenient walking distance of the site there is significant on-street parking supply and the on-street parking is time restricted to ensure turnover.

- Osborne Buses runs a Muswellbrook CBD loop bus service that provides excellent public transport access to the site for many residents of Muswellbrook thereby further reducing vehicle trips to the site and thus the peak parking demand.

Having regard to the assessment of car parking contained in the submitted Statement of Environmental Effects (July 2012 - amended February 2013) and the Traffic Impact Assessment prepared by Intersect Traffic, the applicant's submission in relation to car parking is considered to have merit and the contention that there sufficient car parking within the vicinity of the development to cater for the likely parking demand generated by the development is supported.

It has also been taken into account that the area of the site is fully utilised and the new building work associated with stage 3 of the development utilises the existing building footprint and will not cause the loss of any existing parking spaces. Consequently, the only available option to provide additional onsite parking would be to construct a multi-storey parking facility. However, the cost of such a facility would most likely render the proposed development unviable on economic grounds and could not be justified based on existing parking demand within the Muswellbrook CBD.

9.5 Other Matters

9.5.1 Section 94A Contributions Plan

The levies collected under the Section 94A Plan are applied towards meeting the cost of facilities including car parking, community, drainage, footpaths, recreational and roads.

Under Clause 1.5 of the Plan the proposed development does not fall within an exempt category of development and is therefore required to pay a Section 94A contribution equivalent to one percent of the development cost. A contribution of $60,000 is payable in this instance.

The Plan does provide for other categories of developments, or components of developments to be exempted from the requirement for a levy, by resolution of the Council when an applicant has made a claim for exemption.

While the development application was not accompanied by a submission presenting a case and a justified request for exemption, the Plan does identify the following types of development as appropriate for consideration for an exemption:

- works undertaken for charitable purposes or by a registered charity;
- places of worship, public hospitals, police and fire stations;
- childcare facilities;
- libraries;
- other community or educational facilities.

In this instance the primary objectives of the development are the restoration of a significant local heritage item and the provision of a community facility to accommodate the local

Conservatorium of Music. Furthermore, the increase in gross floor area associated with stage 3 of the development, is wholly for the purpose of the community facility. On this basis, and given that Muswellbrook Shire Council is the owner of the building, it would be appropriate for the Joint Regional Planning Panel to give consideration to exempting the development from the s.94A levy.

9.5.2 Matters prescribed by the regulations

There are no provisions of the regulations that affect the application.

9.5.3 Likely impacts of the development

Built Form

The internal refurbishment of the Campbell's Corner building, the external colour palette and the new building work in stage have been endorsed by Council's Heritage Advisor as being sympathetic to the heritage values of Campbell's Corner.

Potential Impact on Adjacent Properties

The refurbishment of the existing building and the new construction work in stage 3 is not expected to adversely impact upon any adjoining or surrounding development. However, conditions of consent are proposed that protect adjoining properties from construction activities and a traffic management plan is required to ensure that existing businesses are not adversely affected by the movements of construction traffic.

Utilities

The site currently has access to all services. Council's Water and Waste section have advised that the proposed work will create additional water and sewage loadings on the existing system and that the developer is required to obtain a Notice of Requirements under Water Management Act 2000.

Stormwater

The existing development drains by pipe to Council's stormwater system in Bridge street and Brook street or by overland flow to the railway corridor to the west of the site.

The application does not propose any change to the existing stormwater management regime because the proposed development does not increase the building footprint and does not create any additional hard stand areas.

Economic and Social Impact on the Locality

The positive impacts of this development are:

- The economic benefit for Muswellbrook and other business within the CBD from strengthening the business viability of the Campbell's Corner site.
- The social value to be derived from the refurbishment of a local heritage item and an iconic local building
- The social benefit from the provision of a community facility providing significantly improved facilities for the Conservatorium of Music and the capacity to provide improved services to the local and regional community.

Streetscape

Conditions of consent pertaining to landscaping and footpath works are not proposed because Muswellbrook Shire Council has adopted and is implementing a streetscape masterplan for Bridge Street in the central business district. Alterations to the existing footpaths in Bridge and Brook adjoining Campbell's Corner are being addressed through the implementation of that plan and include ongoing discussions with the Heritage Advisor.

There is no proposal to alter the existing landscaping within the subject site.

9.6 The public interest

The potential social and economic benefits to be derived from the proposed development are considered to be in the public interest.

7. Conclusion

Subject to various conditions, the proposal is considered to be acceptable having regard to the relevant considerations under section 79C of the Environmental Planning and Assessment Act 1979.

8. Recommendation

8.1 That the Joint Regional Planning Panel to give consideration to exempting the development from the s.94A levy and deleting condition 5 in Appendix A.

That the Joint Regional Planning Panel grant consent to DA 178/2012, subject to the conditions contained in Appendix A.

IDENTIFICATION OF APPROVED PLANS

1. Approved Plans and Documents

The development shall be implemented substantially in accordance with the details and specifications set out on the following plans, drawings and documents:

a) Project Number 516, issue DA, Drawing Number A01, A03, A04, A05, A06, A07, A09, A10, A11, A12 and dated July 2012.
b) Statement of Heritage Impact prepared by John Carr Heritage Design, Final report (Revision A), dated 6th August 2012 and the letter from John Carr Heritage Design dated 11th October 2012.
c) Statement of Environmental Effects (Project No: 516) dated July 2012 and prepared by Stephen Rose Architects and as amended February 2013.
d) Acoustic Guidelines Campbell's Corner Building Refurbishment, dated September 2012 and prepared by Reverb Acoustics.

and any details on the application form and on any supporting information received with the application except as amended by the conditions specified and imposed hereunder.

Note 1: Nothing in this development consent whatsoever approves or authorises the commencement, erection or construction of any building or construction works.
Note 2: Prior to the commencement of any building or construction work being carried out a 'construction certificate' shall be obtained from Council or an Accredited Certifier.
Note 3: Prior to any work being carried out relating to the development the subject of the consent, the person implementing the consent shall provide Council with:

a) Notification of the appointment of a Principal Certifying Authority and a letter of acceptance from the PCA.
b) Notification of the commencement of building works with a minimum of 2 days notice of such commencement.

2. Plans on Site

A copy of all stamped approved plans, specifications and documents (including the Construction Certificate if required for the work incorporating certification of conditions of approval) must be kept on site at all times so as to be readily available for perusal by any officer of Council or the Principal Certifying Authority.

3. Prescribed Conditions – General

The following are prescribed conditions of development consent pursuant to s.80A(11) of the Environmental Planning and Assessment Act 1979 and cl.98 of the Environmental Planning and Assessment Regulation 2000.

- **Compliance with the Building Code of Australia**
  The development must be carried out in accordance with the provisions of the Building Code of Australia.

- **Details to be provided to Council with the Notice of Commencement**
  Builders details shall be provided to Council with the Notice of Commencement.

4. Approvals Required under Roads Act or Local Government Act

The following works or activities shall not be carried out on public land (including a road) adjacent to the development site without approval under the Roads Act 1993 and/or the Local Government Act 1993:

a) Placing or storing materials or equipment;
b) Placing waste containers or skip bins;
c) Pumping concrete from a public road;
d) Standing a mobile crane;
e) Pumping storm water from the site into Council's storm water drains;
f) Erecting a hoarding;
g) Establishing a construction zone;
h) Opening the road reserve for the purpose of connections including telecommunications, water, sewer, electricity and storm water; or
i) Constructing a vehicular crossing or footpath.

An application, together with the necessary fee, shall be submitted and approval granted by Council prior to any of the above works or activities commencing.

Note - Approval under the Roads Act or Local Government Act cannot be granted by a Principal Certifying Authority or by a Private Certifier**.**

CONDITIONS THAT MUST BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

5. Archival records must be prepared, for all significant fabric being demolished in accordance with guidelines published by the NSW Heritage Council prior to, during and post demolition. A copy of this record must be submitted to the Director of Environmental Services, Muswellbrook Shire Council, prior to the issue of construction certificate for this any further works on the site.

ANCILLARY MATTERS TO BE COMPLETED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE

6. Site Management Plan

An Environmental Site Management Plan shall be prepared by a suitably qualified consultant shall be submitted to the principle certifying authority prior to the issue of the construction certificate. The soil and water management/ site management plan must detail:

a. The actions and works that are to be employed to ensure safe access to and from the site and what protection will be provided to the road and footpath area from building activities, crossings by heavy equipment, plant and deliveries.
b. The proposed method of loading and unloading excavation machines, building materials.
c. Areas within the site to be used for the storage of excavated material, construction materials and waste containers during demolition / construction.
d. How it is proposed to ensure that material is not transported on wheels or tracks of vehicles or plant and deposited on surrounding roadways.
e. The provision of temporary fencing to secure the work site (fencing, hoarding or awnings over public land require Council approval under the Roads Act).

Note: The footpath and road reserve shall not be used for construction purposes (including storage of skips or building materials, standing cranes or concrete pumps, erecting hoardings, or as a construction zone) unless prior approval has been granted by Council under the Roads Act 1993.

7. Sediment Control

Where construction or excavation activity requires the disturbance of the soil surface and existing vegetation, details including plans and specifications shall be submitted to Council accompanying the Construction Certificate, which provide adequate measures for erosion and sediment control.

As a minimum, control techniques are to being accordance with Muswellbrook Shire Council's Guidelines on Erosion and Sediment Control, or a suitable and effective alternative method. The Control Plan shall incorporate and disclose:

(a) all details to protect and drain the site during the construction processes;
(b) all sediment control devices, barriers and the like;
(c) sedimentation tanks, ponds or the like;
(d) covering materials and methods;
(e) a schedule and programme of the sequence of the sediment and erosion control works or devices to be installed and maintained.

Details from an appropriately qualified person showing that these design requirements have been met shall be submitted with the Construction Certificate and approved in writing by the Certifying Authority prior to issuing of the Construction Certificate.

8. Design Requirements for Disabled Access & Facilities

A compliance report prepared by a person suitably accredited by the Association of Consultants in Access Australia shall be submitted with the Construction Certificate, demonstrating that the development complies with the requirements of Part D3 and F2.4 of the Building Code of Australia, AS1428.1 Design for Access and Mobility and the Disability (Access to Premises - Buildings) Standards. Details demonstrating compliance with the above provisions should be incorporated within the Construction Certificate.

9. Limit Window Opening

Where it is possible for a person to fall through an openable window from a floor greater than 1.0m above the surface outside the window, a barrier shall be provided to restrict the opening so that at any point a 125mm sphere cannot pass through. The barrier can be provided in any form fit for the intended purpose, including a screen, louvres or mesh, and may also serve other purposes such as, security or solar heat load. A childproof device fitted to a window that allows it to be locked in a position so that the aperture is no greater than 125mm when children are present is also acceptable. This condition does not apply to windows with a sill height of 1500mm or more above the floor inside the building immediately below the window.

Measures proposed to comply with this condition shall be indicated on the Construction Certificate drawings and the measures shall be in place before the issue of an Interim or Final Occupation Certificate.

10. Section 94A Contribution

Prior to the issue of a Construction Certificate, the consent holder shall pay a contribution of $60,000 to Muswellbrook Shire Council pursuant to section 80A(1) of the Environmental Planning and Assessment Act 1979 and the Muswellbrook Shire Council Section 94A Development Contributions Plan 2010.

The amount to be paid is to be adjusted at the time of the actual payment, in accordance with the provisions of the Muswellbrook Shire Council Section 94A Development Contributions Plan 2010.

CONDITIONS RELATING TO WORKS IN THE ROAD RESERVE

11. Road Opening Approval Required

No work whatsoever shall be carried out within the Public Road Reserve unless a "Road Opening Permit" under the Roads Act, 1993 (NSW) has been issued by either Council or the Roads and Traffic Authority for every opening of the public road reserve.

Note: An application fee is payable for this application.

12. Nomination of Engineering Works Supervisor

Prior to the issue of a Construction Certificate the applicant shall nominate an appropriately accredited certifier to supervise all public area civil and drainage works to ensure that they are constructed in compliance with Council's current "Specification for Civil Works Associated with Subdivisions and Developments".

The engineer shall:

a. provide an acceptance in writing to supervise sufficient of the works to ensure compliance with:
    i) all relevant statutory requirements;
    ii) all relevant conditions of development consent;
    iii) construction requirements detailed in the above Specification; and
    iv) iv) the requirements of all legislation relating to environmental protection;
b. on completion of the works certify that the works have been constructed in compliance with the approved plans, specifications and conditions of approval; and
c. certify that the Works As Executed plans are a true and correct record of what has been built.

PUBLIC UTILITY AUTHORITIES REQUIREMENTS

13. Notice of Requirements

A ‘Notice of Requirements’ under the Water Management Act 2000 must be obtained detailing water and sewer extensions to be built and charges to be paid by the applicant prior to any Construction Certificate Application.

Details demonstrating compliance with any requirements for works by Muswellbrook

Shire Water & Waste Division are to be provided with the Construction Certificate Application.

Note: The final Compliance Certificate must be submitted to Council or the Principal Certifying Authority prior to release of any Occupation Certificate.

14. Geotechnical Monitoring Program

Any excavation works associated with Stage 3 of the proposed development must be overseen and monitored by a suitably qualified engineer. A Geotechnical Monitoring Program shall be submitted to the principal certifying authority prior to issue of a Construction Certificate.

The Geotechnical Monitoring Program must be produced by suitably qualified engineer ensuring that all geotechnical matters are regularly assessed during construction. The Geotechnical Monitoring Program for the construction works must be in accordance with the recommendations of the submitted Geotechnical Report and is to include:

a) Recommended hold points to allow for inspection by a suitably qualified engineer during the following construction procedures;
   - Excavation of the site (face of excavation, base, etc)
   - Installation and construction of temporary and permanent shoring/retaining walls.
   - Foundation bearing conditions and footing construction.
   - Installation of sub-soil drainage.

   Excavation and construction works must be undertaken in accordance with the Geotechnical Monitoring Program.

15. Construction Methodology Report

A suitably qualified engineer must prepare a Construction Methodology report demonstrating that the proposed excavation will have no adverse impact on any surrounding property and infrastructure. The report must be submitted to Principle Certifying Authority prior to issue of a Construction Certificate.

The geotechnical report must be used to determine the design parameters appropriate to the specific development and site. The Report must include recommendations on appropriate construction techniques to ameliorate any potential adverse impacts. The development works are to be undertaken in accordance with the recommendations of the Construction Methodology report

16. Traffic Management plan

Prior to submission to the principle certifying authority a traffic management plan is to be submitted to and approved by Council. The traffic management plan shall be prepared a suitably qualified person. The plan is to detail construction vehicle routes, number of trucks, hours of operation, access arrangements and what provisions have been made to reduce the impact on both pedestrian and vehicular traffic on the surrounding streets.

A certification completed by a suitably qualified person shall be submitted stating full compliance with AS-1742.3 2002. The plans and certification shall be submitted to the Principle Certifying Authority prior to the issue of the construction certificate.

17. Building Ventilation

To ensure that adequate provision is made for ventilation of the building mechanical and / or natural ventilation systems shall be provided. These shall be designed, in accordance with the provisions of:

a) The Building Code of Australia.
b) AS 1668 Part 1 - 1998.
c) AS 1668 Part 2 - 1991.

Details of all mechanical and / or natural ventilation systems, along with specific certification provided by an appropriately qualified person verifying compliance with the abovementioned requirements, shall accompany the Construction Certificate.

18. BCA Assessment Report - Building Upgrade

A Building Code of Australia Assessment Report shall be submitted with the Construction Certificate. This shall be prepared by an appropriately qualified person and shall provide recommendations regarding what upgrading is proposed to the existing building (part to be remained) to bring the entire building into conformity with the *Building Code of Australia (BCA).*

The report shall address Part C, D, E and F of BCA and all recommendations contained within this report shall be incorporated within the scope of works covered by the Construction Certificate.

19. Submission of Fire Safety Schedule

A Fire Safety Schedule shall be issued by an appropriately qualified person and provided to Council as part of the Construction Certificate in accordance with the *Environmental Planning and Assessment Regulation 2000.* This schedule shall distinguish between current, proposed and required fire safety measures, with the minimum standard of performance being indicated for each fire safety measure.

The Fire Safety Schedule shall identify each fire safety measure that is a Critical Fire Safety Measures and the intervals at which supplementary fire safety statements shall be given to the Council in respect of each such measure.

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO COMMENCEMENT

20. Pre-Commencement - Notification Requirements

No works in connection with this development consent shall be commenced until:

- A Construction Certificate has been issued and detailed plans and specifications have been endorsed and lodged with Council;
- A Principal Certifying Authority has been appointed. Council shall be notified of this appointment along with details of the Principal Certifying Authority, and their written acceptance of the appointment; and
- Notice of commencement has been provided to Council 48 hours prior to commencement of construction work on the approved development.

21. Signs to be Erected on Building and Demolition Sites

Where proposed works affect the external walls of a building, a rigid and durable sign shall be erected prior to the commencement of work and maintained in a prominent position on any work site on which building work, subdivision work or demolition work is being carried out. The responsibility for this to occur is that of the principal certifying authority or the principal contractor.

The signage, which must be able to be easily read by anyone in any public road or other public place adjacent to the site, must:

a) show the name, address and telephone number of the principal certifying authority for the work, and
b) show the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and
c) state that unauthorised entry to the work site is prohibited.

Any such sign is to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

22. Sediment and Erosion Control

All required erosion and sedimentation techniques are to be properly installed prior to the commencement of any site works and maintained in a functional and effective condition throughout the construction activities until the site is stabilised.

23. Site Facilities

(a) If the development involves building work or demolition work, the work site must be fully enclosed by a temporary security fence (or hoarding) before work commences.
(b) A minimum width of 1.2m must be provided between the work site and the edge of the roadway so as to facilitate the safe movement of pedestrians.
(c) Any such hoarding or fence is to be removed when the work has been completed.
(d) A garbage receptacle fitted with a tight fitting lid for the reception of all food scraps and papers from the work site must be provided prior to building work commencing and must be maintained and serviced for the duration of the work.
(e) Toilet facilities must be provided on the work site at the rate of one toilet for every 20 persons or part of 20 persons employed at the work site.
(f) Each toilet provided must:
    - be a standard flushing toilet, connected to a public sewer, or
    - if connection to a public sewer is not available, to an on-site effluent disposal system approved by the council, or
    - an approved temporary chemical closet.
(g) The provision of toilet facilities must be completed before any other work is commenced.
(h) A person having the benefit of this certificate who causes an excavation that extends below the level of the base of the footings of a building on an adjoining allotment of land must at their own expense and where necessary:
    - protect and support the building from damage, and
    - if necessary, underpin and support the building in accordance with the details prepared by a professional engineer.

(i) A person having the benefit of this certificate who causes the excavation must, at least 7 days before commencing this work, give notice of intention to do so to the owner of the adjoining allotment of land and provide particulars of the proposed work.
(j) Erosion and sediment controls must be provided in accordance with the details shown on the approved plans, prior to the disturbance of any soil on the work site.

CONDITIONS WHICH MUST BE SATISFIED DURING ANY DEVELOPMENT WORK

24. Permitted Hours for Building and Demolition Work

Building construction and demolition is to be carried out during the following hours:

(a) i. between Monday to Friday (inclusive)—7.00am to 5.00pm
ii. on a Saturday—7.00am to 4.00pm
(b) Building construction must not be carried out on a Sunday or a public holidays.
(c) Demolition works and excavation works must only be carried out between Monday to Friday (inclusive) between 8.00am and 5.00pm.
(d) The builder and excavator must display, on-site, their 24 hour contact telephone numbers, which are to be clearly visible and legible from any public place adjoining the site.

All possible steps shall be taken to silence construction equipment and the operating noise level of plant and equipment shall not give rise to "offensive noise" as defined by the Protection of the Environment Operations Act 1997.

25. Prohibition on Use of Pavements

Building materials and equipment must be stored wholly within the work site, unless prior written approval has been obtained from council. Equipment must not be operated on the footpath or roadway, unless prior written approval has been obtained from council.

26. Toilet Facilities

Toilet facilities shall to be provided, at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out, at the rate of one toilet for every 20 persons or part of 20 persons employed at the site. Each toilet provided:

a) shall be a standard flushing toilet, and
b) shall be connected:
    i) to a public sewer
    ii) if connection to a public sewer is not practicable, to an accredited sewage management facility approved by the Council, or
    iii) if connection to a public sewer or an accredited sewage management facility is not practicable, to some other sewage management facility approved by the Council.

The provision of toilet facilities in accordance with this clause shall be completed before any other work is commenced.

27. Demolition Work

To ensure that demolition of structures is carried out in an environmentally acceptable and safe manner:

a) The demolition of the existing building shall be carried out strictly in accordance with Australian Standard 2601 - The Demolition of Structures.
b) It is the applicant's responsibility to notify Council of any existing damage to public areas in the vicinity of the development site through the submission of a dilapidation report supported with suitable photographic records. This information shall be submitted to Council prior to the commencement of work. Any damage other than that noted prior to commencement of the demolition shall be the responsibility of the owner of the property for repair or reinstatement.
c) The applicant shall ensure that the demolition contractor has a current public risk insurance coverage for a minimum of $5 million. A copy of the Policy must be submitted to the Council prior to demolition.
d) If demolition is to commence prior to the issue of a Construction Certificate, the applicant shall submit to Council a Site Management Plan - Demolition for assessment prior to the commencement of any demolition work. This plan shall consider the following:
    i) What actions and works are proposed to ensure safe access to and from the site and what protection will be provided to the road and footpath area from demolition activities, crossings by heavy equipment, plant and materials deliveries and the like;
    ii) The proposed method of loading and unloading demolition machines within the site;
    iii) The proposed areas within the site to be used for the storage of demolished material and waste containers during the demolition period;
    iv) How it is proposed to ensure that soil / demolished material is not transported on wheels or tracks of vehicles or plant and deposited on surrounding roadways;
e) Pre-Commencement Inspection

    If demolition is to commence **prior** to the issue of a Construction Certificate, the Builder/principal contractor shall undertake a pre-commencement site inspection with Council's Development Engineer and Council's Civil Asset Manager. The purpose of this inspection is to facilitate the implementation of the consent specifically with regard to the impact on the public way and to clarify any matters of concern.

28. Protection of Public Places

To protect public safety and convenience during the course of constructing the works covered by this consent, the following matters shall be complied with:

a) If the work involved in the erection or demolition of a building:
    i) is likely to cause pedestrian or vehicular traffic in a public place to be obstructed, inconvenienced, or rendered unsafe; or
    ii) building involves the enclosure of a public place,

    A hoarding or fence shall be erected between the work site and the public place.
b) If necessary, an awning is to be erected, sufficient to prevent any substance from, or in connection with, the work falling into the public place.
c) The work site must be kept lit between sunset and sunrise if it is likely to be hazardous to persons in the public place.

29. Any such hoarding, fence or awning shall be removed and any damage to any public place reinstated to Council's satisfaction when the work has been completed.

30. Noise Control during Construction and Demolition

To minimise the impact on the surrounding environment the LAeq sound pressure level measured over a period of 15 minutes when the construction or demolition site is in operation, shall not exceed the ambient background level (LA90 15min) by more than 10dB(A) when measured at the nearest affected premises.

31. Vibration Damage

To minimise vibration damage and loss of support to the buildings in close proximity where a hydraulic hammer is to be used within 30 metres of any building (other than a path or a fence) a report shall be prepared by a qualified geotechnical engineer detailing the maximum size of hammer to be used for excavation purposes. This report shall accompany the Construction Certificate.

32. Environment Protection and Management

The approved Sediment & Erosion controls shall be reinstated daily prior to workers leaving the site where modified at any time. Any sediment that escapes from the allotment shall be cleaned, collected and disposed of to Council's waste management facility or the sediment shall be returned to the subject allotment on a daily basis.

33. Stockpiling of Materials During Construction

On site materials and debris shall be stockpiled within an erosion containment boundary and shall not encroach beyond the boundaries of the property or the drip-line of any tree marked for retention.

34. Construction Materials and Machinery Must be Kept Within the Site

All construction materials, sheds, skip bins, temporary water closets, spoil, and the like, shall be kept within the property. No vehicles or machines shall be permitted to stand on Council's footpath.

35. Spoil Deposited on Public Way (Roads or Reserves)

Any spoil deposited on public roads during cartage of materials from or to the site shall be removed immediately to the satisfaction of Council. If Council determines that excessive depositing of spoil onto the public way is taking place then the cartage of spoil shall cease if so directed by Council.

36. Disposal of Site Soils

All soils excavated from the subject site are to be classified under the NSW DECC Waste Classification Guidelines (2009). Testing is required prior to offsite disposal. All waste materials shall be removed to appropriately licensed waste facilities by a suitably qualified contractor in accordance with NSW DECC Waste Classification Guidelines (2009).

Note: Attention is drawn to Part 4 of the NSW DECC Waste Classification Guidelines (2009) which makes particular reference to the management and disposal of Acid & Potential Acid Sulfate Soils.

37. Dewatering of Excavation

Any water from excavations to be discharged to Council's storm water system must meet the following criteria:

a) It shall not contain a concentration of suspended sediment exceeding 50 mg/L.
b) It shall have a pH of between 6.5-8.
c) It shall comply with the ANZECC Guidelines for Marine and Freshwater Quality, for Protection of Aquatic Ecosystems (95% protection level).

38. Construction Deliveries

Construction material deliveries are to be scheduled, as far as practicable, to avoid peak usage times of the existing car park and the adjoining Council car park.

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

39. Final Compliance Certificate for Water Supply and Sewerage Works

The final Compliance Certificate for water supply and sewerage works associated with each stage of the development is to be obtained from Muswellbrook Shire Council's Water & Waste Department, and a copy must be submitted to the Principal Certifying Authority, prior to release of any Occupation Certificate or Strata Subdivision Certificate for that stage of the development.

40. Damage to Adjoining Properties

All precautions must be taken to prevent any damage likely to be sustained to adjoining properties. Adjoining owner property rights and the need for owner's permission must be observed at all times, including the entering onto land for the purpose of undertaking works.

On completion of the works and prior to the issue of an Occupation Certificate, a certificate is to be prepared to the effect that that no damage has resulted to adjoining premises, and is to be provided to Council and the Principal Certifying Authority.

Alternatively, if damage is identified which is considered to require rectification, the damage shall be rectified or a satisfactory agreement for rectification of the damage is to be made with the affected person/s as soon as possible and prior to the issue of a final Occupation Certificate.

41. Parking Areas and Access

All vehicular access, parking and manoeuvrability including loading areas for the proposed development shall comply with AS2890.1 - 2004. The following specific requirements are to be complied with:

a) The existing car park, driveways, internal access ways and turning areas shall be resurfaced, line marked and sign posted prior to the release of the Occupation Certificate for Stage 2 of the development.
b) Parking provision shall be made for a minimum of 5 bicycles.

42. Stormwater Drainage Works

All stormwater from the development, including all hardstand areas, is to be collected and disposed of to the Council stormwater system,

43. Works As Executed Information

Certification shall be provided from a registered surveyor to the effect that:

a) All civil engineering works required by this development consent have been carried out in accordance with the terms of the development consent and the approved engineering drawings with regard to location and level.
b) All pipes, pits and detention facilities lay within their relevant existing or proposed easements.

44. Works As Executed Drawings

Certification shall be provided from the supervising engineer acting as an Accredited Certifier, to the effect that:

a) All civil engineering and storm water works associated with development have been carried out in accordance with the terms of the development consent, the approved engineering drawings and in the case of public works Council's "Specifications for Civil Works associated with Subdivisions and Developments".

45. Completion of Work on Public Land

All work on public land required or proposed as part of this consent shall be completed in accordance with the requirements and time frames specified in the approvals granted by Council for the work under the Local Government Act 1993 or the Roads Act 1993.

No work shall be undertaken within the road reserve or on public land without approval from Council.

46. Set out of Building (Stage 3)

Certificate from a Registered Surveyor certifying that the building has been set-out in relation to location and levels, in accordance with the requirements of the development consent.

47. Mechanical or Natural Ventilation

Certification from a suitably qualified Mechanical Engineer certifying that all work associated with the installation of the mechanical or natural ventilation systems has been carried out in accordance with the conditions of the development consent.

48. Works in Roadway

A Compliance Certificate from an Accredited Certifier certifying that any works undertaken in the road reserve have been completed in accordance with the conditions of a Road Opening Approval.

49. Prior to Occupation or Use of the Development

The Development shall not be occupied or used until:

a) A Final Occupation Certificate is issued and provided to Council for the development; or
b) An Interim Occupation Certificate is issued and provided to Council for the development. This shall clearly identify the part of the development to which the Interim Occupation Certificate relates.

CONDITIONS THAT MUST BE COMPLIED WITH AT ALL TIMES

50. Amenity of the Neighbourhood

The implementation of this development shall not adversely affect the amenity of the neighbourhood or interfere unreasonably with the comfort or repose of a person who is outside the premises by reason of the emission or discharge of noise, fumes, vapour, odour, steam, soot, ash, dust, waste water, waste products, grit, oil or other harmful products.

51. External Lighting - (Amenity)

Any lighting on the site shall be designed and operated so as not to cause a nuisance nor adverse impact on the other residents of the surrounding area nor to motorists on nearby roads. All external lights shall be designed in accordance with Australian Standard AS4282 - Control of the Obtrusive Effects of Outdoor Lighting.

52. Car parking Areas

To ensure that the car parking area satisfies the demands of the development it shall be made available on an unrestricted basis at all times for employees' and visitors' vehicles.

53. Loading and Unloading

In the interests of public safety and amenity:

a) All delivery vehicles servicing the property shall stand within the curtilage of the site
b) All delivery vehicles shall be driven in a forward direction when entering and leaving the site.

54. Loading and unloading of vehicles from the roadway is not permitted.

55. Ventilation – Operation

To ensure adequate ventilation within the building, all mechanical and / or natural ventilation systems shall be operated and maintained in accordance with the provisions of:

a) The Building Code of Australia.
b) AS 1668 Part 1 - 1998.
c) AS 1668 Part 2 - 1991.

56. Safety and Security

The following safety and security matters shall be adopted in the construction and operation of the centre:

a) Toilet doors should be designed to incorporate a gap at the top and bottom.
b) There shall be separate entrances to the male and female toilet facilities.
c) Universal pictograms for identifying toilets must be installed at the entrances to all toilets.
d) All internal fixtures of toilet facilities should be vandal resistant, robust and durable.
e) All communal areas, pedestrian routes, and entry and exit points must be adequately lit to meet AS 1158.3.1.
f) Exterior lighting must be switched on at all times the Centre is operating outside of daylight hours..
g) All doors must be fitted with appropriate access control devices that meet the relevant Australian Standard and installed by a licensed professional.
h) Any Security systems and CCTV cameras installed by a licensed security professional and meet Australian Standard 4806. Lighting sources around cameras must be compatible with requirements for the CCTV system. CCTV cameras must be of a quality that allows for the identification of people engaging in anti-social or criminal activities. All CCTV cameras must be in working conditions at all times.
i) All garbage bins must be appropriately secured.

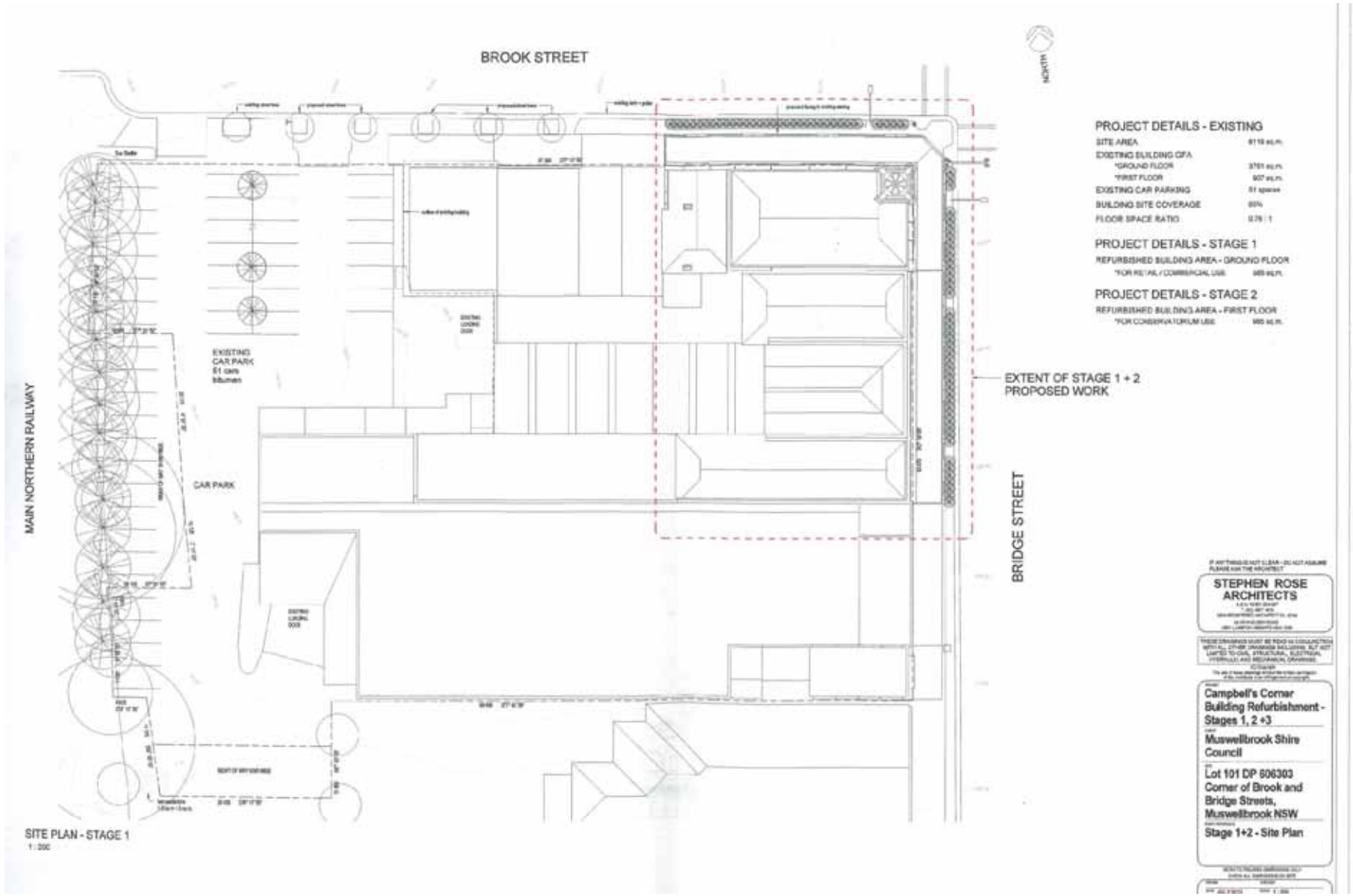
57. Forklifts

No forklifts shall be operated in the car park or other publically accessible areas.

58. Waste Removal

To minimise the noise impact of the development on the surrounding environment, the collection of garbage, bottles, cans or other recycling material from the premises shall not take place between the hours of 9.00pm and 7.00am daily.

APPENDIX B – Plans and Elevations



PROJECT DETAILS - EXISTING

SITE AREA	8119 sq.m.
EXISTING BUILDING GFA	
*GROUND FLOOR	3701 sq.m.
*FIRST FLOOR	907 sq.m.
EXISTING CAR PARKING	51 spaces
BUILDING SITE COVERAGE	60%
FLOOR SPACE RATIO	0.76 : 1

PROJECT DETAILS - STAGE 1

REFURBISHED BUILDING AREA - GROUND FLOOR

*FOR RETAIL / COMMERCIAL USE 985 sq.m.

PROJECT DETAILS - STAGE 2

REFURBISHED BUILDING AREA - FIRST FLOOR

*FOR CONSERVATORIUM USE 985 sq.m.

IF ANYTHING IS NOT CLEAR - DO NOT ASSUME PLEASE ASK THE ARCHITECT

STEPHEN ROSE ARCHITECTS

THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS INCLUDING, BUT NOT LIMITED TO CIVIL, STRUCTURAL, ELECTRICAL, HYDRAULIC AND MECHANICAL DRAWINGS.

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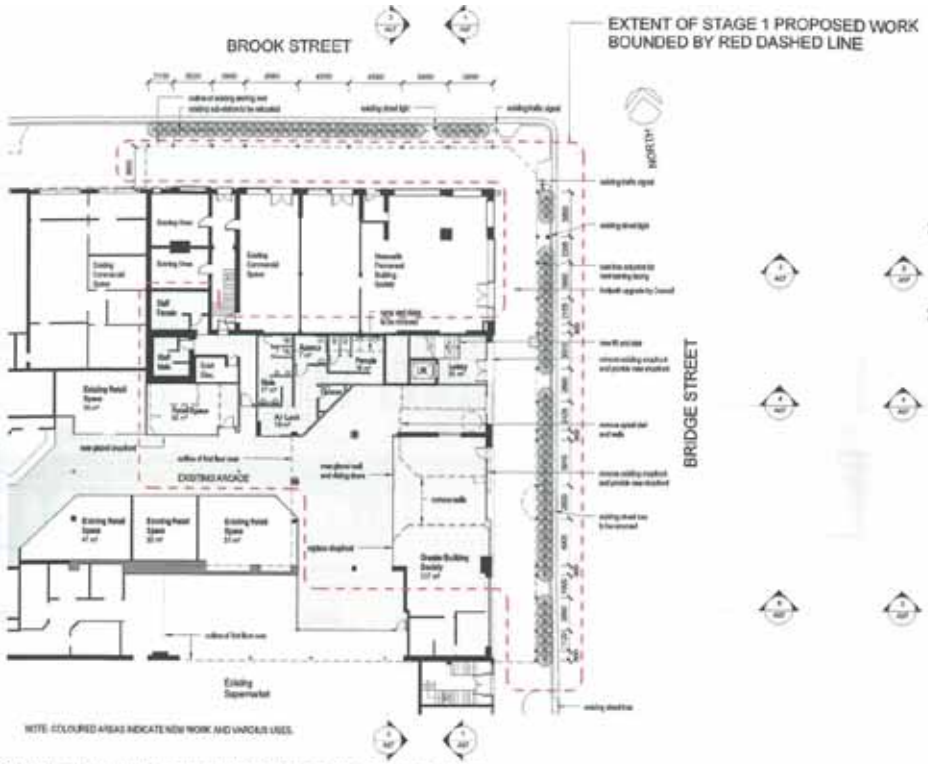
Project
Campbell's Corner Building Refurbishment - Stages 1, 2 +3

Client
Muswellbrook Shire Council

Site
Lot 101 DP 606303 Corner of Brook and Bridge Streets, Muswellbrook NSW

Drawing Title
Stage 1+2 - Site Plan

ARCHITECTURAL DRAWINGS ONLY



GROUND FLOOR PLAN - CONSERVATORIUM RELATED WORK STAGE 1
1 : 200

FIRST FLOOR PLAN - CONSERVATORIUM REFURBISHMENT STAGE 2
1 : 200

EAST ELEVATION
1 : 200

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

IF ANYTHING IS NOT CLEAR - DO NOT ASSUME
PLEASE ASK THE ARCHITECT

STEPHEN ROSE
ARCHITECTS

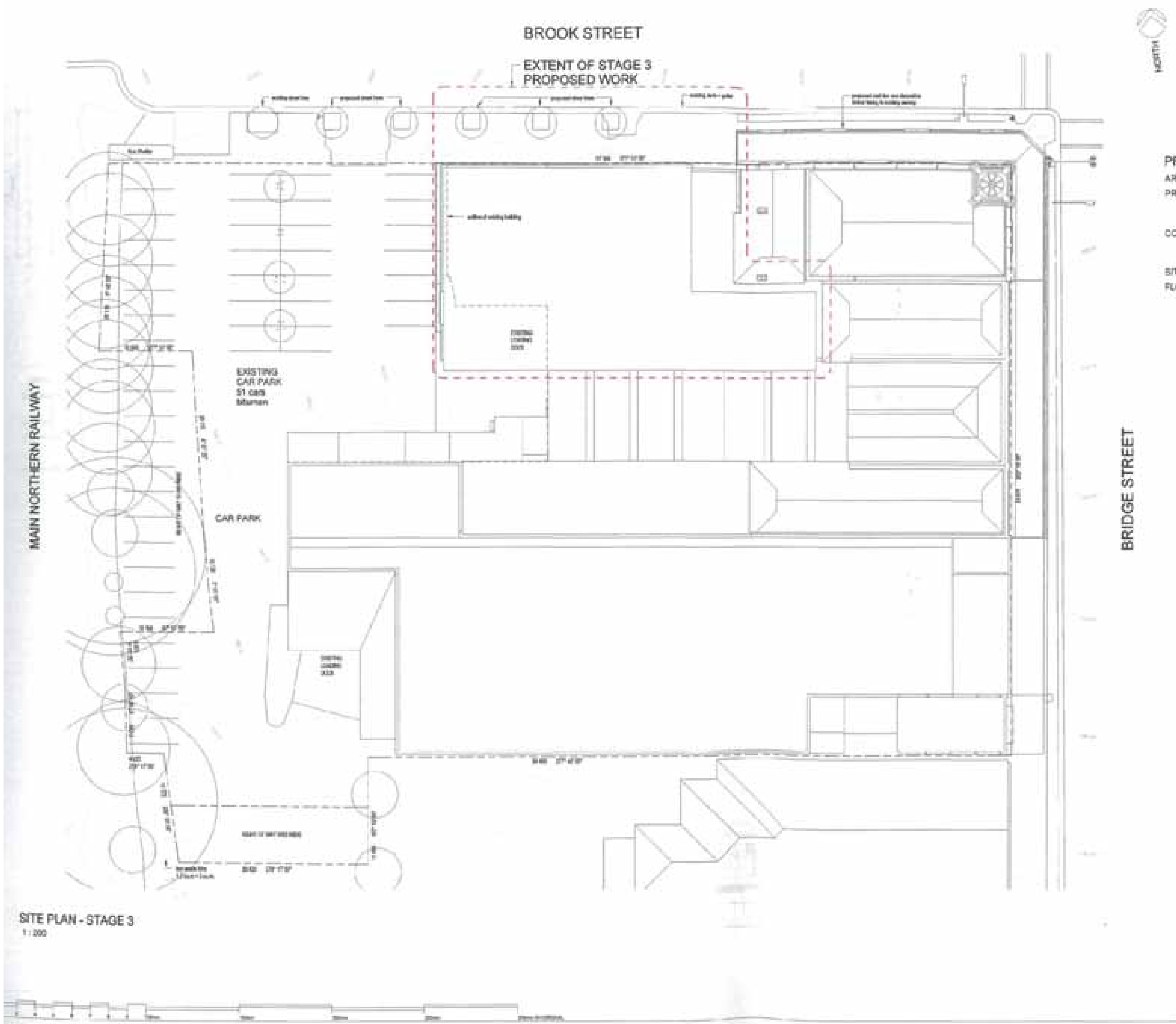
PRESS DRAWINGS MUST BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS INCLUDING, BUT NOT LIMITED TO CIVIL, STRUCTURAL, ELECTRICAL, HYDRAULIC AND MECHANICAL DRAWINGS.

Campbell's Corner Building Refurbishment - Stages 1, 2 +3

Muswellbrook Shire Council

Lot 101 DP 606303
Corner of Brook and Bridge Streets, Muswellbrook NSW

Stage 1+2 - Ground, First Floor Plans and East Elevation



SITE PLAN - STAGE 3
1 : 200

PROJECT DETAILS - STAGE 3

AREA OF BUILDING DEMOLISHED	473 sq.m.
PROPOSED BUILDING AREA	
*GROUND FLOOR	433 sq.m.
*FIRST FLOOR	745 sq.m.
COMPLETE BUILDING AREA	
*GROUND FLOOR	3916 sq.m.
*FIRST FLOOR	1721 sq.m.
SITE COVERAGE	64%
FLOOR SPACE RATIO	1 : 0.92

IF ANYTHING IS NOT CLEAR - DO NOT ASSUME PLEASE ASK THE ARCHITECT

STEPHEN ROSE ARCHITECTS

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Campbell's Corner Building Refurbishment - Stages 1, 2 +3

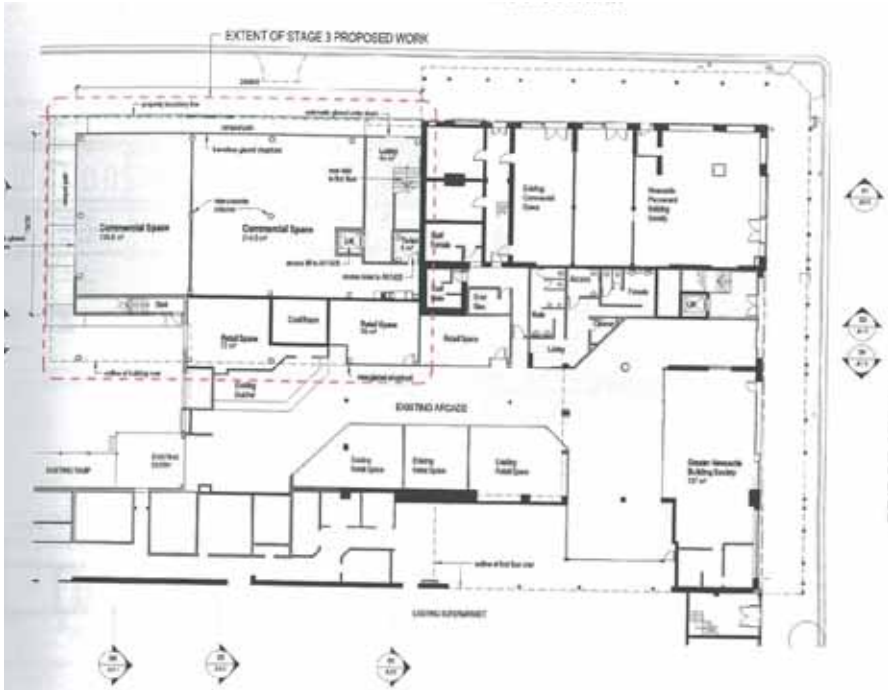
Muswellbrook Shire Council

Lot 101 DP 606303 Corner of Brook and Bridge Streets, Muswellbrook NSW

Stage 3 - Site Plan

JULY 2012 | 1 : 200

516 | DA | A09



GROUND FLOOR PLAN - CONSERVATORIUM RELATED WORK STAGE 3
1 : 200

FIRST FLOOR PLAN - CONSERVATORIUM NEW WORK STAGE 3
1 : 200

NORTH ELEVATION
1 : 200

IF ANYTHING IS NOT CLEAR - DO NOT ASSUME
PLEASE ASK THE ARCHITECT

STEPHEN ROSE ARCHITECTS

THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS INCLUDING, BUT NOT LIMITED TO CIVIL, STRUCTURAL, ELECTRICAL, HYDRAULIC AND MECHANICAL DRAWINGS

Campbell's Corner Building Refurbishment - Stages 1, 2 +3

Muswellbrook Shire Council

Lot 101 DP 606303
Corner of Brook and Bridge Streets, Muswellbrook NSW

Stage 3 - Ground and First Floor Plans and North Elevation

JULY 2012 | 1 : 200

516 | DA | A10

Transport
Roads & Maritime
Services

23 October 2012

SF2012/033437
CR2012/009797
MF

General Manager
Muswellbrook Shire Council
PO Box 122
MUSWELLBROOK NSW 2333

Attention: Ms Donna Watson

NEW ENGLAND HIGHWAY (HW10): PROPOSED THREE STAGE REFURBISHMENT OF AND ADDITIONS TO CAMPBELL'S CORNER, LOT 101 DP 606303, 60 BRIDGE STREET, MUSWELLBROOK (DA 178/2012)

Dear Ms Watson,

I refer to your letter dated 4 October 2012 (your reference: DA 178/2012) regarding the subject development, forwarded to Roads and Maritime Services (RMS) for consideration.

RMS Responsibilities and Obligations

Transport for NSW and RMS's primary interests are in the road network, traffic and broader transport issues. In particular, the efficiency and safety of the classified road network, the security of property assets and the integration of land use and transport.

In accordance with the *Roads Act 1993*, RMS has powers in relation to road works, traffic control facilities, connections to roads and other works on the classified road network. The New England Highway (HW9) is a classified (State) Road. Brook Street is an unclassified local road. Council is the roads authority for this road and all other public roads in the area. RMS concurrence is required for connections to the New England Highway with Council consent, under Section 138 of the Act. Should road works be required on the classified (State) road, RMS would exercise the functions of roads authority under Sections 64 and 71 of the Act.

As this is a large commercial/educational development proposed fronting a classified road it requires referral to RMS under the *State Environmental Planning Policy (Infrastructure)* 2007, *Clause 104, Schedule 3.*

RMS Response and Requirements

RMS has reviewed the information provided and requires the developer to undertake a Traffic Impact Assessment (the study) to identify road safety / traffic impacts and any subsequent road upgrade requirements. The study shall be prepared in accordance with the RMS *Guide to Traffic Generating Developments 2002* and is to include, but not be limited to, the following:

- The anticipated additional vehicular traffic generated to / from the proposed development.

- Determine on - site parking requirements for all activities within the development.

- The distribution on the road network of the trips generated by the proposed development. It is requested that the predicted traffic flows are shown diagrammatically to a level of detail sufficient for easy interpretation.

- Consideration of the traffic impacts on existing and proposed intersections including the level railway crossing on Brook Street and the capacity of the local and classified road network to safely and efficiently cater for the additional vehicular traffic generated by the proposed development. The study shall also give consideration to the cumulative traffic impacts of other proposed and approved developments in the area.

- Traffic analysis of the existing intersection of the New England Highway / Brook Street, using SIDRA or similar traffic model, including:

    - Current traffic counts and 10 year traffic growth projections
    - With and without development scenarios
    - 95th percentile back of queue lengths
    - Delays and level of service on all legs
    - Use of SIDRA or similar traffic model
    - Electronic input/output data files for RMS review

- Consideration of the impacts of construction traffic on the road network in the vicinity of the development and measures to minimise any identified impacts.

- Any other impacts on the local, regional and state road network including consideration of pedestrian, cyclist, bus transport facilities and provision for service vehicles.

- The study should identify and recommend the need for any intersection / vehicular access upgrades and provide strategic concept layouts where required. Turning templates for the largest design vehicle should be provided.

RMS will provide further comments and respond to the development application on receipt of the above information.

Should you require any further advice, please contact me on 4924 0688.

Yours sincerely

Michael Dixon
A/Manager, Land Use Management
Hunter Region

Transport
Roads & Maritime
Services

23 April 2013

SF2012/033437
CF2013/001870
MJ

General Manager
Muswellbrook Shire Council
PO Box 122
MUSWELLBROOK NSW 2333

Attention: Mrs Donna Watson

NEW ENGLAND HIGHWAY (BRIDGE STREET - HW9): PROPOSED THREE STAGE REFURBISHMENT OF AND ADDITIONS TO CAMPBELL'S CORNER, LOT 1 DP 606303, 60 BRIDGE STREET, MUSWELLBROOK (DA178/2012)

Dear Mrs Watson

I refer to Council's letter dated 4 April 2013, received on 8 April 2013, regarding the subject development application forwarded to Roads and Maritime Services (RMS) for comment. I also refer to RMS letter dated 23 October 2012 and the Traffic Impact Assessment (TIA), prepared by Intersect Traffic dated February 2013, in response to issues raised by RMS.

RMS Responsibilities

Transport for NSW and RMS primary interests are in the road network, traffic and broader transport issues. In particular, the efficiency and safety of the classified road network, the security of property assets and the integration of land use and transport.

In accordance with the *Roads Act 1993*, RMS has powers in relation to road works, traffic control facilities, connections to roads and other works on the classified road network. The New England Highway (HW9) is a classified (State) road and part of the National Land Transport Network. RMS concurrence is required for connections to the road with Council consent, under Section 138 of the Act. Council is the roads authority for the New England Highway and all other public roads in the area. Should road works be required on the classified (State) road, RMS would exercise the functions of roads authority under Sections 64 and 71 of the Act.

RMS Response and Requirements

RMS has reviewed the TIA provided and has no objections to or requirements for the proposed development as it is considered the proposed development will not have any significant impacts on the classified (State) road network.

Advice to Council

- RMS has no proposal that requires any part of the property.

- All matters relating to internal arrangements on-site such as car parking, traffic / pedestrian management, manoeuvring of service vehicles and provision for people with disabilities are matters for Council to determine.

- Discharged stormwater from the development shall not exceed the capacity of the New England Highway stormwater drainage system. Council shall ensure that drainage from the site is catered for appropriately and should advise RMS of any adjustments to the existing system that are required prior to final approval of the development.

- Council should ensure that the applicant is aware of the potential for road traffic noise to impact on development on the site. In this regard, the developer, not RMS is responsible for providing noise attenuation measures in accordance with the Office of Environment and Heritage *NSW Road Noise Policy 2011*, should the applicant seek assistance at a later date.

  Where the Office of Environment and Heritage external noise criteria would not feasibly or reasonably be met RMS recommends that Council apply internal noise objectives for all habitable rooms under ventilated conditions that comply with the Building Code of Australia.

- Council should ensure the developer has appropriate traffic management measures in place, designed to minimise the impacts on the traffic using the New England Highway and adjacent local roads during the construction phase of the development.

On Council's determination of this matter, it would be appreciated if a copy of the Notice of Determination is forwarded to RMS for record and / or action purposes

Please contact me on 4924 0688 if you require further advice.

Yours sincerely

Dave Young
Manager Land Use
Hunter Region

MUSWELLBROOK HERITAGE STUDY

Campbell's Corner - Inventory 2000

PRESENT NAME
Campbell's Corner (with various commercial tenants including "Franklins")

PREVIOUS/OTHER NAMES
M. Campbell's Stores

REFERENCE No *MUSW/R001a*

PREVIOUS REFERENCE No

DATE INSPECTED *27 October 2000*

LOCATION

STREET No 60 **STREET NAME** Bridge Street
TOWN/SUBURB *Muswellbrook* **POSTCODE** *2333*
LOCALITY *Muswellbrook*
LOCAL GOVERNMENT AREA *MUSWELLBROOK*

SITE SKETCH PLAN

PRESENT OWNER **TYPE** Commercial
NAME *Hoake Pty. Ltd*
OWNERS ADDRESS *PO Box 143* NEWCASTLE NSW 2300
STREET No **STREET NAME**
TOWN/SUBURB *NEWCASTLE* **POSTCODE** *2300*

PROPERTY DETAILS:
a **REAL PROPERTY DESCRIPTION**
Lot 60 DP 606303
b **SITE AREA** approx. 1800sq.m
c **EXISTING ZONING** *3(a) General Business*

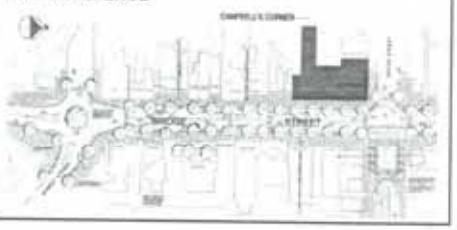
CATEGORY *Building*
SUB CATEGORY *Commercial building*

DATE OF CONSTRUCTION 1870, 1879, 1891-2, 1893-4 and 1910

ARCHITECT/DESIGNER
J.W. Pender (1870)
John Charles Luscombe (1908 –11)

BUILDER
William Black (1870)
Walter Barrett (1909-11)

MAP REFERENCE



PHOTOGRAPH

HERITAGE LISTING

- ☐ REGISTER OF THE NATIONAL ESTATE (AHC) - REGISTERED
- ☐ REGISTER OF THE NATIONAL ESTATE OF AUST. (AHC) - INTERIM
- ☐ REGISTER OF NATIONAL TRUST (NSW)
- ☐ REGISTER OF SIGNIFICANT TWENTIETH CENT. ARCHITECTURE (RAIA)
- ☐ DEPARTMENT OF PUBLIC WORKS HERITAGE AND CONS. REGISTER
- ☐ COMMONWEALTH HISTORIC SHIPWRECKS ACT (DECLARED SITE)
- ☐ HERITAGE COUNCIL REGISTER - PERMANENT CONS. ORDER
- ☐ HERITAGE COUNCIL REGISTER - INTERIM CONS. ORDER
- ☐ HERITAGE COUNCIL REGISTER - SECTION 130 ORDER
- ☐ HERITAGE COUNCIL REGISTER - NOMINATION
- ☐ NSW GOVT DEPT HERITAGE REGISTER (S170 HERITAGE ACT)
- ☐ NP&WS HISTORIC SITES REGISTER
- ☐ NP&WS ABORIGINAL SITES REGISTER (CONTACT SITES)
- ☐ INSTITUTION OF ENGINEERS (NSW) HERITAGE REGISTER
- ☐ EXISTING HERITAGE STUDY (WRITE NAME BELOW)
- ☐ REGIONAL ENVIRONMENTAL PLAN HERITAGE SCHEDULE
- ☐ LOCAL ENVIRONMENTAL PLAN HERITAGE SCHEDULE
- ☐ OTHER

HISTORICAL PERIOD

PERIOD	BUILT	USED
PRE 1800	☐	☐
1800 - 1825	☐	☐
1826 - 1850	☐	☐
1851 - 1875	✓	✓
1876 - 1900	✓	✓
1901 - 1925	✓	✓
1926 - 1950	☐	☐
1951 - 1975	☐	☐
POST 1975	✓	✓

HISTORICAL THEMES

S.H.I.P. THEMES	LOCAL THEMES
Person	*Eminent & Hunter Region*
Architects	
Townships	*The streetscape of the Commercial precinct, Bridge Street*

HISTORICAL NOTES

The building as it is today is a conglomeration of a number of modifications since Malcolm Campbell's original building in 1870. By the time Campbell died in 1905, the Bridge Street building had expanded a bay of building either side of the original and had an awning running along the length of the new building out over the footpath with column support. This awning was decorated with a pedimental parapet. At this time, the building had a new hipped roof over the three bays with vaulted ridge structure. The major additions to the west of the Bridge street building in 1910 extended to and turned the corner into Brook Street, emphatically claiming the corner with a grand tower structure. The new addition being of a different style of Architecture also dominated the original building in scale and size. The Campbell's firm continued to operate until the early 1970's until it was purchased by Western Stores and sold off. The building under went major retail reconfiguration in the early 1990's, creating a "walk-through" mall arcade from the original entrance to the rear of the property.

PHYSICAL CHARACTERISTICS / DESIGN SPECIFICATIONS

a **ARCH. STYLE** *Victorian (1870 – 1894) & Federation Free Classical (1908)* **MATERIALS Exterior –** *masonry, stucco*

b **OTHER DETAILS OF PHYSICAL APPEARANCE**

All rooves behind the parapets of both newer and original buildings are gambrel forms of timber construction with corrugated metal sheet cladding. The Bridge Street (1870) original facade is characterised by two identical bays of building (added not long after the establishment of the first), one added each side of the central bay. The additional bays replicate features of the original building such as bracket / cornice parapet line, banded pilaster corners (or building junctions) and vertically proportioned double hung windows with moulded architraves and sill. The original central bay is emphasised by having four wider spaced windows as opposed to the added on bay's three and a central parapet pediment with distinctive scrolled outline framing date and floral motif.

The 1908 addition was designed with a deliberately asymmetrical facade. The facades are parapeted with decorative circular accents on the skyline. The parapet at the west elevation is demarked by a raised pediment which provides emphasis to a point of entrance off Brook Street. The curved pediment design is repeated in a smaller scaled version at the junction of the building with the original building in Bridge Street. Two pilasters support the Brook Street pediment with a decorative cornice on each at a height not far below parapet height. The building is also characterised by a stringcourse and parapet cornice above the second level. Windows in the newer building are a symmetrically balanced mix of vertical double hung windows and larger semi-circular windows framed in Palladian motif. All windows are surrounded by decorative architraves. The predominant tower has classical features, circular openings, pilasters, balustrade parapet, cornices, moulded architraves and feature metal shingle clad dome top.

c **MODIFICATIONS**

The cantilevered timber balcony with concave corrugated iron awning and cast iron decorative column/railings (of the 1870's original Bridge Street building) has since been removed, as has the post supported awning over the footpath (of the original 1870's building when bays were added in 1903). A large hipped roof and vaulted ridge structure of the original building with added bays(on Bridge street), have since been replaced with three separate roof structures . The current rooves are in the gambrel form matching that of the Brook Street 1910 addition. The ground level facades have been completely modified into modern glazed and brick shop fronts with paint finish matching the older upper level facade sections.

d **CURRENT CONDITIONS** ✓ **INTACT** ✓ **REPAIRS REQUIRED**
✓ **ALTERED - UNSYMPATHETIC** ☐ **ALTERED - SYMPATHETIC**
☐ **ADDITIONAL COMMENTS:**

INFORMATION SOURCES

WRITTEN *National Trust Classification Sheet*
Muswellbrook Historical Society
Rob Tickle – Local Muswellbrook Historian
ORAL
GRAPHIC *National Trust Classification Sheet*

EVALUATION CRITERIA	(S) = STATE (R) = REGIONAL (L) = LOCAL	
HISTORIC	**RARE** ()	**REPRESENTATIVE** ✓ (L)
AESTHETIC	**RARE** ✓ (L)	**REPRESENTATIVE** ☐
SOCIAL	**RARE** ()	**REPRESENTATIVE** ✓ (L)
SCIENTIFIC	**RARE** ()	**REPRESENTATIVE** ✓ (L)

STATEMENT OF SIGNIFICANCE

Campbell's Corner is representative of the development of the commercial precinct of Muswellbrook over 130 years. The building has expanded significantly since its establishment. The building still comprises major components of all its development periods. It is an outstanding example of a continuously evolving commercial development in the town; the building is of local Historic Significance.
With the only corner tower structure along the main street in Muswellbrook, Campbell's corner represents a rare aesthetic contribution to the town's commercial centre in terms of streetscape and is a nodal landmark. The level of aesthetic significance is rare to the town as the building is a unique example of a combination of Victorian & Federation styles of Architecture. The building's proportions (especially the later corner addition) are large, giving a "civic" presence to the street. The massing of the forms is composed to "build – up" to the corner emphasising the monumental gesture of the tower. The period detailing of the building along with special material treatment such as the metal shingled tower dome place importance on the overall aesthetical value. Internally there is very little of the original building's character left to value of any aesthetic significance. One area remaining intact, but in poor condition, is the entrance corridor and stair to the upper level off Brook Street.
The strong presence of the building provides the local community with a sense of identity. The "Campbell" name has a strong association with a history of service to the town's people and toward the town's development. As an ongoing representation of a commercial centre to the people of Muswellbrook the building is of Local Social Significance.
Original period detailing of the external components of the building and tower along with the structural component of the tower itself represent local Technical significance.

Council's Heritage Advisor (Elizabeth Evans)

Heritage listings

Campbell's Store – listed in Schedule 5, LEP 2009
Muswellbrook Conservation Area – listed in Schedule 5, LEP 2009

Stage 1 and Stage 2
Stage 1 and Stage 2 of the proposed development will enhance the significance of this building. The restoration of the verandah to the street frontage and the colour scheme are all positive elements that will promote the heritage values of this building.

The Statement of Heritage Impact assesses the Strong Room only as the one significant item to be demolished. It is assumed there are original walls, doors and windows that will be removed or altered. The detail of the proposal and proposed removal of significant fabric needs to be identified in a schedule and/or a demolition drawing. The impact of the removal, options and mitigative measures should be assessed in the Statement of Heritage Impact. (This could be done in the form of a schedule which serves to record the fabric to be altered and the impact of removal)

Stage 3
The Proposed demolition and rebuilding will improve the existing streetscape. The proposed windows and parapet are in proportion to the existing building. The colours for Stage 3 should be shown and neutral colours should be considered.

Similarly to the advice for Stage 1 and Stage 2 any demolition required of adjoining walls that are likely to include original fabric should be assessed.

Conclusion
More documentation as recommended above is required to assess the impact on the significant fabric.

The building should be the subject of an archival record before commencement of new work including demolition.

Heritage Advice – issue B
Stage 1 and Stage 2

Further advice based on letter from John Carr on 11th October 2011

This adequately describes and assesses the impact of the demolition of all other significant fabric that will be demolished as a consequence of the proposal.

Conclusion

The letter from John Carr and the Statement of Heritage Impact adequately describes the impacts of proposed work.

The building and in particular sections of the building that are proposed to be demolished should be the subject of a digital archival photographic record before commencement of new work including demolition.

John Carr Heritage Design

13 Renwick Street Toronto 2283 ABN 72 840 384 366 Phone (02) 4959 1653 (mob.) 0411 550 303 Email – john.carr.heritage@hotmail.com

---

11 October 2012

Stephen Rose Architects
PO Box 159
Morpeth NSW 2321

RE: UPPER HUNTER REGIONAL PERFORMING ARTS CENTRE – DEMOLITION OF ORIGINAL BUILDING FABRIC

Dear Stephen,

In regard to Council's letter of the 8 October 2012, regarding the demolition of original fabric, I offer the following comment.

The Statement of Heritage Impact addressed the demolition of the safe walls to the first floor level as it was felt that this was the major item of original building fabric to be demolished. Unfortunately, one timber window and two timber vents to the first floor toilets were overlooked. It is unlikely the toilets to the first floor were originally part of the design but rather they were added as the use of the building changed over the years.

The proposal is to convert this area to modern toilet facilities, expanding into the existing corridor to provide for an access toilet and the required number of male and female toilets to service the facility. As a consequence, Stage One and Stage Two requires the removal of the window and louvre vents to allow for construction of the new facilities. The window and vents are not unique and are of a later detail to the early double hung timber windows that are to be preserved in the building.

While the vents are clearly later than the window as determined by the existing sandstone sill in the brick wall, I recommend the timber window be removed and used if required to repair other deteriorated timber windows in the building provided the detail sections match. The sandstone sills are not unique and could be cut back to the face of the brick wall for the Stage Two additions.

All other existing windows and doors to the ground and first floor areas that are from the original construction periods are to remain. Previously removed masonry walls are not proposed to be re- built. Introduced timber walls and panelling are to be removed to expose the original plasterwork and metal ceilings. These timber partition walls are not considered to be of heritage value and their removal will benefit the various spaces in the building.

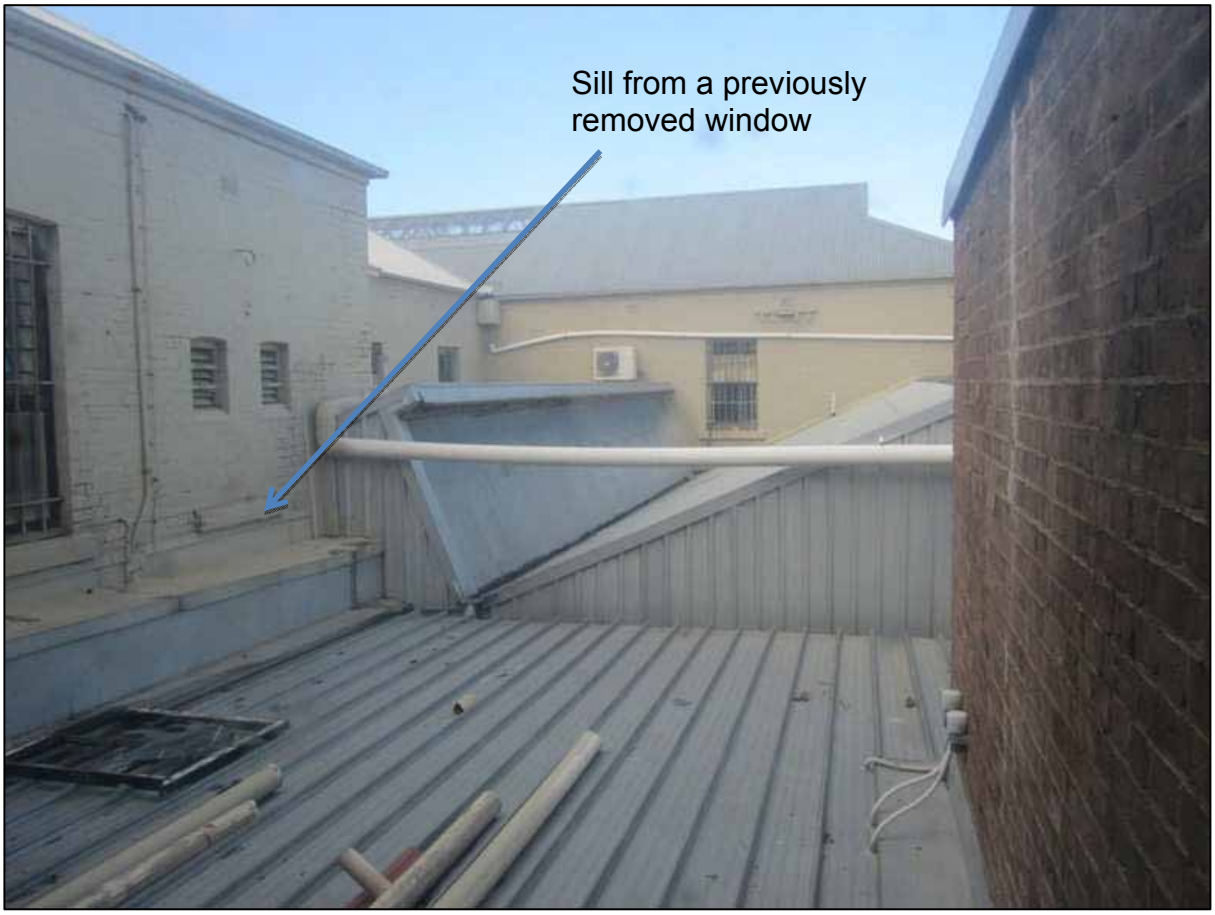


Plate 1: View from the proposed Multi Purpose Room towards the Performance Space wing with the Safe brick wall on the right and the Toilet window and two vents on the left.

Existing windows on the external western and southern walls to the first floor shown to be enclosed by the Stage Two addition will remain exposed as an internal window within the new rooms.

The existing skylights are to be retained and re-used where possible. Where they are not required they will be retained and a false ceiling suspended under them to allow for possible re- use in the future.

Please let me know if you require any further information. I am happy to talk directly with Council to clarify any minor issues or concerns regarding the heritage of this building.

Yours faithfully,

John Carr Heritage Architect
NSW Reg No. 4128

TRAFFIC IMPACT ASSESSMENT

Campbell's Corner Redevelopment

Lot 101 DP 606303
60 Bridge Street, Muswellbrook

PREPARED FOR: MUSWELLBROOK SHIRE COUNCIL

JANUARY 2013

TRAFFIC IMPACT ASSESSMENT
MUSWELLBROOK SHIRE COUNCIL

LOT 101 DP 606303
60 BRIDGE STREET, MUSWELLBROOK
CAMPBELL'S CORNER REDEVELOPMENT

Intersect Traffic Pty Ltd (ABN: 43 112 606 952)

Address:
Suite 1, 17 Babilla Close;
Beresfield NSW 2322
PO Box 268
East Maitland NSW 2323

Contact:
(ph) 02 4028 6818
(mob) 0423 324 188
email: jeff@intersecttraffic.com.au

QUALITY ASSURANCE

This document has been prepared, checked and released in accordance with the Quality Control Standards established by Intersect Traffic Pty Ltd.

Issue	Date	Description	By
A	02/01/13	Draft	JG
B	30/01/12	Edit	TB
C		Final Proof	
D		Approved	

This document has been authorised by 

Date January 2013

Disclaimer

This report has been prepared based on the information supplied by the client and investigation undertaken by Intersect Traffic Pty Ltd & other consultants. Recommendations are based on Intersect Traffic's professional judgement only and whilst every effort has been taken to provide accurate advice, Council and any other regulatory authorities may not concur with the recommendations expressed within this report. This document and the information are solely for the use of the authorised recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by Intersect Traffic Pty Ltd. Intersect Traffic makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information.

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EXECUTIVE SUMMARY

Intersect Traffic Pty Ltd has been engaged by Muswellbrook Shire Council to prepare a traffic impact assessment for the proposed three stage redevelopment of Council's commercial and retail property known as Campbell's Corner on the corner of the New England Highway and Brook Street, Muswellbrook (60 Bridge Street, Muswellbrook). The proposed development plans are shown in ***Appendix 1.***

In discussion on the proposal with the Roads & Maritime Services (RMS), officers advised that a traffic study / intersection analysis should be prepared and submitted in accordance with the RMS' Guide to Traffic Generating Developments for the New England Highway / Brook Street intersection. It is considered based on previous consultation with the RMS that the intersection analysis should include modelling (such as SIDRA or similar) and include, but not be limited to, the following:

- Existing traffic counts and 10 year traffic growth projections
- 95th percentile back of queue lengths
- Delays and level of service on all legs
- Pedestrian movements
- Electronic data for RMS review.

This traffic study is required to determine any upgrade requirements to the intersection to accommodate the additional traffic flows from the development, pedestrian / bicycle movements and any public transport facilities.

Further to this the report has addressed the provision of on-site parking and access in regard to Muswellbrook Council's DCP requirements while Muswellbrook Council as the consent authority also requested that the impact of the development on the Brook Street Railway Level Crossing be considered.

As such this report has been prepared to address the concerns of RMS and Muswellbrook Council (as the consent authority) and support the development application. The report has concluded the following:

- From the data collected in the traffic surveys carried out by RMS and Parsons Brinckerhof as described in ***Section 4***, both Bridge Street (SH9) and Brook Street has spare two way mid-block capacity to cater for additional traffic generated by the proposal without adversely impacting on current levels of service (LOS) experienced by motorists on the roads;
- Sidra analysis of the signalised intersection of Bridge Street (SH9) / Brook Street intersection indicates the additional traffic generated by the proposal has little or no impact on the operation of this signalised intersection.
- Sidra analysis of the signalised intersection of Bridge Street (SH9) / Brook Street intersection indicates that the current intersection may experience capacity issues just with background traffic growth however further turn lane length increases for the Bridge Street right turn movement and the Brook Street east right turn movement may improve intersection performance.
- The Brook Street railway level crossing is constructed to the highest possible standard for a level crossing with gates, lights, bells, a raised concrete median and pedestrian protection therefore the risk of collision at the railway gates would be considered low.
- An assessment of the car parking provisions of the Muswellbrook DCP Chapter 16 – Car parking and access indicates the proposal is required to provide the additional on-site car parking – 0 spaces in Stage 1, 18 spaces in Stage 1 and 56 spaces in Stage 3.
- The proposal does not provide any additional on-site car parking therefore a car parking deficiency occurs for Stages 1 and 2 of the development.
- It is however considered that the provision of additional on-site car parking is not required due to the cross-use of facilities within the complex, multi-purpose trips to the CBD area and the availability of adjacent public on and off-street parking in the area. The peak parking demand for the Conservatorium of Music is also likely to be lower than for the normal community facility land-use described in the DCP and is likely to occur outside the peak parking demand period for many of the other businesses within the Campbell's corner complex and other parts of the CBD.
- Overall it is considered there is sufficient available car parking within the vicinity of the development to cater for the likely parking demand generated by the development.
- The existing CBD loop bus service is considered adequate for this development and there would be no requirement for additional or changed services as well as additional public transport infrastructure.
- Existing pedestrian facilities in the area are considered satisfactory for the proposed development ensuring as safe as possible passage for pedestrian traffic to and from the development.
- Apart from the provision of bicycle racks within the development there would appear little nexus to require the provision of additional on or off road cycle infrastructure in the vicinity of the site.

Having carried out this traffic impact assessment and intersection analysis it is recommended that the proposed redevelopment of Campbell's Corner, Muswellbrook including the relocation of the Conservatorium of Music can be supported from a traffic impact perspective as it will not adversely impact on the local and state road network and complies with all relevant Muswellbrook Council, Australian Standard and RMS requirements.

CONTENTS

APPENDICES

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1. INTRODUCTION

Intersect Traffic Pty Ltd has been engaged by Muswellbrook Shire Council to prepare a traffic impact assessment for the proposed three stage redevelopment of the Campbell's Corner retail and commercial property on the corner of the New England Highway and Brook Street, Muswellbrook.

The proposed development involves alterations and additions to the existing vacant commercial areas on the ground and first floor areas with the relocation of the local Conservatorium of Music to these premises. The local Conservatorium of Music is currently housed in property owned by the Catholic Diocese of Maitland – Newcastle (ex convent) in Brook Street, Muswellbrook approximately 150 metres east of Campbell's Corner.

The proposal will be undertaken in three stages as follows:

- Stage 1 involves refurbishment of a portion of the ground floor shopping arcade to include new public toilet facilities and Bridge Street entry with a stair and lift to the first floor. External building modifications are also proposed. There is no increase in Gross Floor Area (GFA) as a result of this stage.

- Stage 2 involves refurbishment of the first floor to provide teaching and office spaces for the Conservatorium of Music. Again no additional floor area (GFA) results however it will involve a change of use from commercial to community facility.

- Stage 3 involves refurbishment of some ground floor shops in the existing Arcade as well as the conversion of retail shops fronting Brook Street to commercial space. Additional teaching space is provided for the Conservatorium of Music through an extension of the first floor space. This stage results in a loss of ground floor building area of 40 m^2, the change of use of 433 m^2 of retail space to commercial space and the addition of 745 m^2 of community facility use (Conservatorium of Music)

In discussion on the proposal with the Roads & Maritime Services (RMS), officers advised that a traffic study / intersection analysis should be prepared and submitted in accordance with the RMS' Guide to Traffic Generating Developments for the Bridge Street / Brook Street intersection. It is considered based on previous consultation with the RMS that the intersection analysis should include modelling (such as SIDRA or similar) and include, but not be limited to, the following:

- Current traffic counts (during peak TAFE period) and 10 year traffic growth projections
- 95th percentile back of queue lengths
- Delays and level of service on all legs
- Pedestrian movements
- Electronic data for RMS review.

The traffic study is required to determine any upgrade requirements to the intersection to accommodate the additional traffic flows from the development, pedestrian / bicycle movements and any public transport facilities.

Further to this, the assessment also needs to address the provision of on-site parking and access in regard to Muswellbrook Council's DCP requirements while Muswellbrook Council as the consent authority has also requested that the impact of the development on the Brook Street Railway Level Crossing also be assessed.

This report therefore has been prepared to address these issues and support a development application to Muswellbrook Shire Council to allow the Council (as the consent authority) and the RMS to assess the proposal in respect of its impact on the signalised intersection of Bridge Street (SH9) and Brook Street, Muswellbrook and the immediate road network.

This report presents the findings of the traffic / intersection study and includes the following;

1. An outline of the existing situation in the vicinity of the site.
2. An assessment of the traffic impacts of the proposed development including the predicted traffic generation and its impact on the signalised intersection of Bridge Street (SH9) and Brook Street.
3. Reviews public transport, pedestrian and cycle way requirements for the proposed development, including assessment against Council and the RMS standards and requirements.
4. Assesses the proposal in regard to the on-site parking and access requirements within Muswellbrook Council's Development Control Plan (DCP).
5. Addresses the impact of the development on the operation of the Brook Street railway level crossing immediately west of the site.
6. Presentation of conclusions and recommendations.

2. SITE LOCATION

The subject site is located on the south-western corner of the Bridge Street (SH9) / Brook Street intersection, Muswellbrook on Lot 101 DP 606303, (refer to ***Figure 1*** below) and is formally addressed as 60 Bridge Street, Muswellbrook. The site currently contains a two storey locally listed heritage building with a number of retail and cafe type uses as well as associated car parking. The site has an area of 6,119 m^2 while the existing building GFA (ground and first floor) is 4,658 m^2. The rear car park accommodates a total of 51 car spaces as well as providing loading and servicing facilities for the retail uses within the complex.

Currently the development is not fully tenanted with many of the ground floor shops and the whole of the first floor commercial area vacant.

Figure 1 – Site Location

Access to the site is provided from Brook Street west of the building to the constructed formal car parking area at the rear of the site. The car parking area interconnects with other rear private car parking areas for many properties fronting the western side of the New England Highway south of the site and motorists are able to drive through from Brook Street to Market Street south of the site. This ensures suitable manoeuvrability through the car park with convenient forward entry and exit from the site.

The Hunter rail line borders the west of the site with an at grade road crossing of the railway line existing on Brook Street immediately west of the site. This railway level crossing is controlled by gates, bells and signals.

Land use around the site is typically commercial or retail in nature being within the Muswellbrook CBD area though some residential development lies to the west of the railway line.

Photograph 1 - Existing Campbell's Corner development

Photograph 2 - Existing car parking area

Photograph 3 –Brook Street – looking towards railway crossing

3. EXISTING ROAD NETWORK

3.1 Bridge Street (SH9)

Bridge Street is part of the New England Highway and as such is a classified state highway (SH9) and a major arterial road in the region. It connects the northern districts of NSW to the Newcastle port area and south to Sydney and represents a major transport route for many commodities and goods. In the vicinity of the site it is a four (4) lane two (2) way divided carriageway with lane widths of 3.4 metres and 3.0 metre parking lanes.

Left and right turn lanes are provided to access Brook Street and a 60 km/h speed zone exists in this section of the road. At the time of inspection the New England Highway was observed to be in reasonable condition however surface cracking and pavement deformation were observed.

Photograph 4 – Bridge Street at Campbell's Corner

3.2 Brook Street

Brook Street is a collector road under the care and control of Muswellbrook Shire Council. It provides access across the Hunter Railway corridor to residential development to the west of the site as well as commercial and residential areas to the east of the site. It is a two lane two-way sealed carriageway with a parking lane on each side however at the New England Highway left and right turn lanes are provided. A 60 km/hr speed limit applies to this section of road near the intersection and at the time of inspection the road was observed to be in good condition.

Photograph 5 – Brook Street at Campbell's Corner

3.3 Bridge Street / Brook Street intersection

The Bridge Street / Brook Street intersection is controlled by traffic signals. A leading right turn phasing occurs on Bridge Street while split phasing occurs for traffic movements on Brook Street at this intersection. Pedestrian crossing facilities are provided across all legs of the intersection.

Photograph 6 – New England Highway / Brook Street traffic signals

4. TRAFFIC VOLUMES

The RMS has a number of traffic counter stations near the site. The nearest traffic counter site for this assessment would be;

- Station 05.247 – Muswellbrook – S of Hill Street. The latest AADT data from the site available off the RMS is shown in ***Table 1*** below;

Table 1 – AADT (vehicles per day) Station 05.247 – Muswellbrook – S of Hill Street

1995	1998	2001	2004
17,605 vpd	16,852 vpd	15,181 vpd	17,106 vpd

The AADT values fluctuate however over the full span of years the data equates to a decrease of 0.3 % per annum. Whilst the data suggests little traffic growth in the area for this report a conservative background traffic growth rate of 1% per annum has been adopted.

There is a more recent intersection count available from a study completed for Muswellbrook Council by Parsons Brinkerhoff (PB) in 2007. Due to time constraints associated with completing this report this intersection count has been used as the base data for this study. The 2007 intersection counts are shown below in ***Figure 2***.

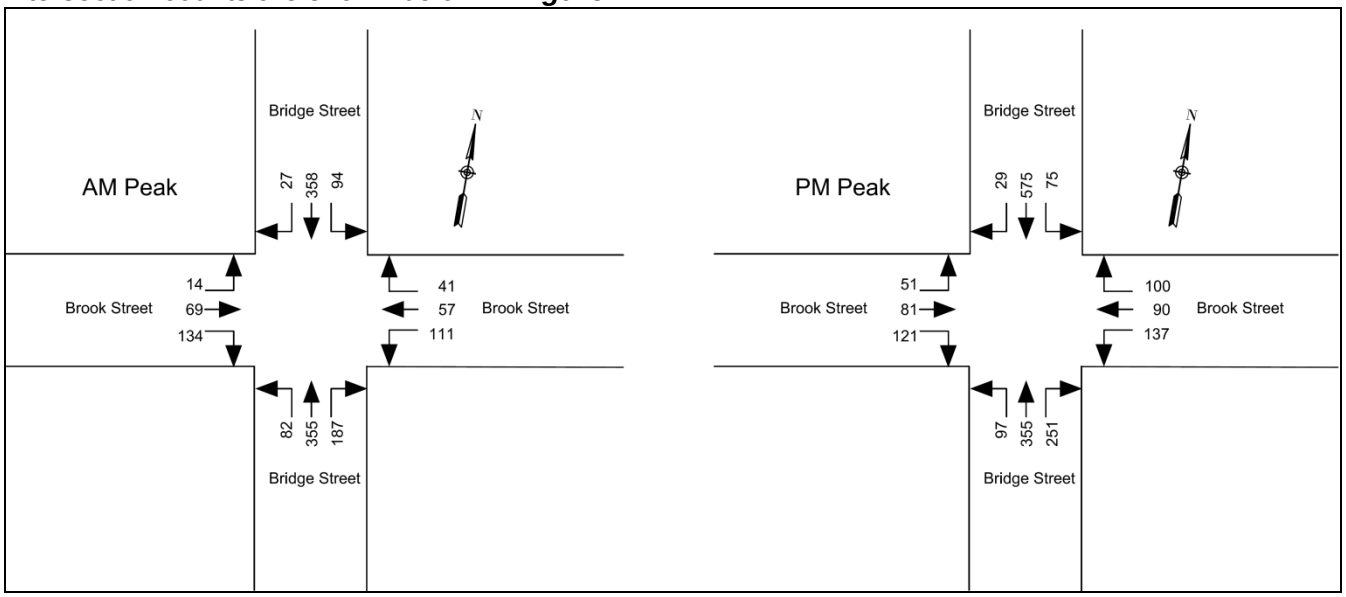


Figure 2 - PB Intersection Counts 2007

With 1 % background traffic growth the PB intersection counts provides the following PM mid-block peak hour movements (critical) from 2007 to 2023 as per ***Table 2***:

Table 2 – PM Mid-block Peak Hour Traffic 2007 to 2023

Street	2007	2013	2023
Bridge Street	1,774 vph	1,883 vph	2,080 vph
Brook Street	734 vph	780 vph	860 vph

5. ROAD CAPACITY

The capacity of urban roads is generally determined by the capacity of intersections. However, Tables 4.3 and 4.4 of the RMS' *Guide to Traffic Generating Developments* provides some guidance on mid block capacities for urban roads and likely levels of service. These tables are reproduced below.

Table 4.3
Typical mid-block capacities for urban roads with interrupted flow

Type of Road	One-Way Mid-block Lane Capacity (pcu/hr)	
Median or inner lane:	Divided Road	1,000
	Undivided Road	900
Outer or kerb lane:	With Adjacent Parking Lane	900
	Clearway Conditions	900
	Occasional Parked Cars	600
4 lane undivided:	Occasional Parked Cars	1,500
	Clearway Conditions	1,800
4 lane divided:	Clearway Conditions	1,900

Table 4.4
Urban road peak hour flows per direction

Level of Service	One Lane (veh/hr)	Two Lanes (veh/hr)
A	200	900
B	380	1400
C	600	1800
D	900	2200
E	1400	2800

Based on these tables and assuming a LOS C as satisfactory it is considered that;

- Bridge Street has a two way road capacity of at least 3,600 vtph; and
- Brook Street has a two way road capacity of at least 1,800 vtph.

From the data collected in the traffic surveys carried out by RMS and PB as described in ***Section 4***, both Bridge Street and Brook Street have spare mid-block capacity to cater for additional traffic flows associated with new development. However the ability of the road network to cater for additional traffic in this area will be very dependent on their being spare intersection capacity within the Bridge Street / Brook Street signalised intersection. This will be analysed later in this report.

6. ALTERNATE TRANSPORT MODES

Osborne Bus Services runs the public transport network in the Muswellbrook area and would service the development. Bus Stops were observed in close proximity to the site therefore it is considered the site is already well serviced by public transport.

Pedestrian facilities in the area are considered excellent with concrete footpaths along both sides of both Bridge Street and Brook Street and pedestrian crossing facilities provided on all legs of the signalised Bridge Street / Brook Street intersection.

There are no on or off road cycle lanes in the vicinity of the site and as pedestrian traffic in the area is high the existing footpath is not suitable for bicycle traffic. Therefore bicycle traffic would need to share the outer traffic lanes with other vehicles making the area really only suitable for experienced cyclists particular given the existence of parallel parking along both roads.

Photograph 7 – Parallel parking lane – Bridge Street

7. DEVELOPMENT PROPOSAL

The proposed development involves alterations and additions to the existing vacant commercial areas on the ground and first floor areas (including existing residential flat) with the relocation of the local Conservatorium of Music to these premises. The local Conservatorium of Music is currently housed in property owned by the Catholic Diocese of Maitland– Newcastle (ex convent) in Brook Street, Muswellbrook approximately 150 metres east of Campbell's Corner.

The proposal will be undertaken in three stages as follows:

- Stage 1 involves refurbishment of a portion of the ground floor shopping arcade to include new public toilet facilities and Bridge Street entry with a stair and lift to the first floor. External building modifications are also proposed. There is no increase in Gross Floor Area (GFA) as a result of this stage.

- Stage 2 involves refurbishment of the first floor to provide teaching and office spaces for the Conservatorium of Music. Again no additional floor area (GFA) results however it will involve a change of use from commercial to community facility.

- Stage 3 involves refurbishment of some ground floor shops in the existing Arcade as well as the conversion of retail shops fronting Brook Street to commercial space. Additional teaching space is provided for the Conservatorium of Music through an extension of the first floor space. This stage results in a loss of ground floor building area of 40 m^2, the change of use of 433 m^2 of retail space to commercial space and the addition of 745 m^2 of community facility use (Conservatorium of Music)

The proposal does not provide any additional on-site car parking as the existing site is fully utilised and multi-story parking is not only considered uneconomical but also unnecessary due to the location of the site being within the Muswellbrook CBD where other suitable public parking areas are in close proximity. As a result it is argued additional parking is not required as the current on-site car park is under-utilised due to factors such as combined trip making and staggered peak parking demand periods. This issue is explored and justified later in the report.

8. TRAFFIC GENERATION

The RMS' *Guide to Traffic Generating Development's* provides specific advice on the traffic generation potential of various land uses. In regard to this proposal the land uses of most relevance to this development are Office and Commercial and Retail. It is noted the RMS Guide does not provide traffic generation rates for community facilities such as a Conservatorium of Music. In the absence of RMS data it is usual to seek guidance from the USA's Institute of Transport Engineers (ITE). Again the 8th edition of the ITE Trip Generation Report provides no guidance for a Conservatorium of Music however does provide data for education establishments such as schools and colleges. This data has been utilised in this report on the basis it is considered the closest similar land use for which data is available.

Data from these sources are listed below;

Office and Commercial (RMS)

Daily vehicle trips = 10 per 100 m^2 gross floor area (GFA)
Peak hour vehicle trips = 2 per 100 m^2 gross floor area (GFA)

Retail 0-10,000 m^2 GLFA (RMS)

Daily vehicle trips = 121 per 100 m^2 gross leasable floor area (GLFA)
Peak hour vehicle trips = 12.5 per 100 m^2 gross leasable floor area (GLFA) – weekday PM peak

Education Establishment (ITE)

Daily vehicle trips = 2.4 trips per student or 9.1 trips per staff
PM Peak hour vehicle trips = 0.2 per student or 0.9 per staff

Medium Density Residential (RMS)

Smaller units and flats (up to two bedrooms):
Daily vehicle trips = 4-5 per dwelling
Weekday peak hour vehicle trips = 0.4-0.5 per dwelling.

In terms of traffic impact the critical variable for assessment purposes is the peak hour traffic. Based on the above rates the existing and future traffic generation from the site can be calculated as shown in ***tables 3 and 4*** below;

Table 3 – Development Stage Units for Traffic Generation Calculation

Land Use	Existing	Stage 1	Stage 2	Stage 3
Commercial	1693 m^2 GFA	1693 m^2 GFA	798 m^2 GFA	798 m^2 GFA
Retail	1856 m^2 GLFA	1856 m^2 GLFA	1856 m^2 GLFA	1856 m^2 GLFA
Residential Flat	97 m^2	97 m^2	0	0
Conservatorium of Music	0	0	8 staff/128 students	12 staff/155 students

Note:-

1. *GLFA assumed equal to 0.75 GFA as recommended in RMS Guide to traffic Generating developments.*
2. *Floor areas and Conservatorium Staff / Student numbers referenced from Statement of Environmental Effects.*

Table 4 – Traffic Generation Calculations – PM Peak (vtph).

Land Use	Rate	Existing	Stage 1	Stage 2	Stage 3
Commercial	0.02	33.9	33.9	16.0	16.0
Retail	0.125	174.0	174.0	174.0	174.0
Residential Flat	0.4	0.4	0.4	0.0	0.0
Conservatorium of Music	0.2	0.0	0.0	25.6	31.0
	Totals	208	208	216	221

Based on the above analysis of traffic generation it has been determined that the proposed refurbishment of Campbell's Corner will only result in a small increase of 13 vtph in the traffic generating potential of the development on completion of Stage 3. It should be noted that this will only occur during the PM peak traffic period as all Conservatorium of Music teaching occurs in the afternoon and evening periods.

It is noted that the analysis has assumed the Conservatorium of Music is operating at its median use i.e. during teaching periods. Performance and function rooms are proposed in the development and use of these rooms may increase traffic generation from the site. However these uses are more likely to occur outside peak retail trading uses therefore will not coincide with the major traffic generating period for the rest of the development. As such it is considered the peak traffic generating potential of the total development would not increase as a result of use of performance and function rooms within the Conservatorium.

9. TRIP DISTRIBUTION

Before carrying out any traffic modelling, background peak hour traffic growth and the additional peak hour traffic generated by the development needs to be distributed through the adjoining road network.

This involves making a number of assumptions as to distribution patterns to and from the site. The following assumptions have been made in this assessment;

- In distributing the additional traffic through the intersection it has been assumed distribution will mirror the existing traffic distribution at the intersection.
- The Conservatorium of Music peak teaching period is in the afternoon therefore the peak traffic generation is likely to be in the PM peak. However for this assessment it has been assumed the AM peak traffic generation is the same as the PM peak traffic generation period.
- Background traffic growth has been estimated at 1 % per annum over the assessment period which is 10 years (2023) as determined in ***Section 4***.
- The PB intersection count for 2007 has been projected through to 2013 at 1 % background traffic growth. It is noted Stage 1 of this development will not change traffic generation from the site.
- In terms of stage 2 and stage 3 development traffic involving the Conservatorium of Music relocation this has been applied to the 2013 traffic volumes as well as the predicted 2023 traffic volumes on the basis that the full development of the site may occur within 12 months.

The AM and PM additional traffic movements, as a result of the development, calculated and used in the modelling for 2013 and 2023 intersection performance is shown in ***Figure 3*** below.

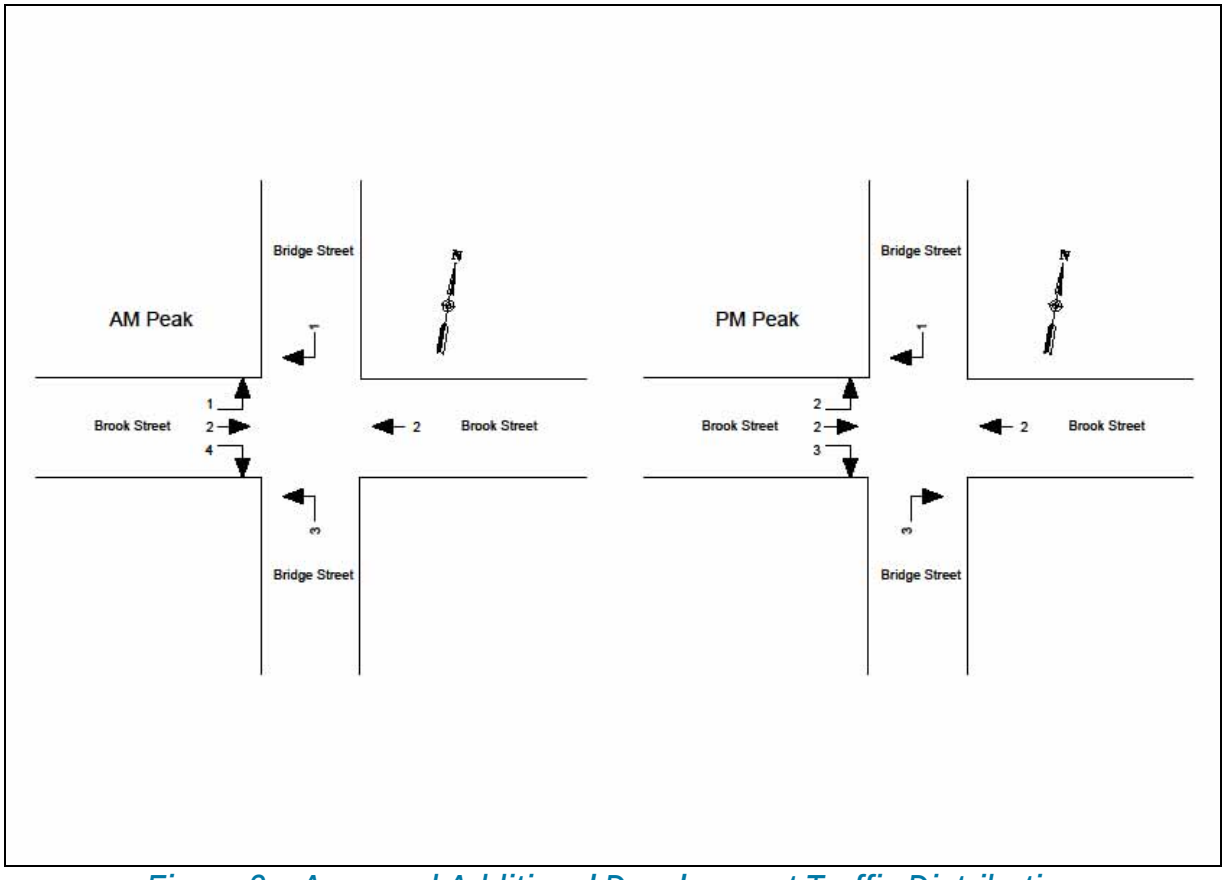


Figure 3 – Assumed Additional Development Traffic Distribution

10. TRAFFIC IMPACTS

10.1 Road Network Capacity

Section 5 of this report has determined that both Bridge Street and Brook Street have spare two way mid block capacity.

Based on the traffic distribution calculations associated with this development (***Section 9***) the peak hour traffic volumes on the road network in 2023 would be;

- Bridge Street – approximately vtph;
- Brook Street – approximately vtph; and

As these traffic volumes are less than the two way mid block capacities of the roads calculated in ***Section 5*** i.e. Bridge Street 3,600 vtph and Brook Street 1,800 vtph it is concluded the road network has sufficient spare capacity to cater for this development.

10.2 Intersection Capacity

The traffic signals at the intersection of Bridge Street (SH9) and Brook Street appear to be fixed time signals working on a constant cycle time. At the site inspection on 14/1/2013 cycle times were consistently around 100 seconds during the early afternoon traffic period. Bridge Street being a State Highway received the maximum cycle lengths.

The signals were modelled using the Sidra 5 intersection modelling software for practical cycle time. The modelling results for the 2007 PB traffic counts correlated well with the PB modelling indicating reasonable calibration of the model.

Summaries of the overall intersection results for the AM and PM peaks are shown below in ***Tables 5 and 6.*** The Sidra summary tables for each scenario modelled are provided in ***Appendix 2***.

Table 5 – Summary Sidra Modelling – Bridge Street / Brook Street intersection – PM peaks

	Background Traffic		Background Traffic plus Development	
	2013 PM	2023 PM	2013 PM	2023 PM
Degree of Saturation (v/c)	0.931	1	0.931	1
Average Delay (s)	50.7	65.7	50.7	65
Level of Service (LOS)	D	E	D	E
95% Back of Queue Length (veh)	44	72.7	44	72

Table 6 – Summary Sidra Modelling – Bridge Street / Brook Street intersection – AM peaks

	Background Traffic		Background Traffic plus Development	
	2013 AM	2023 AM	2013 AM	2023 AM
Degree of Saturation (v/c)	0.868	0.883	0.866	0.882
Average Delay (s)	41.2	44.6	41	44.5
Level of Service (LOS)	C	D	C	D
95% Back of Queue Length (veh)	20.4	24.7	20.4	24.7

The main conclusions to be drawn from these modelling results are;

- During the AM and PM peak periods the intersection is currently operating near capacity.
- With increased background traffic growth the intersection may begin to operate unsatisfactorily during PM peaks prior to 2023. It is noted however that upgrading through increased turn lane lengths for the Bridge Street south right turn movement and the Brook Street east right turn movement may improve intersection performance.
- The intersection continue to operate satisfactorily during the AM peak period through to 2023; and most importantly;
- Additional traffic from the proposed development has little if any impact on the operation of the intersection.

Therefore it is concluded the Campbell's Corner redevelopment does not adversely impact on the operation of the Bridge Street / Brook Street traffic signals.

10.3 Brook Street – Railway Level Crossing

The Brook Street railway level crossing is constructed to the highest possible standard for a level crossing with gates, lights, bells, a raised concrete median and pedestrian protection (see ***photograph 8***). Risk of collision at the railway gates would be considered low because of the standard of construction.

Photograph 8 – Brook Street railway level crossing

During site inspections the operation of the railway gates was observed and it was found that the average closure time was approximately 2 minutes for both commuter and goods trains. The frequency of the closures was observed to be low therefore there was sufficient time between closures for all vehicle queuing to disperse before the next closure. This meant there was no 'backlogging' of queues.

The other observation made was that the queuing did not impact on the operation of the Bridge Street / Brook Street traffic signals despite the close proximity of the railway crossing to this intersection (120 metres).

With this development only likely to increase traffic volumes through the railway gates marginally in the peak traffic periods, it would be expected by experience that because of the relatively low frequency of gate closures and the relatively short closure times the impact on average queue lengths at the railway gates would not be noticeable. Therefore the proposal would not impact on the operation of the Bridge Street / Brook Street intersection.

11. PARKING / ALTERNATIVE TRANSPORT MODES

11.1 Parking and Access

On-site parking and access requirements in Muswellbrook for new developments is contained within Chapter 16 – Car parking and access, of the Muswellbrook DCP.

In terms of parking provision this document provides the following objectives and controls for non-residential development;

16.3 NON-RESIDENTIAL DEVELOPMENT

Objectives

a) To ensure adequate provision of off-street parking to maintain the existing levels of service and safety of the road network.
b) To ensure a consistent and equitable basis for the assessment of parking provisions.
c) To ensure the design of parking areas, loading bays and access driveways which function efficiently.
d) To ensure that parking areas are visually attractive and constructed, designed and situated so as to encourage their safe use.
e) To ensure that all traffic generating developments are generally in accordance with those sections of the Traffic Authority of NSW Policies and Guidelines, for traffic generating developments as adopted by this Code.

Controls

(i) Car parking is provided on site in accordance with the requirements of 16.6 of this section of the DCP.
(ii) On-site parking facilities are designed and constructed to comply with the provisions of AS2890.1/AS2890.2.
(iii) To ensure that traffic movements into and out of a site are made, whenever possible, in a forward direction. If a site layout does not permit forward movement for delivery vehicles, then the developer, owner or occupier must provide a risk management plan, to the satisfaction of Council, detailing the measures required to ensure that traffic movements are carried out in an adequate and safe manner.

The relevant requirements contained within Clause 16.6 are;

- *Community Facility (Conservatorium of Music) – 1 space per 20 m^2 of gross floor area (GFA)*
- *Business Premises (Office premises, financial institutions, real estate agents etc) – 1 space per 35 m^2 GFA.*
- *Multi Dwelling Housing including residential flat buildings – 1 bedroom – 1 space per unit..*
- *Retail Premises: (b) > 1000 m^2 gross floor area (includes supermarkets, department stores, shopping centres) - 1 space per 15 m^2 GFA.*

Based on these rates and information provided in the Statement of Environmental Effects the on-site car parking provision requirements for the development are as shown in ***Tables 6 and 7*** below

Table 7 – Development Stage Units for Car Parking Calculation

Land Use	Existing	Stage 1	Stage 2	Stage 3
Commercial	1693 m^2 GFA	1693 m^2 GFA	798 m^2 GFA	798 m^2 GFA
Retail	2474 m^2 GFA	2474 m^2 GFA	2474 m^2 GFA	2474 m^2 GFA
Residential Flat	97 m^2	97 m^2	0	0
Conservatorium of Music	0	0	895 m^2 GFA	1640 m^2 GFA

Table 8 – On-site Car Parking Calculations.

Land Use	Rate	Existing	Stage 1	Stage 2	Stage 3
Commercial	0.03	48.4	48.4	22.8	22.8
Retail	0.07	123.7	123.7	123.7	123.7
Residential Flat	1.00	1.0	1.0	0.0	0.0
Conservatorium of Music	0.05	0.0	0.0	44.8	82.0
	Totals	173	173	191	229

The assessment of the on-site car parking requirements has therefore determined that the following additional on-site parking is required of this development for it to comply with Chapter 16 of the Muswellbrook DCP;

- Stage 1 – 0 spaces
- Stage 2 – 18 spaces; and
- Stage 3 – 56 spaces.

Further with only 51 spaces provided on the site the assessment has determined that an historical parking deficiency of 122 car parking spaces exists as a result of the existing development on-site.

It is considered that this historical parking deficiency has not impacted on the local road network over time due to its location within the Muswellbrook CBD area for the following reasons;

- Cross-use of facilities and combined trip purposes reduce peak parking demand as customers visit more than 1 retail space within the complex or more than 1 site within the CBD as part of their visit. This reduces the calculated peak parking demand because the straight addition of area parking demand within the complex is not valid or customers visiting the complex have already parked somewhere else in the CBD as part of another purpose of their trip.
- The local road network around the site has wide carriageways allowing multiple traffic lanes as well as the provision of on-street parking lanes that only have minimal impact on road network capacity. Therefore within convenient walking distance of the site there is significant on-street parking supply. As this parking supply is time restricted there is good turnover of this parking ensuring reasonable availability of the on-street parking throughout the day.
- Osborne Buses runs a Muswellbrook CBD loop bus service which provides excellent public transport access to the site for many residents of Muswellbrook thereby further reducing vehicle trips to the site and thus the peak parking demand.
- There are a number of public car parking areas in the Muswellbrook CBD area within convenient walking distance of the site including immediately south of the site that can cater for overflow parking generated by the development.

Many Metropolitan Council's, have introduced reduced parking rates for non-residential development into their DCP's for CBD areas to reflect the reduced parking demand rates for CBD areas for the above same reasons as well as to encourage particularly renewal development. A typical rate that is used is 1 space per 60 m^2 GFA which if applied to the existing development would result in an on-site parking provision requirement of 70 spaces. This rate would also require parking provision for this proposal of 0 spaces for Stage 2 and 13 spaces for Stage 3.

The conclusion to be drawn however from the parking assessment is that the development being alterations and additions to an existing building as well as a change of use of the first floor results in an on-site parking deficiency on the site of approximately 56 spaces as no additional parking is proposed. Therefore approval of the development will require Council to support a variation to the car parking provisions within Council's DCP.

In reviewing the DCP - Chapter 16 Parking and Access the following clauses are considered relevant in terms of putting together an argument to Council for support of the proposed parking variation.

16.5.4 Low Intensity Uses
Where the proponent of a development is able to demonstrate that it is unnecessary to provide the total number of parking spaces on site as required by this Plan, a lesser provision may be accepted by Council. In such circumstances suitable justification and a detailed analysis should be submitted with the development application.

16.5.5 Change of Use
Parking requirements for the proposed use shall be in accordance with the rates prescribed in the attached schedule. Any non-compliance will need to be accompanied by justification and may not be supported by Council if it is not satisfied that adequate parking will be provided.

16.5.6 Mixed Use Development
In the case of a combination of land uses on the site, the parking requirement for each separate use shall be calculated and then added together to provide the total parking requirement. Any departure from this method will only be considered by Council where it can be demonstrated that the peak demand for each land use component of the development is staggered.

16.5.7 Undefined Development
Where a proposed development does not fall within any of the land use categories identified in the Car Parking Standards section of this Plan, Council shall calculate the on-site parking requirements having regard to the experience of similar existing development and an assessment of the likely traffic generating potential of the proposed development.

These clauses indicate that Council can approve a variation to the on-site parking provision within the DCP provided sufficient justification is provided for the variation.

In justifying the variation the main issues that are considered relevant are;

1. The proposed change of use of the first floor including additions is for an undefined development. A Conservatorium of Music is not a specific land use for which rates are specified in the DCP (Clause 16.5.7 of DCP). Rates used for the on-site parking provision calculation have been taken from the community facility land use category because this is the use the facility fits into within the Muswellbrook LEP. Parking rates for community facilities are typically set for buildings such as community halls, senior citizen centres etc that have medium to large auditoriums that can cater for reasonable numbers of patrons. Whilst the Conservatorium of Music will have some performance areas capable of accommodating crowds of patrons the size of these areas is still relatively small and capacity restricted. The main use of the Conservatorium is for teaching and functions and performances will be limited in their frequency. As such the major use of the facility is likely to generate a peak parking demand less than that of a community facility.
2. Based on data provided in the Statement of Environmental Effects over 80 % of students at the Conservatorium are of school-age and are more likely to be dropped off and picked up later by parents/carers when attending lessons. This trip generation as a result of the Conservatorium of Music does not actually generate a parking demand and the need to provide the additional parking due to the change of use is questioned (Clauses 16.5.4 and 16.5.5 of DCP).

3. The Conservatorium of Music will operate during weekdays only between the hours of 9 am to 8 pm Monday to Wednesday, 9 am to 7 pm Thursdays and 9 am to 6 pm Fridays. Peak periods for the Conservatorium of Music use are likely to be post 3.30 pm and more likely between 4 pm and 6 pm. This peak period is not likely to coincide with the peak periods of any of the commercial uses within the site which tend to be prior to 4 pm except perhaps for the supermarket. Therefore a variation to Council's DCP parking rates is considered justified on the basis that the peak parking demand period for the Conservatorium of Music will not coincide with the peak parking demand period for at least 50 % of the existing complex and a great majority of the businesses within the Muswellbrook CBD (Clause 16.5.6 of DCP). Therefore it is likely that at the time of peak parking demand for the Conservatorium of Music there will already be available parking spaces within the on-site car parking area and adjacent public parking areas.
4. By observation during a number of site inspections in the area there does not appear to be an existing on or off street parking problem in the Muswellbrook CBD. At all inspections vacant parking spaces have been observed indicating existing parking areas in the CBD are currently not fully utilised. It would therefore be reasonable to conclude that due to this observation along with the facts that the proposed new development i.e. Conservatorium of Music is considered a low intensity use with a peak parking demand period later than for most CBD businesses, that the existing public car parking areas within the CBD could cater for any small additional parking demand generated by the proposal. Therefore the provision of additional parking for this development is not considered necessary (Clause 16.5.4 of DCP).

Overall it is concluded that the above on-site parking assessment for the development has suitably justified a variation to Council's normal DCP parking requirements and it is not considered necessary for additional on or off site parking to be provided for the proposal.

11.2 Alternate Transport Modes

11.2.1 Public Transport

As mentioned in Section 6 above Osborne Bus Services runs the public transport network in the Muswellbrook area and would service the development.

The existing CBD loop bus service is considered adequate for this development and there would be no requirement for additional or changed services as well as additional public transport infrastructure.

11.2.2 Pedestrian and Cycle Facilities

There are existing concrete paths over the development frontage and these connect to the traffic signals at the intersection of Bridge Street / Brook Street. There are signalised crossings at this intersection on all legs.

Therefore existing pedestrian facilities in the area are considered satisfactory for the proposed development ensuring as safe as possible passage for pedestrian traffic to and from the development.

Whilst on and off road cyclists facilities in the area are virtually non-existent the level of additional cycle traffic generated by this development is considered low. Therefore apart from the provision of bicycle racks within the development there would appear little nexus to require the provision of additional on or off road cycle infrastructure in the vicinity of the site.

12. CONCLUSIONS

This traffic impact assessment for the redevelopment of the Campbell's Corner complex at Lot 101 DP 606303 60 Bridge Street, Muswellbrook, including the relocation of the Conservatorium of Music to the site, has determined the following:

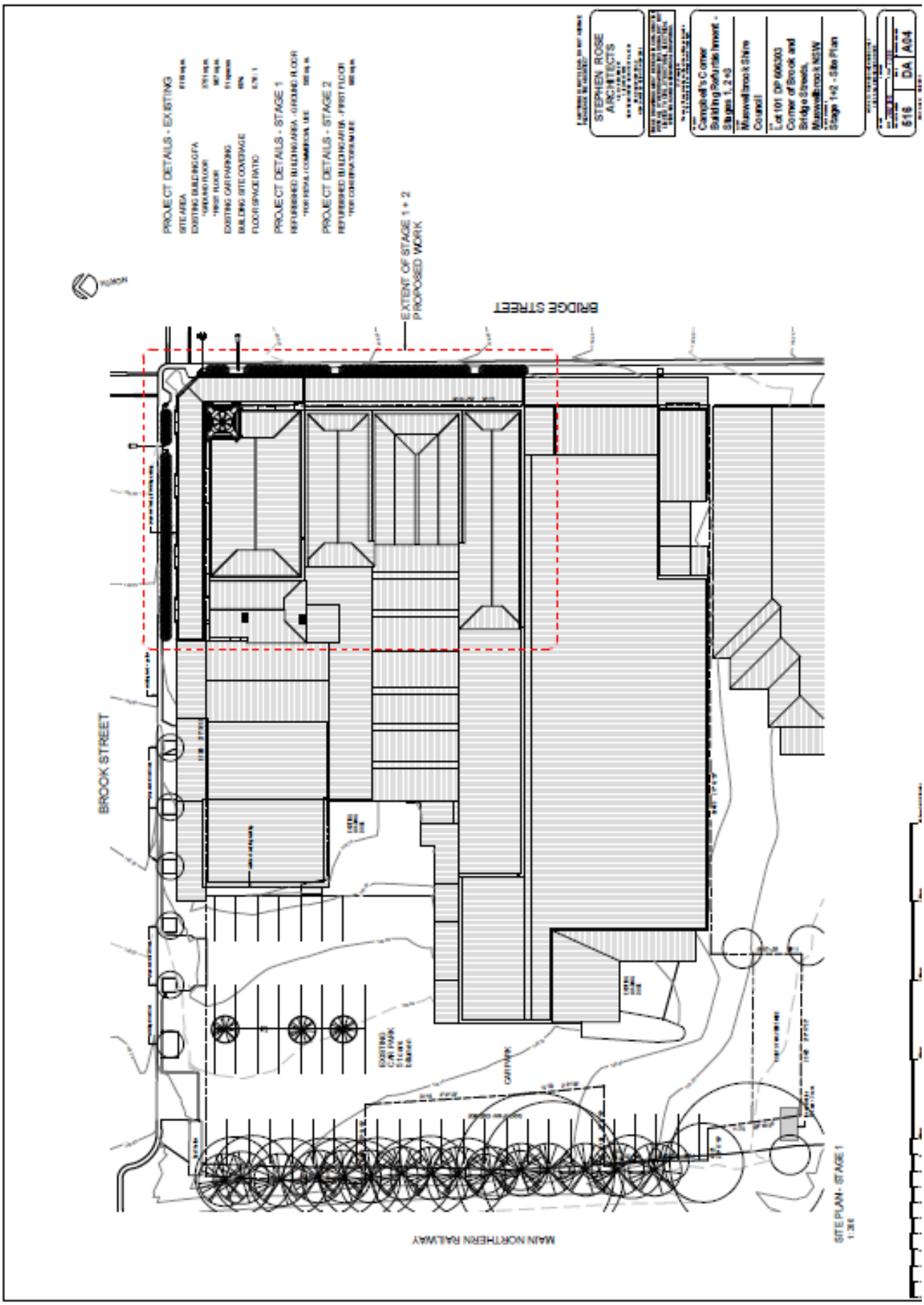
- Due to the minor nature of the proposal and the proposed changes of use the proposal is only likely to generate an additional 13 vtph during peak traffic periods.
- As the majority of teaching in the proposed Conservatorium of Music is carried out in the afternoon the proposal will have its greatest impact on the PM peak traffic period.
- From the data collected in the traffic surveys carried out by RMS and Parsons Brinckerhof as described in ***Section 4***, both Bridge Street (SH9) and Brook Street has spare two way mid-block capacity to cater for additional traffic generated by the proposal without adversely impacting on current levels of service (LOS) experienced by motorists on the roads;
- Sidra analysis of the signalised intersection of Bridge Street (SH9) / Brook Street intersection indicates the additional traffic generated by the proposal has little or no impact on the operation of this signalised intersection.
- Sidra analysis of the signalised intersection of Bridge Street (SH9) / Brook Street intersection indicates that the current intersection may experience capacity issues just with background traffic growth however further turn lane length increases for the Bridge Street right turn movement and the Brook Street east right turn movement may improve intersection performance.
- The Brook Street railway level crossing is constructed to the highest possible standard for a level crossing with gates, lights, bells, a raised concrete median and pedestrian protection therefore the risk of collision at the railway gates would be considered low.
- An assessment of the car parking provisions of the Muswellbrook DCP Chapter 16 – Car parking and access indicates the proposal is required to provide the additional on-site car parking – 0 spaces in Stage 1, 18 spaces in Stage 1 and 56 spaces in Stage 3.
- The proposal does not provide any additional on-site car parking therefore a car parking deficiency occurs for Stages 1 and 2 of the development.
- It is however considered that the provision of additional on-site car parking is not required due to the cross-use of facilities within the complex, multi-purpose trips to the CBD area and the availability of adjacent public on and off-street parking in the area. The peak parking demand for the Conservatorium of Music is also likely to be lower than for the normal community facility land-use described in the DCP and is likely to occur outside the peak parking demand period for many of the other businesses within the Campbell's corner complex and other parts of the CBD.
- Overall it is considered there is sufficient available car parking within the vicinity of the development to cater for the likely parking demand generated by the development.
- The existing CBD loop bus service is considered adequate for this development and there would be no requirement for additional or changed services as well as additional public transport infrastructure.
- Existing pedestrian facilities in the area are considered satisfactory for the proposed development ensuring as safe as possible passage for pedestrian traffic to and from the development.
- Apart from the provision of bicycle racks within the development there would appear little nexus to require the provision of additional on or off road cycle infrastructure in the vicinity of the site.

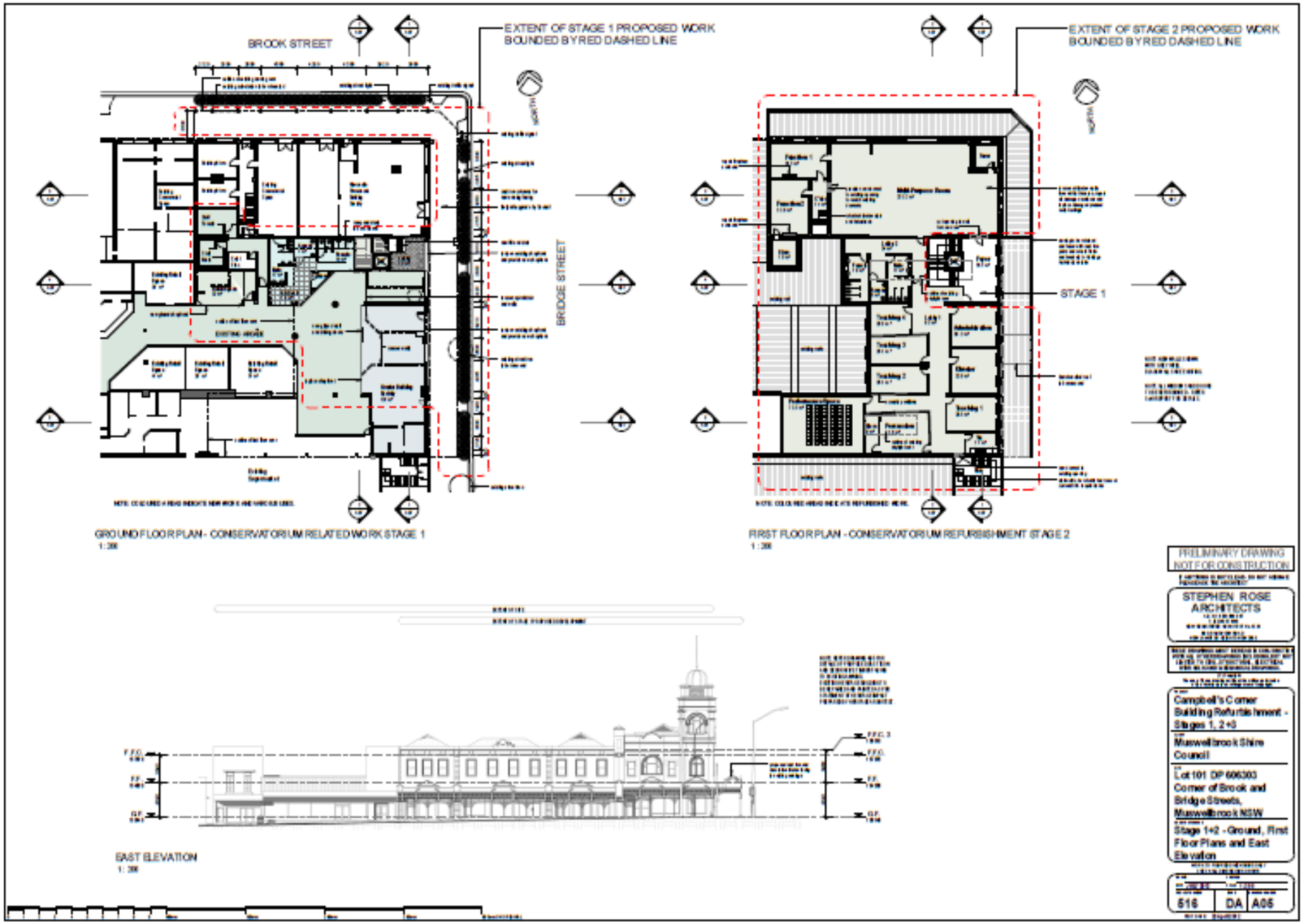
13. RECOMMENDATION

Having carried out this traffic impact assessment and intersection analysis it is recommended that the proposed redevelopment of Campbell's Corner, Muswellbrook including the relocation of the Conservatorium of Music can be supported from a traffic impact perspective as it will not adversely impact on the local and state road network and complies with all relevant Muswellbrook Council, Australian Standard and RMS requirements.

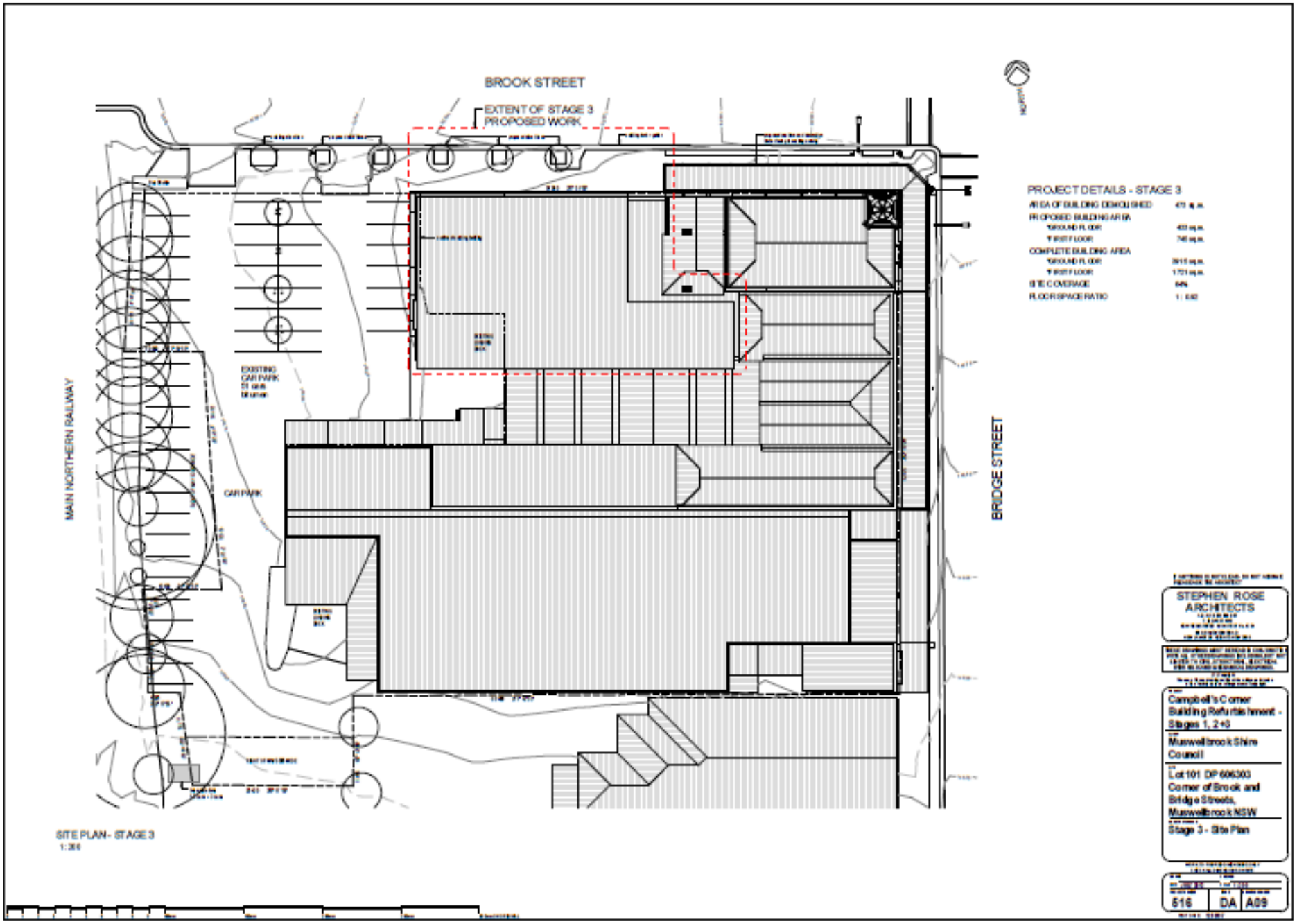
JR Garry BE (Civil), Masters of Traffic
Director
Intersect Traffic Pty Ltd

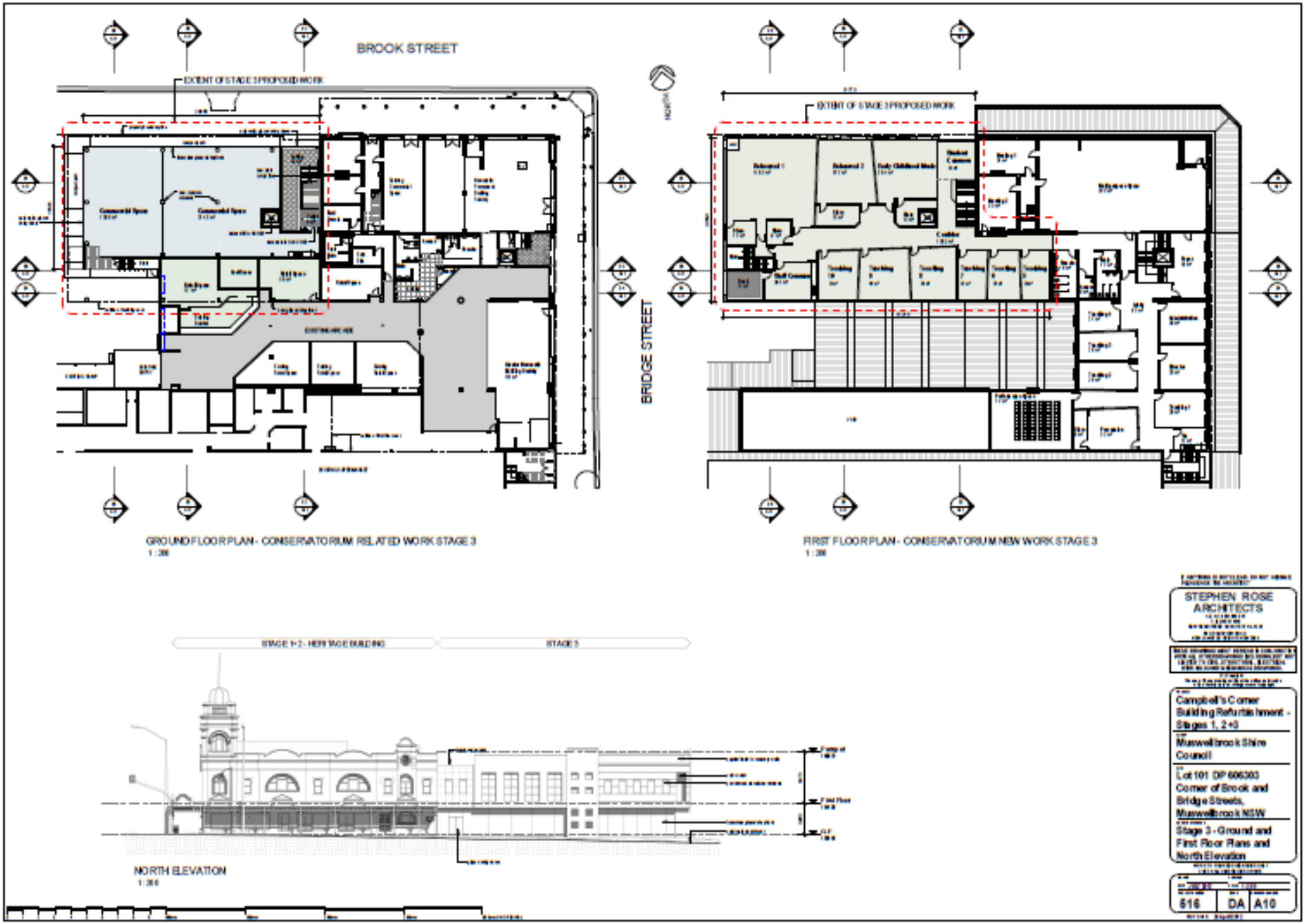
APPENDIX 1
Development Plans


STEPHEN ROSE ARCHITECTS
Campbell's Corner Building Refurbishment - Stages 1,2+3
Muswellbrook Shire Council
Lot 101 DP 606303
Corner of Brook and Bridge Streets, Muswellbrook NSW
Stage 1+2 - Site Plan
616
DA
A04
PROJECT DETAILS - EXISTING
SITE AREA
EXISTING BUILDING GFA
EXISTING CAR PARKING
BUILDING SITE COVERAGE
FLOOR SPACE RATIO
PROJECT DETAILS - STAGE 1
PROJECT DETAILS - STAGE 2
EXTENT OF STAGE 1 + 2 PROPOSED WORK
BRIDGE STREET
BROOK STREET
MAIN NORTHERN RAILWAY
CAR PARK
SITE PLAN - STAGE 1
1:200


BROOK STREET
EXTENT OF STAGE 1 PROPOSED WORK BOUNDED BY RED DASHED LINE
BRIDGE STREET
NORTH
GROUND FLOOR PLAN - CONSERVATORIUM RELATED WORK STAGE 1
1 : 200
EXTENT OF STAGE 2 PROPOSED WORK BOUNDED BY RED DASHED LINE
NORTH
STAGE 1
FIRST FLOOR PLAN - CONSERVATORIUM REFURBISHMENT STAGE 2
1 : 200
EAST ELEVATION
1 : 200
PRELIMINARY DRAWING NOT FOR CONSTRUCTION
STEPHEN ROSE ARCHITECTS
Campbell's Corner Building Refurbishment - Stages 1, 2 +3
Muswellbrook Shire Council
Lot 101 DP 606303
Corner of Brook and Bridge Streets, Muswellbrook NSW
Stage 1+2 - Ground, First Floor Plans and East Elevation
516
DA
A05

APPENDIX 1


BROOK STREET
EXTENT OF STAGE 3 PROPOSED WORK
MAIN NORTHERN RAILWAY
EXISTING CAR PARK
CAR PARK
BRIDGE STREET
NORTH
PROJECT DETAILS - STAGE 3
AREA OF BUILDING DEMOLISHED 470 sq.m.
PROPOSED BUILDING AREA
GROUND FLOOR 433 sq.m.
1ST FLOOR 748 sq.m.
COMPLETE BUILDING AREA
GROUND FLOOR 3915 sq.m.
1ST FLOOR 1721 sq.m.
SITE COVERAGE 64%
FLOOR SPACE RATIO 1 : 0.62
SITE PLAN - STAGE 3
1:200
STEPHEN ROSE ARCHITECTS
Campbell's Corner Building Refurbishment - Stages 1, 2 +3
Muswellbrook Shire Council
Lot 101 DP 606303
Corner of Brook and Bridge Streets, Muswellbrook NSW
Stage 3 - Site Plan
516
DA
A09


BROOK STREET
EXTENT OF STAGE 3 PROPOSED WORK
BRIDGE STREET
NORTH
EXTENT OF STAGE 3 PROPOSED WORK
GROUND FLOOR PLAN - CONSERVATORIUM RELATED WORK STAGE 3
1 : 200
FIRST FLOOR PLAN - CONSERVATORIUM NEW WORK STAGE 3
1 : 200
STAGE 1+2 - HERITAGE BUILDING
STAGE 3
NORTH ELEVATION
1 : 200
STEPHEN ROSE ARCHITECTS
Campbell's Corner Building Refurbishment - Stages 1, 2 +3
Muswellbrook Shire Council
Lot 101 DP 606303
Corner of Brook and Bridge Streets, Muswellbrook NSW
Stage 3 - Ground and First Floor Plans and North Elevation
516
DA
A10

APPENDIX 2
Sidra Summary Movement Tables

MOVEMENT SUMMARY

Site: Campbells Corner 2013 AM

Campbell's Corner Redevelopment
Bridge Street / Brook Street
2013 AM PEAK
Signals - Fixed Time Cycle Time = 101 seconds (Practical Cycle Time)
Design Life Analysis (Final Year): Results for 6 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Bridge Street											
1	L	87	8.0	0.200	30.4	LOS C	2.4	18.1	0.59	0.74	32.8
2	T	376	12.0	0.840	46.2	LOS D	19.9	153.6	1.00	1.00	25.3
3	R	198	8.0	0.868	46.0	LOS D	8.4	63.0	1.00	0.97	26.6
Approach		661	10.3	0.868	44.1	LOS D	19.9	153.6	0.95	0.96	26.5
East: Brook Street											
4	L	118	8.0	0.419	44.7	LOS D	4.9	36.9	0.88	0.78	27.0
5	T	60	5.0	0.147	34.6	LOS C	2.4	17.7	0.84	0.65	29.5
6	R	43	8.0	0.291	43.2	LOS D	1.8	13.2	0.84	0.73	27.6
Approach		222	7.2	0.419	41.6	LOS C	4.9	36.9	0.86	0.74	27.7
North: Bridge Street											
7	L	100	5.0	0.722	46.2	LOS D	4.3	31.6	0.84	0.86	26.4
8	T	379	13.0	0.853	47.6	LOS D	20.4	159.1	1.00	1.02	25.0
9	R	29	8.0	0.125	33.9	LOS C	0.9	6.9	0.91	0.71	31.2
Approach		508	11.1	0.853	46.5	LOS D	20.4	159.1	0.96	0.97	25.5
West: Brook Street											
10	L	15	7.0	0.036	22.1	LOS B	0.4	2.7	0.53	0.69	37.5
11	T	73	4.0	0.078	14.1	LOS A	1.9	13.4	0.55	0.44	41.6
12	R	142	4.0	0.227	24.1	LOS B	3.9	28.2	0.71	0.76	36.2
Approach		230	4.2	0.227	20.8	LOS B	3.9	28.2	0.65	0.65	37.8
All Vehicles		1621	9.3	0.868	41.2	LOS C	20.4	159.1	0.90	0.89	27.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue		Prop. Queued	Effective Stop Rate
					Pedestrian	Distance		
		ped/h	sec		ped	m		per ped
P1	Across S approach	67	44.7	LOS E	0.2	0.2	0.94	0.94
P3	Across E approach	67	41.9	LOS E	0.2	0.2	0.91	0.91
P5	Across N approach	67	44.7	LOS E	0.2	0.2	0.94	0.94
P7	Across W approach	67	41.9	LOS E	0.2	0.2	0.91	0.91
All Pedestrians		268	43.3	LOS E			0.93	0.93

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Campbells Corner with Development traffic- 2013 AM

Campbell's Corner Redevelopment
Bridge Street / Brook Street
2013 AM PEAK with development traffic
Signals - Fixed Time Cycle Time = 101 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Bridge Street											
1	L	90	8.0	0.207	30.4	LOS C	2.5	18.8	0.59	0.74	32.8
2	T	376	12.0	0.840	46.2	LOS D	19.9	153.4	1.00	1.00	25.4
3	R	198	8.0	0.866	45.8	LOS D	8.4	62.7	1.00	0.97	26.7
Approach		664	10.3	0.866	43.9	LOS D	19.9	153.4	0.94	0.95	26.6
East: Brook Street											
4	L	118	8.0	0.420	44.7	LOS D	5.0	37.0	0.88	0.78	27.0
5	T	62	5.0	0.151	34.6	LOS C	2.5	18.2	0.85	0.65	29.5
6	R	43	8.0	0.288	43.2	LOS D	1.7	13.0	0.84	0.73	27.6
Approach		223	7.2	0.420	41.6	LOS C	5.0	37.0	0.86	0.74	27.8
North: Bridge Street											
7	L	100	5.0	0.725	46.3	LOS D	4.3	31.8	0.84	0.86	26.4
8	T	379	13.0	0.852	47.4	LOS D	20.4	158.6	1.00	1.02	25.0
9	R	30	8.0	0.131	33.9	LOS C	1.0	7.3	0.91	0.72	31.2
Approach		509	11.1	0.852	46.4	LOS D	20.4	158.6	0.96	0.97	25.6
West: Brook Street											
10	L	16	7.0	0.038	22.1	LOS B	0.4	2.9	0.53	0.69	37.4
11	T	75	4.0	0.080	14.2	LOS A	1.9	13.8	0.55	0.44	41.6
12	R	146	4.0	0.234	24.2	LOS B	4.0	29.1	0.71	0.76	36.2
Approach		237	4.2	0.234	20.9	LOS B	4.0	29.1	0.65	0.66	37.8
All Vehicles		1633	9.2	0.866	41.0	LOS C	20.4	158.6	0.90	0.89	27.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue		Prop. Queued	Effective Stop Rate
					Pedestrian	Distance		
		ped/h	sec		ped	m		per ped
P1	Across S approach	60	44.7	LOS E	0.2	0.2	0.94	0.94
P3	Across E approach	60	41.9	LOS E	0.2	0.2	0.91	0.91
P5	Across N approach	60	44.7	LOS E	0.2	0.2	0.94	0.94
P7	Across W approach	60	41.9	LOS E	0.2	0.2	0.91	0.91
All Pedestrians		240	43.3	LOS E			0.93	0.93

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Campbells Corner 2023 AM

Campbell's Corner Redevelopment
Bridge Street / Brook Street
2023 AM PEAK
Signals - Fixed Time Cycle Time = 107 seconds (Practical Cycle Time)
Design Life Analysis (Final Year): Results for 16 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Bridge Street											
1	L	95	8.0	0.207	30.0	LOS C	2.7	19.9	0.56	0.74	33.0
2	T	412	12.0	0.870	51.0	LOS D	23.9	184.6	1.00	1.04	24.0
3	R	217	8.0	0.830	42.8	LOS D	8.9	66.2	1.00	0.92	27.7
Approach		724	10.3	0.870	45.8	LOS D	23.9	184.6	0.94	0.97	26.0
East: Brook Street											
4	L	129	8.0	0.488	48.3	LOS D	5.9	43.8	0.90	0.79	25.8
5	T	66	5.0	0.170	37.9	LOS C	2.9	20.9	0.86	0.67	28.2
6	R	48	8.0	0.341	46.6	LOS D	2.1	15.6	0.86	0.74	26.4
Approach		242	7.2	0.488	45.2	LOS D	5.9	43.8	0.88	0.75	26.5
North: Bridge Street											
7	L	109	5.0	0.816	55.4	LOS D	5.5	40.1	0.83	0.94	23.8
8	T	415	13.0	0.883	53.0	LOS D	24.7	192.3	1.00	1.07	23.5
9	R	31	8.0	0.168	33.3	LOS C	1.0	7.5	0.90	0.71	31.5
Approach		556	11.1	0.883	52.4	LOS D	24.7	192.3	0.96	1.02	23.9
West: Brook Street											
10	L	16	7.0	0.043	24.5	LOS B	0.4	3.3	0.56	0.69	35.9
11	T	80	4.0	0.090	16.7	LOS B	2.3	16.5	0.58	0.46	39.5
12	R	155	4.0	0.269	27.1	LOS B	4.8	34.8	0.75	0.77	34.5
Approach		252	4.2	0.269	23.7	LOS B	4.8	34.8	0.68	0.67	36.0
All Vehicles		1774	9.3	0.883	44.6	LOS D	24.7	192.3	0.90	0.91	26.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue		Prop. Queued	Effective Stop Rate
					Pedestrian	Distance		
		ped/h	sec		ped	m		per ped
P1	Across S approach	79	47.7	LOS E	0.2	0.2	0.94	0.94
P3	Across E approach	79	42.2	LOS E	0.2	0.2	0.89	0.89
P5	Across N approach	79	47.7	LOS E	0.2	0.2	0.94	0.94
P7	Across W approach	79	42.2	LOS E	0.2	0.2	0.89	0.89
All Pedestrians		316	44.9	LOS E			0.92	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Campbells Corner with Development traffic - 2023 AM

Campbell's Corner Redevelopment
Bridge Street / Brook Street
2023 AM PEAK with Development Traffic
Signals - Fixed Time Cycle Time = 107 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Bridge Street											
1	L	98	8.0	0.213	30.0	LOS C	2.8	20.6	0.56	0.74	33.0
2	T	412	12.0	0.870	51.1	LOS D	23.9	184.8	1.00	1.04	24.0
3	R	217	8.0	0.830	42.8	LOS D	8.9	66.2	1.00	0.92	27.7
Approach		727	10.3	0.870	45.8	LOS D	23.9	184.8	0.94	0.97	26.0
East: Brook Street											
4	L	129	8.0	0.489	48.3	LOS D	5.9	43.9	0.90	0.79	25.8
5	T	68	5.0	0.175	38.0	LOS C	2.9	21.5	0.86	0.67	28.2
6	R	48	8.0	0.344	46.6	LOS D	2.1	15.7	0.86	0.74	26.4
Approach		245	7.2	0.489	45.1	LOS D	5.9	43.9	0.88	0.75	26.6
North: Bridge Street											
7	L	109	5.0	0.816	55.3	LOS D	5.5	40.0	0.83	0.94	23.8
8	T	415	13.0	0.882	52.9	LOS D	24.7	192.0	1.00	1.07	23.5
9	R	32	8.0	0.172	33.3	LOS C	1.0	7.6	0.90	0.72	31.5
Approach		556	11.1	0.882	52.3	LOS D	24.7	192.0	0.96	1.02	23.9
West: Brook Street											
10	L	17	7.0	0.045	24.5	LOS B	0.5	3.5	0.56	0.69	35.9
11	T	82	4.0	0.092	16.8	LOS B	2.3	16.9	0.59	0.47	39.5
12	R	159	4.0	0.276	27.2	LOS B	4.9	35.7	0.75	0.77	34.4
Approach		258	4.2	0.276	23.7	LOS B	4.9	35.7	0.69	0.67	36.0
All Vehicles		1786	9.2	0.882	44.5	LOS D	24.7	192.0	0.90	0.91	26.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue		Prop. Queued	Effective Stop Rate
					Pedestrian	Distance		
		ped/h	sec		ped	m		per ped
P1	Across S approach	60	47.7	LOS E	0.2	0.2	0.94	0.94
P3	Across E approach	60	42.2	LOS E	0.2	0.2	0.89	0.89
P5	Across N approach	60	47.7	LOS E	0.2	0.2	0.94	0.94
P7	Across W approach	60	42.2	LOS E	0.2	0.2	0.89	0.89
All Pedestrians		240	44.9	LOS E			0.92	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Campbells Corner 2013 PM

Campbell's Corner Redevelopment
Bridge Street / Brook Street
2013 PM PEAK
Signals - Fixed Time Cycle Time = 137 seconds (Practical Cycle Time)
Design Life Analysis (Final Year): Results for 6 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Bridge Street											
1	L	103	6.0	0.152	19.9	LOS B	1.8	13.6	0.29	0.71	38.9
2	T	629	6.0	0.882	52.1	LOS D	44.0	323.5	1.00	1.00	23.7
3	R	266	3.0	0.912	65.4	LOS E	15.2	109.4	1.00	1.04	21.5
Approach		997	5.2	0.912	52.4	LOS D	44.0	323.5	0.93	0.98	24.0
East: Brook Street											
4	L	145	3.0	0.674	64.5	LOS E	8.9	64.2	0.94	0.82	21.6
5	T	95	2.0	0.283	53.1	LOS D	5.6	39.6	0.91	0.72	23.5
6	R	106	0.0	0.931	72.0	LOS F	7.0	49.0	0.94	0.86	20.2
Approach		347	1.8	0.931	63.7	LOS E	8.9	64.2	0.93	0.80	21.6
North: Bridge Street											
7	L	79	1.0	0.603	38.8	LOS C	3.5	24.7	0.68	0.76	29.0
8	T	610	8.0	0.866	49.5	LOS D	41.2	308.4	1.00	0.98	24.4
9	R	31	0.0	0.157	34.6	LOS C	1.0	7.0	0.87	0.72	30.8
Approach		720	6.9	0.866	47.6	LOS D	41.2	308.4	0.96	0.94	25.1
West: Brook Street											
10	L	54	3.0	0.191	37.0	LOS C	2.3	16.3	0.67	0.73	29.8
11	T	86	1.0	0.117	29.1	LOS C	3.7	25.8	0.68	0.55	32.1
12	R	128	3.0	0.292	40.1	LOS C	5.8	41.7	0.83	0.78	28.6
Approach		268	2.4	0.292	35.9	LOS C	5.8	41.7	0.75	0.69	29.9
All Vehicles		2332	4.9	0.931	50.7	LOS D	44.0	323.5	0.92	0.91	24.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue		Prop. Queued	Effective Stop Rate
					Pedestrian	Distance		
		ped/h	sec		ped	m		per ped
P1	Across S approach	67	60.7	LOS F	0.2	0.2	0.94	0.94
P3	Across E approach	67	37.2	LOS D	0.2	0.2	0.74	0.74
P5	Across N approach	67	62.6	LOS F	0.2	0.2	0.96	0.96
P7	Across W approach	67	37.2	LOS D	0.2	0.2	0.74	0.74
All Pedestrians		268	49.5	LOS E			0.84	0.84

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Campbells Corner with Development traffic - 2013 PM

Campbell's Corner Redevelopment
Bridge Street / Brook Street
2013 PM PEAK with development traffic
Signals - Fixed Time Cycle Time = 137 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Bridge Street											
1	L	106	6.0	0.157	19.9	LOS B	1.9	14.0	0.29	0.71	38.9
2	T	629	6.0	0.883	52.2	LOS D	44.0	324.2	1.00	1.00	23.7
3	R	266	3.0	0.912	65.6	LOS E	15.3	109.7	1.00	1.04	21.4
Approach		1001	5.2	0.912	52.4	LOS D	44.0	324.2	0.92	0.98	24.0
East: Brook Street											
4	L	145	3.0	0.673	64.5	LOS E	8.9	64.1	0.94	0.82	21.6
5	T	98	2.0	0.291	53.2	LOS D	5.7	40.8	0.91	0.72	23.5
6	R	106	0.0	0.931	72.0	LOS F	7.0	49.0	0.94	0.86	20.2
Approach		349	1.8	0.931	63.6	LOS E	8.9	64.1	0.93	0.80	21.6
North: Bridge Street											
7	L	79	1.0	0.599	38.7	LOS C	3.5	24.4	0.68	0.76	29.0
8	T	610	8.0	0.867	49.6	LOS D	41.3	309.1	1.00	0.98	24.4
9	R	32	0.0	0.164	34.7	LOS C	1.0	7.2	0.87	0.72	30.8
Approach		721	6.9	0.867	47.7	LOS D	41.3	309.1	0.96	0.94	25.1
West: Brook Street											
10	L	55	3.0	0.194	37.0	LOS C	2.3	16.6	0.67	0.73	29.7
11	T	88	1.0	0.120	29.2	LOS C	3.7	26.5	0.68	0.55	32.1
12	R	131	3.0	0.298	40.1	LOS C	5.9	42.7	0.83	0.78	28.6
Approach		274	2.4	0.298	36.0	LOS C	5.9	42.7	0.75	0.70	29.9
All Vehicles		2345	4.9	0.931	50.7	LOS D	44.0	324.2	0.92	0.91	24.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue		Prop. Queued	Effective Stop Rate
					Pedestrian	Distance		
		ped/h	sec		ped	m		per ped
P1	Across S approach	60	60.7	LOS F	0.2	0.2	0.94	0.94
P3	Across E approach	60	37.2	LOS D	0.2	0.2	0.74	0.74
P5	Across N approach	60	62.6	LOS F	0.2	0.2	0.96	0.96
P7	Across W approach	60	37.2	LOS D	0.2	0.2	0.74	0.74
All Pedestrians		240	49.5	LOS E			0.84	0.84

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Campbells Corner 2023 PM

Campbell's Corner Redevelopment
Bridge Street / Brook Street
2023 PM PEAK
Signals - Fixed Time Cycle Time = 150 seconds (Practical Cycle Time)
Design Life Analysis (Final Year): Results for 16 years

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Bridge Street											
1	L	113	6.0	0.155	17.8	LOS B	1.7	12.7	0.23	0.70	40.4
2	T	737	6.0	0.968	88.0	LOS F	72.7	534.3	1.00	1.19	17.0
3	R	242	3.0	1.000 [3]	100.5	LOS F	18.2	130.6	1.00	1.12	16.0
Approach		1092	5.2	1.000	83.5	LOS F	72.7	534.3	0.92	1.12	17.8
East: Brook Street											
4	L	159	3.0	0.772	70.2	LOS E	10.9	78.2	0.93	0.86	20.5
5	T	112	2.0	0.292	54.8	LOS D	7.0	49.6	0.89	0.72	23.1
6	R	108	0.0	1.000 [3]	68.0	LOS E	7.0	49.0	0.96	0.79	20.9
Approach		379	1.8	1.000	65.0	LOS E	10.9	78.2	0.93	0.80	21.3
North: Bridge Street											
7	L	87	1.0	0.687	44.3	LOS D	4.3	30.6	0.67	0.80	27.0
8	T	667	8.0	0.885	53.1	LOS D	49.9	372.9	1.00	0.99	23.5
9	R	34	0.0	0.203	40.3	LOS C	1.2	8.4	0.91	0.73	28.5
Approach		788	6.9	0.885	51.5	LOS D	49.9	372.9	0.96	0.95	24.0
West: Brook Street											
10	L	59	3.0	0.223	39.0	LOS C	2.7	19.3	0.67	0.73	29.0
11	T	94	1.0	0.125	31.2	LOS C	4.3	30.6	0.68	0.55	31.2
12	R	140	3.0	0.326	42.7	LOS D	6.9	49.8	0.83	0.78	27.7
Approach		293	2.4	0.326	38.3	LOS C	6.9	49.8	0.75	0.70	29.0
All Vehicles		2552	4.9	1.000	65.7	LOS E	72.7	534.3	0.91	0.97	20.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

3 x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue		Prop. Queued	Effective Stop Rate
					Pedestrian	Distance		
		ped/h	sec		ped	m		per ped
P1	Across S approach	79	61.7	LOS F	0.3	0.3	0.91	0.91
P3	Across E approach	79	36.8	LOS D	0.2	0.2	0.70	0.70
P5	Across N approach	79	69.1	LOS F	0.3	0.3	0.96	0.96
P7	Across W approach	79	36.8	LOS D	0.2	0.2	0.70	0.70
All Pedestrians		316	51.1	LOS E			0.82	0.82

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Campbells Corner with Development traffic - 2023 PM

Campbell's Corner Redevelopment
Bridge Street / Brook Street
2023 PM PEAK with development
Signals - Fixed Time Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Bridge Street											
1	L	116	6.0	0.160	17.8	LOS B	1.8	13.2	0.23	0.70	40.4
2	T	737	6.0	0.966	86.4	LOS F	72.0	530.2	1.00	1.19	17.3
3	R	242	3.0	1.000 [3]	100.5	LOS F	18.2	130.6	1.00	1.12	16.0
Approach		1095	5.3	1.000	82.3	LOS F	72.0	530.2	0.92	1.12	18.0
East: Brook Street											
4	L	159	3.0	0.766	69.0	LOS E	10.8	77.3	0.92	0.86	20.7
5	T	114	2.0	0.287	53.9	LOS D	7.0	50.0	0.89	0.71	23.4
6	R	108	0.0	0.990	68.2	LOS E	7.0	49.0	0.96	0.80	20.9
Approach		381	1.9	0.990	64.2	LOS E	10.8	77.3	0.92	0.80	21.5
North: Bridge Street											
7	L	87	1.0	0.687	44.3	LOS D	4.3	30.6	0.67	0.80	27.0
8	T	667	8.0	0.885	53.1	LOS D	49.9	372.9	1.00	0.99	23.5
9	R	35	0.0	0.229	42.2	LOS C	1.2	8.7	0.94	0.72	27.8
Approach		789	6.9	0.885	51.6	LOS D	49.9	372.9	0.96	0.95	24.0
West: Brook Street											
10	L	60	3.0	0.226	39.0	LOS C	2.7	19.6	0.67	0.74	28.9
11	T	96	1.0	0.128	31.3	LOS C	4.4	31.3	0.68	0.55	31.2
12	R	143	3.0	0.336	42.8	LOS D	7.1	50.9	0.84	0.78	27.6
Approach		299	2.4	0.336	38.3	LOS C	7.1	50.9	0.75	0.70	28.9
All Vehicles		2564	4.9	1.000	65.0	LOS E	72.0	530.2	0.91	0.97	21.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

3 x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue		Prop. Queued	Effective Stop Rate
					Pedestrian	Distance		
		ped/h	sec		ped	m		per ped
P1	Across S approach	60	60.8	LOS F	0.2	0.2	0.90	0.90
P3	Across E approach	60	36.8	LOS D	0.2	0.2	0.70	0.70
P5	Across N approach	60	70.1	LOS F	0.2	0.2	0.97	0.97
P7	Across W approach	60	36.8	LOS D	0.2	0.2	0.70	0.70
All Pedestrians		240	51.1	LOS E			0.82	0.82

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.