

Additional Information Received (DA's & CC's & CDA's)



CUSTOMER SERVICE

Property Address: 461 VICTORIA ROAD

LDA No: REZ 2012/0001
(include prefix - eg LDA2009/0001)

CC No: _____
(include prefix - eg PCA2009/1234)

CDA No: _____
(include prefix - eg CDA2009/0001)

Assessing Officer / Inspector: 7

Information Received: Resubmission of planning proposal in response to letter from council

If additional DA/CDA plans: 3 sets provided 1 set Jol (Initials)

If additional CC plans: 3 sets provided _____ (Initials)

Do the additional plans include site plan, elevations or shadow diagrams?
(please circle)

YES - 3 sets A4's provided (DA Only) _____ (Initials)

NO

Events Updated: Jol (Initials)

Register information to: **DA** or **CC** or **CDA** (please circle)

Received by: Jol Date: 25-7-12

Original and Spare Copies are Separated by a Blue Sheet

RECORDS

Received: _____

Registered: _____

TO ASSESSING OFFICER / INSPECTOR



9 July 2012

General Manager
Ryde City Council
Civic Centre
1 Devlin Street
RYDE NSW 2112

Attention: Ms Meryl Bishop/Ms Renee Walmsley

**RESUBMISSION OF REQUEST FOR PREPARATION OF A PLANNING PROPOSAL
RESPONSES TO COUNCIL LETTER 24 APRIL 2012
461 VICTORIA ROAD, GLADESVILLE (LOT 1 DP 739556)**

Dear Meryl and Renee,

I refer to our previous discussions regarding the above matter, Council's letter of 24 April 2012 and our meeting on 10 May 2012 (and Meeting Record prepared by Council). Enclosed are 6 copies of the amended and resubmitted Planning Proposal documentation dated July 2012.

To confirm previous discussion, it is our objective that the enclosed Planning Proposal be considered at a Council meeting following the consideration of the Draft Ryde LEP 2011 (expected on 24 July 2012). Our objective is for this to occur during August 2012

Responses to each issue raised in the 10 April 2012 letter are summarised as follows:

	Issue	Response
1	495 Victoria Road	Further details on the intention for 495 Victoria Road has been included at pp5-6 of the updated Planning Proposal document prepared by DFP Planning Consultants.
2	Existing and surrounding development	A 2D streetscape elevation prepared by surveyors Craig & Rhodes Pty Ltd has been included at Appendix A to the updated Planning Proposal.
3	Proposed Additional Uses and response to 117 Directions	Responses to the Section 117 Directions have been provided in Appendix I of the updated Planning Proposal.
4	Proposed Height of Building	A series of development concept plans have been included at Appendix B to the updated Planning Proposal. These plans, in particular P121, P122, and P124 detail potential scale of development and setbacks to streets under the proposed envelope controls..
5	Interface to College Street	A third height control (RL 46) has been nominated for the area adjoining the residential neighbour to the north-east. A plan illustrating the 3 controls (P 051) is included in Appendix B to the updated Planning Proposal. Both the updated Urban Design Report (Appendix C)

		and the Planning Proposal document itself, have considered in some detail the relationship to College Street.
6	Heritage Impact Assessment	A Heritage Impact Statement has been prepared by Ruth Daniell, as is at Appendix G to the updated Planning Proposal.
7	Traffic Impact and Assessment	Additional information has been incorporated in an amended Assessment of Traffic and Parking Implications which is situated at Appendix E to the updated Planning Proposal. Figure 5 and 6 details existing and projected volumes in the local area. The use of appropriate traffic modelling will be considered at DA stage.
8	Flooding and Overland Flow Path	Additional information has been presented in a Report prepared by C & M Consulting Engineers Pty Ltd, which is at Appendix F to the updated Planning Proposal
9	Slope Instability	It was agreed that this matter will be considered at DA stage, and is not a relevant matter for this Planning Proposal.
10	Economic Assessment	An amended and expanded Economic Assessment has been prepared by Leyshon Consulting Pty Ltd and this is at Appendix D to the updated Planning Proposal..

If there are any queries regarding the above, please do not hesitate to contact the undersigned on 02 9846 7334 or 0413 098 609, or email pdrew@bunnings.com.au.

Yours faithfully,



Philip Drew
Development Approvals Manager



planning consultants

Planning Proposal



Report in Support of a Planning Proposal for 461 Victoria Road, Gladesville

Prepared for: Bunnings Group Limited
Project No: 7800A
Date: July 2012



Planning Proposal

461 Victoria Road, Gladesville

Printed: 2 July 2012
File Name: P:\PROJECTS\7800A 461 Victoria Rd, Gladesville\Report\7800A.1.doc
Project Manager: David Kettle
Client: Bunnings Group Limited
Project Number: 7800A

Document history and status

Version	Issued To	Qty	Date	Reviewed
Draft	Project Manager	1	5.3.2012	David Kettle
Draft	Bunnings	1-e	7.3.2012	David Kettle
Draft	Project Manager	1	8.3.2012	Ellen Robertshaw
Final	Bunnings	1-e	14.03.2012	David Kettle
Final Rev 2	Bunnings	1-e	2.7.2012	David Kettle

11 Dartford Road
Thornleigh NSW 2120
ABN 24 551 441 566

PO Box 230
Pennant Hills NSW 1715
DX 4721 Pennant Hills NSW

t: 02 9980 6933
f: 02 9980 6217
e: dfp@donfoxplanning.com.au



www.donfoxplanning.com.au

Table of Contents

1	Introduction	1
1.1	Commission	1
1.2	Background	1
1.2.1	Planning context	1
1.2.2	Consultation with Ryde Council	2
2	The Subject Site	2
2.1	Site Description	2
2.2	495 Victoria Road	5
2.3	Surrounding Area	6
3	Current zoning	8
4	Draft Ryde LEP 2011 (exhibition version)	10
5	The Proposal	11
5.1	The Development Concept	12
6	Key Issues for a Planning Proposal	13
6.1	Urban design considerations	13
6.1.1	The case for an amended height control	13
6.1.2	Developing the height control	14
6.1.3	Potential DCP Controls	16
6.2	Economic Considerations	17
6.2.1	Economic Need	17
6.2.2	Impact on existing hardware stores and garden centres	18
6.2.3	Impact on existing bulky goods precincts	18
6.2.4	Impact on the Gladesville light industrial area	19
6.3	Traffic considerations	20
6.4	Overland flow issues	20
6.5	Heritage Impacts	21
6.6	Consistency with zone objectives	22
7	A Guide to Preparing Planning Proposals	23
7.1	Part 1 - Objectives or Intended Outcomes	23

Planning Proposal

461 Victoria Road, Gladesville

7.2	Part 2 – Explanation of Provisions	23
7.3	Part 3 – Justification	24
7.3.1	Need for the Planning Proposal	24
7.3.2	Relationship to strategic planning framework	25
7.3.3	Environmental, Social and Economic Impact	30
7.3.4	State and Commonwealth Interests	31
7.4	Part 4 - Community Consultation	31

8 Conclusion 31

Tables

1. Proposed LEP Amendments
2. Employee Density

Figures

1. Photograph of Victoria Road frontage
2. Photograph of Victoria Road / Frank Street
3. Photograph of College Street
4. Photograph of building on subject site
5. Aerial photograph of subject site
6. Photograph of Kennards building to the west
7. Photograph of Gladeview Business Park building to the south
8. Photograph of No. 18 College Street
9. Photograph of residential and industrial development on the northern side of College Street (east)
10. Photograph of industrial development on the northern side of College Street (west)
11. Ryde LEP 2010 zoning extract
12. Proposed Building Heights

Appendices

- A. Site survey and College Street elevation survey
- B. Concept Plans
- C. Urban Design Report
- D. Economic Assessment and Economic Need Assessment
- E. Assessment of Traffic and Parking Implications
- F. Preliminary Water Management Strategy
- G. Heritage Impact Assessment
- H. Applicability of environmental planning instruments
- I. Applicability of the Section 117 Directions

1 Introduction

1.1 Commission

Don Fox Planning (DFP) has been commissioned by Bunnings Group Limited (Bunnings) to prepare a report to demonstrate the case for amending Ryde Local Environmental Plan 2010 to achieve the following outcomes for land at 461 Victoria Road, Gladesville:

- To include appropriate land uses on the subject site to ensure that a Bunnings Warehouse and bulky goods premises are permissible with development consent; and
- To amend the Height of Buildings Map to nominate a building height development standard that is workable for the site and the surrounds.

The report has been prepared to assist Ryde Council (Council) in the preparation of a Planning Proposal to the Department of Planning and Infrastructure.

This Planning Proposal has been prepared to satisfy the requirements of the Department of Planning's *A Guide to Preparing Planning Proposals*.

A Guide to Preparing Planning Proposals specifies that a Planning Proposal should comprise four parts as follows:

- **Part 1** – A statement of the objectives or intended outcomes of the proposed Local Environmental Plan (LEP).
- **Part 2** – An explanation of the provisions that are to be included in the proposed LEP.
- **Part 3** – Justification of the objectives, outcomes and provisions proposed in the LEP and the process for their implementation.
- **Part 4** – Details of the community consultation that is to be undertaken on a Planning Proposal.

Each of these parts will be addressed in this report.

1.2 Background

1.2.1 Planning context

Ryde Local Environmental Plan (LEP) 2010 was published on 30 June 2010. This LEP was essentially a 'like for like' translation from the former Ryde Planning Scheme Ordinance and its purpose was not to review zonings or land uses or strategic directions for the Ryde local government area (LGA).

Council has prepared a Local Planning Strategy which is a response to the NSW Government's Metropolitan Strategy and draft Inner North Subregional Strategy (which incorporates Ryde LGA). The Local Planning Strategy will provide the basis for the preparation of the Ryde comprehensive LEP.

The Local Planning Strategy contains several strategy documents regarding housing, transport, centres and corridors, employment, heritage and environment and open space. Of particular relevance to this submission are the *Centres and Corridors Study* and *Employment Study*.

The Ryde Local Planning Strategy was adopted by Council on 7th December 2010. The Strategy was "prepared for the purposes of:

- *guiding future growth in Ryde over the next 10 years through a range of land use planning initiatives*
- *informing the comprehensive Local Environmental Plan (LEP2011)*

- *reviewing and responding to the directions and actions of the NSW Government's Metropolitan Strategy: City of Cities and Inner North Subregion: Draft Subregional Strategy.*" (Ryde Council website, as updated on 30 June 2011).

On 17 September 2010, DFP wrote to Council (on behalf of Bunnings) recommending to Council that when the draft Ryde Comprehensive LEP is being prepared Council considers including additional permissible land uses on the subject site to facilitate the development of the site for the purposes of a Bunnings Warehouse and bulky goods premises.

The comprehensive draft LEP 2011 has been placed on public exhibition until 13 July 2012 and incorporates a review of zonings, permissible land uses and development controls based on the recommendations of the Ryde Local Planning Strategy.

The exhibition copy of draft Ryde LEP 2011 proposes to retain the IN2 – Light Industrial zone on the subject site. Hardware and building supplies are proposed as a use permissible with consent in the IN2 zone. In addition Schedule 1 – Additional permitted uses includes bulky good premises as a permissible land use on the subject site. The draft LEP also proposes to introduce a 10m building height control for the site.

There have been delays in the preparation of draft LEP 2011 and this report has been submitted to pursue a planning proposal separate from the draft LEP 2011 process.

1.2.2 Consultation with Ryde Council

Ryde Council has been consulted during the preparation of this request for a planning proposal. An initial report was submitted to Council in March 2012 and after a review by various departments of Council, the Council has requested further information. The Council's letter of 24 April 2012 raised a number of matters which were clarified during a meeting between the proponent and Council on 10 May 2012. The original report prepared by DFP has been updated to address Council's information request. The information requested by Council is summarised below:

- Intended and future uses of 495 Victoria Road and its car parking;
- Details of heights of buildings on the subject site and adjacent properties on College Street;
- Further justification in relation to Section 117 Direction – Business and Industrial Zones;
- Further information on the location of the proposed RLs;
- Review of the proposed RL 52 along College Street close to the adjacent residential properties;
- A heritage impact statement;
- Additional information in relation to catchments used in the traffic assessment and consideration of Paramics modelling;
- Details of software to model flooding and overland flow path; and
- An economic impact assessment.

These matters have been addressed in this report and accompanying appendices.

2 The Subject Site

2.1 Site Description

The subject site is known as 461 Victoria Road, Gladesville and has a legal property description of Lot 1 DP 739556.

Planning Proposal

461 Victoria Road, Gladesville

The site has an area of 3.834 hectares. The site has three road frontages including:

- Victoria Road, with a frontage of approximately 240m;
- Frank Street, with a frontage of approximately 140m; and
- College Street with a frontage of approximately 270m.

A site survey of the site has been prepared by Craig and Rhodes and is provided at **Appendix A**. Craig and Rhodes have also prepared a streetscape elevation showing the heights of buildings on the subject site and the northern side of College Street. This survey is included in **Appendix A**.

The site is currently occupied by a number of buildings used for a variety of light industrial purposes accessed by an internal access road with access points from College Street, Frank Street and Victoria Road. The existing buildings have an estimated gross floor area of 22,000m².

The site was a former quarry and as a consequence the natural topography of the site has been extensively altered and differs greatly from the surrounding properties. The central part of the site where the buildings, driveways and parking areas are located is at a level of about RL35. The site is between 6 to 15 metres lower than the surrounding streets. The exception is a 3 storey building at the corner of Victoria Road and Frank Street. **Figures 1 to 4** illustrate the site from Victoria Road and College Street and the existing development within the site.

Many of the former uses of the site have ceased and some of the buildings are vacant. The uses that formerly occupied the site include electrical engineers, communications equipment suppliers and service, professional equipment supplies and wholesalers, food and beverage packaging, microscope and scales supplier and Ryde batteries. The buildings comprise significant office components as well as warehousing. The site also comprised a number of significant non-industrial uses including a child care centre and a fitness centre. The office building at the corner of 495 Victoria Road and Frank Street also contain professional suites and another fitness gym.



Figure 1: Victoria Rd The majority of the Victoria Road frontage is timber and masonry fencing with landscaping and trees behind. The majority of the frontage has no street presence or activation.



Figure 2: Victoria Rd The only building presenting to Victoria Road is 3 storey commercial building known as 495 Victoria Road. This building also fronts Frank Street.



Figure 3: College St

The buildings along College Street do not have a strong street presence. The street trees are a defining streetscape element. Where buildings are visible it is the roof that is viewed from the street. The western end of the street is an open deck car parking area.



Figure 4: Internal

The buildings within the site comprise two storey warehouse style buildings accessed from a central driveway with hard stand parking. Roof top parking is provided at the western end of the site.

The vegetation on the site is essentially confined to the perimeter of the site and trees and garden beds amongst the buildings. The majority of the site is occupied by buildings, driveways and hard stand car parking areas, as illustrated in **Figure 4 and 5**.



Figure 5: Aerial photo of subject site.

There are several vehicular access points to the site, including:

- A two way entry/exit at the eastern end of College Street adjacent to the residential dwelling house at No. 18 College Street. This entrance provides a ramp access down to the industrial buildings.
- A two way entry/exit towards the western end of College Street providing access to the industrial buildings.
- A further entry/exit slightly further west along College Street providing access to a large roof top car parking area.
- An entry/exit off Frank Street just past the intersection of Frank and College Streets providing access to a small roof top car parking area.
- A crossing at the southern end of Frank Street providing access to the commercial building at the corner.
- Two driveway crossings off Victoria Road.

The Victoria Road frontage is subject to road widening to be carried out the Roads and Maritime Service (RMS). This road widening will, in part, affect the building at the corner of Frank Street and Victoria Road and involve the removal of existing landscaping and trees along the Victoria Road frontage. This road widening will change the appearance of the site when viewed from Victoria Road.

2.2 495 Victoria Road

Council has requested further information on the relationship of the building at 495 Victoria Road (also known as Building H) and the remainder of the site. The current uses in the

building such as the fitness gym and professional tenancies are on long term leases. It is intended that 495 Victoria Road is retained with a future redevelopment of the remainder of the site and that the uses in the 495 Victoria Road building would continue. The RMS is also proposing the widening of Victoria Road which will involve a partial demolition of the building, however the uses can and are intended to continue in the building, as altered.

The car parking for the property is partly provided by the surface car parking area containing 15 spaces adjacent to the building and accessed from Frank Street.

The use of the Building H for business premises and office premises is permitted through Schedule 1 – Additional Permitted Uses in Ryde LEP 2010, in particular clause 4. Clause 4(2) provides as follows:

Development for the purposes of business premises and office premises (Building H) that include 48 car parking spaces is permitted with consent.

The above provision is a transfer from the former Ryde Planning Scheme Ordinance when additional land uses were added on 30 June 2000.

It would appear that when the schedule land use was included in the Ryde LEP (and former Ryde Planning Scheme Ordinance), the car parking requirement for the building was calculated at 48 spaces. As noted above, 15 spaces are adjacent to the building, therefore the remaining 33 spaces would be provided on the remainder of the site. There is presently no direct connection between Building H and the remainder of the site or its car parking. The car parking demand will reduce after the building is altered after road widening. The arrangement to provide the residual car parking spaces can continue, and can be further documented in future DAs to take into account the road widening and future layout of a proposed redevelopment of the site.

2.3 Surrounding Area

The surrounding development is illustrated in the aerial photograph at **Figure 5**. **Figures 6 to 10** illustrate the surrounding buildings.

West: To the west is a Kennards Self Storage facility. This building is a dominant building in the streetscape both in terms of its height (14 to 17m) and its colour (**Figure 6**). Beyond Kennards the Patrician Brothers Holy Cross school has a frontage to Victoria Road. Further along the western side of Frank Street are two storey warehouse buildings on land above the level of the street. To the north west is the playing field associated with the Patrician Brothers Holy Cross school.

South: To the south on the southern side of Victoria Road is the Ryde Aquatic Leisure Centre which sits slightly below street level. Further to the east is a 3 storey residential flat building (corner of Weaver Street) and detached single storey houses up to Tennyson Road. East of Tennyson Road is a 4 storey building of commercial appearance known as Gladeview Business Park (**Figure 7**). This building has a height of approximately 16m.

East (Victoria Road): Immediately to the east is a car wash business and further east is a mix a commercial and light industrial uses in warehouse buildings. These properties all sit at approximately the same level as Victoria Road.

East (College Street): To the east of the site is residential development comprising one and two storey dwelling houses. Immediately to the east is a single storey dwelling house known as 18 College Street (**Figure 8**). This property shares a boundary with the subject site. Currently one of the driveway entrances to the site adjoins this house as well as industrial buildings. The roof of 18 College Street is at RL45.79 as indicated on the streetscape survey at **Appendix A**.

North (College Street): The northern side of College Street light industrial land uses are located in two storey scale buildings comprising mostly smaller industrial units (**Figure 9**). The height of the industrial buildings is mostly between 8m to 10m, as indicated on the

streetscape survey at **Appendix A**. There is a small cluster of residential properties comprising a small group of villas and a detached dwelling house (**Figure 10**). These residential properties are one and two storeys and have height to roof of between 5m to 5.5m (refer **Appendix A**).



Figure 6: To the west

Kennards Self Storage building to the west – approximately 14 to 17m above street level.



Figure 7: To the south

Gladeview Business Centre to the south east which is a four storey building with a height of approximately 16m.



Figure 8: To the east (College Street)

Single storey dwelling house adjoining the eastern boundary of the site. The existing driveway to the subject site adjoins this property.



Figure 9: To the north (College Street)

Residential villas abutting older style two storey industrial units located on the northern side of College Street opposite the site.



Figure 10: To the north (College Street)

More recent two storey industrial and warehouse development located on the opposite side of College Street at the western end of the street.

3 Current zoning

The site is currently part zoned IN2 – Light Industrial and Part SP2 – Infrastructure under Ryde LEP 2010 as illustrated in the zoning extract at **Figure 11**.

Planning Proposal

461 Victoria Road, Gladesville

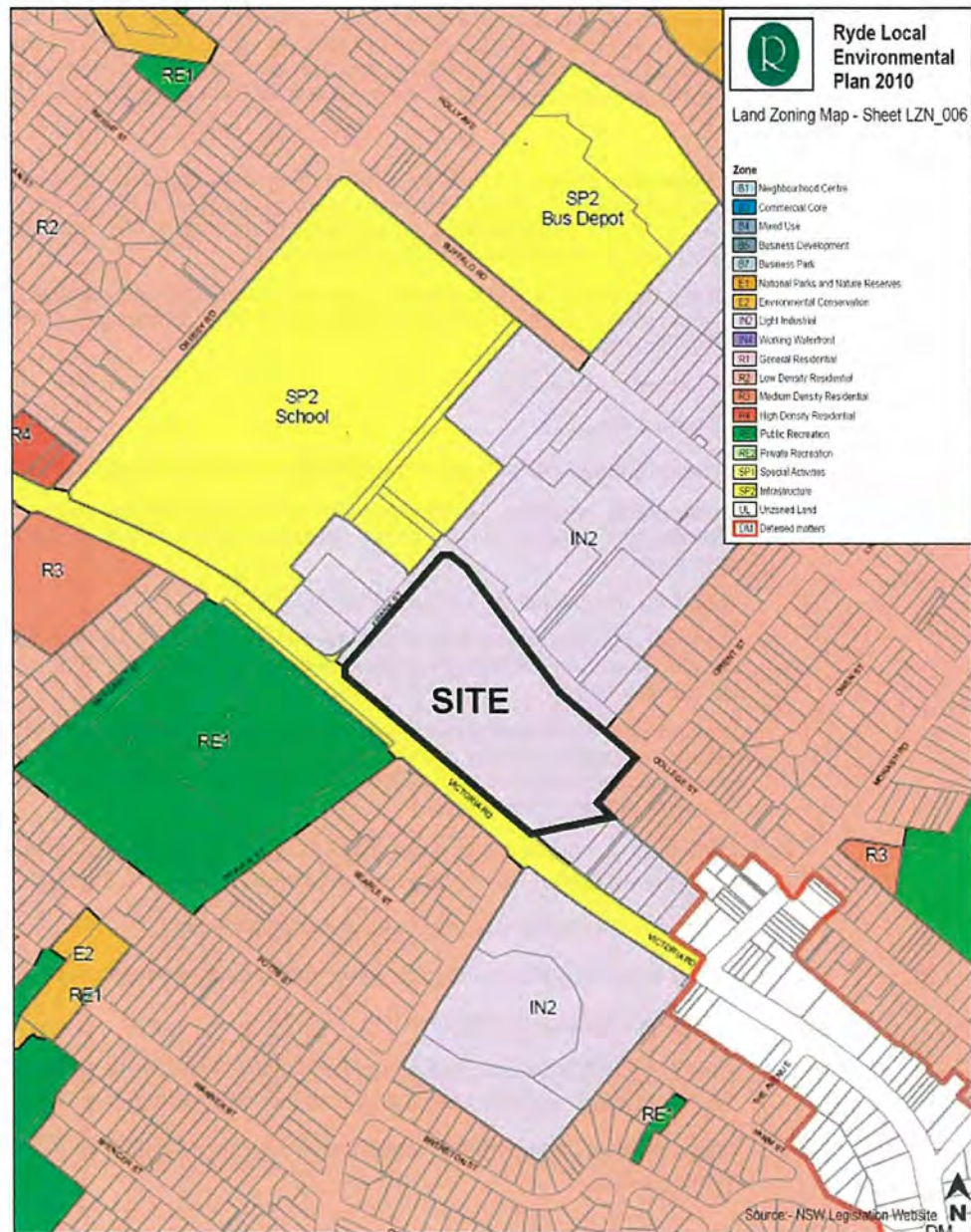


Figure 11: Ryde LEP 2010 zoning extract

The SP2 – Infrastructure zone relates to a sliver of land along part of the Victoria Road frontage. This land is required for road widening. This report concentrates on the land zoned IN2 – Light Industrial.

Land uses permissible with development consent in the IN2 zone include:

"Business identification signs; Car parking; Child care centres; Community facilities; Depots; Industrial retail outlets; Light industries; Neighbourhood shops; Public administration buildings; Pubs; Recreation areas; Research stations; Roads; Service stations; Sex services premises; Transport depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres; Waste or resource management facilities; Water recycling facilities"

A Bunnings Warehouse would be best defined under the Standard Instrument (Local Environmental Plan) Order 2006 (as amended) (herein referred to as the Standard Instrument) as a combination of the following definitions:

hardware and building supplies means a building or place the principal purpose of which is the sale or hire of goods or materials, such as household fixtures, timber, tools, paint, wallpaper, plumbing supplies and the like, that are used in the construction and maintenance of buildings and adjacent outdoor areas.

And

garden centre means a building or place the principal purpose of which is the retail sale of plants and landscaping and gardening supplies and equipment. It may, if ancillary to the principal purpose for which the building or place is used, include a restaurant or cafe and the sale of any the following:

(a) outdoor furniture and furnishings, barbecues, shading and awnings, pools, spas and associated supplies, and items associated with the construction and maintenance of outdoor areas,

(b) pets and pet supplies,

(c) fresh produce.

Bulky goods premises are defined in the Standard Instrument (as amended) as follows:

bulky goods premises means a building or place the principal purpose of which is the sale, hire or display of bulky goods, being goods that are of such size or weight as to require:

(a) a large area for handling, display or storage, and

(b) direct vehicular access to the site of the building or place by members of the public for the purpose of loading or unloading such goods into or from their vehicles after purchase or hire,

and including goods such as floor and window supplies, furniture, household electrical goods, equestrian supplies and swimming pools, but does not include a building or place used for the sale of foodstuffs or clothing unless their sale is ancillary to the sale or hire or display of bulky goods.

Development for the purposes of a Bunnings Warehouse and bulky goods premises are not permissible within the IN2 – Light Industrial zone applying to the land.

Under the Ryde LEP 2010, the maps indicate the following:

- There is no height of building development standard prescribed for the subject site.
- A floor space ratio control of 1:1.
- The Zone SP2 Infrastructure along the Victoria Road frontage is a "Classified road" with the Roads and Maritime Service as the responsible acquisition authority.
- Victoria Road (including the section adjoining the subject site) is identified as a heritage item.

4 Draft Ryde LEP 2011 (exhibition version)

The exhibition copy of the draft Ryde LEP 2011 proposes to retain the IN2 – Light Industrial zone and the SP2 – Infrastructure Zone for the subject site. Land uses proposed to be permissible with development consent in the IN2 – Light Industrial zone include the following:

Animal boarding or training establishments; Business identification signs; Car parks; Depots; Funeral Homes; Hardware and building supplies; Industrial training facility; Landscaping material supplies; Light industries; Neighbourhood shops; Pubs; Respite day care centres; Roads; Warehouse or distribution centres; Any development not specified in item 2 or 4.

We note that Council's Strategic Planning Division prepared a report on Draft LEP 2011 to the Council Meeting on 14 February 2012. One of their recommendations is to add *hardware and building supplies* and *landscaping material supplies* as permissible land uses in the IN2 zone. This resolution is reflected in the draft Ryde LEP 2011.

Schedule 1 - Additional land uses of the draft Ryde LEP 2011 identifies at clauses 4 and 16 additional land uses on the subject site.

- Clause 4 permits Development for the purpose of existing business premises or office on Building H (being the building at the corner of Frank Street and Victoria Road).
- Clause 16 permits development for the purpose of bulky goods premises over the whole site.

The draft maps accompanying the draft Ryde LEP retain the 1:1 FSR, Classified Road (SP 2 zone) and Victoria Road as a heritage item as per Ryde LEP 2010. The main change is the introduction of a building height development standard of 10m across the entire site.

Under the standard instrument building height (or height of building) is measured from ground level (existing). The site has been extensively excavated and the 10 metre height control would result in a building generally below the street level at Victoria Road and Frank Street. The 10 metre building height has been applied to all IN2 zoned land and does not take account of varying site circumstances. The urban design outcomes of this control are discussed later in this submission.

5 The Proposal

This submission recommends that Council proceeds with the preparation of a Planning Proposal to amend Ryde LEP 2010 in the following manner:

- To amend Schedule 1 to incorporate an additional clause to include *bulky goods premises, garden centre* and *hardware and building supplies* as additional land uses for 461-495 Victoria Road, being Lot 1 DP 739556. This report also proposes that Clause 4 – which permits development for the purpose of existing business premises or office on Part Lot DP 739556 (Building H) be retained.
- To amend the height of building map to indicate maximum RLs over the subject site.

In the event that the draft Ryde LEP 2011 is finalised before this proposed planning proposal (and the Schedule 1 land uses for this site are not altered from the exhibition version) then Schedule 1 of a planning proposal will only need to be include '*garden centre*' as an additional permitted land use.

Table 1 compares the current provisions under Ryde LEP 2010, the provisions in draft Ryde LEP 2011 and provisions proposed in this submission.

Table 1: Proposed LEP Amendments

Provision	Ryde LEP 2010	Draft Ryde LEP 2011 (pre-exhibition copy)	Proposed Provisions
Zoning	IN2 – Light Industrial SP2 – Infrastructure (classified road)	IN2 – Light Industrial SP2 – Infrastructure (classified road)	IN2 – Light Industrial SP2 – Infrastructure (classified road)
Schedule 1 – Additional land uses	Clause 4 - existing business premises or office on Building H	Clause 4 - existing business premises or office on Building H Clause 16 - bulky goods retail	Clause 4 existing business premises or office on Building H Clause 16 - bulky goods premises, garden centre and hardware and building supplies

Provision	Ryde LEP 2010	Draft Ryde LEP 2011 (pre-exhibition copy)	Proposed Provisions
Height of Building Map	No height nominated	10m	Maximum RLs to respond to the surrounding context. Figure 12 illustrates the proposed RLs.

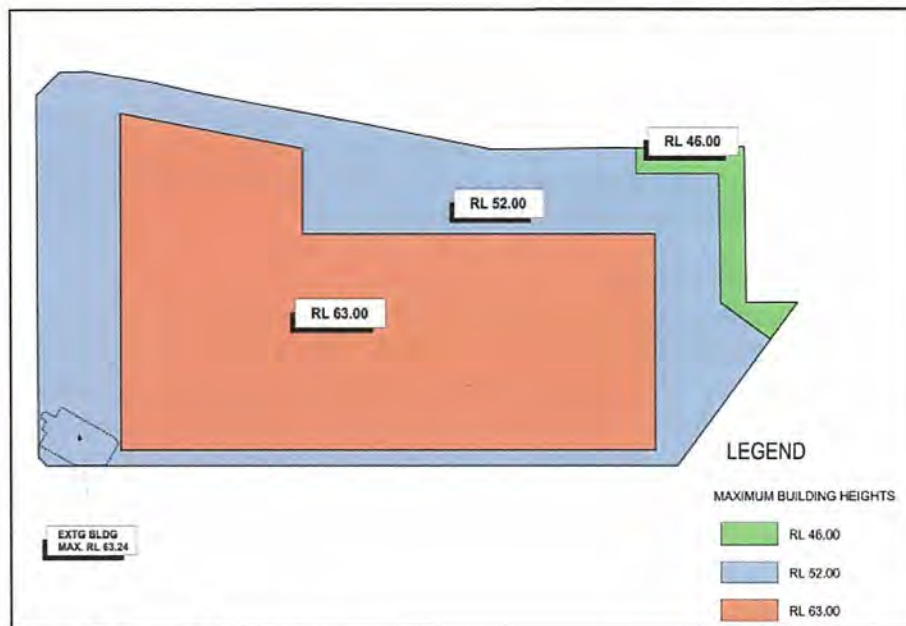


Figure 12: Proposed Building Heights

5.1 The Development Concept

In order to assist in understanding the future development of the site, a concept plan has been prepared and is provided in **Appendix B** to this Report. Sectional diagrams of the concept are contained in the Urban Design Report prepared by Annand Associates Urban Design and attached at **Appendix C**. These concept plans have assisted in informing the proposed building heights for the site.

The plans indicate a two level building with parking occupying the lower levels, a Bunnings warehouse located at the western end of the site and a two level tenancy area intended for bulky goods retail at the eastern end of the site. The gross floor area (GFA) of the land uses illustrated in the concept plans is:

Bunnings warehouse	15,255m ²
Tenancy (bulky goods)	21,885m ²
Retained commercial building at corner of Victoria Road and Frank Street	1,200m ²
TOTAL	38,340m²

The discussion that follows supports the case for an amendment to Ryde DCP 2010 to prepare site specific controls to guide the built form outcomes for the site.

6 Key Issues for a Planning Proposal

6.1 Urban design considerations

As previously noted, the 10 metre building height has been applied to all IN2 zoned land. This blanket approach has not taken account of individual site circumstances and in particular the exceptional circumstances of this site.

Annand Associates Urban Design (AAUD) has prepared an Urban Design Report which is attached at **Appendix C**. The urban design issues for the proposed height controls for the site are:

- Visual impact/address to Victoria Road.
- Landmark elements to Victoria Road.
- Landscape treatment to Victoria Road (and Frank/College Streets).
- Building treatment to Victoria Road (and College and Frank Streets) to reduce the scale and mass of the buildings to the street/context.
- Pedestrian entry points from Victoria Road and pedestrian interest along the Victoria Road frontage.
- Bulk and scale particularly to Victoria Road and College Street.
- Amelioration of impact to eastern residential boundary (setback and landscape).
- Articulation/screening/detailed design of the street fronting facades.
- Careful treatment of vehicular access particularly with respect to footpath crossings/pedestrian safety.
- Treatment of bulk and scale to College Street (particularly the eastern end).

6.1.1 The case for an amended height control

There are two main reasons that support the case for a different approach to the 10m building height control that is proposed for the site under draft Ryde LEP 2011.

1. The topography of the site; and
2. The surrounding development.

When these factors are considered, their analysis informs a new height control for the site which can establish an appropriate building envelope.

Topography

The 10m building height control that is proposed for the site under draft Ryde LEP 2011 is a measurement from ground level (existing). As discussed earlier in this report, the site has been excavated resulting in the site being substantially lower than surrounding roads and properties. The topographical characteristics of the site relevant to this submission are:

- There are steep cliff walls along the Victoria Road frontage. The levels along the Victoria Road boundary vary from approximately RL48 to 50. This represents a level difference of between 13 to 15 metres to the 'floor' of the site.
- Along Frank Street the steep cliff continues (in part). The levels along the Frank Street boundary vary from RL49 – 45.5 representing a level change of 10.5 to 14 metres to the base of the site.
- Along College Street a steeply graded batter slopes down from the street to the site. The levels along College Street vary from approximately RL 45.5 (west) RL 38/39 (centre) and RL 41(east). The level change is between 3 to 10 metres.

- Along the eastern boundary the steep cliff wall continues. The level changes vary from RL 50 on the carwash site to RL 41 on the adjoining residential property at 18 College Street. This represents a level change of 15m from the carwash and 6m to the adjoining residential property.

One of the key points to note is that the 10m height control proposed in draft LEP 2011 will result in a building being below street level for the majority of its frontages.

This is important to consider in the context of Victoria Road. The existing fence, trees and landscaping will be removed to accommodate the road widening and the site will become exposed. The steep cliff will greatly limit landscaping opportunities thereby exposing roofs of buildings below. Furthermore, the proposed 10m height control will not provide an opportunity for a building to engage with Victoria Road which is not a desirable streetscape outcome for one of the region's principal roads. This potential future outcome warrants a review of the height control in order to achieve urban design outcomes.

Surrounding development

The building height controls in the surrounding area and the heights of existing buildings in the immediate area set the context for the proposed development and justify the need to vary the height control.

Importantly:

- There are several significant buildings in the Victoria Road streetscape including:
 - the 'Fernwood' building on the corner of Victoria Road and Frank Street with a building height of 10m or RL60.
 - the Kennards building with a building height of 14-17m or RL 66.5 to RL 67.
 - Gladeview Business Park with a building height of 16m or RL 66.5.
- Draft Ryde LEP 2011 proposes a building height of 10m in the IN2 zone and 9.5m in the R2 zone. These zones are located immediately to the east and south of the site. The land to which these controls relate is not excavated therefore the potential building height is 9.5m/10m from the Victoria Road level (i.e. potentially a 2-3 storey scale).
- Ryde LEP (Gladesville Town Centre and Victoria Road Corridor) 2010 applies to land to the east of the subject site. The building heights along Victoria Road as contained in the Ryde LEP (Gladesville Town Centre and Victoria Road Corridor) 2010 are 19m to Victoria Road (6 storey scale).
- The building height in College Street and Frank Street is proposed to be 10m for the IN2 zone and 9.5m for the R2 zone. Similar to Victoria Road, these College Street and Frank Street properties are either at or above the road level. Therefore the controls reflect the potential building height.

6.1.2 Developing the height control

AAUD has considered the site conditions, surrounding context and in conjunction with concept plans established parameters that guided the proposed height controls illustrated in **Figure 12**. Effectively a building envelope has been developed based on the site analysis and importantly responding to the different conditions along each street frontage and the adjacent residential area. The concept plans have also assisted in informing and testing the proposed height controls. The height control is derived from a combination of the following:

- A building height of 12 to 15m measured from the Victoria Road frontage based on existing building heights along Victoria Road. This has informed the proposed RL63 (i.e. existing RL50+13m);

- A building height of 10m (from existing ground level) at a 10m setback to Frank and College Streets. A 45 degree height plane is then applied to the 10m height capped by the roof height proposed in the concept plans. This has informed the RL 52 and location of the RL 63 from College Street.
- A building height constrained by a 45° from top of 2m fence on eastern residential boundary.

These parameters are illustrated on detailed sectional diagrams contained in the Urban Design Report. They have effectively informed an envelope which has then been used to establish the proposed RLs over the site.

When these surrounding building heights and permissible heights are compared to the proposed building height (and the sectional diagrams in the Urban Design Report) it is apparent that the proposed height controls for the subject site are not dissimilar to the surrounding existing development and height controls. In particular the following observations are made in relation to the various street frontages.

Victoria Road

The maximum RL 63 translates to a wall/building height of between approximately 13 metres to 14.5 metres to Victoria Road. This is not dissimilar to the heights of the Fernwood building, Kennards or Gladeview or the 10m building height control for the IN2 zoned land immediately to the east along Victoria Road. This maximum height is setback from the street frontage by a lower height control of RL 52.

The RL52 along the frontage is intended to form a setback area, but could be used for other ancillary building structures (e.g. pedestrian entrances, driveway ramps, walls, signage). The RL would translate to a building height of 2 to 4 metres relative to Victoria Road at its maximum. Again this is in keeping with the existing buildings and the proposed 10m height control in the IN2 zone and the 9.5 metre building height control on the opposite side of Victoria Road.

Frank Street

The maximum building height is proposed to be 10m on the opposite side of Frank Street. These sites are elevated several metres above the street, therefore the potential building height would be in the order of 12m relative to the Frank Street carriageway.

The maximum RL of 63 would translate to a wall height or building height of about 15m above Frank Street, which is not dissimilar to the industrial buildings opposite. The RL 63 line is generously setback from the property boundary providing a large spatial separation between built forms in Frank Street.

As for Victoria Road, a lower RL (RL52) is proposed within the setback area to accommodate ancillary building structures such as ramps.

College Street

This is the more sensitive frontage. The RL immediately adjoining the street is proposed at RL 52 for a depth of at least 10m and increasing to greater than 20m. This translates to a building height of between 6.5m, 11m and 14m above College Street. For the majority of the College Street frontage this RL52 produces a building height less than the 10m proposed by Council in draft LEP 2011. The streetscape survey in **Appendix A** illustrates that existing industrial building on the northern side of College Street are mostly between 8m and 10m in height. Therefore the proposed building height control of RL52 is similar to the existing condition, which given the large spatial separation would be an acceptable built form outcome.

Behind the RL52 setback area the height increases to RL63 to accommodate the main building structure. The setback is generous to ensure the building bulk does not overwhelm

College Street. The lower RL in the setback area will encourage a lower building component to create a stepped building form to moderate the scale.

A RL46 building height is proposed to at that eastern end of College Street to limit building height directly adjacent to the residential properties on the northern side of College Street (and 18 College Street). This RL will equate to a building height of about 6m which is similar to the 5m to 5.5m height of the existing houses and considerable lower than the 9.5m height control applying to those properties.

Residential interface with 18 College Street

A RL46 zone wrapping around 18 College Street is proposed. The land level of No 18 College Street is approximately RL40 to RL 41. The proposed RL46 represents a potential building height of 5m to 6m relative to 18 College Street. This wall height is substantially less than the 9.5m building height applying to 18 College Street. Beyond RL46 is a RL52 zone and then RL 63 which will step the built form relative to the adjoining residential property. The RL63 to accommodate the main building structure is well removed from 18 College Street providing a separation far greater than the existing industrial building located close to the property boundary of 18 College Street. The stepped height controls and large setback to the main building structure improves the current built form relationship at this interface.

6.1.3 Potential DCP Controls

In order to address the urban design issues for the site AAUD is recommending a suite of built form controls including the following:

- Building height of 12-15m measured from the Victoria Road frontage (RL 50m + 13m = 63m).
- Building height of 10m + 45 degree height plane at 10m setback to Frank and College Streets to top of building (RL 63m).
- Landscape avenue planting and footpath construction in Victoria Road to future landscape specification.
- Landscape/footpath treatment in Frank and College Streets to future landscape specification.
- Pedestrian activation to Victoria Road by creation of 2 major building entries and display windows at street level.
- Reduction of impact bulky goods and mass of Bunnings building by articulation of form, greening of vertical surfaces and/or artwork screening or similar.
- Incorporation of focal points/landmarks along the Victoria Road frontage

These principles are illustrated in the Urban Design Report together with some examples of architectural treatments that can be considered at DA stage when the building is being designed. The suite of built form controls recommended in the Urban Design Report cannot be entirely addressed through the Planning Proposal which can only address building height. It is therefore recommended that a Ryde DCP 2010 is amended to insert a new section into Section 6.0 –Specific Sites. This is considered a sensible planning approach as the site has unusual site characteristics that could not be readily addressed by the application of generic controls. We recommend that the new section of the DCP address the following matters:

- Street setbacks
- Setbacks to the adjoining residential property at 18 College Street and treatment of the setback area
- Stepped building form to the College Street frontage

Planning Proposal

461 Victoria Road, Gladesville

- Facade treatment
- Landscaping of setback areas
- Pedestrian entry and activation to Victoria Road
- Vehicle access
- Acoustic buffer to residential properties on College Street
- Stormwater management

If a Planning Proposal receives a Gateway Determination, we would recommend that a new section to Ryde DCP 2010 is prepared to accompany the Planning Proposal. The Planning Proposal and amendment to Ryde DCP 2010 can then be concurrently exhibited.

6.2 Economic Considerations

Leyshon Consulting has prepared an Economic Need Assessment which has established the need for a major hardware store in the Ryde LGA. A copy of this report is attached at **Appendix D**.

Ryde Council has requested additional information regarding the economic effects of the proposal including in summary the following:

- an assessment of the impact of the proposed development on existing hardware and garden centres in Ryde LGA
- an assessment of the impact of the proposed development on relevant bulky goods precincts
- an assessment of the impact of the proposal on existing centres in Ryde LGA
- an assessment of the impact of the proposed development on the Gladesville Light Industrial Area.

As an overriding comment in addressing some of the above matters, Leyshon Consulting states that *"there is clear legal precedent in Australia in general, and New South Wales in particular, which establishes that the impact of a given retailer on the sales of its competitors is not, per se, a relevant planning matter."* Nevertheless these matters have been considered.

Leyshon Consulting has prepared further information which builds on the Economic Need Assessment. This further information is attached at **Appendix D** and the economic need and effects is discussed below.

6.2.1 Economic Need

Leyshon Consulting's Economic Need Assessment observes that the nearest Bunnings Stores to the Ryde LGA are Artarmon, Auburn, Carlingford and Thornleigh and there are only limited smaller hardware stores in North Ryde, West Ryde and Gladesville.

This report has estimated the demand for major hardware and bulky good premises based on the available spending of Ryde households, including likely population growth rates. The report has established that Ryde LGA could support approximately 54,000m² of bulky goods type retail floor space and in the order of 50,000 - 65,000m² of hardware and home renovations and improvements-type floor space. The concept plans indicate floor space is some 15,200m² (hardware) and some 22,000m² (bulky goods) which is about 1/3rd of this potential demand. A Planning Proposal will therefore assist in meeting this demand.

Leyshon Consulting has concluded that:

"Substantial latent demand exists, however, for both bulky-goods type floor space in general and floorspace devoted to hardware, home renovations and improvements goods and services in particular."

We conclude an overwhelming case exists for the rezoning of land in Ryde to facilitate the development of a major hardware store of the type envisaged by Bunnings."

These types of land uses require large floor plate buildings and therefore large site areas. The nature of the uses also requires good road access for customers and deliveries. The opportunities within the Ryde LGA for large sites that are undeveloped (or underdeveloped) to accommodate such buildings are rare. The subject site is a central location that can service the Ryde LGA, has a site area that can accommodate the large floor plate buildings and has excellent road access (discussed later). Therefore a Planning Proposal to permit additional land uses on the site and a variation to the height controls in order to accommodate the proposed land uses is supported in order to satisfy the economic needs identified by Leyshon Consulting.

6.2.2 Impact on existing hardware stores and garden centres

Leyshon Consulting has identified four hardware stores presently operating in Ryde LGA including:

- Weils Thrifty Link, Gladesville
- Seymour Building Supplies, Gladesville
- Taffa's West Ryde Mitre 10 Handy
- Coxs Road Thrifty Link.

Leyshon Consulting notes that the four stores are very small ranging in size from 80m² to 1,100m² and that none provide on-site parking and all carry a very limited range of hardware. Each store appears to focus on meeting "convenience" hardware needs as opposed to the more comprehensive hardware-related shopping trips catered for by Bunnings, Woolworths Masters and the larger Mitre 10 Mega stores. Leyshon Consulting considers that it is highly improbable that Bunnings would threaten their viability given their convenience focus and that the major impact will be felt by other Bunnings stores such as Artarmon, Ashfield, Castle Hill, Parramatta and Auburn.

Leyshon Consulting notes that all Bunnings stores have a relatively restricted garden centre offer. Leyshon Consulting has identified two garden centres in the Ryde LGA, including Eden Gardens and Sherringham's. Eden Gardens is located on a 1.8 hectare site and services a regional market. It is most unlikely to be affected by what is a relatively limited garden centre "offer" at the proposed Bunnings. Sherringham's operates in association with Australian Native Landscapes (ANL) has a market leading position in the provision of bulk landscape supplies in the Sydney Region. Bunnings would not pose a competitive threat to Sherringham's/ANL.

6.2.3 Impact on existing bulky goods precincts

Neither Ryde LGA nor surrounding areas contain any major bulky goods centres at present. Leyshon Consulting has identified the following bulky goods precincts which are relevant to the Gladesville site:

- Artarmon/St Leonards 50,000m²
- Castle Hill 100,000m²
- Auburn 130,000m²
- Rhodes 27,000m²
- North Parramatta 30,000m²

In addition Leyshon Consulting has also considered impacts to other Ryde retail centres such as Gladesville and Top Ryde.

Leyshon Consulting has identified that there is a substantial under-supply of bulky goods floorspace in the Gladesville trade area at present, which is estimated to be in the order of

40,000 to 57,000m². The proposed development at Gladesville is planned to contain only 21,885m² of bulky goods space. Given the extent of the existing under-supply of space than the proposed floor space can be accommodated within the local retail system without having a detrimental impact.

Leyshon Consulting has calculated that the impact of the proposed bulky goods component on any of the major bulky goods centres in the surrounding local government areas is likely to be in the range of -6% to -10%. Leyshon Consulting notes that impacts in this range fall within the widely accepted "low/medium" category of impact and generally are considered to be acceptable.

Leyshon Consulting considers that impacts to the Gladesville centre and Top Ryde are expected to be minimal (less than 5%) due to neither of these centres containing significant bulky goods type traders.

6.2.4 Impact on the Gladesville light industrial area

Leyshon Consulting has examined the Gladesville Light Industrial Area which they have identified as containing a wide range of small to medium-scale industrial premises including:

- a significant number of automotive uses located along Buffalo Road;
- a number of sites which are used for older, traditional industrial-type uses (e.g. CBM Timber Yard on Buffalo Road; and
- a significant number of smaller industrial unit complexes accessed off College Street which provide accommodation for a wide range of companies providing industrial services, warehousing and distribution functions.

The subject site is partly vacant. Formerly it contained uses such as electrical engineers, communications equipment suppliers and service, professional equipment supplies and wholesalers, food and beverage packaging, microscope and scales supplier and Ryde batteries. The buildings comprise significant office components as well as warehousing. The site also comprises a number of significant non-industrial uses including a child care centre and a fitness centre. The office building at the corner of 495 Victoria Road and Frank Street also contain professional suites and another fitness gym. Approximately 25% of the site is not used for industrial purposes.

Leyshon Consulting field inspection of the area found that quite a few premises within the Gladesville Light Industrial Area are currently vacant and they note that higher vacancy levels are comparatively common in many industrial areas in the Sydney Region at this time with leasing agents throughout Sydney having reported declining demand for industrial premises since the onset of the GFC. Leyshon Consulting also observes that the current vacancy level is consistent with the findings of the City of Ryde Employment Study 2010 which, among other things, found that demand for traditional industrial uses in Ryde LGA will tend to decrease in the near future.

It would therefore appear that there is a supply of premises in the vicinity and that this site might not be essential for industrial uses, which appears to have occurred in recent years with the establishment of non-industrial uses.

The potential impact to land values has also been considered by Leyshon Consulting as such an effect can result in other uses being 'forced out'. Leyshon Consulting considers that this is only relevant where a change in zoning was being contemplated which would make bulky goods retailing permissible throughout the entire Gladesville Light Industrial Area (or the IN2 zone). This is not proposed and Leyshon Consulting therefore considers that it is unlikely the proposal will lead to increasing land values in the balance of the Gladesville Light Industrial Area.

6.3 Traffic considerations

Transport and Traffic Planning Associates (TTPA) has prepared an Assessment of Traffic and Parking Implications report which is attached at **Appendix E**. This Assessment has considered the concept plans including the indicative GFA and proposed vehicular entry points in the context of the surrounding road network and traffic conditions.

The Assessment has also factored in the Roads and Maritime Services proposal to carry out road widening along Victoria Road to upgrade the bus lanes in this location. This future road widening has been accommodated in the concept plans and generally comprises:

- dedication and road widening along the northern side of Victoria Road
- provision of continuous BUS LANES along both sides of Victoria Road
- extended right turn lanes for the turns into Frank Street and Tennyson Road
- widening of Frank Street
- provision of an access road from the subject site connecting at the Tennyson Road intersection
- modification of the intersection signals

The traffic assessment has calculated that the traffic flows generated by the site based on the most recent occupants (even though some uses have vacated the site). The existing situation has been compared to the proposed likely traffic generation. The results are that the morning peak generation will be less than the existing generation. However, the weekend traffic generation will increase.

TTPA has distributed the future traffic generation according to the surrounding street network. The majority of traffic (70%) is assumed to use Victoria Road (being the arterial road) with other traffic using Monash (15%), Buffalo (10%) or Tennyson (5%) Roads.

The intersection performance has been modelled based on the traffic generation and distribution. The signalised intersections of Victoria Road/Frank Street, Victoria Road/Tennyson Road and Victoria Road/Monash Road are all predicted to operate at satisfactory levels of service and average delays.

The traffic and parking analysis by TTPA provides a degree of confidence in the capacity of the local road network to accommodate the development which is appropriate at this Planning Proposal stage.

TTPA has responded to Council's specific questions raised in their letter of 24 April 2012 and the responses have been incorporated into their report at **Attachment E**. The findings of their original report remain unchanged.

6.4 Overland flow issues

Council has advised that the subject site is affected by flooding owing to the site being located below the surrounding road and levels and limited capacity of the adjoining stormwater infrastructure that drains the site.

C&M Consulting Engineers has undertaken a preliminary assessment of the site to develop a water management strategy for the site. Their report is attached at **Appendix F**.

The site currently site drains via a low level (deep) stormwater drain which runs from the northern part of the site, across College Street and then through the private property (via an easement) to the north to Buffalo Road. Because the site is lower than all surrounding roads, there is no overland flow path available. If the stormwater drain is blocked or damaged downstream of the site, then there is potential for stormwater to backup in the system and surcharge from low level pits. C&M Consulting believe that the stormwater drain has been designed with a capacity of a 1 in 10 year Average Recurrence Interval

(ARI) storm event. Therefore a storm event that exceeds a 1 in 10 year ARI would have the potential to surcharge from the low level pits.

Without an overland flow path from the site, there is no way for stormwater to discharge from the site under the above circumstances and flooding of the site would occur.

C&M Consulting advise that redevelopment of the site will enable the above flooding issue to be alleviated by setting the podium level for the development at a level higher than the lowest street level in College Street. This will enable an overland flow path from the site to be established. Low level inlets and pits at the site would also be disconnected from the aforementioned stormwater drain preventing the possibility of surcharge. This outcome is best achieved if the site is redeveloped holistically.

In addition to the above strategy, C&M Consulting also note that the stormwater strategy for the site would incorporate on-site stormwater detention, opportunities for rainwater harvesting and stormwater quality treatment measures. These detailed matters would be dealt with as part of a DA process.

Council's required details regarding the software that could be used to model flooding and overland flow. C&M Consulting's report notes that the following models can be used at DA stage:

- DRAINS of XP-RAFTS to model catchment hydrology and sizing of OSD;
- MUSIC to model stormwater treatment devices and water quality
- HECRAS to model the overland flow path.

None of these matters need to be addressed at the planning proposal stage.

6.5 Heritage Impacts

There are several heritage items in the vicinity of the subject site. Ruth Daniell has prepared a Heritage Impact Statement (HIS), a copy of which is included at **Appendix G**, which considers the following heritage items:

- Item No. 143 - Ryde Holy Cross College 499–521 Victoria Road Lot 1, DP 807562 – State Item
- Item No. 144 - Ryde Chapel 512–550 Victoria Road SP 48164 – Local Item
- Item No. 145 - Ryde -“Squireville” (House) 512-550 Victoria Road SP 48164 Local Item
- Item No. 112 - Gladesville Monash Park (Obelisk) 142 Ryde Road Lot 7060, DP 93662 – Local Item
- Item No. 113 - Drill Hall building No. 144 Ryde Road SP69924 Local Item
- Item No 54 - Great Northern Road (i.e. Victoria Road)

The HIS has referred to The Australian ICOMOS Burra Charter and the NSW Heritage Office publication Heritage Curtilages to assess potential impacts of the likely planning proposal and development concept. The important findings are as follows:

- The subject site is not located adjacent to any of the heritage items and is separated physically and visually from the heritage items, the Holy Cross College, Squireville, the Ryde Chapel, the Drill Hall and the Obelisk.
- The subject site like many sites is located adjacent to Victoria Road, which historically follows the course of the Old Northern Road. The proposed planning proposal does not impact on the historical significance of this heritage item.

- The views and vista analysis in Section 5 of the HIS has determined that the planning proposal does not impact on the significant views and vistas to these heritage items, which form their expanded curtilage and their setting.
- In terms of height the HIS notes that the site is physically located at some distance from the heritage items and is not viewed directly in relationship to the heritage items a. The planning proposal proposes a similar in height above Victoria Road as the approved existing development.
- The subject site has not been identified as being situated on any archaeological deposits. The former use as an excavated quarry has removed any archaeological potential of the site may have had. The proposed planning proposal will not affect any potential archaeological deposits.

This HIS concludes that the planning proposal will have an acceptable heritage impact.

6.6 Consistency with zone objectives

The objectives of the IN2 – Light Industrial zone are:

- *To provide a wide range of light industrial, warehouse and related land uses.*
- *To encourage employment opportunities and to support the viability of centres.*
- *To minimise any adverse effect of industry on other land uses.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.*
- *To support and protect industrial land for industrial uses.*

An amendment to the Ryde LEP 2010 to include 'bulky goods premises', 'garden centres' and 'hardware and building supplies' as additional permissible land uses is consistent with the IN2 zone objectives for the following reasons:

- The use of the additional land use clause in the Standard Instrument would make the additional land uses as permissible uses on this site only with the consent of Council, and the remaining IN2 zoned land would remain unchanged.
- The land form (having previously been excavated) allows for a multi-level building form that could accommodate a combination of uses. Therefore other uses permissible in the IN2 zone such as warehousing could be accommodated on the subject site in conjunction with the proposed additional land uses.
- A Bunnings store and bulky good premises at this location is likely to employ in the order of 550 people which would increase the potential employment capacity of this site than is otherwise likely to occur with the range of land uses currently permissible in the IN2 zone.
- The site's location along Victoria Road and amongst other light industrial or commercial type uses will ensure that the proposed additional land uses would not in themselves give rise to adverse impacts to other land uses. The three street frontages provide opportunities to separate traffic movements and distribute traffic impacts. The most sensitive land uses are the residential land uses, particularly those in College Street. The additional land uses would not give rise to impacts any greater than the range of uses already permissible in the zone, or uses currently operating from the site. Measures to mitigate any impacts would most appropriately be considered at development application stage.
- Additional land uses would provide impetus for the redevelopment and efficient use of a large underutilised industrial site which is rare for the Gladesville industrial area.

- The proposed additional land uses could support other light industrial uses operating in the Gladesville area and serve the needs of the Gladesville and Ryde population. In particular, a Bunnings store would allow for complementary servicing of other business in the Gladesville industrial area including, for example, trade supplies to local businesses.

The draft Ryde LEP 2011 also seeks to support and protect industrial land for industrial uses. The planning proposal is consistent with the provisions of the exhibited draft LEP which proposes to permit *hardware and building supplies* in the IN2 zone, and also permit *bulky good premises* as a permissible use on this site. In addition, the IN2 zone also permits other non-industrial land uses. Therefore a range of uses are proposed for the IN2 zone (and a similar range is currently permissible in the IN2 zone) that are not industrial uses. Clause 2.3(2) of the current Ryde LEP and draft Ryde LEP 2011 requires that a consent authority must have regard to the objectives for development in a zone when determining a DA. This does not mean that a DA needs to comply with all zone objectives. A planning proposal should be considered in this context. As demonstrated above, the planning proposal seeks to broaden the permissible land uses (not remove or dilute industrial zoned land) and future DAs would still be capable of satisfying one or more of the zone objectives.

The proposed additional land uses are consistent with the zone objectives and could complement the range of established and future land uses in the surrounding area as well as the surrounding residential areas in the Ryde LGA.

7 A Guide to Preparing Planning Proposals

7.1 Part 1 - Objectives or Intended Outcomes

The Planning Proposal will have several objectives and intended outcomes including:

- to expand the range of permissible land uses within the IN2 zone as it applies to the subject site in order to facilitate the development of a Bunnings Warehouse and bulky goods retail on the site.
- to amend the height of building map to increase the building height control applying to the land in order to promote a built form outcome that can achieve a presentation to Victoria Road whilst allowing for the broad range of uses proposed for the IN2 zone.

The objective is to permit a building height that will achieve a built form to accommodate the broad range of land uses either currently permissible or proposed under draft Ryde LEP 2011 for the IN2 zone including large floor plate buildings such as bulky goods premises and hardware and building supplies.

Another objective of amending the Height of Buildings Map is also to replace the uniform 10m building height (proposed in draft LEP 2011) with a building control in the form of RLs which responds to the site opportunities and constraints. The use of a 10m height control which is measured from the existing ground level is somewhat meaningless in the context of the site's topography which results in much of the site being significantly below the surround street levels. The manner in which the Height of Buildings Map is proposed to be amended takes into account outcomes appropriate for the different streetscapes and adjoining residential areas.

7.2 Part 2 – Explanation of Provisions

The Planning Proposal proposes to be in the form of an amendment to Ryde LEP 2010 to encompass the following amendments:

1. To amend Schedule 1 to incorporate an additional clause to include *bulky goods premises, garden centre and hardware and building supplies* as additional land uses

for 461-495 Victoria Road, being Lot 1 DP 739556. This report also proposes that Clause 4 which permits development for the purpose of existing business premises or office on Part Lot DP 739556 (Building H) be retained.

2. To amend the height of building map to indicate maximum RLs over the subject site.

It is also proposed that a DCP amendment be prepared to support a Planning Proposal. This would address detailed site controls (eg. setbacks, stepped building forms, façade and architectural treatment).

7.3 Part 3 – Justification

This report recommends that Ryde LEP 2010 should be amended to broaden the range of permissible land uses and to amend the height of building development standard in order to facilitate those end uses and encourage an acceptable urban design outcome.

The following section demonstrates how such an outcome for the site at Gladesville will satisfy the questions that the Department of Planning and Infrastructure applies to gateway determinations.

7.3.1 Need for the Planning Proposal

1. Is the Planning Proposal a result of any strategic study or report?

There has been strategic work undertaken in the preparation of draft Ryde LEP 2011, including the Centres and Corridors Study forming part of the Ryde Local Planning Strategy, however the scope of those studies have not considered in detail individual land uses or height controls for specific sites such as this site.

Leyshon Consulting prepared an Economic Need Assessment (**Appendix D**) which has specifically studied the needs for a major hardware store in the Ryde LGA. This has been discussed in Section 6.2.

The Employment Lands for Sydney Action Plan, 2007, the draft Inner North Subregion Strategy and City of Ryde Employment Study, May 2010 have all identified the need to maintain employment generating land. As discussed in Section 7.3.2 below, a Planning Proposal as set out in this submission would be consistent with the strategic studies and reports.

2. Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

An amendment to Ryde LEP 2010 is the only feasible way of permitting a Bunnings Warehouse and bulky goods premises on the subject site.

Whilst there is no current building height development standard applying to the site there is technically no need to vary Ryde LEP 2010 to achieve the intended outcome. However, the exhibition version of draft LEP 2011 indicates the intention to introduce a building height of 10m on the site. It is therefore sensible to consider the building height as part of a Planning Proposal process.

Clause 4.6 - Exceptions to Development Standard could in theory be used to vary the building height development standard. The proposal put forward in this submission has considered the proposed land uses in the context of likely building height and volume. This process has identified that the proposed building height (in draft LEP 2011) would need to be varied. In our opinion Clause 4.6 should not be relied upon for a variation to the development standards and it is not an approach that provides any certainty in terms of planning outcomes. Instead, the sensible planning approach is to utilise the urban design process to inform the height control for the site which can be incorporated into the Ryde LEP.

A Planning Proposal is therefore considered the best and only viable means of achieving the intended outcome.

3. Is there a net community benefit

There are a number of community benefits which will flow from the proposal:

- Increased employment generating capacity including opportunities for part time, casual and younger employees and key workers.
- The ability to satisfy latent demand for a large hardware store and bulky goods premises in the Ryde LGA.
- A considered approach to building heights across the site having regard for the various streetscape outcomes and residential interfaces.
- Reducing permissible height to the sensitive College Street frontage and also minimising potential building height to the adjoining residential property at 18 College Street.

Some of the community benefits that can be achieved through a redevelopment such as that illustrated in the concept plans at **Appendix B** are:

- Opportunities to achieve improved traffic outcomes by removing vehicular entrances from College Street and directing truck delivery movements to and from Victoria Road and Frank Street.
- Improved drainage outcomes for the site and locality.
- Retention of street trees to College Street and large setback to augment this street tree planting.
- Additional landscaping opportunities to Frank Street.

7.3.2 Relationship to strategic planning framework

4. Is the planning proposal consistent with the objectives and actions contained within the applicable regional or sub-regional strategy?

Metropolitan Strategy and Draft Inner North Subregional Strategy

The Metropolitan Strategy and the Employment Lands For Sydney Action Plan, March 2007 identified the need to retain employment lands (including traditional industrial areas such as Gladesville). The Action Plan sets a number of initiatives addressing supply and demand of employment land.

Employment Lands for Sydney Action Plan, 2007

One of the initiatives of this Plan is to *develop new policy initiatives to encourage the regeneration of brownfield sites to support new investment and employment opportunities*. There are several further initiatives identified to achieve this overall aim. Of particular relevance are the following:

- Identify strategic employment lands through subregional planning (refer to discussion below); and
- New planning frameworks including "*planning for more flexible provisions to encourage employment growth*".

The proposed utilisation of the additional land use provision of the Standard Instrument is an effective means to provide flexibility in potential land uses for this site. This will directly assist in allowing large employment generating land uses to be permissible on the site, in addition to the range of land uses already permissible in the IN2 zone. The proposal is therefore considered to be consistent with the Action Plan, particularly in relation to retaining and encouraging future development of employment lands in strategic locations.

Draft Inner North Subregional Strategy

The Draft Inner North Subregional Strategy sets a number of objectives and directions in relation to the 'economy and employment' and 'centres and corridors' in the Inner North subregion. Those of particular relevance are:

- A target of 21,000 new jobs for the Ryde LGA by 2031.
- Retention of the Gladesville industrial area for industrial purposes servicing the local population including automotive businesses and trade supplies.
- Identification of parts of Victoria Road, Gladesville as an enterprise corridor. Enterprise Corridor is defined as "*areas which provide low cost accommodation for a range of local and regional services, including start-up offices, light industrial, showrooms, building supplies and retail, which benefit from high levels of passing traffic. They run along major arterial roads which generally carry over 50,000 vehicles per day and provide a valuable buffer from surrounding residential development.*"

The proposed additional land uses would retain and enhance the employment generating capacity of the site being a key objective behind the need to retain industrial zoned land. The additional land use approach supports the objectives of the Draft Inner North Subregional Strategy by ensuring permissible land uses are retained providing opportunities for local industry. In addition, the employment generating capacity of a Bunnings warehouse and bulky goods retail (some 550 workers) that could be realised is greater than for traditional industrial uses and greater than the current employment generating capacity of the site. A Planning Proposal would therefore ensure that the employment generating capacity of the site would be maintained. The proposal would also assist in achieving the target of 21,000 new jobs for the Ryde LGA.

As noted above, a Bunnings store would allow for complementary servicing of other business in the Gladesville industrial area, which we understand has worked successfully with other Bunnings stores in industrial areas. Bunnings stores provide a wide range of product lines that can service local businesses. In particular, Bunnings stores incorporate trade supplies services which can directly service local businesses consistent with the one of the key objectives for the Gladesville industrial area. The proposed additional land uses combined with the current range of permissible uses would be consistent with the Strategy's objective of servicing the local population and local businesses.

Overall, the proposal is considered to be consistent with the Draft Inner North Subregional Strategy.

5. Is the planning proposal consistent with the local council's Community Strategic Plan, or other local strategic plan?

Ryde Local Planning Strategy

The site is strategically located along a major transport routes and in local context connects the Gladesville and Ryde centres. The Ryde Local Planning Strategy comprises several components, the most relevant being the Centres and Corridors Study and in particular Section 5 – Corridors.

Section 5.0 – Corridors Study relates to the subject site. As noted above, the Metropolitan Strategy and the Draft Inner North Subregional Strategy have both identified this section of Victoria Road as a potential enterprise corridor to support a variety of uses. The Corridors Study recognises that the Victoria Road corridor meets the criterion for an enterprise corridor.

The Corridors Study identifies the area between Top Ryde and West Ryde as an enterprise corridor (further west of the subject site). The land identified in the Ryde Local Planning Strategy as the enterprise corridor would not contain sites sufficiently large

enough for a Bunnings store and bulky goods premises, particularly co-located as demonstrated in the concept plans. The Draft Inner North Subregional Strategy notes that parts of Victoria Road have potential for enterprise corridor functions. In our opinion, this does not preclude the establishment of a contiguous enterprise corridor (as envisaged by Council).

The Corridors Study established the desired future character for Victoria Road including:

- A significant commuter corridor.
- A significant local economic corridor linking strategic employment lands and economically vital town centres.
- A link between the historic centres of West Ryde, Ryde Town Centre and Gladesville. Heritage items along Victoria Road help illustrate the story of Sydney's growth and development.
- An attractive streetscape that includes tree linked streetscapes between vibrant town centres.

The complementary function that a Bunnings store and bulky goods premises can provide to local businesses could assist in strengthening the function of the strategic employment lands in the Gladesville area.

The proposed additional land uses would not be inconsistent with the desired future character.

Also relevant to the Corridors are the nearby centres of Top Ryde and Gladesville. Top Ryde has undergone a significant change in character and is emerging as a regional centre. Gladesville is envisaged to be a mixed use town centre servicing the local community. The Monash Road Precinct closest to the subject site is envisaged to provide a mix of convenience retail and services to local residents and workers in addition to specialist goods and services for the wider community and retain its traditional strip shopping character. The roles of Top Ryde and Gladesville will perform very different functions to that catered for by the proposed land uses.

The height controls proposed for the site are not inconsistent with the desired future character objectives.

The likely built form can be controlled through the use of building height to ensure that building can be appropriately designed to accommodate the permissible land uses in the IN2 zone. The site specific building height controls in concert with a DCP can achieve a built form scale not dissimilar to those found in the surrounding area along Victoria Road and permissible further east under Ryde LEP (Gladesville Town Centre and Victoria Road Corridor) 2010. The streetscape outcomes expressed in the Corridors Study are still capable of being achieved.

City of Ryde Employment Study, May 2010

The Employment Study forms part of the Local Planning Strategy to inform the preparation of the Ryde Comprehensive LEP. The Study is based upon the Employment and Centres Study, October 2009.

The Employment and Centres Study identified that demand for industrial uses is likely to reduce (due to a reduction in blue collar works, and a corresponding increase in white collar workers) and will then stabilise. Despite a potential reduction in demand, the Employment Study considers retention of industrial land as vital to meet local and regional needs for industrial activities.

Two of the key directions and recommendations arising from the Employment Study are:

- To undertake a study of the industrial areas within the City to identify strategies and recommendations to maintain these areas as viable employment land; and
- Economic and employment activity to continue along the Victoria Road Corridor – in particular in areas adjoining the town centres and industrial areas.

The proposed additional land uses are consistent with and directly support the findings of the Employment Strategy by not only maintaining employment, but increasing employment opportunities along the Victoria Road corridor. The proposal to incorporate additional land uses on this site will provide a wider range of potential land uses that will directly work towards maintaining the viability of the site for local industry as well as employment generating land generally.

6. Is the planning proposal consistent with applicable state environmental planning policies?

Appendix H is a table identifying the applicability and consistency with state environmental planning policies.

7. Is the planning proposal consistent with applicable Ministerial Directions (s.117 directions)?

Appendix I is a table identifying the applicability of the Section 117 Directions. The main directions of relevance are discussed below.

Direction 1.1 – Business and Employment Zones

The objectives of this direction are to:

- (a) encourage employment growth in suitable locations,
- (b) protect employment land in business and industrial zones, and
- (c) support the viability of identified strategic centres.

The direction states that a planning proposal must:

- (a) give effect to the objectives of this direction,
- (b) retain the areas and locations of existing business and industrial zones,
- (c) not reduce the total potential floor space area for employment uses and related public services in business zones,
- (d) not reduce the total potential floor space area for industrial uses in industrial zones, and
- (e) ensure that proposed new employment areas are in accordance with a strategy that is approved by the Director-General of the Department of Planning.

Paragraph (c) relates to land in a business zone and paragraph (e) relates to proposed new employment areas (Gladesville is an existing employment area). There two matters are therefore not relevant in this instance. In relation to paragraph (b) the IN2 zone of the Gladesville precinct is not altered. Discussion regarding (a) and (d) is provided below.

In relation (d) to employment, Leyshon Consulting notes that as it currently stands, this site is making only a minimal contribution to maintaining industrial employment in the Ryde LGA. In addition, as demonstrated in Section 2.2 of this report, the existing floor space on the site (of some 22,000m²) represents a FSR of approximately 0.57:1 which is considerably less than the potential FSR of 1:1. The site is therefore not achieving its full potential with very limited and possibly no scope for additional industrial floor space (without exceeding height controls). Further, of the constructed floor space about 20% was not previously used for industrial purposes. Therefore the former uses of the site represented an industrial FSR of about 0.5:1 or 50% of its potential. Leyshon Consulting

has estimated that theoretically, the existing building could generate between 258-400 positions depending on the nature of businesses.

The proposal has the capacity to make a far greater contribution to employment. Whilst this might not be employment of a traditional industrial (eg. manufacturing) nature, if there is a declining trend in traditional industrial uses (as noted in the City of Ryde Employment Study 2010), it cannot be considered good planning sense to restrict the current site to cater for a declining sector of the economy.

The subject planning proposal has the capacity to make a significant contribution to local employment. A Bunnings Warehouse has a typical employee density of 1/100m².

Table 2 sets typical employee density for different land uses.

Table 2: Employee Density

Land use	Employee density (floor space)
Manufacturing Industry	Varies from 1/50m ² to 1/100m ² for manufacturing that would be permissible in the IN2 – Light Industrial zone.
Warehouse trade	1/220m ²
Transport and storage	1/220m ²
Service industry	1/55m ² to 1/150m ²
Retail (household goods)	1/58m ²
Commercial	1/25m ² to 1/35m ²

Source: Hornsby and Ku-ring-gai Subregional Employment Study, prepared by SGS

By way of comparison, the City of Ryde Section 94 Contributions Plan 2007 contains forecasts of employment growth. In 2004 the gross floor area of industrial space in the Gladesville Industrial Area was estimated at 240,000m² supporting 2400 workers. This equates to a rate of 1 worker per 100m². This rate is not dissimilar to the rates in Table 2. The existing buildings have an estimated gross floor area (GFA) of 22,000m². Using this rate, the existing buildings on the site could provide employment for approximately 220 workers. If the GFA of the site was increased to 1:1 (as currently permissible) and uses similar to those already existing on-site were maintained, the total GFA would be 38,340m² equating to approximately 383 employees.

Based on the approximate floor areas indicated in the concept plans at **Appendix B** the indicative floor areas are:

- Approximately 15,000m² for a Bunnings Warehouse – equating to 150 employees
- Approximately 21,000m² for tenancy (i.e. bulky good premises) – equating to 362 employees; and
- Approximately 1,200m² for the existing Fernwood building equating to 34 to 48 employees.

The total GFA of the proposed development is within the 1:1 FSR applying to the site. Based on the above approximates, a total of some 550 workers could be accommodated on the site. This is clearly greater than the employment generating capacity of traditional industrial land uses permissible within the IN2 zone and the actual employment likely to occur under a restrictive "industrial" land use zone. Therefore the employment objectives of the Direction to encourage employment in suitable locations and protect employment in industrial zones can be achieved with a Planning Proposal as recommended in this report.

Direction 6.3 – Site Specific Provisions

The objective of the Direction is to “discourage unnecessarily restrictive site specific planning controls.” The Direction also states that:

“(4) A planning proposal that will amend another environmental planning instrument in order to allow a particular development proposal to be carried out must either:

(a) allow that land use to be carried out in the zone the land is situated on, or

(b) rezone the site to an existing zone already applying in the environmental planning instrument that allows that land use without imposing any development standards or requirements in addition to those already contained in that zone, or

(c) allow that land use on the relevant land without imposing any development standards or requirements in addition to those already contained in the principal environmental planning instrument being amended.

(5) A planning proposal must not contain or refer to drawings that show details of the development proposal.”

As detailed in Section 5, the Planning Proposal would amend Ryde LEP 2010 to allow *bulky goods premises, garden centres and hardware and building supplies* as permissible land uses on this site and involve an amendment to the Height of Building Map accompanying the LEP.

The building heights nominated in this submission have been founded on an urban design analysis having regard to the currently permissible land uses and the proposed additional land uses and their likely built form configurations. The proposed building heights have considered the likely built form configurations of the permissible and proposed land uses whilst taking into account streetscape and residential interface issues.

Whilst this submission is founded on an indicative drawing to test the built form outcome, it is not necessary for a Planning Proposal to rely upon the concept plans contained at **Appendix B** which has informed this submission and have been provided for contextual purposes only. However, to provide certainty regarding built form outcomes for the site, the preparation of a site specific DCP is recommended. This can simply be an additional section to the current Ryde DCP 2010. A Planning Proposal is considered to be capable of consistency with this Direction.

7.3.3 Environmental, Social and Economic Impact

8. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

No, much of the site has already been cleared and appears to have little or no environmental value.

9. Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

The main environmental effects associated with the future development of the site are:

- Residential interface issues;
- Traffic impacts; and
- Water management (stormwater and flooding/overland flow issues).

These issues have been considered in the context of the likely future uses of the site and to provide a degree of assessment that the surrounding community is likely to be interested in understanding.

Whilst these are also detailed matters that would need to be considered as part of a development application, they have been considered as part of this submission to justify the commencement of a Planning Proposal process.

These issues have been discussed in Section 6.1, 6.4 and 6.5 of this submission.

10. How has the planning proposal adequately addressed any social and economic effects?

The proposed development has a significant development cost in the order of \$100 million being a significant investment in the region.

One of the significant economic effects of a Planning Proposal is the potential employment generating capacity of a Bunnings Warehouse and bulky goods premises. As set out in Section 6.1 of this report, a Bunnings Warehouse and bulky goods premises has an employment generating capacity of approximately 550 employees which is considerably greater than the employment levels that could be achieved for typical industrial premises. This employment generating capacity has clear economic benefits by providing significant employment opportunities including part time, casual and youth employment opportunities.

A Bunnings Warehouse is also likely to support other business and trades in the locality and provide convenient access to hardware and building supplies to the surrounding residential areas.

The capacity of a Bunnings Warehouse to provide employment opportunities will have social benefits for those persons employed by Bunnings.

7.3.4 State and Commonwealth Interests

11. Is there adequate public infrastructure for the planning proposal?

The site is located in an area that is already serviced. The IN2 zone is not proposed to be changed and the development potential (FSR) of the site remains unchanged. The proposed additional land uses are unlikely to generate any greater demand for utility services than other permissible industrial uses.

Traffic impacts and associated traffic infrastructure is discussed in Section 6.3 of this Report.

A Planning Proposal to including additional permissible land uses and to amend the Height of Buildings Map will not have an impact on public infrastructure that is any greater than the uses currently permissible on the site, or proposed to be made permissible under draft Ryde LEP 2011.

12. What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination?

Consultation with the remaining relevant State and Commonwealth public authorities can be undertaken in conjunction with the exhibition of the Planning Proposal following the Gateway Determination.

7.4 Part 4 - Community Consultation

Public consultation will take place in accordance with the Gateway Determination made by the Minister for Planning in accordance with Sections 56 & 57 of the *Environmental Planning & Assessment Act 1979*. The draft DCP amendment recommended in this report can be exhibited concurrently with the Planning Proposal.

8 Conclusion

The current zoning of the land would not permit a Bunnings Warehouse. The draft Ryde LEP 2011 proposes to include *hardware and building supplies* as a permissible land use in the IN2 zone. In addition the draft LEP also proposes to add bulky goods premises as a permissible land use on the subject site (as a schedule use).

Council's draft LEP process has encountered several delays over the last 12 to 18 months and therefore a separate Planning Proposal process is considered a reasonable and sensible approach to facilitate the advancement of the redevelopment of the subject site.

Therefore, the report recommends that Council's proceed with a Planning Proposal to include *bulky good premises, garden centre and hardware and building supplies* as additional land uses permissible on the subject site. This is in line with Council's intention for the IN2 zone.

This submission has demonstrated that the suggested amendment to Ryde LEP 2010 would be consistent with the Metropolitan and State strategies and the objectives of the LEP as follows:

- The potential use of the site for a Bunnings Warehouse and bulky goods premises would have a similar if not greater employment generating capacity as the land uses already permissible in the IN2 zone applying to the land. The proposed land uses would therefore support the employment generating function of the industrial precinct consistent with the Metropolitan Strategy for Sydney 2036 and the draft Inner North Subregion Strategy.
- The land is identified as Category 1 land under the Employment Lands for Sydney, 2007 and Draft North West Subregion Strategy. Category 1 land is identified as being appropriate for uses such as a Bunnings Warehouse.
- Given the employment generating capacity of a Bunnings Warehouse, the proposed amendment would be consistent with the employment generating aims and objectives of Ryde LEP 2010.

This submission has also demonstrated that a site specific building height development standard should be applied to the site. Currently, Ryde LEP 2010 does not contain a building height control over the site, however, draft Ryde LEP 2011 is proposing a 10m height control. This will be measured from existing ground level which results in a built form outcome that sits below Victoria Road resulting in a poor streetscape outcome.

A building height has been developed for the site founded on an urban design analysis.

This submission recommends a Height of Buildings Map which utilises varying RLs across the site to respond to the opportunities and constraints of the site. In particular the following outcomes are intended through the height controls proposed for the site:

- To achieve an appropriate wall height and streetscape outcome to Victoria Road, Frank Street and College responding to the built form context and surrounding building height controls in LEP 2010.
- To reduce building height along the College Street frontage to create a stepped building form that responds to the lower building scale of College Street.
- To provide a large setback from the tallest building zones on the site from the residential property at 18 College Street.

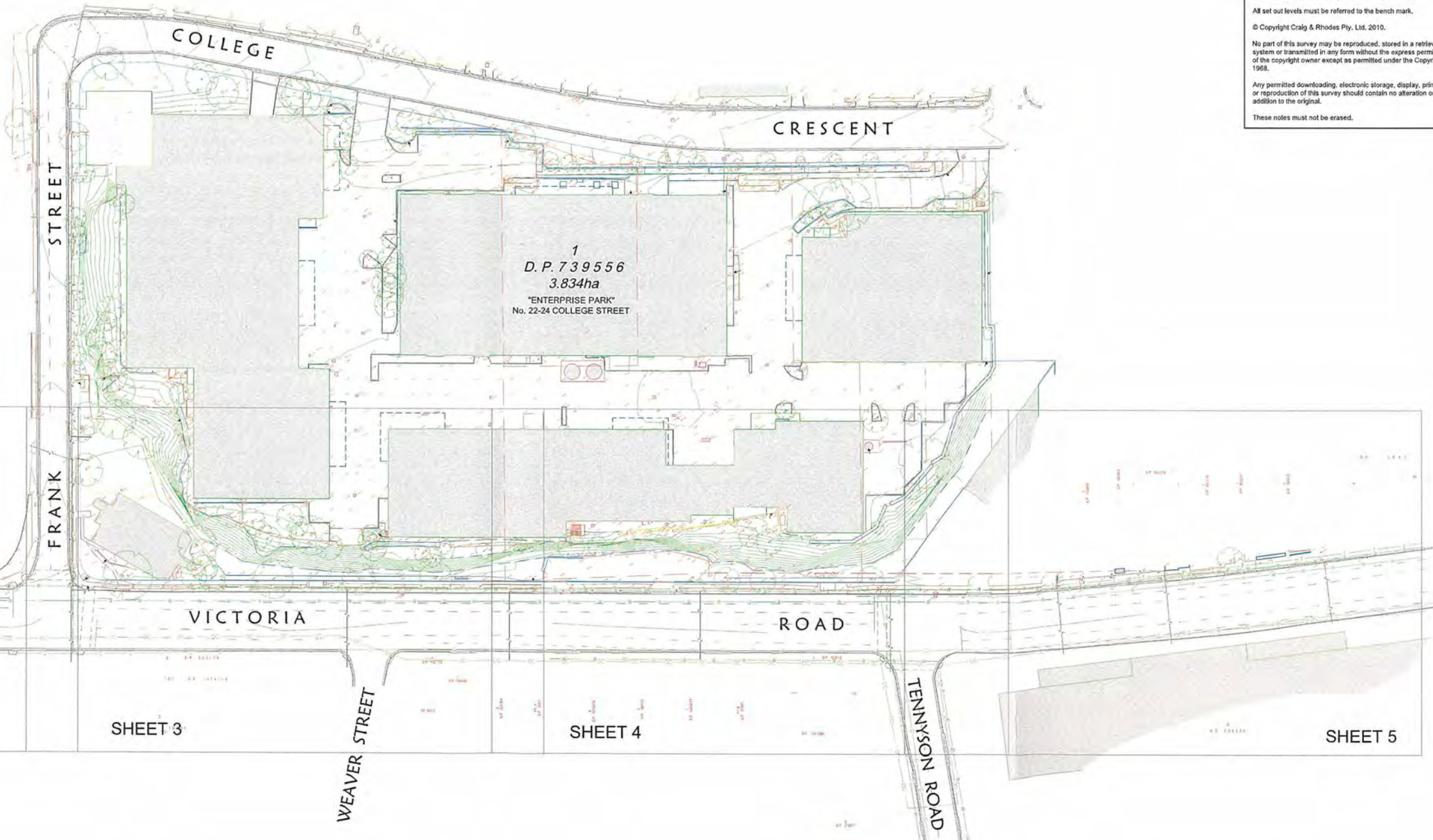
We also recommend as an amendment to Ryde DCP 2010 to insert into Section 6.0 – Specific Sites, an additional set of site specific controls. This can be prepared after Gateway Determination and exhibited concurrently with the Planning Proposal.

We therefore recommend that the Council support the amendment to Schedule 1 of Ryde LEP 2010 to include *bulky goods premises, hardware and building supplies and garden centre* as permissible land uses for this site, as well as the associated amendments to the Height of Buildings.

We would welcome the opportunity to further discuss this proposal with Council or the DP&I.

- TL TRAFFIC LIGHT
 - QP GULLY PIT
 - PP POWER POLE
 - PC PRAM CROSSING
 - TC TELSTRA PIT
 - RTA RTA PIT
 - HY HYDRANT
 - SS STREET SIGN
 - VC VEHICLE CROSSING
 - LP LIGHT POLE
 - SV STOP VALVE
 - GM GAS MARKER
 - WM WATER METER
 - PH FIRE HYDRANT
 - GO GUTTER OUTLET
 - P POST
 - SMH SEWER M.H.
 - BH BOREHOLE
 - SWP STORMWATER PIT
 - IE INSPECTION EYE
 - CO COLUMN
 - CK CONCRETE KERB
 - EM ENVIRO MONITOR
 - W WATER STOP COCK
 - OP OPTUS PIT
 - TB TABLE & CHAIRS
 - DD CONCRETE DISH DRAIN
 - EB ELECTRICITY BOX
- WIDE DBVD
- APPROX. LOCATION OF GAS PIPE
 - APPROX. LOCATION OF WATER MAINS
 - APPROX. LOCATION OF OPTUS/UECOMM CABLES
 - APPROX. LOCATION OF TELSTRA CABLE
 - OVERHEAD POWER LINES

'D' & 'E' - BENEFITED BY EASEMENT L328001
 'C' 'F' & 'G' - BENEFITED BY EASEMENT K927380
 'H' - EASEMENT FOR POLLUTION VIDE G105507
 'J' - BENEFITED BY G105507



NOTES:-

Location of structures approximate only.

The levels and details on this plan have been determined by stadia methods and are within the general accepted accuracies for such surveys. All set out levels must be referred to the bench mark.

Bearings and Distances are by deed only and are subject to Final Survey. Except where shown by dimension, the relationship of improvements to boundaries is diagrammatic only. The true positions are subject to Final Survey.

Tree sizes are estimates and indicative only.

Services and utilities shown have been located by physical evidence and/or by reference to service plans from the relevant authorities. Pits may not have been opened to verify the type of utility. Excavation has not been carried out to confirm underground location. Service details should be confirmed with the relevant service authority during design and prior to commencement of construction.

As part of your duty of care, please contact the following where necessary:-

- AGL Gas Company Ph. 131245
- Dial Before You Dig Ph. 1109
- Energy Australia Ph. 131535
- Integral Energy Ph. 131081
- Optus Communications Ph. 1800 505 777
- Sydney Water Ph. 132092
- Telstra Corporation Ph. 132203

This plan has been prepared for the exclusive use of the principal as listed in the 99e block.

Any construction on or near the boundaries will require further survey so that marks defining boundaries can be placed.

All set out levels must be referred to the bench mark.

© Copyright Craig & Rhodes Pty. Ltd. 2010.

No part of this survey may be reproduced, stored in a retrieval system or transmitted in any form without the express permission of the copyright owner except as permitted under the Copyright Act 1968.

Any permitted downloading, electronic storage, display, print, copy or reproduction of this survey should contain no alteration or addition to the original.

These notes must not be erased.

SHEET 2

SHEET 3

SHEET 4

SHEET 5



	Amendments		Project: DETAIL SURVEY OVER VICTORIA ROAD, GLADESVILLE	Principal: A.J.W. SECURITIES				ABN 77 060 209 991 Level 4, Suite 400 16-18 Cambridge St EPPING NSW 2121 PO Box 233 EPPING NSW 1710 www.craigandrhodes.com.au	ACN 060 209 991 DX 4409 EPPING Tel. 9958-1955 Fax. 9958-2341 reception@crhodes.com.au © Craig & Rhodes	Sheet No. 01 of 05 Sheets
	No.	Date		Description	Scale 1:750	Date 07.04.2011				Council Ref.
				Call's R.N. T.G. & L.H.	Drawn. R.N.	Proj.Man. D.B.	UBD Ref.		19110T5 [01]	

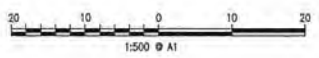
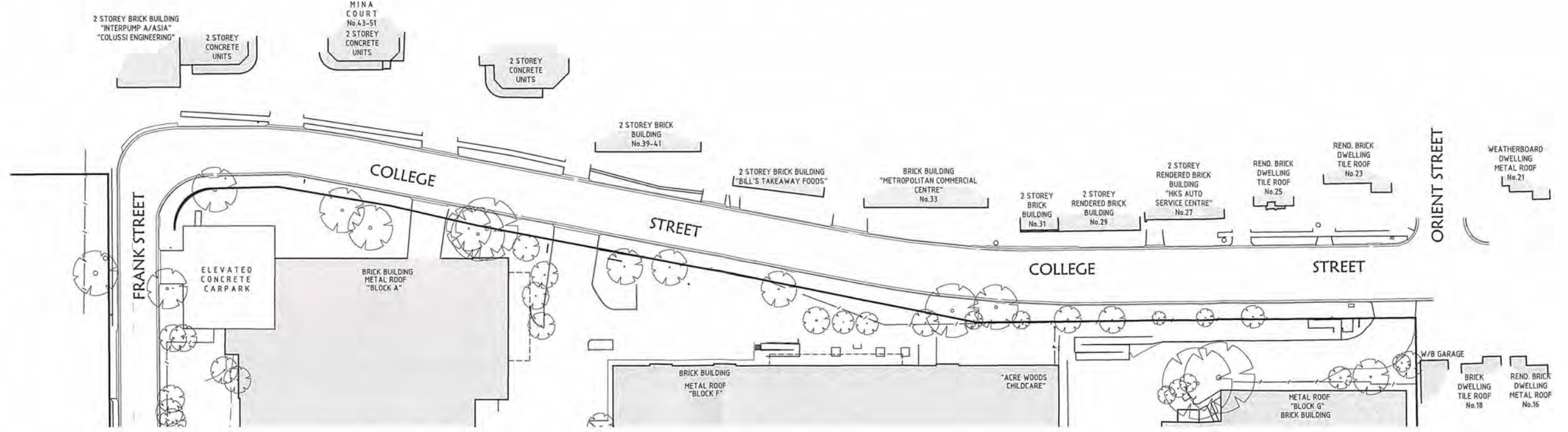
ORIGIN OF LEVELS: P.M. 52049 R.L. 49.935 (A.H.D.) VIDE S.C.I.M.S. DATED 23.08.10



COLLEGE STREET SOUTHERN ELEVATION
(VIEW FROM STREET)



COLLEGE STREET NORTHERN ELEVATION
(VIEW FROM STREET)



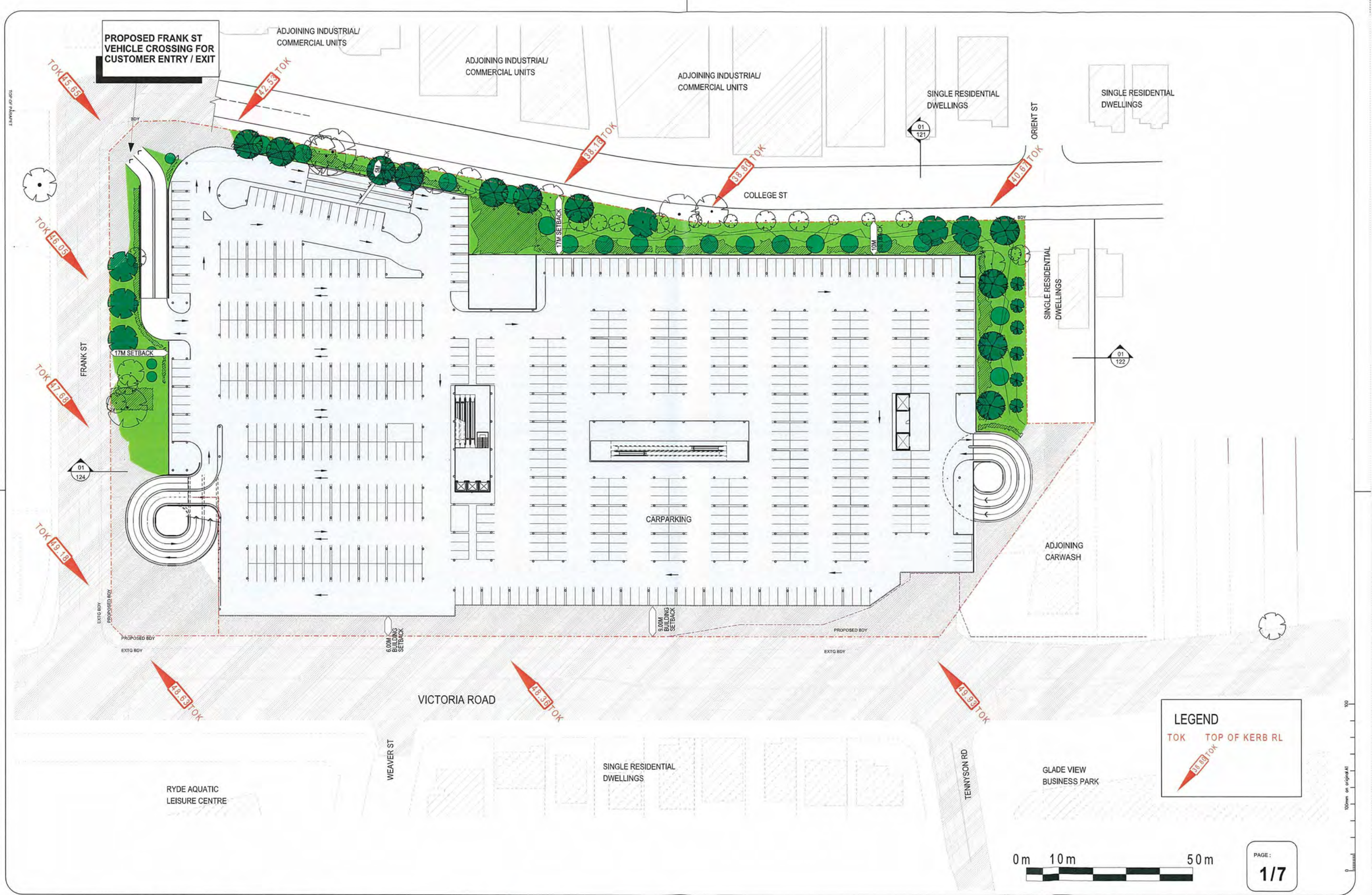
	Project: NORTHERN & SOUTHERN STREETSCAPE ELEVATIONS 22-24 COLLEGE STREET, GLADESVILLE		Principal: BUNNINGS		Council Ref.	
	Scale: 1:500	Date: 21/05/2012	Datum: A.H.D.	L.G.A. RYDE		
	Client: D.S./B.M.	Drawn: N.F./B.M.	Proj. Man: D.B.	Client Ref.		

ABN 77 059 259 991
Level 4, Suite 400
16-18 Cambridge St
EPPING NSW 2121
PO Box 233
EPPING NSW 1710

ACU 250 209 991
DX 4408 EPPING
Tel. 9855-1955
Fax. 9855-2341
rcraig@crhodes.com.au
www.craigandrhodes.com.au

Our Ref. 191-10
Dwg File Ref. (Rev) - Sheet Ref.
191-10G T11 [02] - 01

CAD REF: Microstation V8i-11 PROPOSED BUNNINGS WAREHOUSE GLADESVILLE NSW 2111 - PLOTTED 13/06/2012



LEGEND
 TOK TOP OF KERB RL



PAGE:
1/7

NO.	AMENDMENT	DATE	NO.	AMENDMENT	DATE
1	COUNCIL SUBMISSION ISSUE	08/06/12			
2	COUNCIL SUBMISSION ISSUE	08/06/12			

This drawing and the design shown herein is the property of John R Brogan & Associates Pty Ltd and shall not be copied nor reproduced in part or in whole in any form without the written permission of John R Brogan & Associates Pty Ltd, Sydney and shall be used only for the project for which it was provided.
 Do not scale from this drawing.
 Verify dimensions from site and refer any discrepancies to Architects for clarification.



JOHN R. BROGAN & ASSOCIATES
 PTY. LIMITED
 ARCHITECTS, PLANNERS & COMMERCIAL INTERIOR DESIGNERS

37 PITT ST, SYDNEY NSW 2000
 PH: (02) 9 221 2833 FAX: (02) 9 251 4741
 EMAIL: jrbasyd@blgpnd.com.au

EST - 1927
 A.B.N. 93 003 284 759



PLANNING PROPOSAL
 CNR VICTORIA RD, FRANK ST & COLLEGE ST
 GLADESVILLE NSW 2111

DEVELOPMENT CONCEPT
 PARKING LEVEL

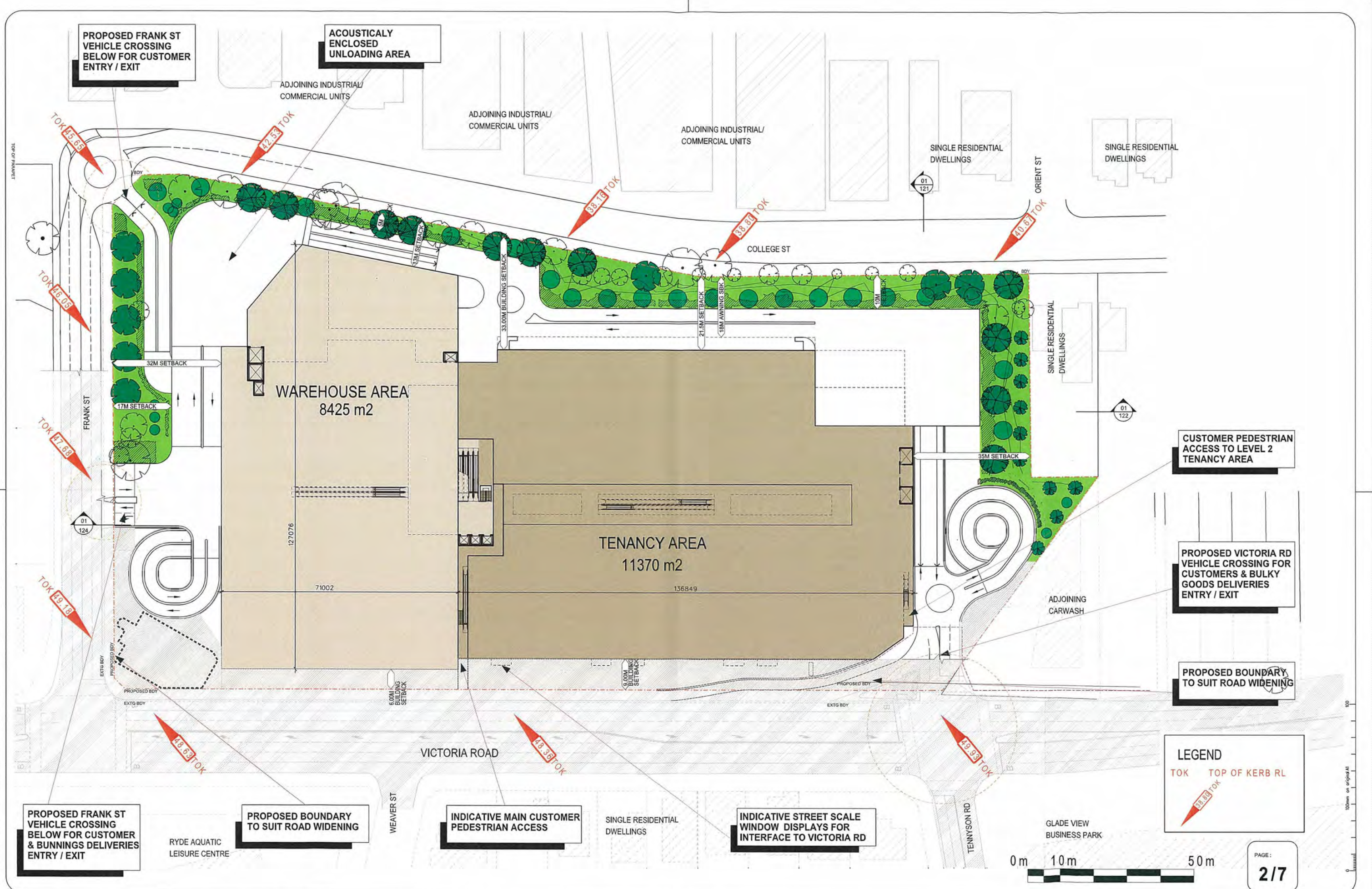
SCALE:
1:500

DATE:
AUG 10

PROJ. NO.
1277

DRG. NO.
P031

AMD NO.
B



CAD REF: Microstation V8i-11 PROPOSED BUNNINGS WAREHOUSE GLADESVILLE NSW 2111 - PLOTTED 13/02/2012

PROPOSED FRANK ST VEHICLE CROSSING BELOW FOR CUSTOMER & BUNNINGS DELIVERIES ENTRY / EXIT

PROPOSED BOUNDARY TO SUIT ROAD WIDENING

INDICATIVE MAIN CUSTOMER PEDESTRIAN ACCESS

INDICATIVE STREET SCALE WINDOW DISPLAYS FOR INTERFACE TO VICTORIA RD

CUSTOMER PEDESTRIAN ACCESS TO LEVEL 2 TENANCY AREA

PROPOSED VICTORIA RD VEHICLE CROSSING FOR CUSTOMERS & BULKY GOODS DELIVERIES ENTRY / EXIT

PROPOSED BOUNDARY TO SUIT ROAD WIDENING

LEGEND
 TOK TOP OF KERB RL



PAGE:
2/7

NO.	AMENDMENT	DATE	NO.	AMENDMENT	DATE
1	COUNCIL SUBMISSION ISSUE	13/02/12			
2	COUNCIL SUBMISSION ISSUE	13/02/12			

This drawing and the design shown herein is the property of John R Brogan & Associates Pty Ltd and shall not be copied nor reproduced in part or in whole in any form without the written permission of John R Brogan & Associates Pty Ltd, Sydney and shall be used only for the project for which it was provided. Do not scale from this drawing. Verify dimensions from site and refer any discrepancies to Architects for clarification.



JOHN R. BROGAN & ASSOCIATES
 PTY. LIMITED
 ARCHITECTS, PLANNERS & COMMERCIAL INTERIOR DESIGNERS

37 PITT ST. SYDNEY NSW 2000
 PH: (02) 9 221 2833 FAX: (02) 9 251 4741
 EMAIL: jrbasyd@btspend.com.au

A.B.N. 93 003 284 759



PLANNING PROPOSAL
 CNR VICTORIA RD, FRANK ST & COLLEGE ST
 GLADESVILLE NSW 2111

DEVELOPMENT CONCEPT
 WAREHOUSE & RETAIL LEVEL 1

SCALE:
1:500

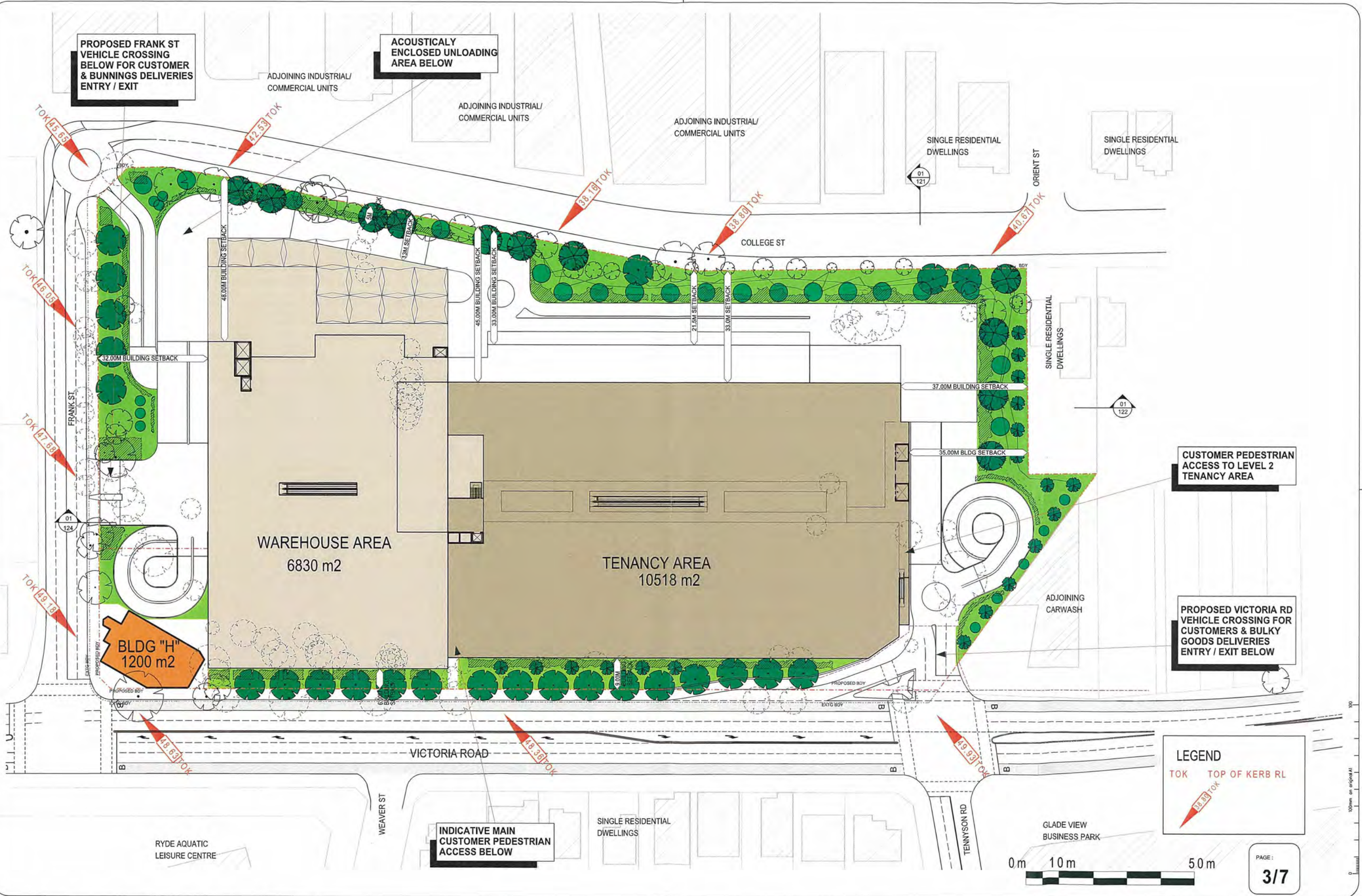
DATE:
AUG 10

PROJ. NO.
1277

DRG. NO.
P032

AMD NO.
B

CAD REF: Microstation V8i11 - PROPOSED BUNNINGS WAREHOUSE GLADESVILLE NSW 2111 - PLOTTED 15/06/2012



NO.	AMENDMENT	DATE	NO.	AMENDMENT	DATE
1	COUNCIL SUBMISSION ISSUE	05.09.12			
2	FRANK ST VEHICLE CROSSING ISSUE	13.09.12			

This drawing and the design shown herein is the property of John R Brogan & Associates Pty Ltd and shall not be copied nor reproduced in part or in whole in any form without the written permission of John R Brogan & Associates Pty Ltd. Sydney and shall be used only for the project for which it was provided. Do not scale from this drawing. Verify dimensions from site and refer any discrepancies to Architects for clarification.



JOHN R. BROGAN & ASSOCIATES
 PTY. LIMITED
 ARCHITECTS, PLANNERS & COMMERCIAL INTERIOR DESIGNERS

37 PITT ST. SYDNEY NSW 2000
 PH: (02) 9 221 2833 FAX: (02) 9 251 4741
 EMAIL: jrbasyd@blgpond.com.au

EST. 1927
 A.B.N. 93 003 284 759

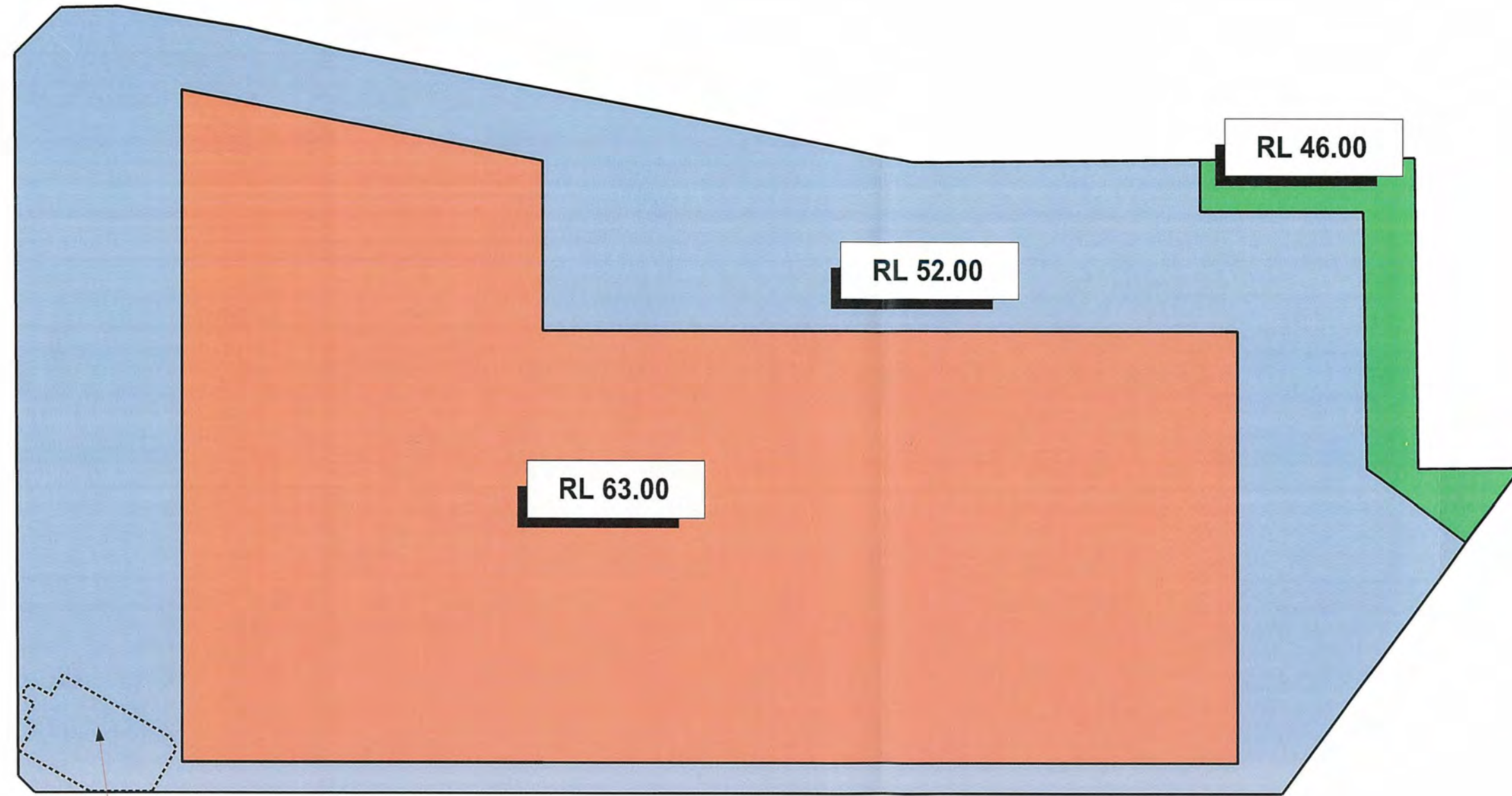


PLANNING PROPOSAL
 CNR VICTORIA RD, FRANK ST & COLLEGE ST
 GLADESVILLE NSW 2111

DEVELOPMENT CONCEPT
 WAREHOUSE & RETAIL LEVEL 2




SCALE: 1:500
 DATE: AUG 10
 PROJ. NO. 1277
 DRG. NO. P033
 AMD NO. B

CAD REF: MICRO310101 V81-51 PROPOSED BUNNINGS WAREHOUSE GLADESVILLE NSW 2111 - PLOTTED 10/08/2012



LEGEND

MAXIMUM BUILDING HEIGHTS

-  RL 46.00
-  RL 52.00
-  RL 63.00




PAGE:
4/7

NO.	AMENDMENT	DATE	NO.	AMENDMENT	DATE
1	COUNCIL SUBMISSION ISSUE	05.08.12			
2	COUNCIL SUBMISSION ISSUE	13.08.12			

This drawing and the design shown herein is the property of John R Brogan & Associates Pty Ltd and shall not be copied nor reproduced in part or in whole in any form without the written permission of John R Brogan & Associates Pty Ltd, Sydney and shall be used only for the project for which it was provided.
Do not scale from this drawing.
Verify dimensions from site and refer any discrepancies to Architects for clarification.



**JOHN R. BROGAN & ASSOCIATES**
PTY. LIMITED
ARCHITECTS, PLANNERS & COMMERCIAL INTERIOR DESIGNERS
37 PITT ST. SYDNEY NSW 2000
PH: (02) 9 221 2833 FAX: (02) 9 251 4741
EMAIL: jrbasyd@bgspond.com.au
A.B.N. 93 003 284 759



PLANNING PROPOSAL
CNR VICTORIA RD, FRANK ST & COLLEGE ST
GLADESVILLE NSW 2111

PLANNING PROPOSAL
HEIGHT CONTROL DIAGRAM

SCALE:
1:500
DATE:
AUG 10

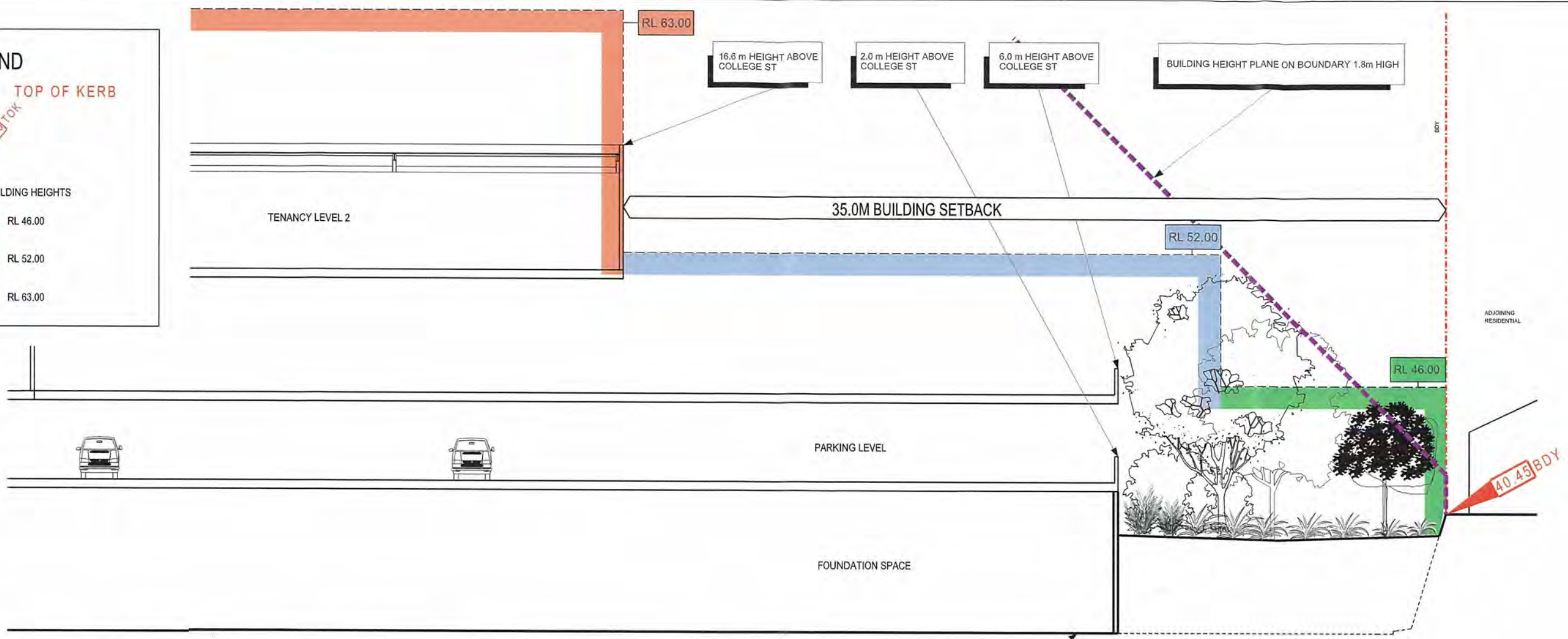
PROJ. NO.
1277
DRG. NO.
P051
AMD NO.
B

100mm or original

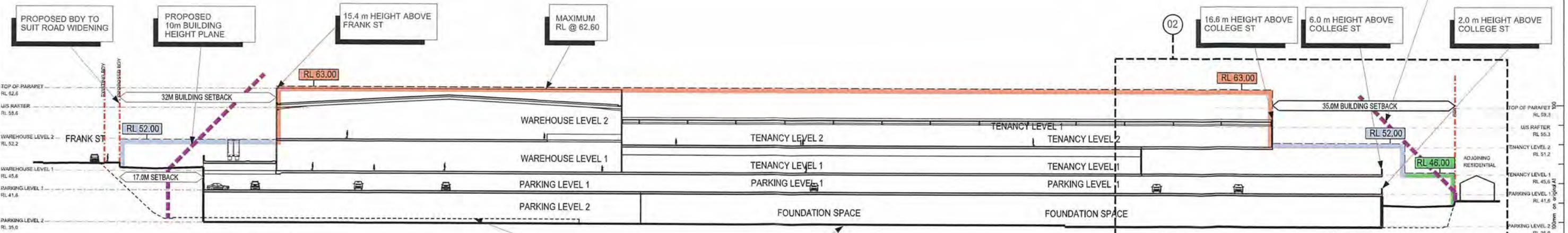
LEGEND
TOK TOP OF KERB

MAXIMUM BUILDING HEIGHTS

- RL 46.00
- RL 52.00
- RL 63.00



02 EAST-WEST SECTION DETAIL
 FRANK ST / ADJ. PROPERTY



01 EAST-WEST SECTION
 FRANK ST / ADJ. PROPERTY



NO.	AMENDMENT	DATE	NO.	AMENDMENT	DATE
A	COUNCIL SUBMISSION ISSUE	05.08.12			
B	COUNCIL SUBMISSION ISSUE	12.09.12			

This drawing and the design shown herein is the property of John R. Brogan & Associates Pty Ltd and shall not be copied, reproduced in part or in whole in any form without the written permission of John R. Brogan & Associates Pty Ltd. Sydney and shall be used only for the project for which it was provided. Do not scale from this drawing. Verify dimensions from site and refer any discrepancies to Architects for clarification.



JOHN R. BROGAN & ASSOCIATES
 PTY. LIMITED
 ARCHITECTS, PLANNERS & COMMERCIAL INTERIOR DESIGNERS
 37 PITT ST. SYDNEY NSW 2009
 PH: (02) 9 221 2633 FAX: (02) 9 251 4741
 EMAIL: jrb@jrbpa.com.au

PLANNING PROPOSAL
 CNR VICTORIA RD, FRANK ST & COLLEGE ST
 GLADESVILLE NSW 2111
DEVELOPMENT CONCEPT SECTIONS

SCALE:
 1:100/200
 1:400/800
 DATE:
 AUG 10

PROJ. NO.
 1277
 DRG. NO.
 P122
 AMD NO.
 B

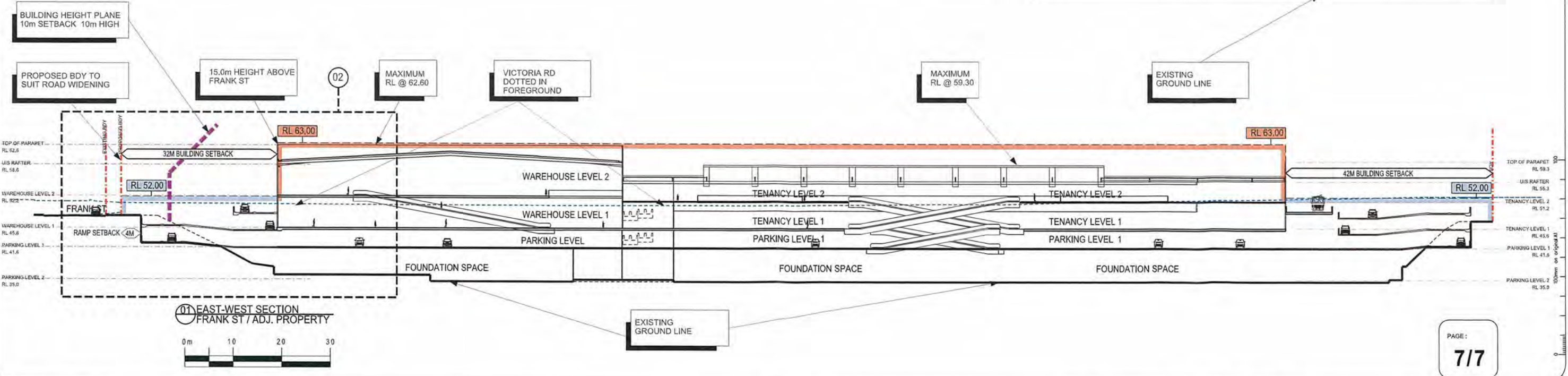
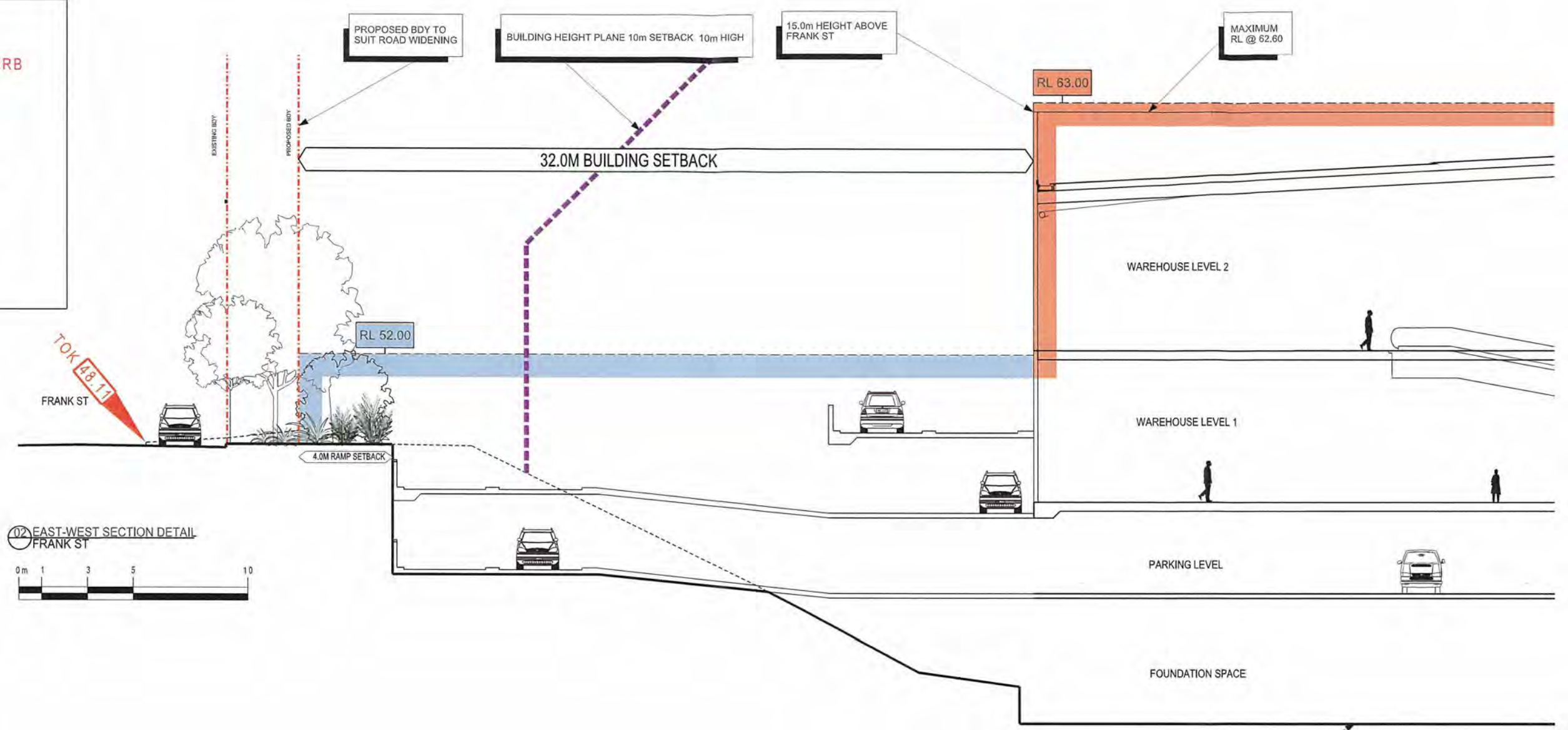
LEGEND

TOK TOP OF KERB



MAXIMUM BUILDING HEIGHTS

- RL 46.00
- RL 52.00
- RL 63.00



NO.	AMENDMENT	DATE	NO.	AMENDMENT	DATE
1	COUNCIL SUBMISSION ISSUE	23.09.14			
2	COUNCIL SUBMISSION ISSUE	13.05.14			
3					
4					
5					
6					
7					
8					
9					
10					

This drawing and the design shown herein is the property of John R Brogan & Associates Pty Ltd and shall not be copied nor reproduced in part or in whole in any form without the written permission of John R Brogan & Associates Pty Ltd, Sydney and shall be used only for the project for which it was provided. Do not scale from this drawing. Verify dimensions from site and refer any discrepancies to Architects for clarification.



JOHN R. BROGAN & ASSOCIATES
 PTY. LIMITED
 ARCHITECTS, PLANNERS & COMMERCIAL INTERIOR DESIGNERS

37 PITT ST. SYDNEY NSW 2000
 PH: (02) 9 221 2833 FAX: (02) 9 251 4741
 EMAIL: jrbasyd@bjppond.com.au

A.B.N. 93 003 284 759

PLANNING PROPOSAL
 CNR VICTORIA RD, FRANK ST & COLLEGE ST
 GLADESVILLE NSW 2111

DEVELOPMENT CONCEPT SECTIONS

SCALE:
 1:100/200
 1:400/800

DATE:
 AUG 10

PROJ. NO.
 1277

DRG. NO.
 P124

AMD. NO.
 B



Bunnings Group Ltd
Urban Design Report
461 Victoria Road, Gladesville

Annard Associates Urban Design (AAUD)
Mezzanine Level, 50 Carrington Street, Sydney NSW 2000
T: 0418 280 154
E: peter@aaud.com.au

JUNE 2012

State Environmental Planning Policy
(Major Projects 2005) (Amendment No. 5)

TABLE OF CONTENTS

A. BACKGROUND/SITE ANALYSIS/CONTEXT

1.0 The Site

2.0 The Context

- 2.1 Surrounding Development
- 2.2 Landscape
- 2.3 Land Use

3.0 Movement

- 3.1 Traffic
- 3.2 Access

4.0 Planning/Urban Form Controls

- 4.1 Background
- 4.2 Urban Design Issues

B. PROPOSED DEVELOPMENT

5.0 Building Height

- 5.1 Building Form
- 5.1.2 Controls
- 5.1.3 The Derivation of Building Heights
- 5.1.4 Summary
- 5.2 Activation of Victoria Road
- 5.3 Focal Points/Landmarks
- 5.4 Softening Mechanisms

C. CONCLUSIONS

Intent of this Report

Bunnings is proposing a redevelopment of this site at 461 Victoria Road, Gladesville to incorporate a Bunnings hardware warehouse and bulky goods retail outlets.

This report examines the Urban Design implications of this redevelopment on the site and its surroundings to inform a submission to Council to amend Ryde LEP 2010

A. BACKGROUND / SITE ANALYSIS / CONTEXT

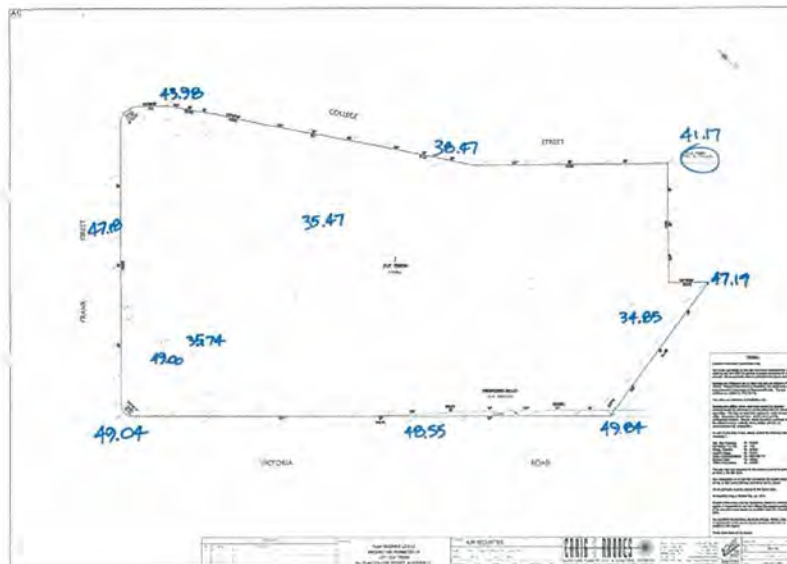
1.0 The Site

The site is essentially an extensive hole in the ground. Up to 15m deep below Victoria Road and Frank Street and approximately 5m deep below College Street, the site is a former quarry site, redeveloped as the 'Enterprise Park' industrial estate.

Buildings on the site include the 3 storey (10m) above street level fitness centre on the corner of Victoria Road and Frank Street (to be retained) and a variety of one and two storey industrial buildings in the former quarry hosting a variety of predominantly industrial uses (some with rooftop parking).



Site Boundary



2.0 The Context

The site is located immediately north of Victoria Road, Gladesville. Victoria Road runs approximately east-west along a ridge with properties sloping north and south away from the ridgeline. The site context is varied.

2.1 Surrounding Development

West

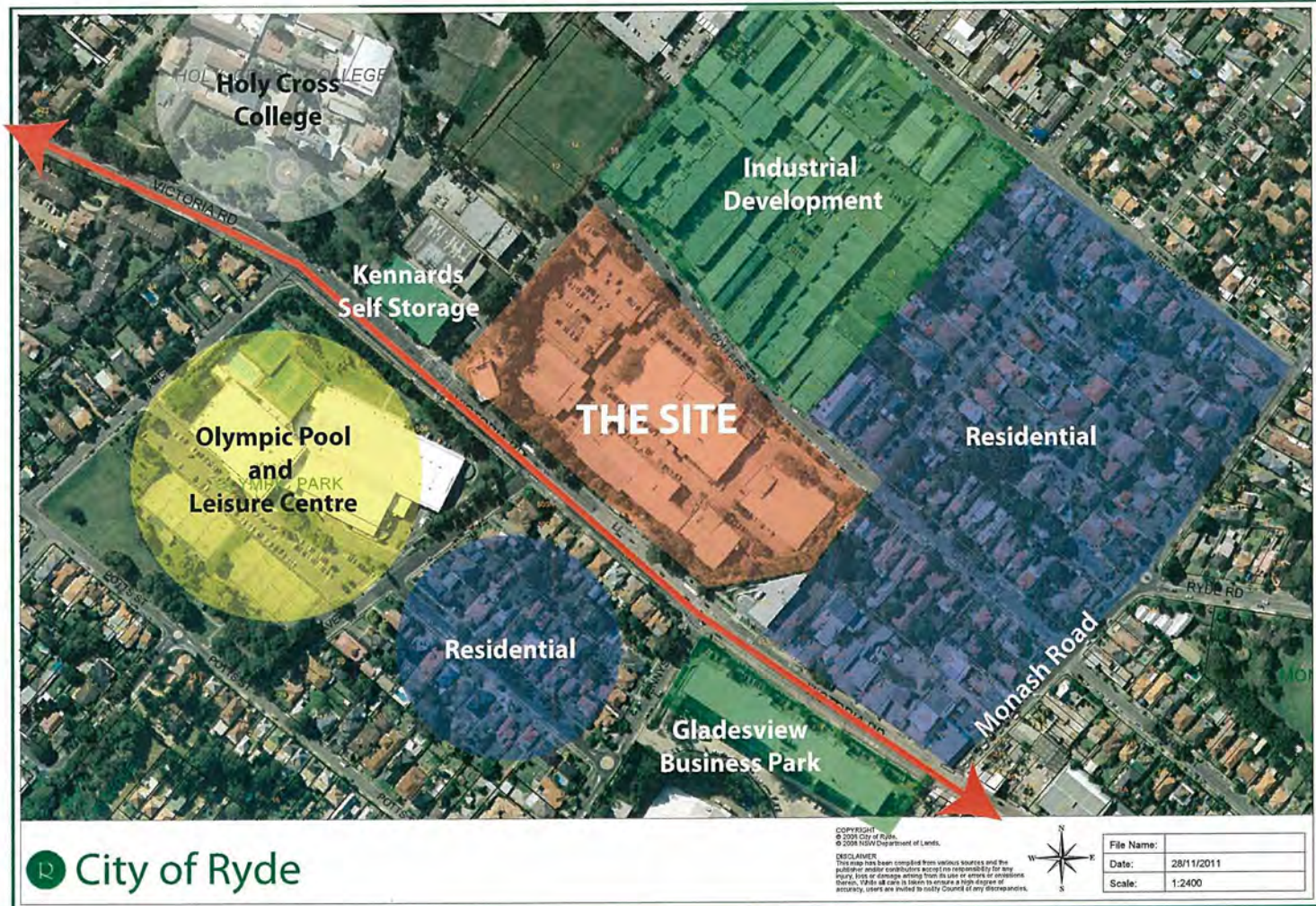
On the northern side of Victoria Road is the substantial Kennards Storage facility. This building is effectively 4 storeys above ground at the Frank Street corner and is painted bright orange and thus presents dramatically to Victoria Road. Adjacent to Kennards on Frank Street is a 2-3 storey commercial/industrial building. Behind these buildings (further to the west) is the Holy Cross Catholic College on a substantial site with some imposing stone buildings to 3 stories.

South side of Victoria Road is the Ryde Olympic Swimming Pool and Leisure Facility, a complex of large (2 storey/8m) pavilions in space and set approximately one storey down the slope below Victoria Road.

East

North side of Victoria Road is a carwash immediately adjacent to the site and then a variety of 2 storey commercial/bulky goods and retail uses through to Monash Road.

South side of Victoria Road is a major 3-4 storey commercial complex (the Gladesview Business Park) and service retail beyond.



South

Across Victoria Road, east of the Leisure Facility are single storey cottages suited to future redevelopment.

North

North side of College Street is predominantly 2-3 storey industrial development from Frank Street almost the full length of the site. This use finishes at the rear of the properties which face onto Orient Street (just west of Orient Street).

Orient Street and College Street to the east of Orient Street contain residential uses, predominantly single storey (with some 2 storey) residential cottages with some villa development.

In summary....

The context is varied. It contains a number of visually significant buildings (not necessarily attractive) including:

- Holy Cross Catholic College - 3 storey and spire/tower
- Kennards Storage... bright orange self storage facility - 3-4 storeys
- Fitness Centre (cnr Victoria Road and Frank Street) - 3 storeys
- Gladesville Business Park Commercial Centre - 3-4 storeys commercial/industrial
- Ryde Leisure Centre and Pool - 2 large storeys below Victoria Road level.

Between these uses are a mix of single storey residences, and 2 storey commercial/service retail/bulky goods.

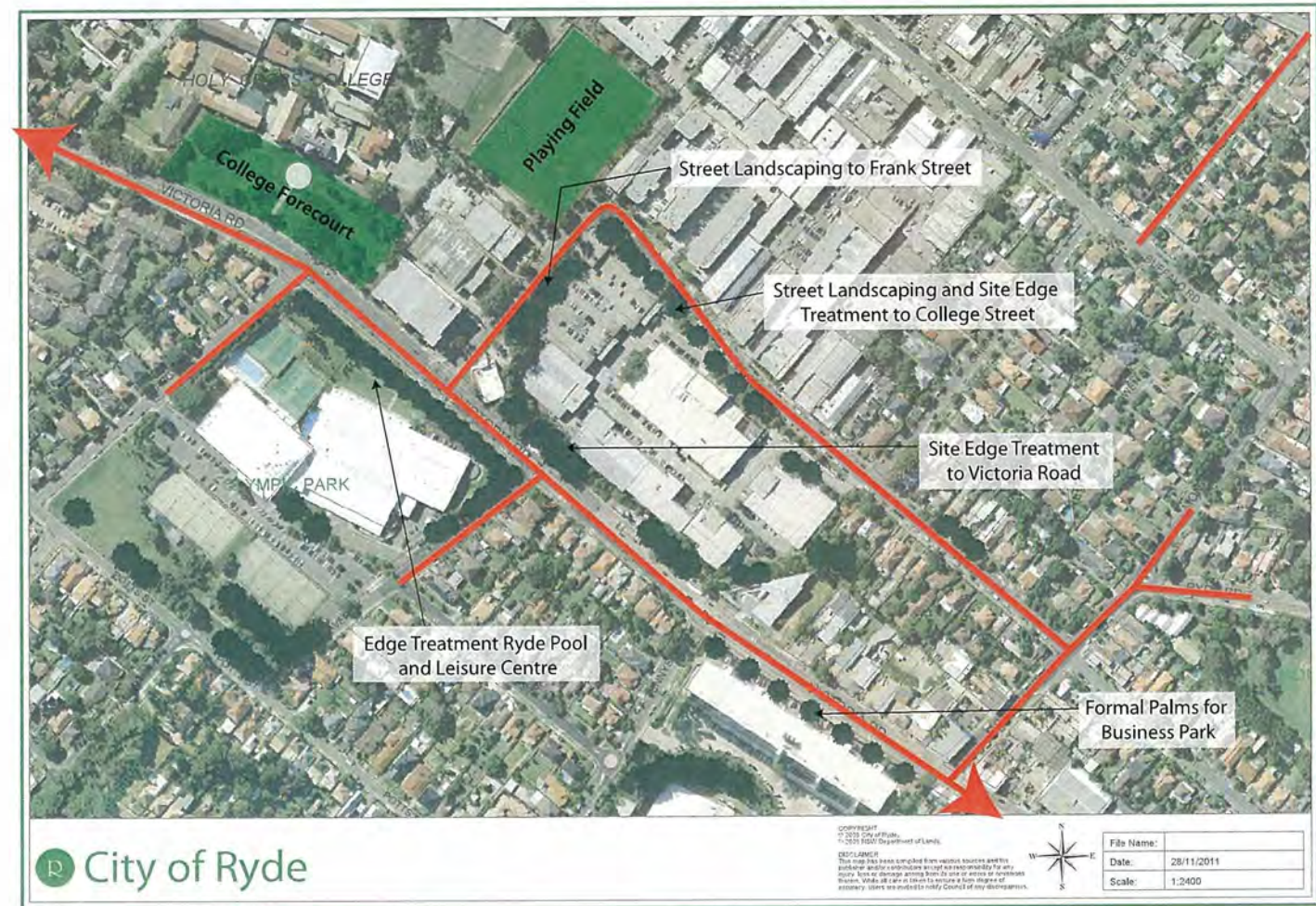
2.2 Landscape

The general landscape of Victoria Road is weak but is strengthened by strong site planting on the following sites:

- Leisure Centre – buildings in landscape with mature trees to Victoria Road frontage
- Subject site with mature trees along street boundary at Victoria Road level
- Holy Cross College is set back substantially from Victoria Road with formal gardens (lawns and large mature trees and shrubs)
- Gladesview Business Park has a simple row of palm trees planted in the parking area in front of the building.

There is no continuous attempt at public domain avenue planting in Victoria Road.

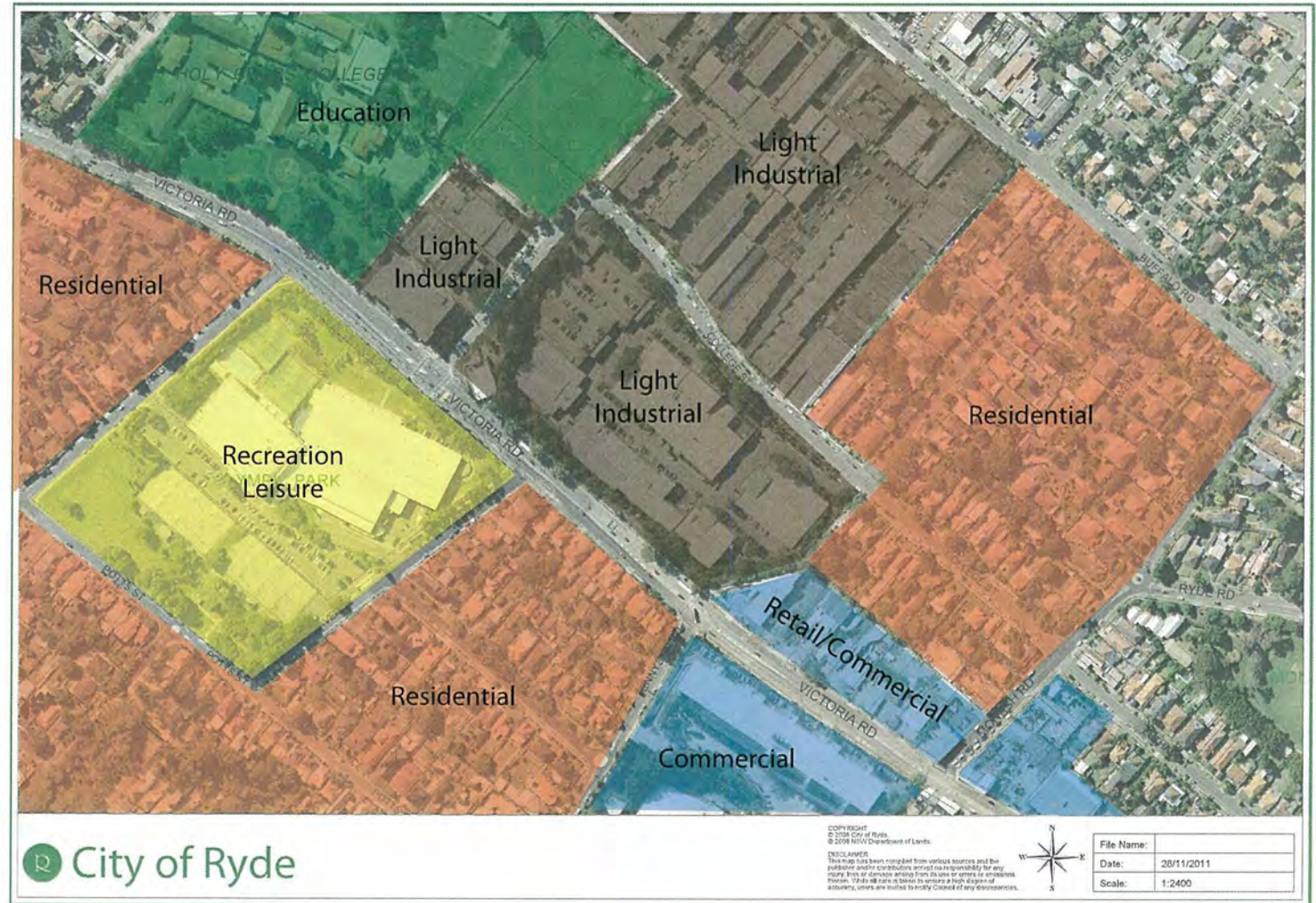
Note that College Street has elegant fencing, hedging, street planting footpath and grass verge in front of the subject site but is otherwise poorly landscaped. Frank street has some informal native planting but no footpath on the south-east side.



2.3 Land Use

Victoria Road around the site is predominantly commercial, service retail and bulky goods (and leisure centre) with remnant residential (on the south side).

College Street is predominantly industrial at the western end but cottage / residential east of Orient Street.



3.0 Movement

3.1 Traffic

Victoria Road is a very significant traffic artery (see traffic report). It contains 4 plus moving lanes of traffic and bus lanes in this location.

Frank Street is a local road providing access to the College, Kennards and other industrial uses in College Street.

College Street provides local access to the industrial estate and to residential properties (east end).

Cycle opportunity is poor on Victoria Road because of high volumes of moving traffic but OK on College and Frank Streets where volumes and speeds are lower.

Pedestrian paths are weak on Victoria Road in spite of regular bus stops (2 on site frontage) with bus shelters actually interrupting footpath access.

Footpaths are not provided on Frank Street (south-east side) and intermittent only on north side of College Street. There is a strong, well landscaped footpath on the south side of College Street, built no doubt as part of the Enterprise Park development.

3.2 Access

Access to the subject site is currently:

- via Frank Street (to carpark for Fitness Centre) and to small upper industrial carpark
- via College Street to existing rooftop carpark
- via College Street to industrial buildings and parking (mid site)
- via College Street to eastern industrial/ crèche etc (opposite Orient Street)



4.0 Planning/Urban Form Controls

4.1 Background

A review of the site and context in urban design terms reveals the following:

- The site is a former quarry in a prominent location on Victoria Road.
- The site is quite visible when approaching from the west and highly visible when approaching from the east. Building form in the immediate vicinity of the site is that of large pavillions (e.g. College, Kennards Self Store, Swimming/Leisure Centre and Gladesview Business Centre) up to 3-4 storeys above Victoria Road.
- Victoria Road has no formal or continuous landscape treatment (tree planting) in this area.
- High traffic volumes and traffic speeds and poor footpath treatments provide poor pedestrian amenity in this area.
- The fact that Victoria Road is located approximately on a ridge line falling away to the north and south means that building heights of large floor plate buildings are problematic under the existing definition. Building height is not a critical issue for the site except at the eastern/College Street interface with residential development.

Council are proposing the following planning controls in their draft LEP 2011 which will have implications for the subject site as follows:

Proposed Controls	Implications
Land Use	
IN2 – Light Industrial	Proposed land uses are generally acceptable for the subject site. Seeking additional land uses to be permitted including Hardware and Building Supplies, Garden Centre and Bulky Goods Retail.
Height	
The draft LEP proposes a building height across the site of 10m measured from ground level to top of building	This control has major implications for the site. The proposed 2 storey bulky goods building on parking could rise to 12-16m above Victoria Road, 20m above College Street and 28m above the ground level at the bottom the quarry. Thus, the building height (and method of measuring) will require revision in the LEP in order to permit such development. A significant implication of the proposed 10m height control (and definition) is that proposed buildings would sit largely below surrounding roads. The proposed road widening along Victoria Road will force removal of existing trees and expose a roof top view of development in the excavated quarry site. The 10m height control (and definition) will thus not lead to an improved streetscape.
Floor Space Ratio	
The draft LEP proposes an FSR of 1:1 for this site	Amendment to the 1:1 FSR is not proposed



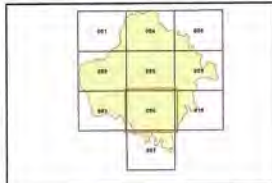
Height of Buildings Map Sheet HOB_006

Maximum Building Height (m)

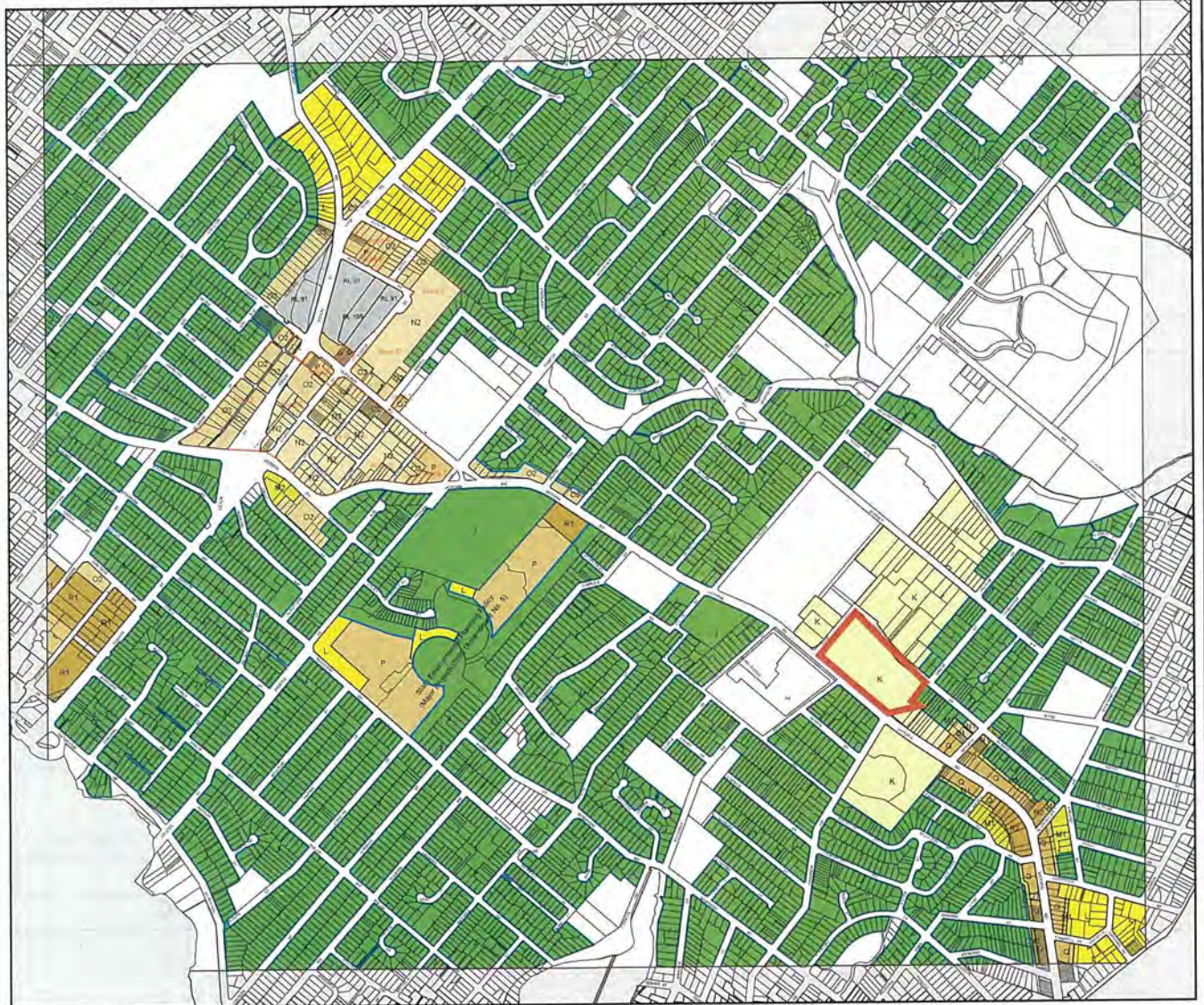
9.5	Refer to Cl 4.3 (2A) in respect of R2 Low Density Residential
10.0	
11.5	
12.0	
12.5	
13.0	
14.0	
15.0	
15.5	
16.0	
18.5	
19.0	
21.5	
22.0	
23.0	
24.0	
26.0	
27.5	
30.0	
30.5	
33.0	
33.5	
37.0	
44.5	

RL Controls
 Refer to Clause 4.3(2C) in respect of R2 Low Density Residential.
 Refer to Clause 4.3(2A).

Not all codes might be included on this sheet
 Cadastre
 Cadastre 23/12/2010 © City of Ryde



Map identification number
 4780_C04_HOB_006_010_20110123



Height of Buildings 10m above Ground Level

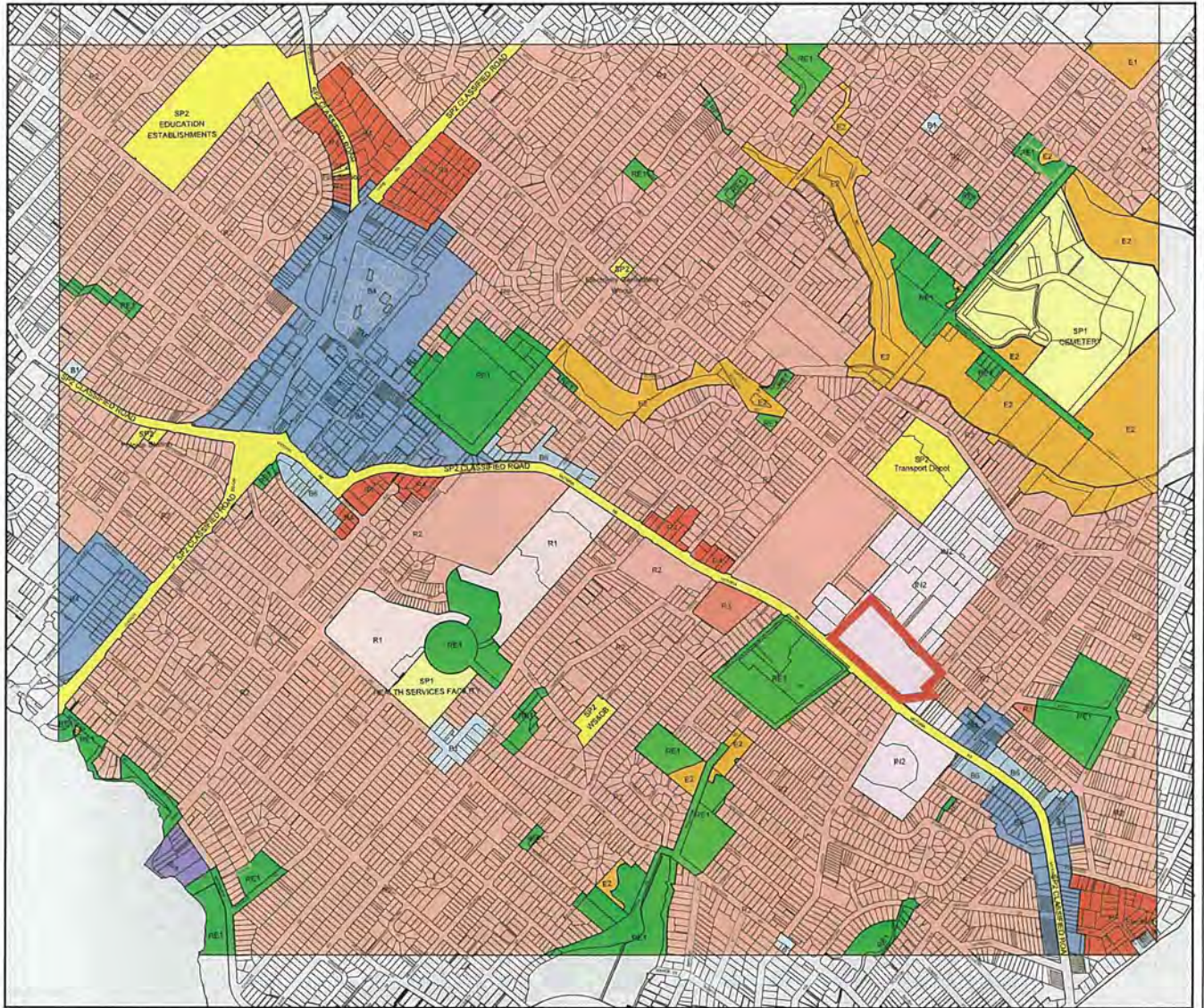
- Zone**
- R1 General Residential
 - R2 Low Density Residential
 - R3 Medium Density Residential
 - R4 High Density Residential
 - B1 Neighbourhood Centre
 - B3 Commercial Core
 - B4 Mixed Use
 - B5 Business Development
 - B5 Enterprise Corridor
 - B7 Business Park
 - IN2 Light Industrial
 - IN4 Working Waterfront
 - SP1 Special Activities
 - SP2 Infrastructure
 - RE1 Public Recreation
 - RE2 Private Recreation
 - E1 National Parks and Nature Reserves
 - E2 Environmental Conservation
 - DM Deferred Matters

Cadastre
 Cadastre 23/12/2010 © City of Ryde



N
 0 500 metres
 Projection GDA 1984
 MGA Zone 56
 Scale: 1:10,000 @ A3

Map identification number:
 6797_CDM_LZN_006_216_20111223



Land Use IN2 = Industrial Land Use

City of Ryde
Ryde Local Environmental Plan 2011

Floor Space Ratio Map
 Sheet FSR_006

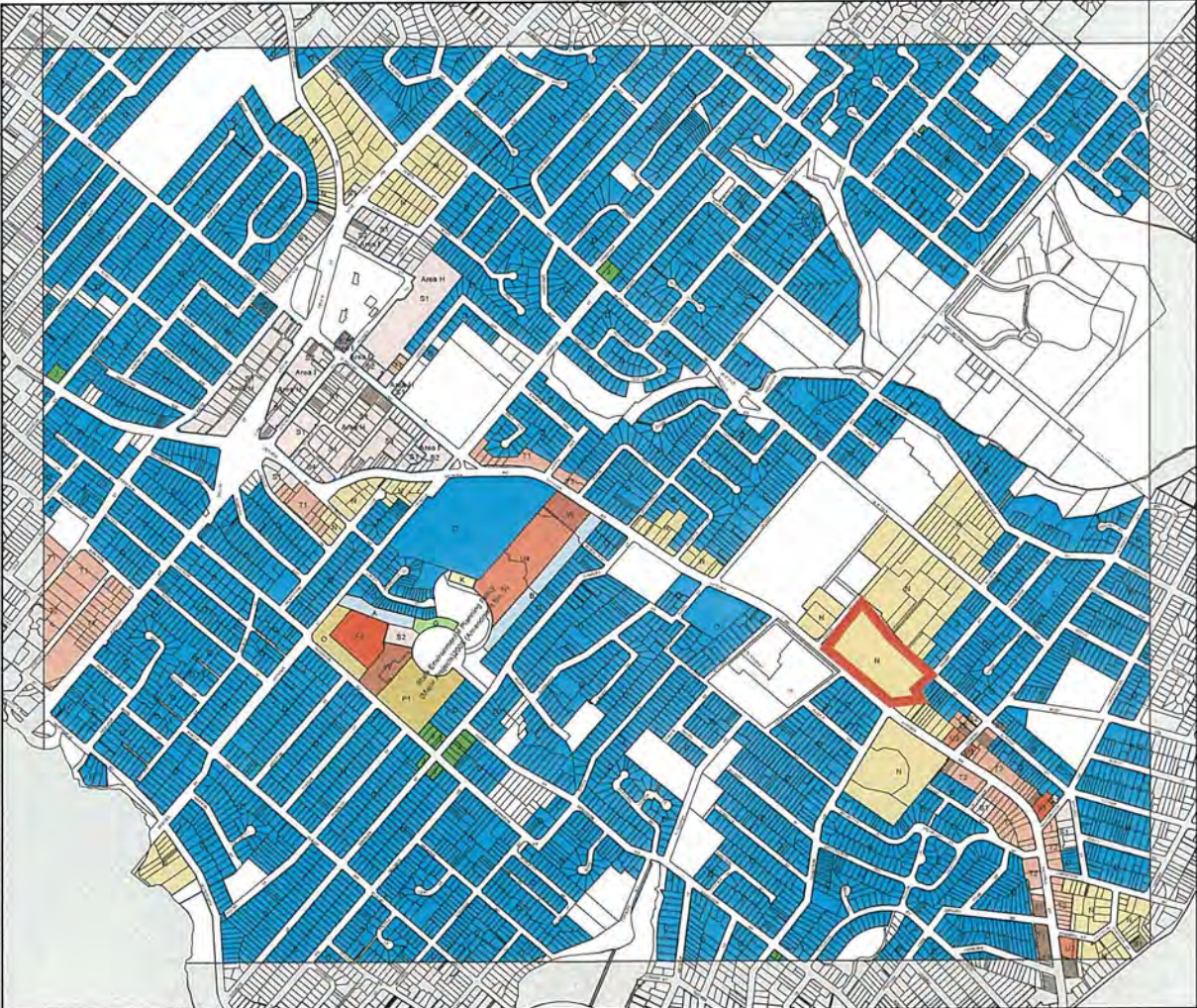
Maximum Floor Space Ratio (n:1)

0.30
0.33
0.50
0.65
0.75
0.80
0.88
1.0
1.1
1.2
1.25
1.3
1.35
1.50
1.8
2.0
2.3
2.5
2.8
2.7
2.9
3.0
3.2
3.5
4.3

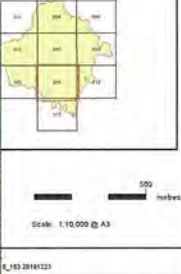
Refer to Clause 4.4(2A).

Not all codes might be included on this sheet.

Cadastral
 Cadastre 23/12/2010 © City of Ryde



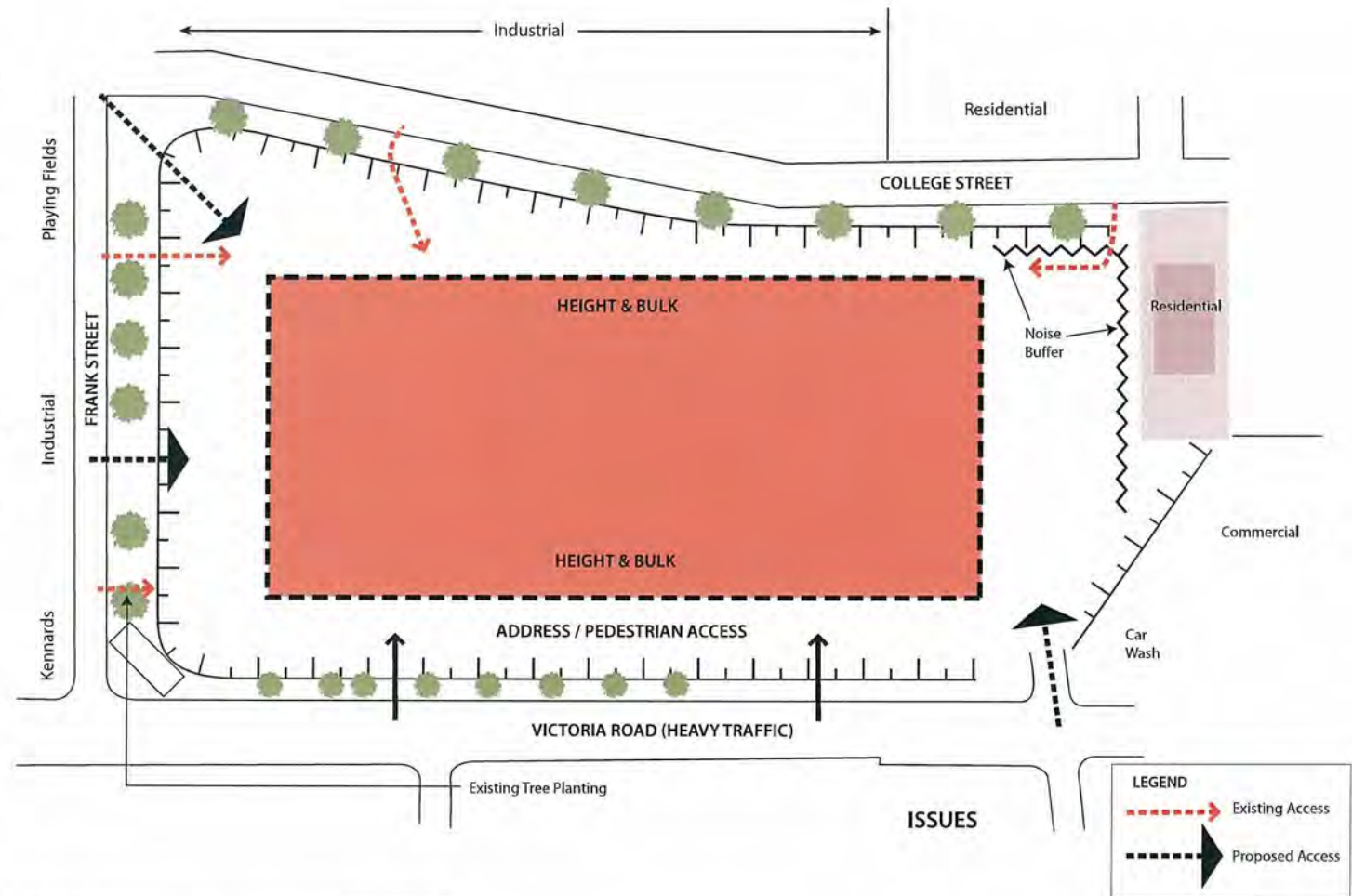
Floor Space Ratio N = 1,1



4.2 Urban Design Issues

The major urban design issues will be as follows:

- Visual impact/address to Victoria Road.
- Landmark elements to Victoria Road.
- Landscape treatment to Victoria Road (and Frank/College Streets).
- Building treatment to Victoria Road (and College and Frank Streets) to reduce the scale and mass of the buildings to the street/context.
- Pedestrian entry points from Victoria Road and pedestrian interest along Victoria Road frontage.
- Bulk and scale particularly to Victoria Road and College Street.
- Amelioration of impact to eastern residential boundary (setback and landscape).
- Articulation/screening/detailed design of the street fronting facades.
- Careful treatment of vehicular access particularly with respect to footpath crossings/pedestrian safety.
- Treatment of bulk and scale to College Street (particularly east end).



NOTE: This report discusses and illustrates examples which suggest broad architectural treatments which should be dealt with in subsequent Development Applications.

B. PROPOSED DEVELOPMENT

Refer to Architectural Concept Plans prepared to assist in understanding future built form outcomes for the site.

5.0 Building Height

There are a variety of ways to define building height. These include:

- from natural ground level (as at a certain time or reference map) Not applicable in this context.
- from existing ground level (as applicable in Ryde instruments)
- to R.L. which specifies level of top of building

These definitions have benefits and dis-benefits.

The problem with the current definition in this particular case is that height will generally be measured from the bottom of the hole, thus creating real difficulties with street presentation.

The proponent in this case seeks to address Victoria Road with a generous two storey bulky goods building up to 14m high when measured from Victoria Road built over parking and warehouse storage (in the excavation).

This will be stepped down towards College Street to remain in context with existing 2-3 storey building forms in that street.

Note that:

- Under different definitions the proposal would be compliant, part compliant, or non-compliant
- There are a number of similar height buildings in this section of Victoria Road including
 - > Holy Cross College (elevated 3 storey plus building)
 - > Kennards (3-4 storey)
 - > Fitness Centre (3 storey)
 - > Gladesville Business Centre (3-4 storey)
 - > Leisure Centre (2 large storeys) but below Victoria Street level
- The Gladesville Town Centre (east of Monash Road) permits building heights of 19m for mixed use development.
- There are no particular areas where the proposed building height will have any significant impacts. Impacts are as follows:
 - Public domain – overshadowing of Victoria Road (which is rarely used by pedestrians)
 - Partial early morning overshadowing of Frank Street (which has no footpaths on east side)

- No overshadowing of College Street... as development is south of street and set back
- Negligible overshadowing of adjacent residential development to the south-east due to step down, setbacks, landscape buffering and orientation of residence. Note also that an existing substantial industrial building exists adjacent to the residential boundary.

It should be noted that, in reality, whatever definition is applied is largely irrelevant. The simple fact is that the proposed building:

- Will not be out of context with other existing buildings on Victoria Road
- Will not cause any significant impacts due to height or bulk on either the surrounding public domain or on neighboring development
- Will enable a major new development to be located in Gladesville in a location which will support local employment and the local economy.

A1

Notes:

Location of structures approximate only.
 The levels and walls on this plan have been determined by CADS surveys and are within the general accuracy of the CADS survey. All wall and level data is related to the datum mark.
 Boundaries are subject to Field Survey. Except where shown by otherwise, the boundaries of the property to be surveyed are approximate only. The true position are subject to Field Survey.
 This plan is a preliminary and not a final plan.
 Structures are shown as they have been located by physical evidence and/or by reference to survey plans from the relevant authorities. The plan has been prepared by CADS in accordance with the Survey Act 1984. Structures that are not shown on the plan are not shown in this plan. Structures shown on the plan are not shown in this plan. Structures shown on the plan are not shown in this plan.
 As part of your R/L of use, please contact the following where necessary:
 AGC Gas Company Ph. 132943
 Shell Refuel Pty Ltd Ph. 1100
 Energy Australia Ph. 1300 655 111
 National Energy Ph. 1300 655 111
 Optus Communications Ph. 1300 333 777
 Sydney Water Ph. 1300 137 000
 Sydney Gas Ph. 1300 333 777
 This plan has been prepared for the construction of the project as shown on the plan.
 Any identification on or near the boundaries will require further work to be done during construction.
 All work should be done in accordance with the project plan.
 © Copyright Craig & Rhodes Pty. Ltd. 2015.
 No part of this survey may be reproduced, stored in a retrieval system or used in any form without the written permission of the copyright owner under the Copyright Act 1968.
 Any permitted downloading, electronic storage, display, print, copy or reproduction of this survey should maintain its direction or orientation to the ground.
 Names unless noted may be subject to change.

D' & T' - BENEFITED BY EASEMENT L328001
 C' & U' - BENEFITED BY EASEMENT K327310
 W' - EASEMENT FOR POLLUTION VIDE C105597
 Y' - BENEFITED BY C105597

RL \div 67M

RL \div 61M

RL Site \div 50M

RL \div 67M



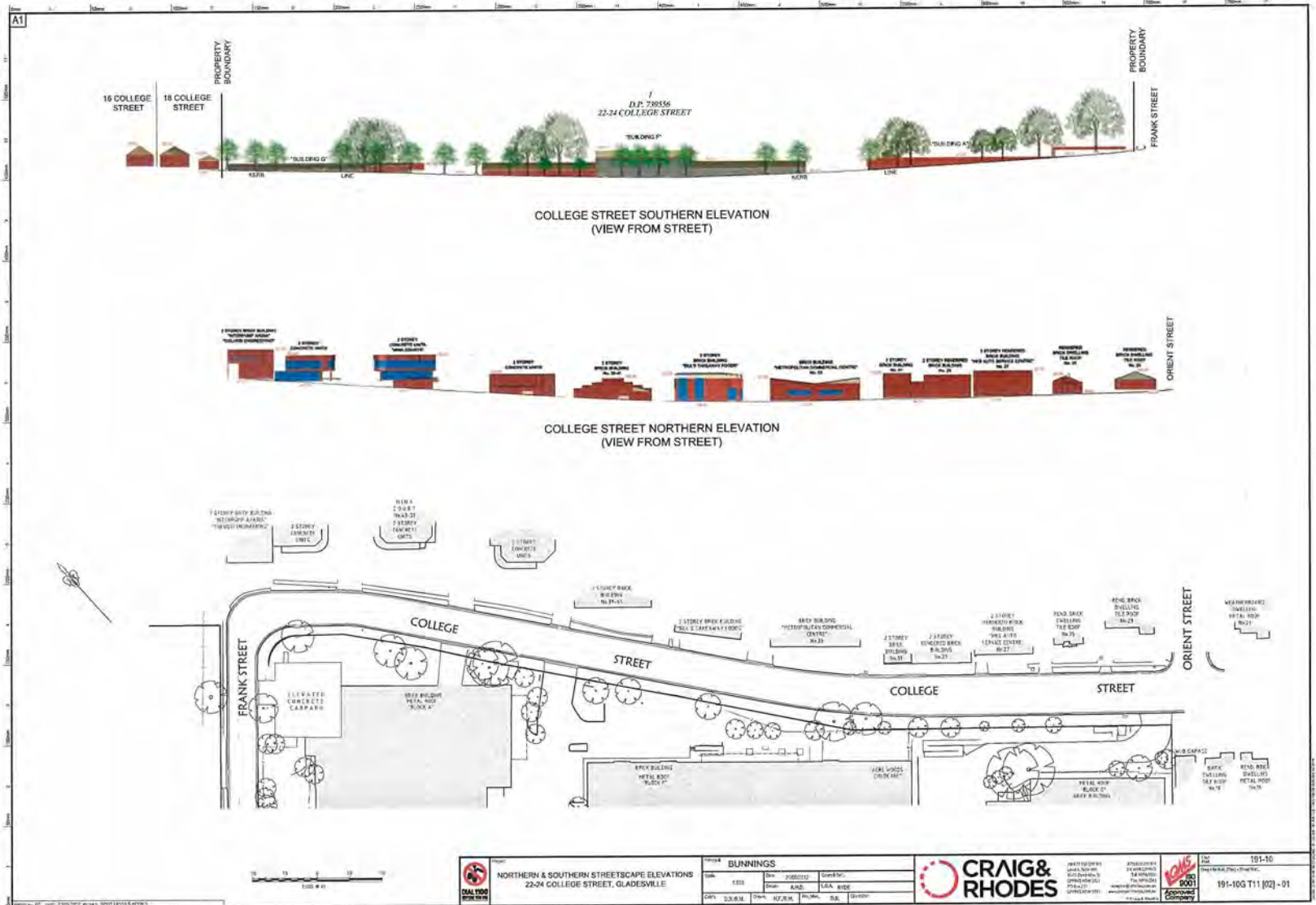
No.	Date	Description	Drawn

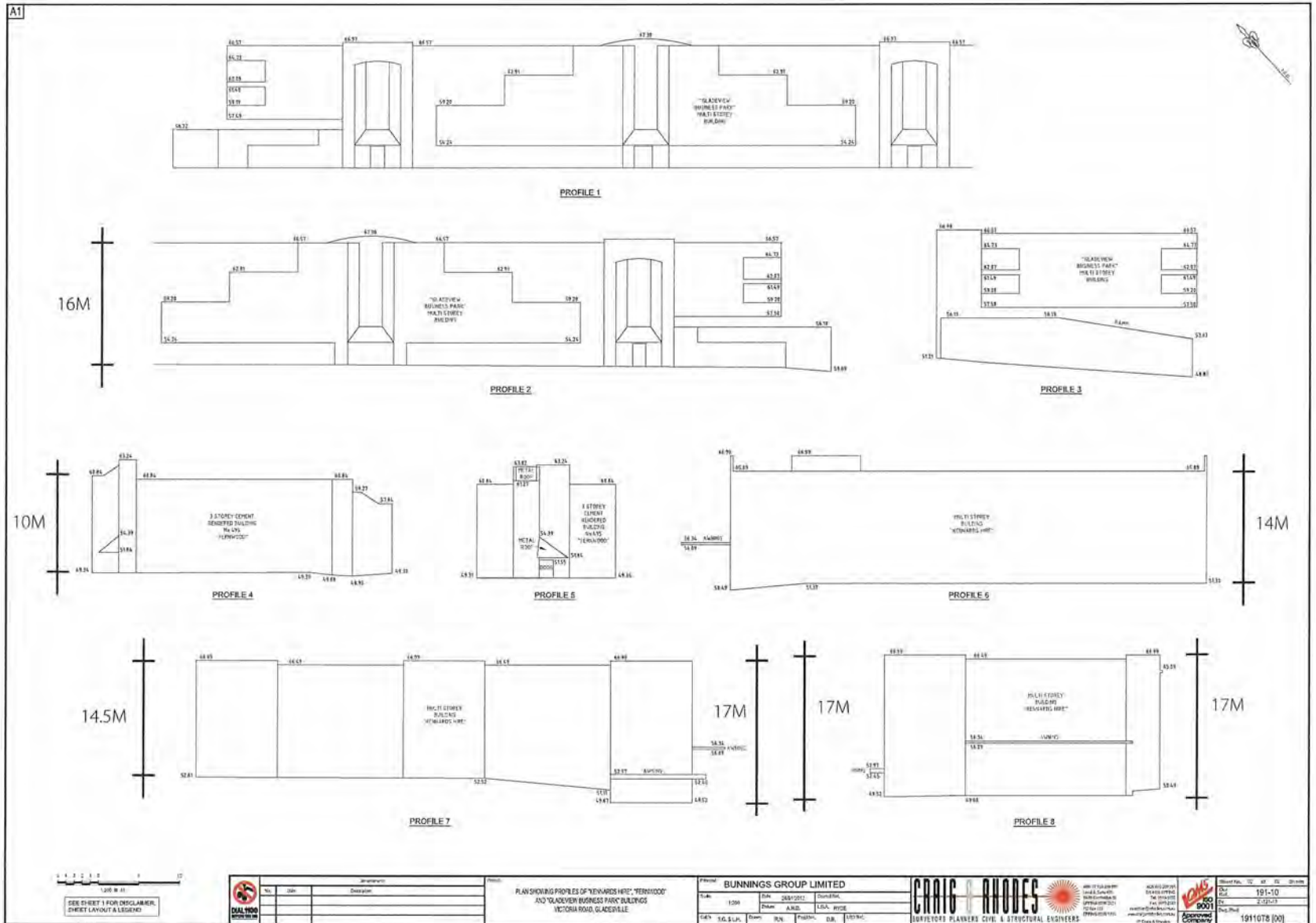
PLAN SHOWING PROFILES OF 'KENNARD HIRE', 'TEERWOOD' AND 'GLASSHOUSE BUSINESS PARK' BUILDINGS VICTORIA ROAD, GLASSHALL

Project: BUNNINGS GROUP LIMITED			
Scale: 1:100	Date: 20/02/2015	Drawn: E.A.L.J.	Checked: D.B.
Scale: 1:100	Date: 20/02/2015	Drawn: E.A.L.J.	Checked: D.B.

CRAIG RHODES
 SURVEYORS PLANNERS CIVIL & STRUCTURAL ENGINEERS

Sheet No. 01 of 02	Scale: 1:100
Date: 2/1/15	Project: 1911078 [00]





5.1 Building Form

5.1.2 Controls

In the context of the above, the following framework has been developed to inform height controls.

- Building height of 12-15m measured from the Victoria Road frontage (RL 50m+13m= RL 63m) based on existing building heights along Victoria Road.
- Building height of 10m (say RL 52m) + 45 degree height plane at 10m setback to Frank and College Streets to top of building (RL 63m).
- Building Height constrained by a 45° from top of 2m fence on eastern residential boundary.
- From this framework maximum heights (in RL's) have been applied (RL's 46, 52 and 63). Note that RL's do not necessarily fill the full volume of the envelope (Frank Street) and in some cases building heights intrude into the height plane/setback. These heights have been nominated (3 only) for simplicity. It is proposed that further sophistication of heights, setback and landscaped areas will be contained within future DCP controls.

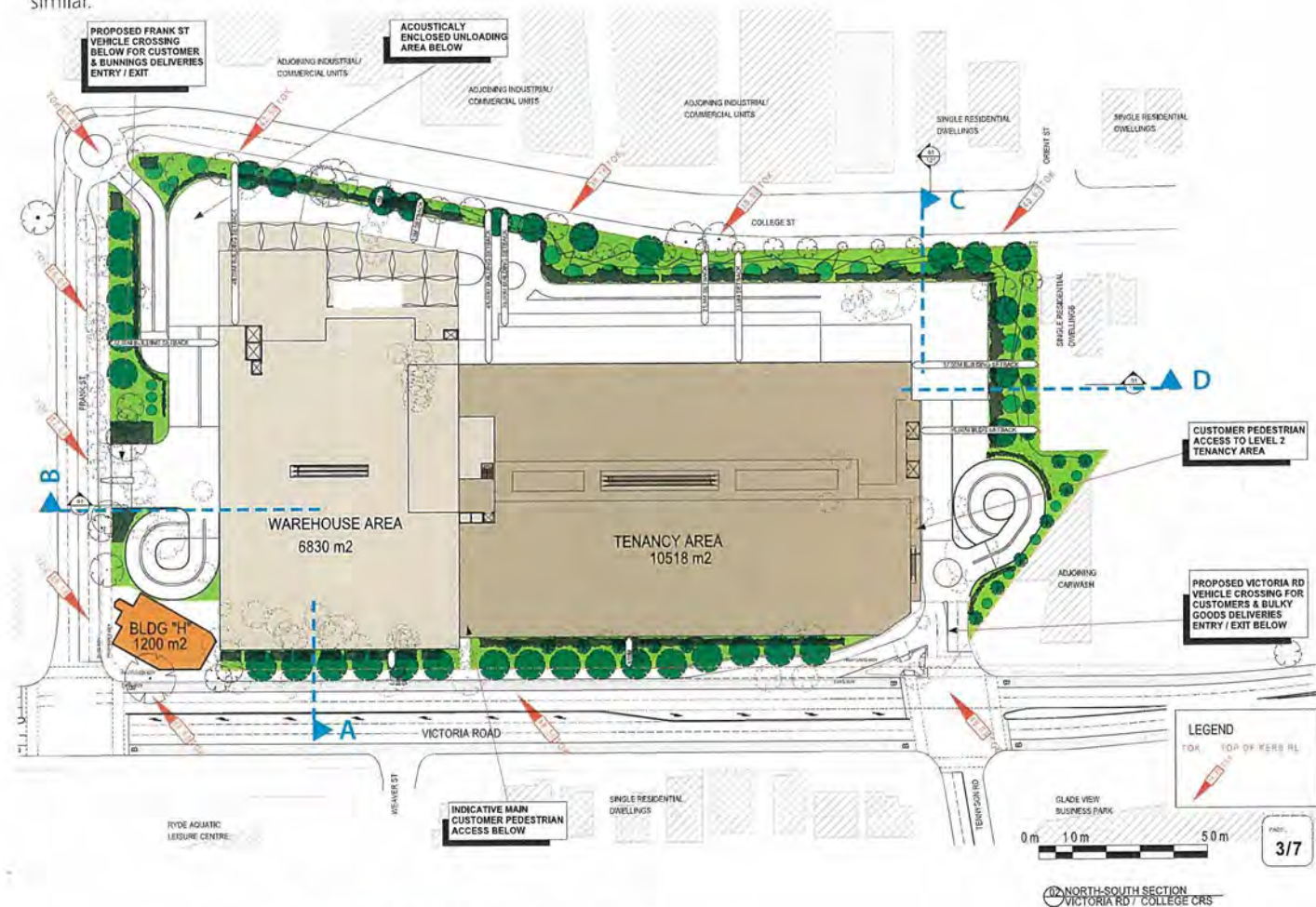
In addition the following controls are proposed:

- Landscape avenue planting and footpath construction in Victoria Road to future landscape specification.
- Landscape/footpath treatment in Frank and College Streets to future landscape specification.
- Pedestrian activation to Victoria Road by creation of 2 x major building entries and

attractive frontage to Victoria Road at street level.

- Reduction of impact of building bulk and mass of Bunnings and bulky goods buildings by articulation of form, by greening of vertical surfaces and/or artwork screening or similar.
- This to be detailed in Development Application.

THIS PLAN INDICATES WHERE THE FOLLOWING SECTIONS ARE LOCATED WHICH DERIVE THE BUILDING ENVELOPE HEIGHTS



5.1.3 The Derivation of Building Heights

Building Heights (max) have been derived for the site specifically because of its unusual circumstance (excavated below surrounding road levels which provides difficult problems with definitions).

Maximum Height levels have been established at all frontages/site boundaries and then extrapolated back into the site in the following manner.

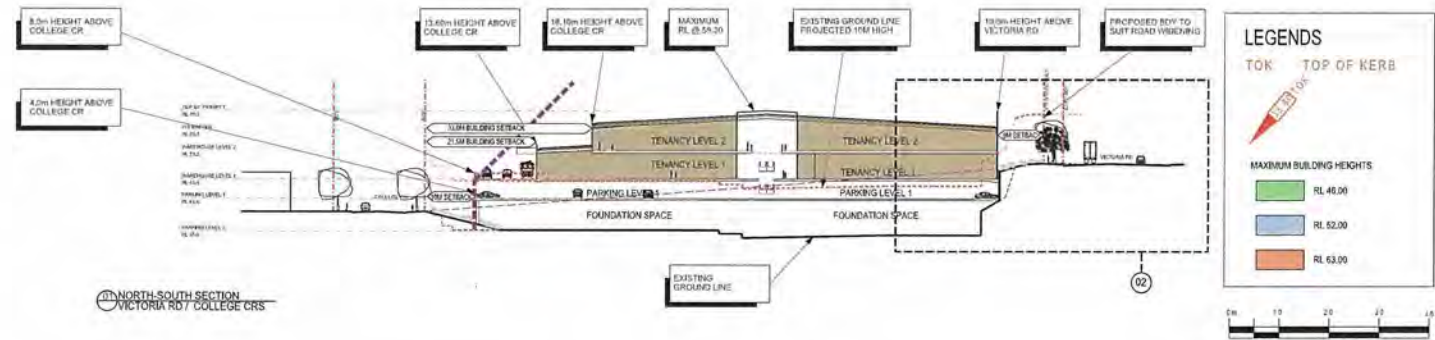
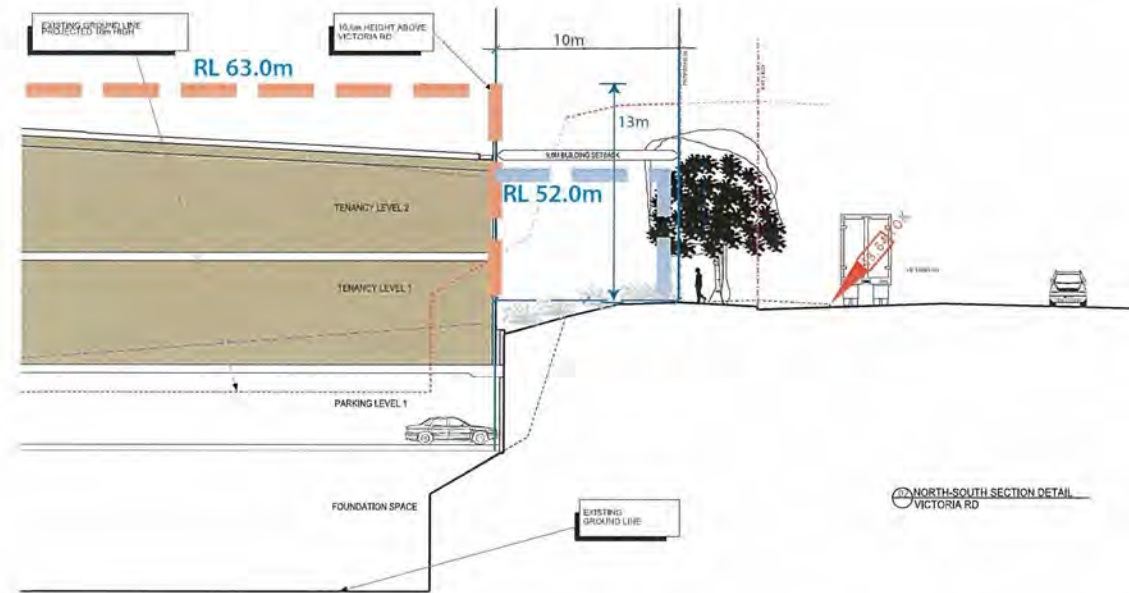
Victoria Road (Section A)

Maximum height to Victoria Road is established at 63m (i.e. 13-14.5m above Victoria Road frontage). This is based on the fact that there are numerous precedents for heights of 14m to 17.5m along this section of Victoria Road including:

- Kennards 14.5-17m.at eastern end
- Fernwood fitness Centre 10+m
- Gladesview Business Park 16m
- Gladesville T.C. 19m east of Monash

This permits 2 x 6m floors to Victoria Road plus an appropriately sloped roof structure.

Note also: That Victoria Road has been widened 3m to accommodate bus lane and new minimum setback line is 5m from the new site boundary.



Frank Street (Section B)

Frank Street is a short street which contain the following buildings:

- Kennards (17m)
- Other industrial (10+ m)
- Fernwood Fitness Centre (10+ m)

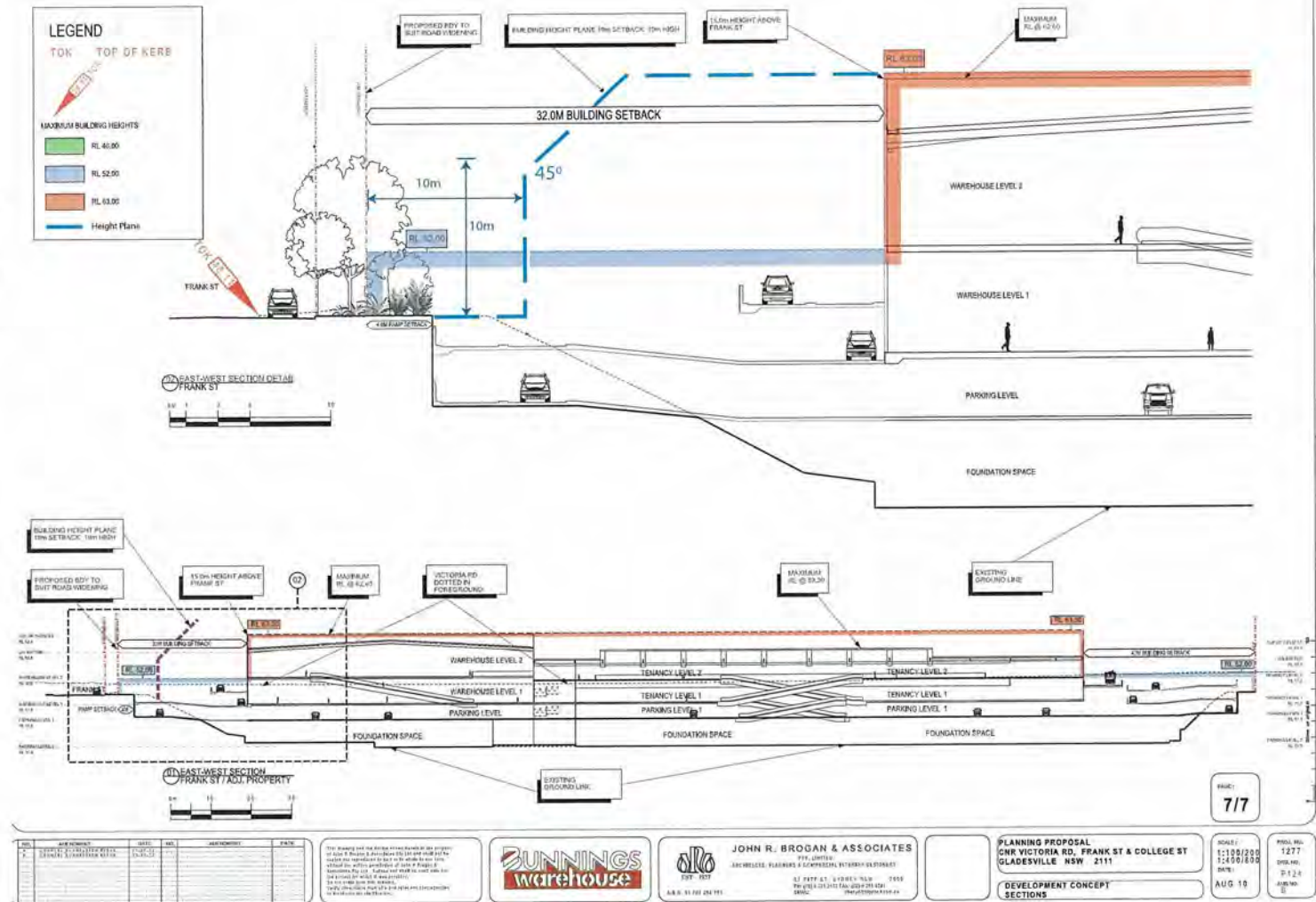
The site is partially screened by an informal grouping of eucalypts and then drops away into the excavated area.

The height from Frank Street is derived as follows:

- A 10m height limit above Frank Street at a 10m setback line
- A subsequent 45° height plane from this point until connecting with the height above Victoria Road.
- The RL 52.0m line established on College Street wraps around Frank Street with a significant setback (32m).
- The taller building height RL 63.0m is set back a minimum of 30m from Frank Street.

This falls well within the height plane and can be further detailed in DCP.

Section B



College Street (Section C)

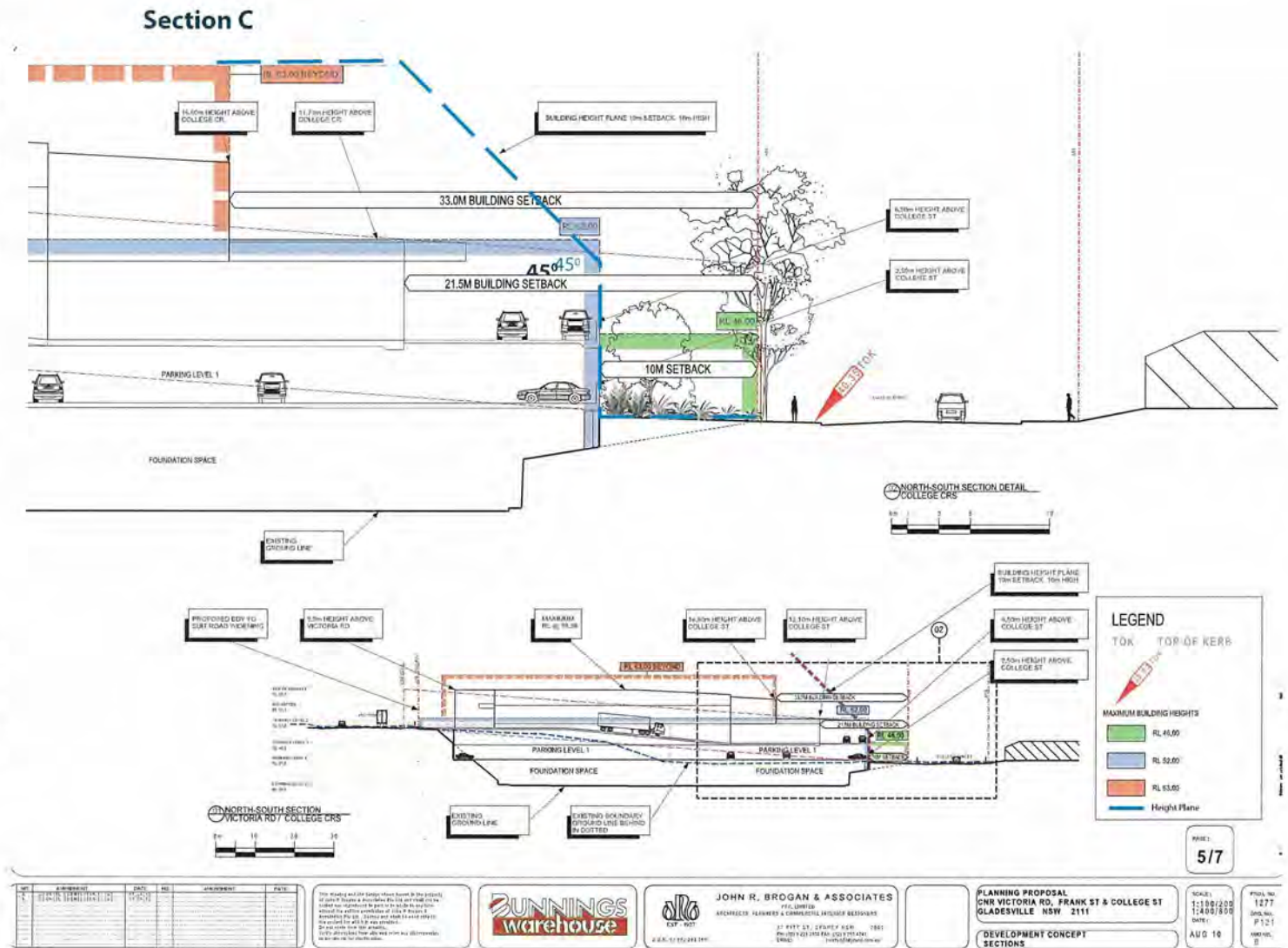
College Street is an industrial street both sides from the intersection of Frank Street to the rear of the residential properties fronting Orient Street.

The subject site currently presents well with landscaped verge tree planting, and attractive fence/hedge to College Street.

Maximum Building Height along College Street is derived as follows:

- 10m max height above College at a 10m setback (RL 53.0m) and then a 45° height plane connecting with the max height control above Victoria Road (RL 63.0m) This will reduce building height and mass to College Street and permit a deep soil planting strip of 5-10m to facilitate screen planting of large growing trees.

Note that RL 46.0m building height at north east corner of site will permit small structures and site works within the setback to a height of approximately 6.0m. This will be further detailed in site specific DCP and subsequent DA's.



<table border="1"> <thead> <tr> <th>NO.</th> <th>REVISION</th> <th>DATE</th> <th>BY</th> <th>APPROVED</th> <th>FILE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	REVISION	DATE	BY	APPROVED	FILE							<p>THIS DRAWING AND ALL CONTENTS HEREOF ARE THE PROPERTY OF JOHN R. BROGAN & ASSOCIATES PTY LTD. NO PART OF THIS DRAWING OR CONTENTS HEREOF IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE EXPRESS WRITTEN PERMISSION OF JOHN R. BROGAN & ASSOCIATES PTY LTD. ALL RIGHTS RESERVED.</p>		<p>JOHN R. BROGAN & ASSOCIATES ARCHITECTS, PLANNERS & COMMERCIAL LANDUSE DESIGNERS 27 KENT ST., SYDNEY NSW 1581 PH: (02) 921 1212 FAX: (02) 921 1714 EMAIL: info@jrbrogan.com.au</p>	<p>PLANNING PROPOSAL CNR VICTORIA RD, FRANK ST & COLLEGE ST GLADESVILLE NSW 2111</p> <p>DEVELOPMENT CONCEPT SECTIONS</p>	<p>SCALE: 1:100/200 1:400/800</p> <p>DATE: AUG 10</p>	<p>PROJ. NO. 1277 Dwg. No. P121 REVISED</p>
NO.	REVISION	DATE	BY	APPROVED	FILE													

5.1.4 Summary

The maximum building heights for the site are proposed below being RL 63.0m and RL 52.0m. These are the maximum building heights permitted in these areas. A small area (setback 10m) of maximum height RL 46.0m is included along College Street (east end only) and the eastern residential boundary (to protect residential amenity).

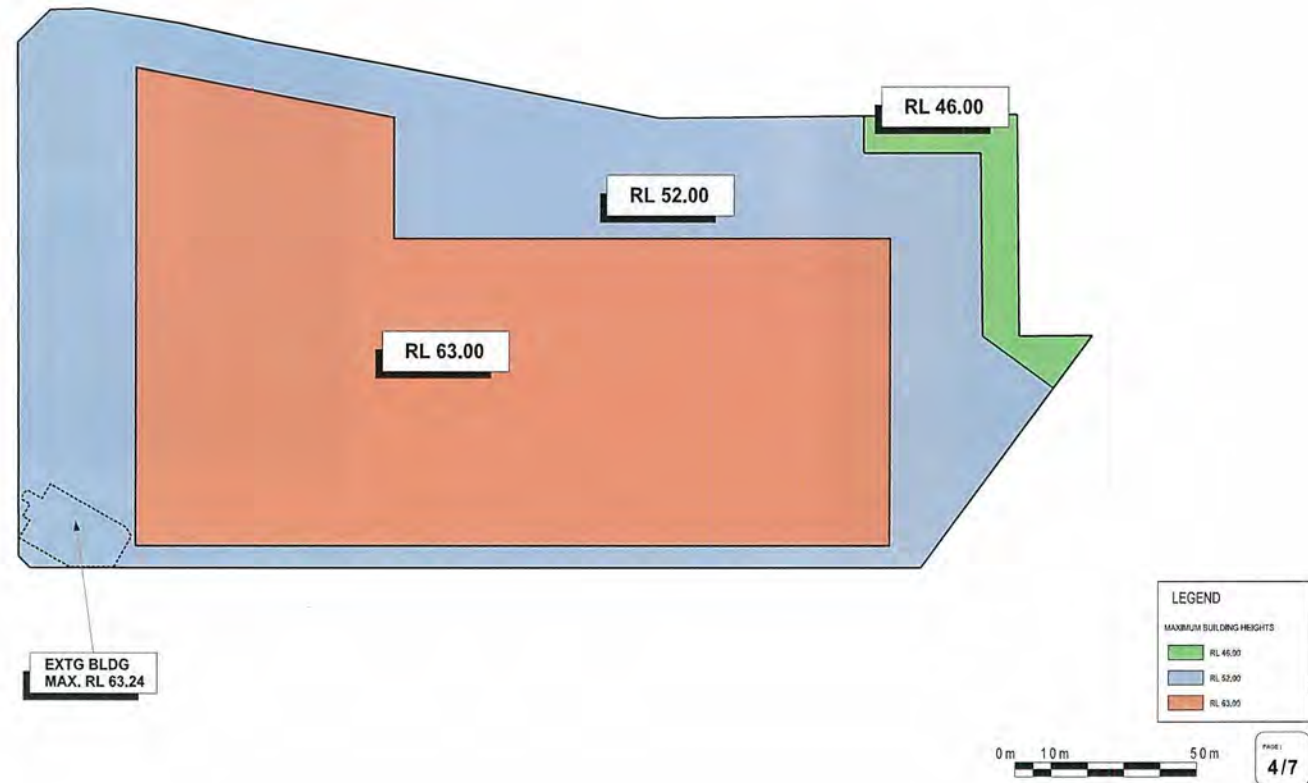
A site specific DCP will further regulate building setbacks, site access points, driveway locations and landscaped/screened areas.

This building height plan is derived from the following:

- i. A 12-15m maximum height to Victoria Road (RL 63m max)
- ii. A 10m height limit at a setback of 10m from College Street (RL 52m) and a 45° height plane thence extending to the higher RL 63.0m level.
- iii. The continuation of this 52m height limit around the corner into Frank Street
- iv. A 10m deep height limit of RL 46.0m along the eastern residential boundary and fronting residential properties on College Street, then within the height plane a maximum height of RL 52 extending 35m into the site to meet the Victoria Road level of RL 63.

The building height plan measured in RL (Relative Levels) is attached.

MAX. BUILDING HEIGHTS TO BE FURTHER
DETAILED WITH SETBACKS IN DCP



5.2 Activation of Victoria Road

Although all parking will be onsite, the proposal will desirably provide an activated street edge to Victoria Road with improved footpaths and excellent public transport access via 2 x bus stops (one at either end of the site)..

The Bunnings store and the other bulky goods retail stores will provide pedestrian entries and display windows to Victoria Road thereby animating the activating the pedestrian experience.

5.3 Focal Points / Landmarks

The site is quite highly visible as one approaches from the west. From the bend and rise in front of the Holy Cross College, the proposed building will be partially visible behind the Fitness Centre and Kennards Self Storage.

Travelling west, the site is highly visible from about Monash Road and in front of the Gladesview Business Park complex.

The proposal will also be highly visible from the intersections of:

- Frank Street but behind the fitness centre
- Weaver Street where the Bunnings store will be highly visible when exiting Weaver Street onto Victoria Road
- Tennyson Road opposite where the vehicular entry is proposed at the site boundary with the car wash.

These points should be considered in the context of building design and how the building may strengthen the streetscape and the sense of place.

5.4 Softening Mechanisms

The attached images display ways in which softening mechanisms can be employed to reduce/soften impact of bulky buildings and create interest to the street. These techniques may include graphic screens walls, green walls and/or display windows.

Tower Elements



Potential Screen Mechanisms

6.0 Conclusions

The proposed building will be acceptable in Urban Design terms if the following principles apply:

- Height 12-15m above Victoria Road.
- Height in the order of 10m above adjacent footpath levels in Frank and College Streets (then stepped back to meet the height above Victoria Road).
- Reduced height (RL 46m max) in proximity to residential areas on eastern/north eastern boundaries.
- Strong landscape treatment to verge and or setback areas as shown.
- Pedestrian entry/entries to Victoria Road.
- Activation/interest to pedestrians on Victoria Road.
- Reduction in bulk/massing to Frank and College Streets (by setback and break up of building form/mass).
- Creation of design interest to facades (particularly fronting Victoria Road).
- Creation of acoustic buffer to residential properties on College Street.
- These matters to be explored in detail in the Development Application (DA).

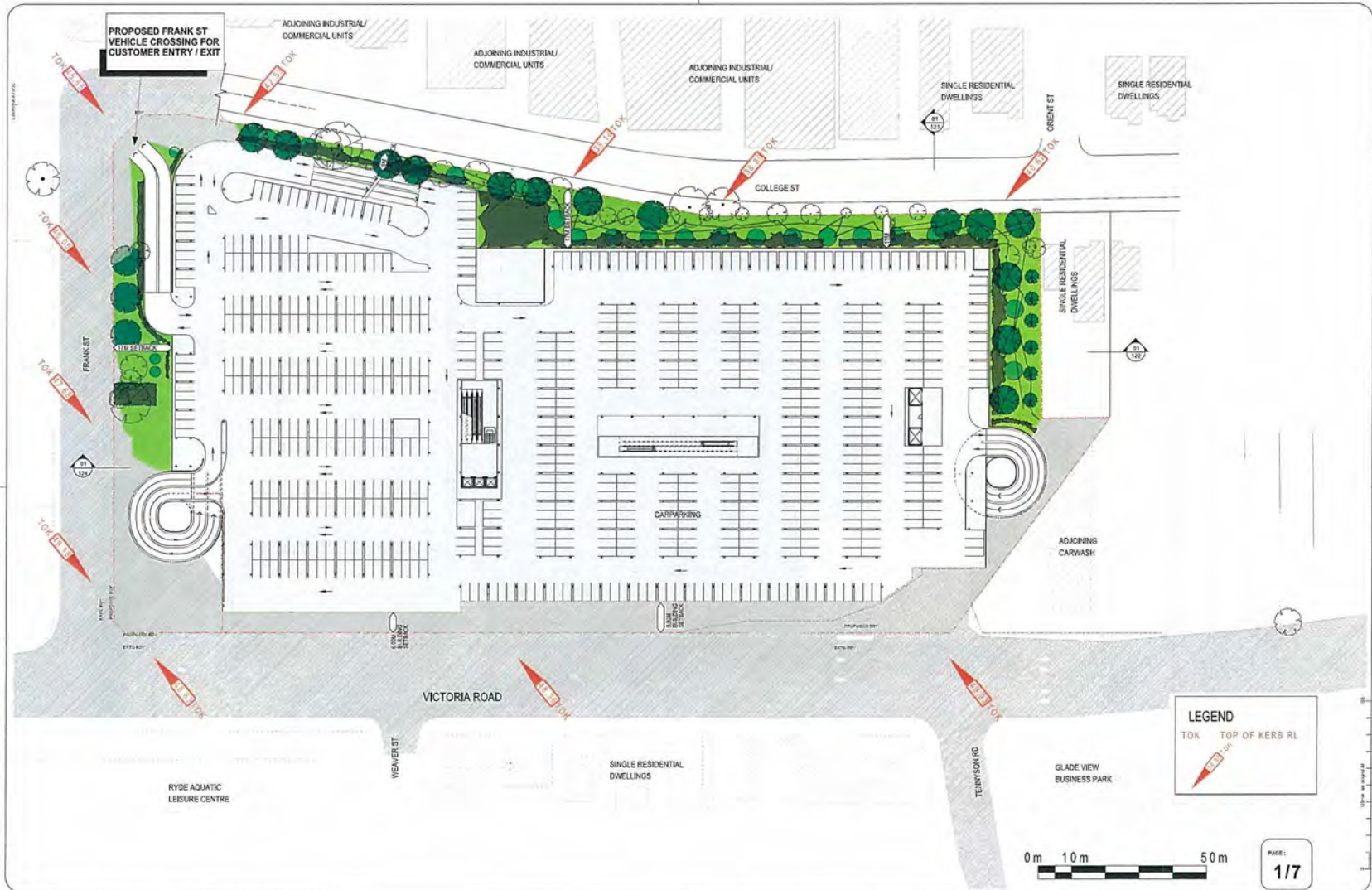


URBAN DESIGN ISSUES

Bunnings Group Ltd

Proposed Plans





THE REFERENCE TO THE PROPOSED BUNNINGS WAREHOUSE GLADESVILLE SHOWN ON THIS PLAN IS FOR INFORMATION ONLY AND DOES NOT CONSTITUTE AN OFFER OR A CONTRACT. THE DEVELOPER ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE TO ANY PERSON OR PROPERTY ARISING FROM THE USE OF THIS PLAN OR FROM ANY INFORMATION CONTAINED HEREIN. THE DEVELOPER ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE TO ANY PERSON OR PROPERTY ARISING FROM THE USE OF THIS PLAN OR FROM ANY INFORMATION CONTAINED HEREIN. THE DEVELOPER ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE TO ANY PERSON OR PROPERTY ARISING FROM THE USE OF THIS PLAN OR FROM ANY INFORMATION CONTAINED HEREIN.

NO.	AMENDMENT	DATE	NO.	AMENDMENT	DATE
1	PRELIMINARY CONCEPT	2024			
2	REVISIONS	2024			

This drawing and the design shown herein is the property of the client and is to be used only for the purposes stated herein. It is not to be used for any other purpose without the written consent of the client. The client accepts no liability for any loss or damage to any person or property arising from the use of this drawing or from any information contained herein. The client accepts no liability for any loss or damage to any person or property arising from the use of this drawing or from any information contained herein. The client accepts no liability for any loss or damage to any person or property arising from the use of this drawing or from any information contained herein.

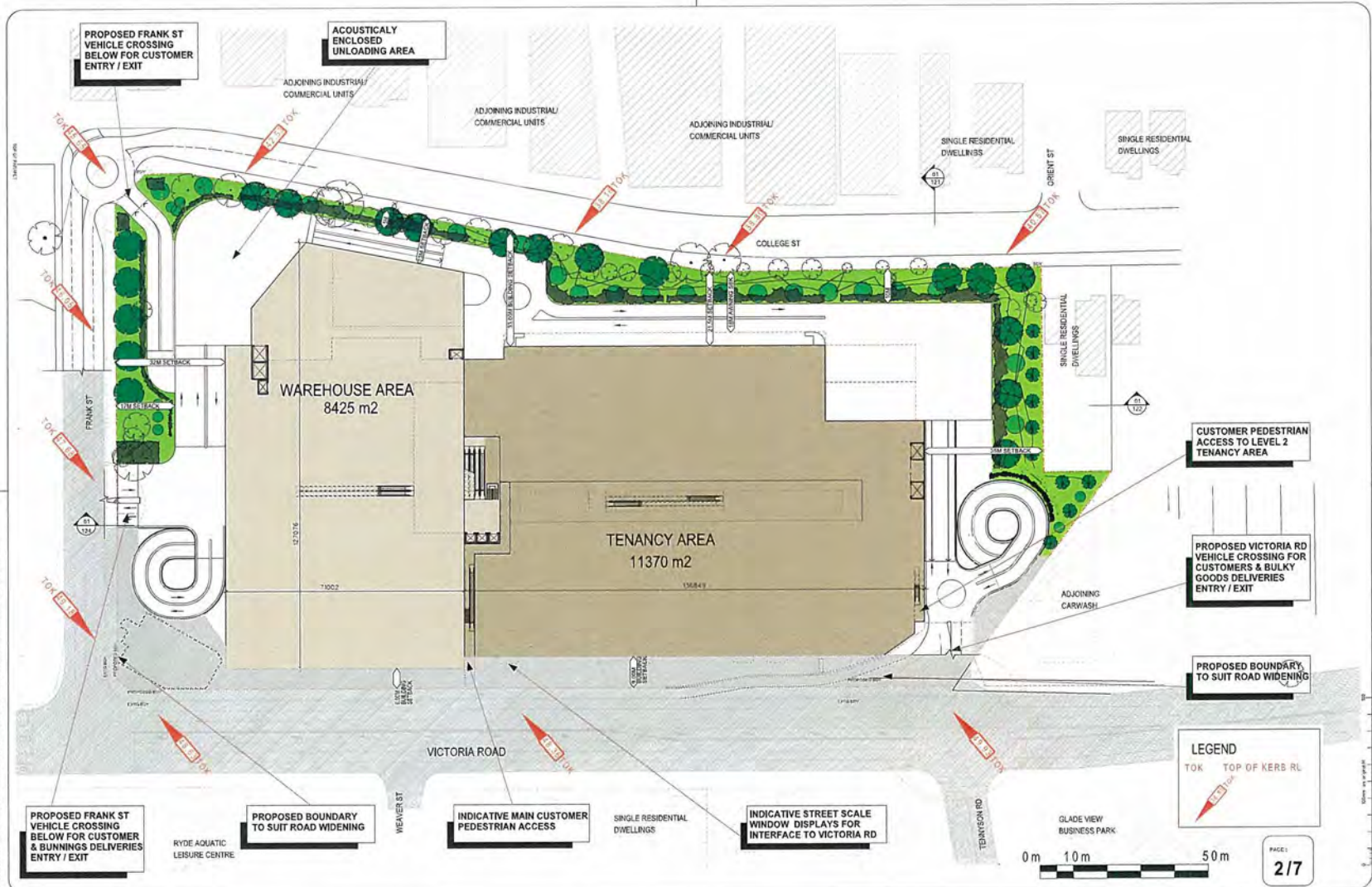


JOHN R. BROGAN & ASSOCIATES
 PTY. LIMITED
 ARCHITECTS, PLANNERS & COMMERCIAL INTERIOR DESIGNERS
 18/9 ST. PETER ST., SYDNEY NSW
 PH: (02) 9337 3333 FAX: (02) 9337 4841
 EMAIL: jrbrogan@jrbrogan.com.au
 A.B.N. 51 933 354 218



PLANNING PROPOSAL
CNR VICTORIA RD, FRANK ST & COLLEGE ST
GLADESVILLE NSW 2111
DEVELOPMENT CONCEPT
PARKING LEVEL

SCALE: 1:500
 DATE: AUG 10
 PAGE: 117
 PROJ. NO. 1277
 Dwg. No. P031
 ANGLE: B



NO.	AMENDMENT	DATE	NO.	AMENDMENT	DATE
1	PRELIMINARY DESIGN	21/01/11			
2	FINAL DESIGN	21/01/11			

This drawing and the design shown herein is the property of John R. Brogan & Associates Pty Ltd and shall not be copied or reproduced in part or in whole by any form without the written permission of John R. Brogan & Associates Pty Ltd. (drawing and shall be used only for the project for which it was prepared. Do not make any alterations. Do not reproduce from this or other any drawings or documents for identification.

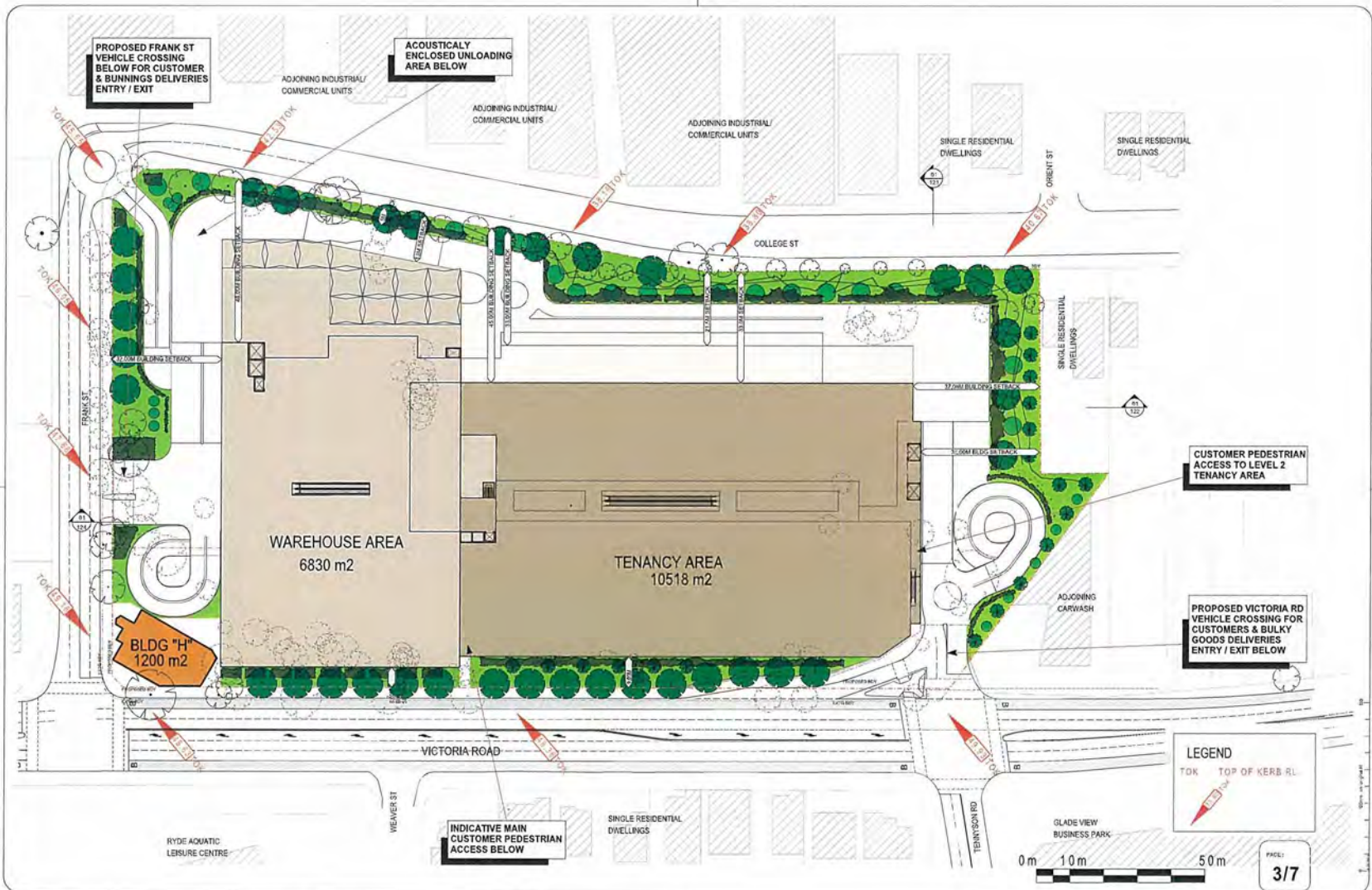


JOHN R. BROGAN & ASSOCIATES
 ARCHITECTS, PLANNERS & COMMERCIAL INTERIOR DESIGNERS
 27 BATTY ST., SYDNEY NSW 2008
 PH: (02) 9221 2000 FAX: (02) 921 4041
 A.B.N. 52 922 104 755



PLANNING PROPOSAL
 CNR VICTORIA RD, FRANK ST & COLLEGE ST
 GLADESVILLE NSW 2111
DEVELOPMENT CONCEPT
 WAREHOUSE & RETAIL LEVEL 1

SCALE: 1:500
 DATE: AUG 10
 PAGE: 217
 PROJ. NO.: 1277
 DWS. NO.: P032
 AMP. NO.: 8



NO.	AMENDMENT	DATE	NO.	AMENDMENT	DATE
1	ISSUED FOR TENDERS	10/08/10	2	REVISED FOR APPROVAL	10/08/10
3	REVISED FOR APPROVAL	10/08/10	4	REVISED FOR APPROVAL	10/08/10
5	REVISED FOR APPROVAL	10/08/10	6	REVISED FOR APPROVAL	10/08/10
7	REVISED FOR APPROVAL	10/08/10	8	REVISED FOR APPROVAL	10/08/10
9	REVISED FOR APPROVAL	10/08/10	10	REVISED FOR APPROVAL	10/08/10
11	REVISED FOR APPROVAL	10/08/10	12	REVISED FOR APPROVAL	10/08/10
13	REVISED FOR APPROVAL	10/08/10	14	REVISED FOR APPROVAL	10/08/10
15	REVISED FOR APPROVAL	10/08/10	16	REVISED FOR APPROVAL	10/08/10
17	REVISED FOR APPROVAL	10/08/10	18	REVISED FOR APPROVAL	10/08/10
19	REVISED FOR APPROVAL	10/08/10	20	REVISED FOR APPROVAL	10/08/10
21	REVISED FOR APPROVAL	10/08/10	22	REVISED FOR APPROVAL	10/08/10
23	REVISED FOR APPROVAL	10/08/10	24	REVISED FOR APPROVAL	10/08/10
25	REVISED FOR APPROVAL	10/08/10	26	REVISED FOR APPROVAL	10/08/10
27	REVISED FOR APPROVAL	10/08/10	28	REVISED FOR APPROVAL	10/08/10
29	REVISED FOR APPROVAL	10/08/10	30	REVISED FOR APPROVAL	10/08/10
31	REVISED FOR APPROVAL	10/08/10	32	REVISED FOR APPROVAL	10/08/10
33	REVISED FOR APPROVAL	10/08/10	34	REVISED FOR APPROVAL	10/08/10
35	REVISED FOR APPROVAL	10/08/10	36	REVISED FOR APPROVAL	10/08/10
37	REVISED FOR APPROVAL	10/08/10	38	REVISED FOR APPROVAL	10/08/10
39	REVISED FOR APPROVAL	10/08/10	40	REVISED FOR APPROVAL	10/08/10
41	REVISED FOR APPROVAL	10/08/10	42	REVISED FOR APPROVAL	10/08/10
43	REVISED FOR APPROVAL	10/08/10	44	REVISED FOR APPROVAL	10/08/10
45	REVISED FOR APPROVAL	10/08/10	46	REVISED FOR APPROVAL	10/08/10
47	REVISED FOR APPROVAL	10/08/10	48	REVISED FOR APPROVAL	10/08/10
49	REVISED FOR APPROVAL	10/08/10	50	REVISED FOR APPROVAL	10/08/10
51	REVISED FOR APPROVAL	10/08/10	52	REVISED FOR APPROVAL	10/08/10
53	REVISED FOR APPROVAL	10/08/10	54	REVISED FOR APPROVAL	10/08/10
55	REVISED FOR APPROVAL	10/08/10	56	REVISED FOR APPROVAL	10/08/10
57	REVISED FOR APPROVAL	10/08/10	58	REVISED FOR APPROVAL	10/08/10
59	REVISED FOR APPROVAL	10/08/10	60	REVISED FOR APPROVAL	10/08/10
61	REVISED FOR APPROVAL	10/08/10	62	REVISED FOR APPROVAL	10/08/10
63	REVISED FOR APPROVAL	10/08/10	64	REVISED FOR APPROVAL	10/08/10
65	REVISED FOR APPROVAL	10/08/10	66	REVISED FOR APPROVAL	10/08/10
67	REVISED FOR APPROVAL	10/08/10	68	REVISED FOR APPROVAL	10/08/10
69	REVISED FOR APPROVAL	10/08/10	70	REVISED FOR APPROVAL	10/08/10
71	REVISED FOR APPROVAL	10/08/10	72	REVISED FOR APPROVAL	10/08/10
73	REVISED FOR APPROVAL	10/08/10	74	REVISED FOR APPROVAL	10/08/10
75	REVISED FOR APPROVAL	10/08/10	76	REVISED FOR APPROVAL	10/08/10
77	REVISED FOR APPROVAL	10/08/10	78	REVISED FOR APPROVAL	10/08/10
79	REVISED FOR APPROVAL	10/08/10	80	REVISED FOR APPROVAL	10/08/10
81	REVISED FOR APPROVAL	10/08/10	82	REVISED FOR APPROVAL	10/08/10
83	REVISED FOR APPROVAL	10/08/10	84	REVISED FOR APPROVAL	10/08/10
85	REVISED FOR APPROVAL	10/08/10	86	REVISED FOR APPROVAL	10/08/10
87	REVISED FOR APPROVAL	10/08/10	88	REVISED FOR APPROVAL	10/08/10
89	REVISED FOR APPROVAL	10/08/10	90	REVISED FOR APPROVAL	10/08/10
91	REVISED FOR APPROVAL	10/08/10	92	REVISED FOR APPROVAL	10/08/10
93	REVISED FOR APPROVAL	10/08/10	94	REVISED FOR APPROVAL	10/08/10
95	REVISED FOR APPROVAL	10/08/10	96	REVISED FOR APPROVAL	10/08/10
97	REVISED FOR APPROVAL	10/08/10	98	REVISED FOR APPROVAL	10/08/10
99	REVISED FOR APPROVAL	10/08/10	100	REVISED FOR APPROVAL	10/08/10

THE DRAWING AND THE DESIGN SHALL BE VALID FOR THE PROJECT AS SHOWN IN THE DRAWING. ANY CHANGES TO THE DESIGN SHALL BE MADE BY THE ARCHITECTS. THE ARCHITECTS SHALL BE RESPONSIBLE FOR THE DESIGN AND THE ARCHITECTS SHALL BE RESPONSIBLE FOR THE DESIGN AND THE ARCHITECTS SHALL BE RESPONSIBLE FOR THE DESIGN.



JOHN R. BROGAN & ASSOCIATES
 PTY. LIMITED
 ARCHITECTS, PLANNERS & COMMERCIAL INTERIOR DESIGNERS
 27 PATT ST. SYDNEY NSW 2000
 PHONE: 61 2 9539 6000 FAX: 61 2 9539 6111
 EMAIL: johnr@jrbogandassociates.com.au



PLANNING PROPOSAL
 CNR VICTORIA RD, FRANK ST & COLLEGE ST
 GLADESVILLE NSW 2111
DEVELOPMENT CONCEPT
 WAREHOUSE & RETAIL LEVEL 2

SCALE: 1:500
 DATE: AUG 10
 PROJ. NO. 1277
 Dwg. NO. P033
 ARCH. NO. B

ECONOMIC ASSESSMENT

~

**PROPOSED BUNNINGS
WAREHOUSE and
ASSOCIATED BULKY GOODS CENTRE,
GLADESVILLE**

Prepared For:
BUNNINGS GROUP LTD

Prepared By:
LEYSHON CONSULTING PTY LTD
SUITE 1106 LEVEL 11
109 PITT STREET
SYDNEY NSW 2000

TELEPHONE (02) 9224-6111
FACSIMILE (02) 9224-6150

REP 1206
JUNE 2012
© Leyshon Consulting Pty Ltd 2012

TABLE of CONTENTS

	Page
DISCLAIMER	
1 INTRODUCTION.	1
1.1 Background.....	1
1.2 Additional Information.....	2
2 OVERVIEW of POTENTIAL IMPACT	4
2.1 Legal Context.	4
2.2 Existing Hardware Stores.....	5
2.3 Available Retail Spending.	6
2.3.1 Hardware and Related Spending.....	7
2.3.2 Bulky Goods Spending.	8
3 HARDWARE and GARDEN CENTRE IMPACTS	9
3.1 Introduction.	9
3.2 Available Hardware Spending.	10
3.3 Sales Impact – Existing Stores.....	10
3.4 Impact on Garden Centres.....	11
4 BULKY GOODS IMPACT	12
4.1 Existing Bulky Goods Supply.	12
4.2 Available Spending.	13
4.3 Impact on Existing Centres.....	13
5 IMPACT on LIGHT INDUSTRIAL AREA.	16
5 EMPLOYMENT GENERATION	19
APPENDIX A : AVAILABLE BULKY GOODS, HARDWARE and HOME RENOVATIONS SPENDING – GLADESVILLE TRADE AREA	

LIST of TABLES

2.1 :	EXISTING HARDWARE STORES – RYDE LGA, 2012
2.2 :	SUMMARY of AVAILABLE BULKY GOODS, HARDWARE and HOME RENOVATIONS SPENDING – GLADESVILLE TRADE AREA, 2011-21 (\$2011)
4.1 :	ESTIMATED IMPACT of PROPOSED BUNNINGS DEVELOPMENT on RELEVANT BULKY GOODS CENTRES/PRECINCTS, 2016 (\$2011)

DISCLAIMER

This Report has been prepared solely for the purposes recorded at Section 1 of the Report and solely for the benefit of the party to whom the report is addressed. No third party is entitled to rely upon this Report for any purpose without the written consent of Leyshon Consulting Pty Ltd having first been sought and obtained.

This Report involves the making of future projections. Those projections are grounded upon the facts and matters contained in this Report. Some or all of those facts and matters comprise assumptions and/or representations upon which Leyshon Consulting Pty Ltd has relied but about which it has no knowledge of its own. By reason of this, Leyshon Consulting Pty Ltd cannot warrant or represent the correctness or accuracy of such assumptions and/or representations. It follows that, while the projections contained in this Report are made with care and judgment, Leyshon Consulting Pty Ltd cannot confirm, warrant or guarantee that actual results achieved will be consistent with the results projected by this Report.



EXECUTIVE SUMMARY

Introduction Section 1

This Report has been prepared for Bunnings Group Limited (Bunnings) by Leyshon Consulting Pty Ltd. The Report relates to a Planning Proposal which has been lodged with Ryde Council (Council) by planning consultants DFP in relation to land situated at 461 Victoria Road, Gladesville.

The development concept for the site envisages the following floorspace:

- Bunnings Warehouse ... 15,255 sq.m.
- Bulky goods tenancies ... 21,885 sq.m.
- Commercial building (existing) ... 1,200 sq.m.
- Total floorspace ... 38,340 sq.m..

Overview of Potential Impact Section 2

Subsequent to lodgment of the planning proposal, Council has requested additional information be provided regarding the potential impact of a Bunnings Warehouse developed in Gladesville on existing hardware stores in Ryde LGA.

Bunnings stores also contain a garden and landscaping component which is ancillary to the main hardware and building supplies business. Advice concerning the possible impact of this component on garden centres in Ryde is also required.

There is clear legal precedent in Australia in general, and New South Wales in particular, which establishes that the impact of a given retailer on the sales of its competitors is not, per se, a relevant planning matter.

Existing Hardware Stores

There are four hardware stores operating in Ryde LGA at present namely:

- ▶ Weils Thrifty Link, Gladesville
- ▶ Seymour Building Supplies, Gladesville
- ▶ Taffa's West Ryde Mitre 10 Handy
- ▶ Coxs Road Thrifty Link.

The four stores are very small ranging in size from 80 sq.m. to 1,100 sq.m.. None provide on-site parking and all carry a very limited range of hardware.

Each stores appears to focus on meeting what best can be described as "convenience" hardware needs as opposed to the more comprehensive hardware-related shopping trips catered for by Bunnings, Woolworths Masters and the larger Mitre 10 Mega stores.

EXECUTIVE SUMMARY

Overview of Potential Impact Cont'd

Bulky Goods Spending

Excluding spending on hardware and home renovations/improvements, total available annual bulky goods spending in the Gladesville trade area in 2011 is estimated at some \$232 million (\$2011).

Available bulky goods spending is forecast to grow to \$279.1 million by 2021. This translates into a real increase in annual available spending of +\$47.1 million (\$2011) between 2011-21.

Hardware and Related Spending

Annual available spending on hardware and selected home renovations/improvements is estimated to increase from \$191.8 million in 2011 to \$230.9 million in 2021. This translates into a real increase in annual available spending of +\$39.1 million (\$2011) between 2011-21.

Hardware and Garden Centre Impacts Section 3

Hardware Stores

It is unlikely the combined annual sales of the four existing hardware stores would exceed \$15 million (\$2011) at present. If the proposed Bunnings Warehouse was to receive approval, its annual sales are estimated to be in the range of \$27 to \$32 million in 2016 (\$2011).

Fully 90% (that is, \$24.3 to \$28.8 million; \$2011) of the proposed Bunnings' estimated sales would be derived from its trade area in 2016. The balance (\$2.7 to \$3.2 million) would be sourced from trade sales.

Although catering to quite different market segments the four existing hardware stores are likely to experience some impact. That said, it is highly improbable Bunnings would threaten their viability, given these stores focus on meeting the market for convenience hardware goods.

The major impact of a new Bunnings at Gladesville would be felt chiefly by other Bunnings Warehouse stores such as those at Artarmon, Ashfield, Castle Hill, Parramatta and Auburn.

EXECUTIVE SUMMARY

Hardware and Garden Centre Impacts Cont'd

Garden Centres

The largest garden centre in Ryde LGA is Eden Gardens. Eden Gardens is located on a 1.8 hectare site and services a regional market. It is most unlikely to be affected by what is a relatively limited garden centre "offer" at the proposed Bunnings.

The other garden centre in Ryde LGA is Sherringham's which in association with Australian Native Landscapes (ANL) has a market leading position in the provision of bulk landscape supplies in the Sydney Region. Bunnings would not pose a competitive threat to Sherringham's/ANL.

Bulky Goods Impact Section 4

Existing Supply

Neither Ryde LGA nor surrounding areas contain any major bulky goods centres at present.

Beyond Ryde LGA the largest concentrations of bulky goods floorspace of relevance are found at:

▶	Artarmon/St Leonards	...	50,000 sq.m.
▶	Castle Hill	...	100,000 sq.m.
▶	Auburn	...	130,000 sq.m.
▶	Rhodes	...	27,000 sq.m.
▶	North Parramatta	...	30,000 sq.m..

Available Spending

Total annual available bulky goods spending in the trade area in 2011 is estimated at \$232.0 million (\$2011) and is forecast to rise to \$252.4 million by 2016 (\$2011).

Broadly, this volume of available spending would support between 56,000 and 72,000 m² of bulky goods floorspace.

Potential Impact

A substantial under-supply of bulky goods floorspace exists in the Gladesville trade area at present. This is estimated to be in the order of 40,000 to 57,000 m². The proposed development at Gladesville is planned to contain only 21,885 m² of bulky goods space. Given the extent of the existing under-supply of space it can be accommodated within the local retail system without having a detrimental impact.

EXECUTIVE SUMMARY

Bulky Goods Impact Cont'd

The impact of the proposed development's bulky goods component on any of the major bulky goods centres in the surrounding region is likely to be in the range of -6% to -10%. Impacts in this range fall within the widely accepted "low/medium" category of impact and generally are considered to be acceptable.

Impact on Light Industrial Area Section 6

The subject site comprises approximately 3.8 hectares and accounts for 15.9% of the Gladesville Light Industrial Area.

The Gladesville Light Industrial Area is home to a wide range of small to medium-scale industrial premises including a significant number of automotive uses located along Buffalo Road.

A recent field inspection of the area found that quite a few premises within the Gladesville Light Industrial Area are currently vacant.

The subject site in its current state is only partially occupied by industrial activities. Consequently, it is difficult to assess how important this particular 3.8 hectare parcel is in terms of the regional supply of light industrial land. As things currently stand, this land is making only a minimal contribution to maintaining industrial employment in Ryde LGA.

It is considered unlikely the proposed development of the site will lead to increasing land values in the balance of the Gladesville Light Industrial Area with concomitant adverse outcomes for existing industrial uses.

Employment Generation Section 6

The current employment level on the Gladesville site cannot be determined accurately but is likely to not exceed 50 employees.

Existing buildings on the site contain a total of some 21,940.2 sq.m.. If these buildings were fully occupied for industrial and related purposes, they could generate on-site employment of 258 to 400 positions depending on the type of tenants in the various buildings.

EXECUTIVE SUMMARY

Employment Generation Cont'd

If the proposed development proceeds it is likely to generate on-site employment of:

▶	Bunnings Warehouse	...	150
▶	Bulky Goods Centre	...	337
▶	Commercial Building	...	50
▶	Total	...	537.

Clearly the proposed development will contribute in a major way to the retention and creation of employment in the Gladesville Light Industrial Area in particular and in Ryde LGA more generally.



1

INTRODUCTION

1.1 Background

This Report has been prepared for Bunnings Group Limited (Bunnings) by Leyshon Consulting Pty Ltd. The Report relates to a Planning Proposal which has been lodged with Ryde Council (Council) in relation to land at 461 Victoria Road, Gladesville.

We understand that DFP Planning Consultants (DFP), on behalf of Bunnings, lodged a Planning Proposal in March 2012 for development of a major hardware store and bulky goods centre on land at 461 Victoria Road, Gladesville.

The subject site has an area of 3.834 hectares. It has a frontage to Victoria Road (albeit with the ground level of the site being well below Victoria Road). There are also frontages to Frank Street in the west and College Street in the north. The site is currently zoned IN2 under Ryde Local Environmental Plan (LEP) 2010.

The DFP report outlined a development concept for the site which envisages the following floorspace:

- Bunnings Warehouse ... 15,255 sq.m.
- Bulky goods tenancies ... 21,885 sq.m.
- Commercial building (existing) ... 1,200 sq.m.
- Total floorspace ... 38,340 sq.m..

The Planning Proposal submitted to Council incorporated a report prepared by ourselves for Bunnings in July 2009 (*Economic Need Assessment – Major Hardware Store in Ryde LGA*).

Our 2009 report examined the need for a major Bunnings hardware store in Ryde LGA. It was prepared in the context of a potential application to be made by Bunnings for the rezoning of land in Ryde LGA to develop a major hardware store. The report incorporated demographic and spending analysis together with the findings of a survey of 300 Ryde LGA residents which obtained information regarding their hardware shopping patterns. The analysis of available spending detailed in the report included an estimation of the quantum of available spending generated in Ryde LGA on hardware, home renovations and related bulky goods-type merchandise categories.

Our 2009 report concluded there was substantial latent demand within Ryde LGA for both additional bulky goods-type floorspace in general, and floorspace devoted to hardware and home renovation/improvement goods and services in particular.

1.2 Additional Information

Subsequent to the lodging of the Planning Proposal in March 2012, officers of Council have requested certain additional information be provided concerning the economic effects of the proposed development. The additional information being sought can be summarised as follows:

- ▶ an assessment of the impact of the proposed development on existing hardware stores in Ryde LGA
- ▶ an assessment of the impact of the proposed development on relevant bulky goods precincts
- ▶ an assessment of the impact of the proposal on existing centres in Ryde LGA

- ▶ an assessment of the impact of the proposed development on the Gladesville Light Industrial Area.

This Report provides information on these issues having regard to the fact that what is before the Council is a Planning Proposal and not a Development Application. Hence the additional information provided is somewhat more general than that which might be required if Council were assessing a Development Application.

2 OVERVIEW of POTENTIAL IMPACT

2.1 Legal Context

As noted above, Council has requested additional information as to the potential impact of a Bunnings Warehouse on existing hardware stores in Ryde LGA.

Bunnings stores also contain a garden and landscape component which is ancillary to the main hardware and building supplies business. The issue of any potential impact on garden centres is also addressed in this Report.

At the outset, it should be noted that there is clear legal precedent in Australia in general, and New South Wales in particular which establishes that the impact of a given retailer on the sales of its competitors is not per se a relevant planning matter.

We also note that Draft State Environmental Planning Policy (Competition) 2010 (*hereafter* Competition SEPP 2010) makes it explicitly clear that the likely impact of proposed commercial development on the commercial viability of another commercial development is not a matter to be taken into consideration by a consent authority for the purposes of determining a development application under Part 4 of the Act to carry out proposed development.

Draft Competition SEPP 2010 does, however, make it clear that competitive impacts may be taken into consideration if a proposed development is likely to have an adverse impact (in net terms) on the

extent and adequacy of existing facilities available to the local community. That is, commercial impacts must be evaluated in the context of the extent to which a proposed development would “make good” any loss of existing facilities that might be experienced through additional competition.

2.2 Existing Hardware Stores

There are four existing hardware stores operating in Ryde LGA at present. These are:

- ▶ Weils Thrifty Link, Gladesville
- ▶ Seymour Building Supplies, Gladesville
- ▶ Taffa’s West Ryde Mitre 10 Handy
- ▶ Coxs Road Thrifty Link.

As can be noted from TABLE 2.1, these stores are very small ranging in size from 80 sq.m. to 1,100 sq.m.. None provide on-site parking and all carry a very limited range of hardware. Furthermore, each appears to focus on meeting what best can be described as “convenience” hardware needs as opposed to the more comprehensive hardware-related shopping trips catered for by Bunnings, Woolworths Masters and the larger Mitre 10 Mega stores.

TABLE 2.1
EXISTING HARDWARE STORES – RYDE LGA, 2012

Store ...	Chain	Location	Estimated Area (Sq.M.)
Seymour Building Supplies	True Value	Gladesville	¹ 1,100
Taffa’s	Mitre 10 Handy	West Ryde	330
Weils	Thrifty Link	Gladesville	450
Coxs Road	Thrifty Link	North Ryde	80

Note 1: Includes open yard area.

Source: Leyshon Consulting Survey, May 2012.

None of the four stores could be described as an “anchor tenant” of the centres in which they are located. One of the stores, Seymour Building Supplies in Gladesville, appears to have a significant orientation toward supplying the trade sector as opposed to retail customers. Taffa’s at West Ryde operates under the banner of “Mitre 10 Handy” a marketing description used by the Mitre 10 chain to describe smaller stores which focus on convenience hardware purchases. Hence these stores provide a limited range of basic hardware-related products.

Weils in Gladesville occupies some 450 sq.m.. The store carries a limited range of hardware but its trading potential is restricted by the lack of off-street parking. The Thrifty Link store at Coxs Road, North Ryde is a very small store of about 80 sq.m. and, accordingly, stocks only a very basic range of hardware and related products.

2.3 Available Retail Spending

For the purposes of this Report the estimates of available retail spending on hardware and related products contained in our 2009 have been updated. The updating process has taken into account recent data released by the ABS from its 2009-10 *Household Expenditure Survey* (HES) as well as changes in prices and incomes during the period 2009-12.

We have also expanded our definition of the trade area which we consider would apply to the proposed Gladesville Bunnings. We now consider the trade area would include Hunters Hill as well as Ryde LGA. We consider that residents of this combined area would shop at the proposed Gladesville Bunnings and the associated bulky goods centre in preference to those located in any other part of the Sydney Region.

The updated available expenditure data are provided at APPENDIX A to this Report for the years 2011, 2016, and 2021 (TABLES A1-A3) respectively. The estimates are provided at constant prices (\$2011). The detailed spending data provided in APPENDIX A has been summarised in TABLE 2.2 below to show spending growth for each major category between 2011-21.

TABLE 2.2
SUMMARY of AVAILABLE BULKY GOODS, HARDWARE and HOME RENOVATIONS SPENDING – GLADESVILLE TRADE AREA, 2011-21 (\$2011)

Category ...	2011	2016	2021	Increase 2011-21
Core Bulky Goods	\$137.8	\$149.9	\$165.8	\$28.0
Ancillary Bulky Goods	\$94.2	\$102.5	\$113.3	\$19.1
Sub-Total – Bulky Goods	\$232.0	\$252.4	\$279.1	\$47.1
Hardware	\$45.9	\$50.0	\$55.3	\$9.4
Home Renovations & Improvements	\$145.9	\$158.8	\$175.6	\$29.7
Sub-Total – Hardware + Home Renovations & Improvements	\$191.8	\$208.8	\$230.9	\$39.1
Total	\$423.8	\$461.2	\$510.0	\$86.2

Errors due to rounding.

Source: Leyshon Consulting Estimates, June 2012.

2.3.1 Hardware and Related Spending

Estimates of annual available spending on hardware products and selected components from the home renovations and improvements expenditure category between 2011-21 have also been prepared (APPENDIX A refers).

As can be noted from TABLE 2.2, annual available spending on hardware and selected home renovations/improvements is estimated to increase as follows:

- ▶ 2011 ... \$191.8 mil pa
- ▶ 2016 ... \$208.8 mil pa
- ▶ 2021 ... \$230.9 mil pa.

In total, therefore, annual available spending on hardware products and related home improvements is forecast to increase in real terms by +\$39.1 million (\$2011) between 2011-21.

2.3.2 Bulky Goods Spending

As indicated above, total available annual bulky goods spending (excluding spending on hardware and home renovations/improvements) is estimated at some \$232 million in 2011 (\$2011) and is projected to increase as follows:

- ▶ 2011 ... \$232.0 mil pa
- ▶ 2016 ... \$252.4 mil pa
- ▶ 2021 ... \$279.1 mil pa.

This translates into a real increase in annual available spending of +\$47.1 million (\$2011) between 2011-21.

3 HARDWARE and GARDEN CENTRE IMPACTS

3.1 Introduction

Our 2009 report found there was a significant shortage of hardware stores—particularly major hardware stores—in Ryde LGA. Unsurprisingly, therefore, the survey of residents' hardware purchasing patterns also conducted in 2009 found evidence of significant “escape” expenditure on hardware and related products flowing out of Ryde LGA to other localities such as Artarmon, Ashfield and Thornleigh.

At a general level it is difficult to be precise about the impact of a major Bunnings Warehouse on the small convenience-oriented hardware stores found in the trade area at present. The reason being that these types of stores mainly cater to a completely different market to that serviced by Bunnings. In summary, the impact of a Bunnings Warehouse is more likely to be experienced by medium-to-large hardware stores rather than small convenience-oriented stores.

That said, there is one major practical difficulty confronting any attempt to assess the economic impact of a Bunnings Warehouse of the scale proposed at Gladesville on surrounding small hardware stores—namely that there is no publicly available information on the average sales of small hardware stores in Australia. Accordingly, it is extremely difficult, if not impossible, to undertake an impact assessment which would have an acceptable degree of accuracy.

3.2 Available Hardware Spending

As indicated in TABLE 2.2 total available annual spending on hardware products in the trade area is estimated to be some \$45.9 million in 2011 and to increase to \$50 million by 2016 (\$2011).

In addition, total available annual spending on home renovations and improvements is estimated at \$145.9 million in 2011 rising to an estimated \$158.8 million in 2016 (\$2011). Hardware stores are a major beneficiary of this type of expenditure.

3.3 Sales Impact – Existing Stores

In preparing this Report we undertook an inspection of existing hardware stores in the trade area. We consider it unlikely the combined annual sales of the four stores identified above would exceed \$15 million (\$2011) at present. If the proposed Bunnings Warehouse was to receive approval, we estimate its annual sales could be in the range of \$27 to \$32 million in 2016 (\$2011). Of this, we further estimate \$24.3 to \$28.8 million (or 90%) would be derived from spending by retail customers and the balance (\$2.7 to \$3.2 million) from trade sales.

Hence, if the proposal proceeds, in 2016 the sales derived from the trade area of existing hardware stores plus Bunnings would be in the range of \$39.3 to \$43.8 million per annum (\$2011). That is, the combined sales of these stores would be less than the available spending generated by trade area residents on hardware products alone in 2016 (\$50 million [\$2011]).

In theory, therefore, there is no reason why a Bunnings Warehouse could not be developed at Gladesville and have no impact on the sales

of the existing four hardware stores. That is, there is sufficient available spending generated in the trade area for existing stores to maintain their sales in real terms despite the opening of a Bunnings at Gladesville.

In reality, however, the four existing stores are likely to experience some impact. Nevertheless, it is highly improbable Bunnings would threaten their viability given these stores focus on meeting the market for convenience hardware goods.

In our view, the major impact of a new Bunnings at Gladesville will be felt chiefly by other Bunnings Warehouse stores such as those at Artarmon, Ashfield, Castle Hill, Parramatta and Auburn.

3.4 Impact on Garden Centres

As noted previously, all Bunnings stores contain a garden and landscaping component. Accordingly, some impact on existing garden centres in Ryde LGA is possible if the proposed Gladesville store proceeds.

The largest garden centre in Ryde LGA is Eden Gardens located on a 1.8 hectares site on Lane Cove Road near its intersection with Fontenoy Road. Given its size, Eden Gardens services a regional market and is most unlikely to be affected by what is a relatively restricted garden centre "offer" at the proposed Bunnings.

The other garden centre in Ryde LGA is Sherringham's which is located at the corner of Wicks and Waterloo Roads, North Ryde. This centre focusses particularly on the provision of landscaping supplies through an association with Australian Native Landscapes (ANL). A Bunnings store at Gladesville would not pose a competitive threat to Sherringham's/ANL which has a market leading position in bulky landscaping supplies in the Sydney Region.

4

BULKY GOODS IMPACT

4.1 Existing Bulky Goods Supply

Neither Ryde LGA nor surrounding areas contain any **major bulky goods centres** at present. There are a number of individual bulky goods outlets in various locations within Ryde LGA including Domayne and Officeworks on Ryde Road. There are also a number of small stores selling homewares and related products at Top Ryde and the Macquarie Centre as well as some premises selling discounted bedding and furniture in light industrial areas in Ryde LGA including one on nearby Buffalo Road.

In addition there are a number of stores selling some products which would be classified as bulky goods-type merchandise—for instance, Myer, Big W, Target, JB Hi-Fi, Dick Smith and the like. These stores are located within major shopping centres such as Top Ryde and the Macquarie Centre. That said, in relation to department stores like Myer and discount department stores (DDSs) such as Big W and Target, sales of “bulky goods” merchandise comprise only a very small proportion of their total turnover.

Beyond Ryde LGA the major concentrations of bulky goods floorspace of relevance are found at the following locations:

- ▶ Artarmon/St Leonards ... 50,000 sq.m.
- ▶ Castle Hill ... 100,000 sq.m.
- ▶ Auburn ... 130,000 sq.m.
- ▶ Rhodes ... 27,000 sq.m.
- ▶ North Parramatta ... 30,000 sq.m..

Smaller concentrations of bulky goods outlets are found along major arterial roads to the east of Ryde such as Victoria Road, Drummoyne and Parramatta Road at Ashfield/Leichhardt.

4.2 Available Spending

As indicated in TABLE 2.2, total available bulky goods spending in the trade area in 2011 is estimated at \$232.0 million (\$2011) and is forecast to rise to \$252.4 million by 2016 (\$2011). Broadly, this volume of available spending would support between 56,000 and 72,000 m² of bulky goods floorspace assuming average sales of \$3,500 to \$4,500 per sq.m. per annum are achieved.

Taking into account existing bulky goods premises—as well as a proportion of the floorspace contained in department stores and DDSs (to account for those sales which could be classified as “bulky goods” in nature)—we estimate that at present the trade area is likely to contain at most around 15,000 m² of such space. Comparing this estimate to the volume of bulky goods floorspace which could be supported by available spending highlights clearly the substantial under-supply of such floorspace in the trade area at present. In summary, the extent of the under-supply of bulky goods floorspace is in the order of 40,000 to 57,000 m². Given the proposed development at Gladesville is planned to contain only 21,885 m², the existing under-supply of space suggests it can be accommodated within the local retail system without having a detrimental impact.

4.3 Impact on Existing Centres

The tenancy mix of the proposed bulky goods space has not been determined as yet. It is difficult, therefore, to estimate with any degree

of accuracy what its potential impact might be on other relevant centres.

Nonetheless, for the purposes of this Report we have prepared a preliminary estimate of what we consider possibly could be the impact of the development's proposed bulky goods component on other centres assuming the development achieved annual sales of around \$90 million in 2016 (\$2011). This level of turnover would accord with the average sales levels being achieved by leading bulky goods centres in Australia. We stress, however, that the actual turnover achieved (should the development proceed) will be highly dependent on the quality of tenants ultimately attracted to the Gladesville site.

In broad terms, we would expect around 85% of sales at the proposed centre to originate from spending by trade area residents. A relatively significant proportion of the centre's sales (15%) are expected to come from "passing trade" given its location on Victoria Road which is a significant arterial road within the Sydney Region.

On this basis, some \$76.5 million (\$2011) of the proposed bulky goods centre's total turnover in 2016 is likely to originate from spending by trade area residents. This is equivalent to approximately 30% of total available bulky goods retail spending estimated for the trade area in 2016 (\$252.4 million; \$2011). Hence, fully 70% of available bulky goods spending in 2016 (\$175.9 million; \$2011) would remain available to other centres and precincts in which bulky goods stores are located.

As indicated in TABLE 4.1 the estimated impact of the proposed bulky goods component of the development on any of the major bulky goods centres in the surrounding region is likely to be in the range of -6% to -10%. Impacts in this range fall within the generally accepted

“low/medium” category of impact and generally are considered to be acceptable. Impacts on the Gladesville centre and Top Ryde are expected to be minimal (that is, less than 5%) due to neither of these centres containing significant bulky goods-type traders.

TABLE 4.1
ESTIMATED IMPACT of PROPOSED BUNNINGS DEVELOPMENT on
RELEVANT BULKY GOODS CENTRES/PRECINCTS, 2016 (\$2011)

Centre/Precinct ...	Estimated Sales, 2016 (\$ Mil. per annum)	Impact on 2016 Sales (\$ Mil. per annum)	% Impact
Castle Hill	\$450.0	(\$30.0)	(6.7)
Rhodes	\$120.0	(\$7.0)	(5.8)
Artarmon/St Leonards	\$180.0	(\$15.0)	(8.3)
Auburn (Parramatta Road)	\$520.0	(\$30.0)	(5.8)
Ryde Centres	\$45.0	(\$2.5)	(5.6)
Other Centres	n.a.	(\$5.5)	n.a.

Source: Leyshon Consulting Estimates, May 2012.

5 IMPACT on LIGHT INDUSTRIAL AREA

Council has asked for comment on the potential impact of the proposed Bunnings development on the existing Gladesville Light Industrial Area. We understand this area comprises some 23.8 hectares and is one of only two areas identified for light industrial activities in Ryde LGA. The other (comprising 5.9 hectares) is located just to the east of the West Ryde town centre. The subject site comprising as it does approximately 3.8 hectares therefore constitutes 15.9% of the Gladesville Light Industrial Area.

The Gladesville Light Industrial Area is home to a wide range of small to medium-scale industrial premises including a significant number of automotive uses located along Buffalo Road. These appear to serve a regional market in terms of automotive services, smash repairs and the like. In addition, the area contains some non-industrial uses including indoor recreation, childcare facilities and office uses.

The area also contains a number of sites which are used for older, traditional industrial-type uses. One example is the CBM Timber Yard on Buffalo Road. This site appears to be a prime candidate for redevelopment.

Finally, there are also a significant number of smaller industrial unit complexes accessed off College Street. These provide accommodation for a wide range of companies providing industrial services, warehousing and distribution functions.

Our recent field inspection of the area found that quite a few premises within the Gladesville Light Industrial Area are currently vacant. Higher vacancy levels are comparatively common in many industrial areas in the Sydney Region at this time with leasing agents throughout Sydney having reported declining demand for industrial premises since the onset of the GFC.

It is also possible that the current vacancy level is consistent with the findings of the City of Ryde Employment Study 2010 which, among other things, found that demand for traditional industrial uses in Ryde LGA will tend to decrease in the near future.

It is impossible to be definitive about the potential impact of the proposed development on the balance of the Gladesville Light Industrial Area. For instance, the subject site in its current state is only partially occupied by industrial activities. Consequently, it is difficult to assess how important this particular 3.8 hectare parcel is in terms of the regional supply of light industrial land. As things currently stand, this land is making only a minimal contribution to maintaining industrial employment in Ryde LGA.

In the context of its proposed redevelopment, regard also needs to be had to the constraints which apply to this particular site compared with many other sites zoned for industrial uses. Effectively the Gladesville site is below ground level. This reduces its attractiveness to industrial activities which rely to some extent on visibility to passing traffic for their success. Examples of such businesses include vehicle servicing and repair, self storage operators, manufacturing and warehousing premises with a showroom component and the like.

The other issue which is sometimes raised in terms of the use of industrial land for forms of quasi-retailing is whether or not conversion

of the site to retail-type uses will give rise to rising land values in the immediate surrounding area. If this was to occur over time it could be expected to force out other established industrial uses.

In our opinion, this issue may be relevant if, for example, a change in zoning was being contemplated which would make bulky goods retailing permissible throughout the entire Gladesville Light Industrial Area. As this is not the case, it is unlikely development of the subject site (as proposed) will lead to increasing land values in the balance of the Gladesville Light Industrial Area with concomitant adverse outcomes for existing industrial uses.

In any event, with the exception of the subject site, the balance of land in the Gladesville Light Industrial Area is either intensively developed and/or lacks exposure to major roads such as Victoria Road. This makes such land unsuitable for redevelopment for bulky goods retailing which typically requires main road frontage to trade successfully. This suggests that the proposed development can coexist with the uses found in the balance of the area without it adversely affecting either the role of the area or the existing uses found within it.

6

EMPLOYMENT GENERATION

The proposed Bunnings development at Gladesville will increase local employment opportunities. The extent of current employment on the site cannot be determined accurately but is likely to not exceed 50 employees.

We understand that the existing buildings on the site contain some 21,940.2 sq.m. of floorspace. If these buildings were fully occupied for industrial and related purposes, theoretically they could generate on-site employment of 258 to 400 positions depending on the type of tenants in the various buildings.

If the proposed Bunnings development proceeds, we estimate the following employment is likely to be created on-site:

▶	Bunnings Warehouse	...	150
▶	Bulky Goods Centre	...	337
▶	Commercial Building	...	50
▶	Total	...	537.

Hence, while the proposal involves the change in the use of the site from industrial to bulky goods retailing and timber and building supplies, the total employment growth to be gained by such a change is very significant at the local level. The proposed development will, therefore, contribute in a major way to the retention and creation of employment in the Gladesville Light Industrial Area in particular and in Ryde LGA more generally.



APPENDIX A

TABLE A1: Estimated Available Bulky Goods Spending - Ryde Hunters Hill Bunnings 2012 Trade Area, 2011 (\$2011)

	Hunters Hill LGA	Ryde LGA	TOTAL
Population 2011	14,663	107,307	121,970
Average Spending (\$2011)	12,927	11,743	11,885
Total Retail Spend (\$m) (\$2011)	189.5	1260.1	1449.6
Spending by Category			
Core Bulky Goods			
0701 Furniture and floor coverings	8.2	50.3	58.4
0703 Household appliances	4.9	31.9	36.8
110101 Audio-visual equipment and parts	5.8	36.8	42.6
TOTAL CORE BULKY GOODS	18.8	119.0	137.8
Ancillary Bulky Goods			
0702 Blankets, household linen and household furnishings	4.3	23.9	28.1
0704 Glassware, tableware, cutlery and household utensils	1.9	12.2	14.1
110102 Home computer equipment (including pre-packaged software)	3.0	20.4	23.4
1101051001 Camping equipment	0.3	1.4	1.7
100105 Motor vehicle parts and accessories purchased separately	3.6	23.3	26.9
TOTAL ANCILLARY BULKY GOODS	13.1	81.1	94.2
Hardware			
0705010101 Lawnmowers (including electric)	0.1	0.8	1.0
0705010201 Gardening tools	0.3	1.8	2.1
0705010301 Other hand and power tools	1.1	6.6	7.7
0705019999 Tools and other household durables nec	1.5	9.6	11.1
0801010101 Nails, screws and other fasteners	0.1	0.8	0.9
0801010601 Trees, shrubs and plants	0.7	4.6	5.3
0801010701 Other gardening products	0.7	4.4	5.2
0801010801 Swimming pool chemicals	0.3	2.6	2.9
0801019999 Household non-durables nec	1.3	8.6	9.9
TOTAL HARDWARE	6.1	39.9	45.9
Home Renovations/Improvement			
010106 Repairs and maintenance (materials only)	3.5	31.4	34.9
Capital Housing Costs: 16010103 Additions and extensions	4.9	22.3	27.3
Capital Housing Costs: 16010104 Internal renovations	7.2	35.7	42.9
Capital Housing Costs: 16010105 Insulation	0.1	0.9	1.1
Capital Housing Costs: 16010107 Outside building	1.7	9.6	11.3
Capital Housing Costs: 16010109 Other outside improvements	4.0	24.5	28.5
TOTAL HOME RENOVATIONS/IMPROVEMENT	21.5	124.5	145.9
Total Bulky Goods	59.4	364.5	423.8

TABLE A2: Estimated Available Bulky Goods Spending - Ryde Hunters Hill Bunnings 2012 Trade Area, 2016 (\$2011)

	Hunters Hill LGA	Ryde LGA	TOTAL
Population 2011	15,000	111,300	126,300
Average Spending (\$2011)	13,586	12,342	12,490
Total Retail Spend (\$m) (\$2011)	203.8	1373.7	1577.5
Spending by Category			
Core Bulky Goods			
0701 Furniture and floor coverings	8.8	54.8	63.6
0703 Household appliances	5.2	34.8	40.0
110101 Audio-visual equipment and parts	6.2	40.2	46.4
TOTAL CORE BULKY GOODS	20.2	129.7	149.9
Ancillary Bulky Goods			
0702 Blankets, household linen and household furnishings	4.6	26.0	30.6
0704 Glassware, tableware, cutlery and household utensils	2.1	13.3	15.4
110102 Home computer equipment (including pre-packaged software)	3.2	22.2	25.5
1101051001 Camping equipment	0.3	1.5	1.8
100105 Motor vehicle parts and accessories purchased separately	3.8	25.4	29.3
TOTAL ANCILLARY BULKY GOODS	14.0	88.4	102.5
Hardware			
0705010101 Lawnmowers (including electric)	0.1	0.9	1.1
0705010201 Gardening tools	0.3	2.0	2.3
0705010301 Other hand and power tools	1.1	7.2	8.4
0705019999 Tools and other household durables nec	1.6	10.4	12.0
0801010101 Nails, screws and other fasteners	0.1	0.8	0.9
0801010601 Trees, shrubs and plants	0.7	5.0	5.7
0801010701 Other gardening products	0.8	4.8	5.6
0801010801 Swimming pool chemicals	0.3	2.9	3.2
0801019999 Household non-durables nec	1.3	9.4	10.8
TOTAL HARDWARE	6.5	43.5	50.0
Home Renovations/Improvement			
010106 Repairs and maintenance (materials only)	3.7	34.2	38.0
Capital Housing Costs: 16010103 Additions and extensions	5.3	24.3	29.6
Capital Housing Costs: 16010104 Internal renovations	7.8	38.9	46.6
Capital Housing Costs: 16010105 Insulation	0.1	1.0	1.2
Capital Housing Costs: 16010107 Outside building	1.8	10.5	12.3
Capital Housing Costs: 16010109 Other outside improvements	4.3	26.7	31.0
TOTAL HOME RENOVATIONS/IMPROVEMENT	23.1	135.7	158.8
Total Bulky Goods	63.8	397.3	461.2

TABLE A3: Estimated Available Bulky Goods Spending - Ryde Hunters Hill Bunnings 2012 Trade Area, 2021 (\$2011)

	Hunters Hill LGA	Ryde LGA	TOTAL
Population 2011	15,700	117,200	132,900
Average Spending (\$2011)	14,279	12,971	13,126
Total Retail Spend (\$m) (\$2011)	224.2	1520.3	1744.4
Spending by Category			
Core Bulky Goods			
0701 Furniture and floor coverings	9.6	60.6	70.3
0703 Household appliances	5.7	38.5	44.3
110101 Audio-visual equipment and parts	6.8	44.4	51.3
TOTAL CORE BULKY GOODS	22.2	143.6	165.8
Ancillary Bulky Goods			
0702 Blankets, household linen and household furnishings	5.1	28.8	33.8
0704 Glassware, tableware, cutlery and household utensils	2.3	14.7	17.0
110102 Home computer equipment (including pre-packaged software)	3.6	24.6	28.1
1101051001 Camping equipment	0.3	1.7	2.0
100105 Motor vehicle parts and accessories purchased separately	4.2	28.1	32.4
TOTAL ANCILLARY BULKY GOODS	15.5	97.9	113.3
Hardware			
0705010101 Lawnmowers (including electric)	0.2	1.0	1.2
0705010201 Gardening tools	0.4	2.2	2.6
0705010301 Other hand and power tools	1.2	8.0	9.3
0705019999 Tools and other household durables nec	1.8	11.5	13.3
0801010101 Nails, screws and other fasteners	0.1	0.9	1.0
0801010601 Trees, shrubs and plants	0.8	5.5	6.3
0801010701 Other gardening products	0.9	5.3	6.2
0801010801 Swimming pool chemicals	0.3	3.2	3.5
0801019999 Household non-durables nec	1.5	10.4	11.9
TOTAL HARDWARE	7.2	48.1	55.3
Home Renovations/Improvement			
010106 Repairs and maintenance (materials only)	4.1	37.9	42.0
Capital Housing Costs: 16010103 Additions and extensions	5.8	26.9	32.8
Capital Housing Costs: 16010104 Internal renovations	8.5	43.0	51.6
Capital Housing Costs: 16010105 Insulation	0.2	1.1	1.3
Capital Housing Costs: 16010107 Outside building	2.0	11.6	13.6
Capital Housing Costs: 16010109 Other outside improvements	4.8	29.6	34.3
TOTAL HOME RENOVATIONS/IMPROVEMENT	25.4	150.2	175.6
Total Bulky Goods	70.2	439.7	509.9

**ECONOMIC NEED
ASSESSMENT**

~

**MAJOR HARDWARE STORE
in
RYDE LGA**

Prepared For:
BUNNINGS GROUP LIMITED

Prepared By:
LEYSHON CONSULTING PTY LTD
SUITE 1106 LEVEL 11
109 PITT STREET
SYDNEY NSW 2000

TELEPHONE (02) 9224- 6111
FACSIMILE (02) 9224-6150

REP 0907
JULY 2009
© Leyshon Consulting Pty Ltd 2009

TABLE of CONTENTS

	Page
DISCLAIMER	
EXECUTIVE SUMMARY.....	i-iii
1 INTRODUCTION.	1
2 EXISTING SERVICES	3
3 DEMAND ESTIMATES.....	4
3.1 Introduction.	4
3.2 Demographics.....	4
3.3 Projected Population Growth.	7
3.4 Projected Spending Growth.....	8
3.5 Growth in Floorspace Demand.	11
4 SURVEY RESULTS	14
4.1 Introduction.	14
4.2 Frequency of Hardware Store Visitation.....	14
4.3 Hardware Store Last Visited	15
4.4 Hardware Products Purchased	17
4.5 Satisfaction with Hardware Services	17
4.5.1 Range and Quality.....	17
4.5.2 Price Competitiveness.....	18
4.5.3 Residents' Proximity to Stores.	18
4.6 Survey Sample Demography.	19
5 CONCLUSION	20
APPENDIX A : BULKY GOODS EXPENDITURE CATEGORIES	
APPENDIX B : SURVEY QUESTIONNAIRE	
APPENDIX C : TABULAR SURVEY RESULTS	

LIST of TABLES

- 3.1 : SUMMARY of KEY DEMOGRAPHIC ATTRIBUTES of RYDE LGA POPULATION and COMPARATIVE DATA for SYDNEY STATISTICAL DIVISION (SSD), 2006(% Population)
- 3.2 : ESTIMATED RESIDENT POPULATION – RYDE LGA, 2006-16 (No. Persons)
- 3.3 : ESTIMATED TOTAL AVAILABLE BULKY GOODS SPENDING – RYDE LGA, 2009-16 (\$2009)
- 3.4 : SUMMARY of ESTIMATED GROWTH in AVAILABLE BULKY GOODS-TYPE/HARDWARE SPENDING by CATEGORY – RYDE LGA, 2009-16 (\$2009; \$Mil p.a.)

LIST of FIGURES

- 2.1 : HARDWARE STORES – RYDE AREA

DISCLAIMER

This Report has been prepared solely for the purposes recorded at Section 1 of the Report and solely for the benefit of the party to whom the report is addressed. No third party is entitled to rely upon this Report for any purpose without the written consent of Leyshon Consulting Pty Ltd having first been sought and obtained.

This Report involves the making of future projections. Those projections are grounded upon the facts and matters contained in this Report. Some or all of those facts and matters comprise assumptions and/or representations upon which Leyshon Consulting Pty Ltd has relied but about which it has no knowledge of its own. By reason of this, Leyshon Consulting Pty Ltd cannot warrant or represent the correctness or accuracy of such assumptions and/or representations. It follows that, while the projections contained in this Report are made with care and judgment, Leyshon Consulting Pty Ltd cannot confirm, warrant or guarantee that actual results achieved will be consistent with the results projected by this Report.



EXECUTIVE SUMMARY

Introduction Section 1

This Report has been prepared for Bunnings Group Limited (Bunnings) by Leyshon Consulting Pty Ltd. The Report presents an analysis of the need for a major Bunnings hardware store in Ryde Local Government Area (LGA). The Report has been prepared in the context of a potential application by Bunnings for the rezoning of land in Ryde LGA to develop a major hardware store.

At present, Bunnings does not have a hardware store of any size in Ryde LGA. The nearest Bunnings stores are found at Thornleigh, Carlingford, Artarmon and Auburn.

Existing Services Section 2

There are only a limited number of hardware stores within Ryde LGA at present namely:

- ▶ Coxes Road Hardware at North Ryde
- ▶ Taffa's Mitre 10 at West Ryde
- ▶ Weils Mitre 10 at Gladesville.

Each of these stores is relatively small by contemporary standards and offers a comparatively restricted range of products.

Demand Estimates Section 3

Ryde LGA had an estimated resident population (ERP) in 2006 of 100,962 persons.

By 2016—assuming the growth rates of the recent past are generally maintained—the population of Ryde LGA should reach some 108,923 person, an increase of +7,961 persons over 2006 levels.

Annual available **bulky goods-type** spending in Ryde is estimated to rise from \$367.4 million in 2009 to \$405.3 million in 2016—an increase in annual spending of +\$38.0 million (\$2009).

Annual available spending on **hardware, home renovations and improvements** is estimated to increase from \$162.6 million per annum in 2009 to \$179.4 million per annum in 2016—an increase of +\$16.8 million in annual available spending (\$2009).

EXECUTIVE SUMMARY

Demand Estimates Cont'd

Broadly, Ryde LGA could support approximately 53,895 sq.m. of bulky goods-type floorspace at present and in the order of 50,800-65,000 sq.m. of hardware and home renovations and improvements-type floorspace.

The absence of any major bulky goods centre or any major hardware stores in Ryde LGA suggests a significant under-supply of such space exists. This in turn implies a very substantial level of "escape expenditure" is flowing out of Ryde LGA to centres/precincts located in areas such as Rhodes, Auburn, North Parramatta, Artarmon/St Leonards, Alexandria and the like.

Based on the extent of the projected spending growth for bulky goods in general, and hardware/home renovations and improvements services in particular we conclude a substantial need exists for the provision of this type of floorspace within Ryde.

Survey Results Section 4

To obtain a more detailed understanding of the need for a major hardware store in Ryde LGA Leyshon Consulting designed and oversights the conduct of a telephone survey of 300 residents of Ryde LGA.

The survey found that hardware stores are visited relatively frequently. For example, about a quarter of the sample had visited a hardware store in the past week while a further 19% had visited a hardware store in the past two to three weeks.

As far as Ryde residents are concerned, the most frequently visited stores were:

▶ Bunnings Artarmon	...	16%
▶ Cox's Road Hardware, North Ryde	...	14%
▶ Bunnings Auburn	...	13%
▶ Taffa's Mitre 10 Handy, West Ryde	...	12%
▶ Bunnings Carlingford	...	7%
▶ Bunnings Thornleigh	...	7%
▶ Weils Mitre 10 Handy, Gladesville	...	6%

The survey also probed attitudes toward the provision of hardware stores in Ryde. Overall, 40% of respondents reported some level of dissatisfaction with the **quality/range** of hardware stores in the Ryde area.

EXECUTIVE SUMMARY

Survey Results Cont'd

Close to a third (32%) of respondents indicated they were either "very dissatisfied" or "dissatisfied" with the **price competitiveness** of hardware stores in the Ryde area.

Meanwhile, about one half of respondents (51%) described their attitude as either being "somewhat dissatisfied", "dissatisfied" or "very dissatisfied" with their **proximity to hardware stores**.

The survey findings point clearly to a significant level of dissatisfaction on the part of Ryde residents with the range, competitiveness and accessibility of hardware stores.

Conclusion Section 5

There are no major hardware stores located within Ryde LGA at present.

Substantial latent demand exists, however, for both bulky goods-type floorspace in general and floorspace devoted to hardware, home renovations and improvements goods and services in particular.

We conclude an overwhelming case exists for the rezoning of land in Ryde to facilitate the development of a major hardware store of the type envisaged by Bunnings.



1

INTRODUCTION

This Report has been prepared for Bunnings by Leyshon Consulting Pty Ltd. The Report presents an analysis of the need for a major Bunnings hardware store in Ryde Local Government Area (LGA).

We understand that for a number of years Bunnings has been endeavouring to find a suitable site in Ryde LGA for a major hardware store. To date, the only suitable sites identified have required rezoning to permit such a development.

In broad terms, retail hardware stores in Australia can be divided into three categories viz:

- * **Small** ... generally convenience-oriented stores offering a restricted range of merchandise in areas of <1,000 sq.m.. Such stores are often found in traditional commercial centres—for instance, Thrifty Link, Mitre 10 Handy
- * **Medium** ... generally stores of between 1,000-3,500 sq.m. with a medium range of merchandise. These stores can include a small timber yard and nursery and are found in centres or industrial areas—for instance, Mitre 10 and independents
- * **Major/Large** ... large format stores providing a very wide range of merchandise, dedicated trade desk, drive-through timber yard and nursery. Generally such stores occupy between 4,000-12,500 sq.m.—examples include Bunnings, Mitre 10 Mega, Magnet Mart.

2

EXISTING SERVICES

There are only a limited number of retail hardware stores within Ryde LGA at present. The locations of these stores are shown in FIGURE 2.1.

The three most significant stores are:

- ▶ Coxes Road Hardware at North Ryde
- ▶ Taffa's Mitre 10 at West Ryde
- ▶ Weils Mitre 10 at Gladesville.

Each of the stores is relatively small by contemporary standards and offers a relatively restricted range of products.

The hardware stores operated by Bunnings in suburbs close to Ryde are at Thornleigh and Carlingford. To the south of Ryde LGA Bunnings operated store at Auburn.

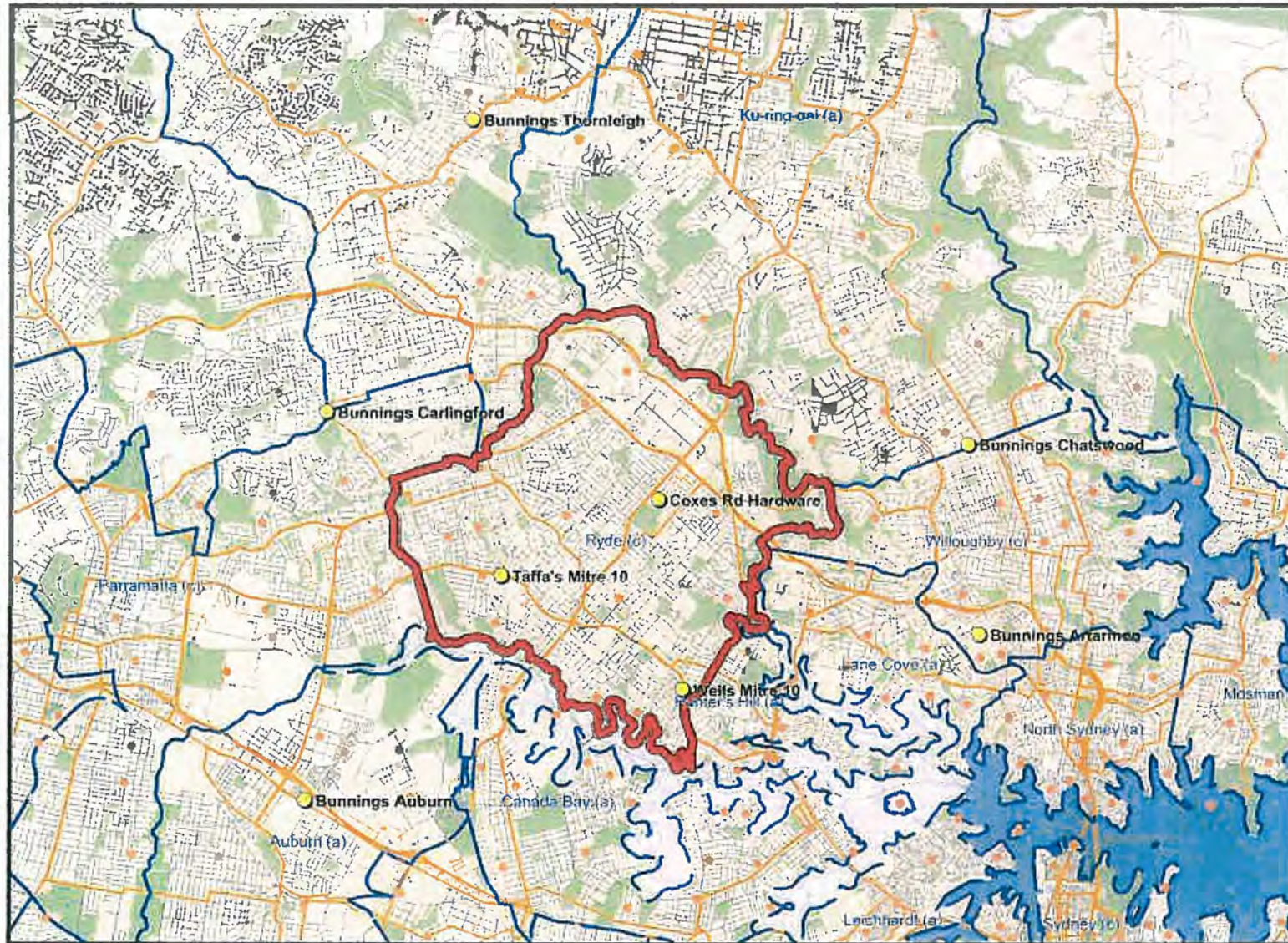
FIG 2.1: Hardware Stores Ryde LGA

Legend

-  Custom Boundary
-  AUS Cities
-  Local Government Areas
-  Highways and Major Roads



0 2 4
Kilometres



Data Source:

At present, Bunnings do not have a hardware store of any size in Ryde LGA. The nearest Bunnings stores are found at Thornleigh, Carlingford, Artarmon and Auburn. Some of these stores were not developed by Bunnings themselves but were “inherited” following the acquisition of the former BBC hardware chain in 2002.

In analysing the need for a major Bunnings hardware store in Ryde LGA we have undertaken the following tasks:

- ▶ identified the location of existing hardware stores in and adjacent to Ryde LGA
- ▶ prepared estimates of annual available expenditure generated in relevant merchandise categories in Ryde LGA to 2016
- ▶ estimated the potential demand for bulky goods/hardware floorspace in Ryde LGA to 2016
- ▶ undertaken a survey of 300 households in Ryde to determine their current shopping patterns with respect to hardware and satisfaction levels with existing hardware stores.

3

DEMAND ESTIMATES

3.1 Introduction

We have prepared an estimate of the demand for bulky goods in general, and hardware and related services in particular, in Ryde LGA for the period 2009-16. This analysis has focussed on the demand generated by resident spending. In addition, considerable demand across these merchandise categories is generated by local tradesmen.

Any major Bunnings hardware store would attract shoppers from outside Ryde LGA. In this instance, however, the analysis of demand has been confined to Ryde itself so as to provide Council with a clear understanding of the potential local demand for hardware services.

3.2 Demographics

TABLE 3.1 summarises the demographic characteristics of the population residing in Ryde LGA at the 2006 Census.

TABLE 3.1
SUMMARY of KEY DEMOGRAPHIC ATTRIBUTES of RYDE LGA
POPULATION and COMPARATIVE DATA for SYDNEY
STATISTICAL DIVISION (SSD), 2006(% Population)

Variable ...	Ryde LGA	SSD
Population Count, 2006 (No. Persons)	96,948	4,119,190
Age Structure		
0-9 years	11.3	13.0
10-19	11.1	13.1
20-29	16.1	14.6
30-39	15.7	15.6
40-49	15.1	14.7
50-59	12.1	12.2
60+	18.6	16.8
Household Structure		
Couples & Children	23.6	36.1
Couples Only	33.6	24.3
Single Parents	9.3	11.4
Other	1.9	1.5
Total Family	68.4	73.3
Non-Family Households		
Lone Person	26.6	22.6
Group	5.0	4.1
Total Non-Family	31.6	26.7
Average Household Size (persons/dwelling)		
	2.72	2.68
Occupational Structure		
Managers	13.7	13.2
Professionals	29.3	23.8
Technicians & Trade Workers	11.3	12.7
Community & Personal Service Workers	7.2	8.0
Clerical & Administrative Workers	17.7	16.7
Sales Workers	9.0	9.5
Machinery Operators & Drivers	3.4	6.0
Labourers	6.6	8.0
Inadequately Described/Not Stated	1.8	2.1
Unemployment Rate	4.7	5.3

TABLE 3.1
SUMMARY of KEY DEMOGRAPHIC ATTRIBUTES of RYDE LGA
POPULATION and COMPARATIVE DATA for SYDNEY
STATISTICAL DIVISION (SSD), 2006 (% Population)

Variable ...	Ryde LGA	SSD
Annual Household Income		
Nil/Negative	2.3	1.5
\$0-\$7,799	1.7	1.6
\$7,800-\$12,999	4.9	4.9
\$13,000-\$18,199	6.6	6.4
\$18,200-\$25,999	3.8	4.4
\$26,000-\$33,799	9.0	9.4
\$33,800-\$41,599	6.2	6.3
\$41,600-\$51,999	6.9	7.1
\$52,000-\$62,399	10.9	10.9
\$62,400-\$72,799	4.8	5.6
\$72,800-\$88,399	8.5	8.6
\$88,400-\$103,999	7.6	7.4
\$104,000-\$129,999	7.9	7.9
\$130,000-\$155,999	9.2	8.7
Above \$156,000	9.7	9.3
Average Household Income (\$2006)	\$74,436	\$73,724

Source: Australian Bureau of Statistics (ABS) Census, 2006.

As indicated in TABLE 3.1, the population in Ryde LGA had a comparatively similar age structure to the Sydney Statistical Division (SSD) in 2006 albeit with a somewhat smaller proportion of children/teenagers than the SSD (22.4% compared with 26.1%). The proportion of young adults (those aged 20-29 years) was somewhat higher than the SSD average (16.1% versus 14.6%). Similarly the proportion of older residents (60+ years) was also higher than the SSD average (18.6% versus 16.8%).

In terms of household structure, Ryde LGA had a significantly lower proportion of traditional family households (that is, couples plus

dependent children; 23.6% versus 36.1% and a significantly higher proportion of couple only families (33.6% versus 23.3%). The proportion of lone person households in Ryde was also higher than the SSD average in 2006 (26.6% versus 22.6%).

In terms of occupational structure, Ryde LGA was broadly similar to the SSD in 2006 apart from a significantly higher proportion of professionals (29.3%) compared with 23.8% in the SSD. Meanwhile the proportion employed as machine operators, drivers and labourers was lower than the SSD average (10% versus 14%).

The unemployment rate in Ryde LGA in 2006 was 4.7% somewhat below the 5.3% in the SSD in 2006.

The average household income in Ryde in 2006 was estimated at \$74,436 per household per annum (\$2006)—only about 1% above the SSD average of \$73,724 per household per annum.

3.3 Projected Population Growth

As indicated in TABLE 3.2, Ryde LGA had an estimated resident population (ERP) in 2006 of 100,962 persons.

TABLE 3.2
ESTIMATED RESIDENT POPULATION – RYDE
LGA, 2006-16 (No. Persons)

Year ...	PTA
2006	100,962
2009	104,248
2011	105,563
2013	106,894
2016	108,923
Increase 2006-09	3,286

TABLE 3.2
ESTIMATED RESIDENT POPULATION – RYDE
LGA, 2006-16 (No. Persons)

Year ...	PTA
Increase 2009-11	1,315
Increase 2011-13	1,331
Increase 2013-16	2,029
Increase 2006-16	7,961

Source: ABS 2006 and Leyshon Consulting
 Projections, June 2009.

According to the ABS, the average annual population growth rate in Ryde between 2002-07 averaged some + 0.65% per annum. As can be noted from TABLE 3.2, by 2016—assuming the growth rates of the recent past are generally maintained—the population of Ryde LGA should reach some 108,923 person, an increase of +7,961 persons since 2006.

3.4 Projected Spending Growth

Taking into account the population projection for Ryde LGA (as set out in TABLE 3.2) estimates have been prepared of available bulky goods and hardware expenditure generated in the LGA between 2009-16.

To facilitate this analysis, estimates also have been prepared of average annual per capita retail spending levels based on data from the following sources:

- ▶ ABS 2006 Census
- ▶ ABS 2003-04 Household Expenditure Survey
- ▶ ABS Consumer Price Index 2006-09
- ▶ ABS average weekly earnings, New South Wales 2006-09.

For the purposes of this Report we have identified a range of household expenditure categories which we consider form part of the general pool of available bulky goods-type spending. These categories are derived from the 2003-04 Household Expenditure Survey (HES) undertaken by the ABS and include the following:

- ▶ furniture and floor coverings
- ▶ household furnishings and equipment
- ▶ electrical appliances/whitegoods
- ▶ household non-durables
- ▶ motor vehicles, parts and accessories
- ▶ audio visual equipment and parts
- ▶ home computer equipment
- ▶ selected recreational equipment
- ▶ hardware and related products
- ▶ expenditure on home renovations and improvements (part only).

A full listing of the expenditure categories used in our analysis is provided at APPENDIX A to this Report.

As indicated in TABLE 3.3 (and summarised in TABLE 3.4), annual available **bulky goods-type** spending in Ryde is estimated to rise from \$367.4 million in 2009 to \$405.3 million in 2016—an increase in annual spending of +\$38.0 million (\$2009).

Annual available spending on **hardware, home renovations and improvements** meanwhile is estimated to increase from \$162.6 million per annum in 2009 to \$179.4 million per annum in 2016—an increase of +\$16.8 million in annual available spending (\$2009).

TABLE 3.3
ESTIMATED TOTAL AVAILABLE BULKY GOODS SPENDING – RYDE LGA,
2009-16 (\$2009)

Factor ...	2009	2011	2013	2016
Population, 2009 (No. Persons)	104,248	105,563	106,894	108,923
Average Retail Spending (\$ per capita pa)	\$10,906	\$10,961	\$11,181	\$11,520
Total Available Spending (\$ Mil. pa)	\$1,136.9	\$1,157.1	\$1,195.2	\$1,254.8
Bulky Goods Spending (\$ Mil pa)				
Core				
Furniture & Floor Coverings	\$62.7	\$63.8	\$65.9	\$69.2
Household Appliances	\$35.9	\$36.6	\$37.8	\$39.6
Audio Visual Equipment/Parts	\$33.1	\$33.7	\$34.8	\$36.5
Sub-Total	\$131.7	\$134.1	\$138.5	\$145.3
Ancillary				
Blankets, Household Linen, Household Furnishings	\$19.2	\$19.6	\$20.2	\$21.2
Glassware, Tableware, Cutlery & Households Utensils	\$12.3	\$12.5	\$12.9	\$13.5
Home Computer Equipment (including pre-packaged software)	\$16.7	\$17.0	\$17.5	\$18.4
Camping & Recreation Goods	\$0.8	\$0.8	\$0.8	\$0.9
Motor Vehicle Parts & Accessories	\$24.1	\$24.6	\$25.4	\$26.6
Sub-Total	\$73.1	\$74.5	\$76.8	\$80.6
Hardware & Related	\$38.7	\$39.3	\$40.6	\$42.7
Home Renovations & Improvements	\$123.9	\$126.1	\$130.2	\$136.7
Total Available Bulky Goods Spending	\$367.4	\$374.0	\$386.1	\$405.3

Note: Errors due to rounding.

Source: Leyshon Consulting Estimates, June 2009.

3.5 Growth in Floorspace Demand

The estimates of growth in available spending on bulky goods, hardware, home renovations and improvement products outlined above can be converted into a nominal demand for additional floorspace.

In relation to traditional bulky goods (defined as those items under Core and Ancillary bulky goods in TABLE 3.3), we consider an appropriate average sales rate to adopt is some \$3,800 per sq.m. per annum. This rate has been adopted having regard to industry data on the performance of selected bulky goods centres across a wide range of national chain tenants.

In relation to the expenditure on hardware and related merchandise categories, industry data suggests that a range of sales from \$2,500 to \$3,200 per sq.m. per annum is appropriate.

In summary (TABLE 3.4 refers) we estimate total available spending on Core plus Ancillary bulky goods in 2009 is \$204.8 million (\$2009). In broad terms, therefore, Ryde LGA could support approximately 53,895 sq.m. of bulky goods-type floorspace at present. This excludes floorspace devoted to hardware and related activities.

TABLE 3.4
SUMMARY of ESTIMATED GROWTH in AVAILABLE BULKY
GOODS-TYPE/HARDWARE SPENDING by CATEGORY – RYDE
LGA, 2009-16 (\$2009; \$Mil p.a.)

Factor ...	2009	2016	Growth 2009-16
Total Core Bulky Goods	\$131.7	\$145.4	\$13.7
Total Ancillary Bulky Goods	\$73.1	\$80.6	\$7.5
Total Hardware	\$38.7	\$42.7	\$4.0
Total Home Renovations/Improvement	\$123.9	\$136.7	\$12.8
Total Bulky Goods/Hardware/Home Renovation & Improvements	\$367.4	\$405.4	\$38.0

Note: Errors due to rounding.

Source: Leyshon Consulting Estimates TABLE 3.3, June 2009.

Based on annual available expenditure of \$162.6 million on hardware, home renovations and improvements in 2009, Ryde LGA could support

in the order of 50,800-65,000 sq.m. of floorspace devoted to these types of uses.

Although we had not conducted a detailed audit of existing bulky goods/hardware-type floorspace within Ryde LGA for the purposes of this Report, the absence of any major bulky goods centre or any major hardware stores in the LGA suggests a significant under-supply of such space exists. This in turn implies a very substantial level of “escape expenditure” is flowing out of Ryde LGA to centres/precincts located in areas such as Rhodes, Auburn, North Parramatta, Artarmon/St Leonards, Alexandria and the like.

It is our conclusion—based on the extent of the projected spending growth for bulky goods in general, and hardware/home renovations and improvements services in particular—that a substantial need exists for the provision of this type of floorspace within Ryde LGA to meet an already significant and growing need. Moreover, the level of need for these types of services will only increase with further population and spending growth between 2009-16.

4

SURVEY RESULTS

4.1 Introduction

To obtain a more detailed understanding of the need for a major hardware store in Ryde LGA Leyshon Consulting designed and oversaw the conduct of a telephone survey of residents of Ryde LGA. The objective of the survey was to determine residents' current shopping patterns at hardware stores and their satisfaction levels with the existing hardware services on offer.

A sample of 300 households was obtained with all interviews conducted with someone within the household familiar with the household's shopping patterns for hardware and related products.

A copy of the questionnaire used in the survey (administered by market research firm ekas) is provided at APPENDIX B to this report. The detailed tabular survey results are provided at APPENDIX C.

The sample was stratified to obtain a representative spread of interviews across the suburbs comprising Ryde LGA. A breakdown of the number of interviews by suburb is provided in TABLE 1 (APPENDIX C).

The key findings of the survey are discussed below.

4.2 Frequency of Hardware Store Visitation

The frequency with which respondents visit hardware stores is detailed in TABLE 2, APPENDIX C.

As indicated in CHART 1, TABLE 2 hardware stores are visited relatively frequently. A quarter of the sample had visited a hardware store in the past week while a further 19% had visited a hardware store in the past 2 to 3 weeks. Overall, two thirds (64%) of respondents had visited a hardware store within the past month.

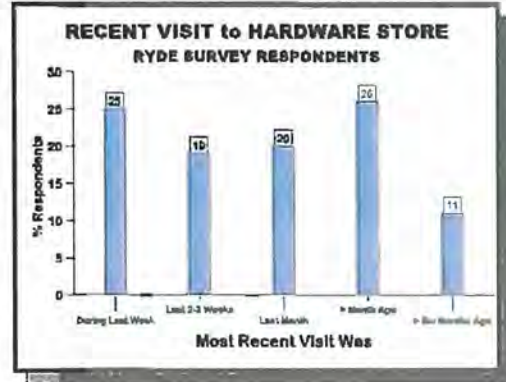


CHART 1
Source: Table 2 Survey Results

4.3 Hardware Store Last Visited

Information on the hardware store last visited by respondents was obtained (CHART 2, TABLE 3 refers).

Individual hardware stores last visited by survey respondents in rank order were as follows:

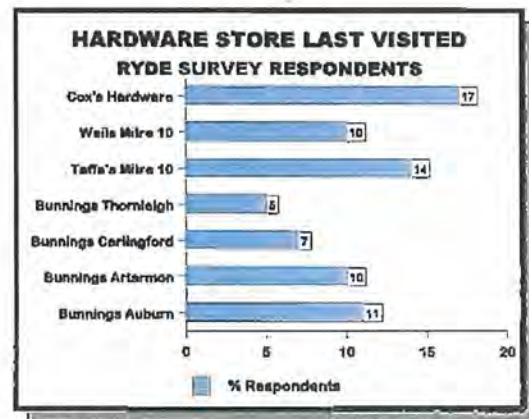


CHART 2
Source: Table 3 Survey Results

- ▶ Cox's Road Hardware, North Ryde ... 17%
- ▶ Taffa's Mitre 10 Handy, West Ryde ... 14%
- ▶ Bunnings Auburn ... 11%
- ▶ Weils Mitre 10 Handy, Gladesville ... 10%
- ▶ Bunnings Artarmon ... 10%
- ▶ Bunnings Carlingford ... 7%
- ▶ Bunnings Thornleigh ... 5%.

In our opinion it is notable that while there was significant recent patronage of relatively small hardware stores within the Ryde area, residents are still prepared to drive considerable distances to visit major hardware stores operated by Bunnings at Auburn, Artarmon, Carlingford and Thornleigh.

Respondents were also asked which store they patronised **most frequently** (CHART 3, TABLE 4 refers). In summary, the most frequently visited stores were:

- ▶ Bunnings Artarmon ... 16%
- ▶ Cox's Road Hardware, North Ryde ... 14%
- ▶ Bunnings Auburn ... 13%
- ▶ Taffa's Mitre 10 Handy, West Ryde ... 12%
- ▶ Bunnings Carlingford ... 7%
- ▶ Bunnings Thornleigh ... 7%
- ▶ Weils Mitre 10 Handy, Gladesville ... 6%.

As indicated above, Bunnings Artarmon was the most frequently visited store (16%) followed by the Cox's Road hardware store at North Ryde (14%) and Bunnings at Auburn (13%).

The data starkly highlights the fact that residents of Ryde are, on a regular basis, travelling quite some distance to patronise major hardware stores well outside Ryde LGA.

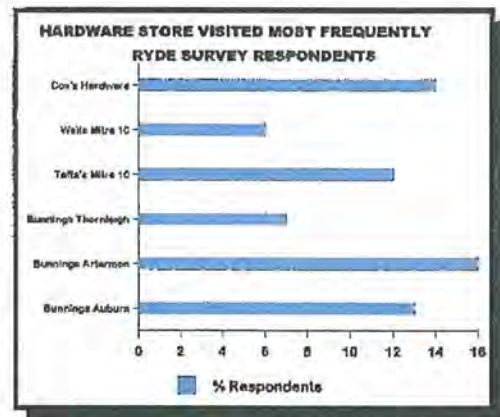


CHART 3
Source: Table 4 Survey Results

4.4 Hardware Products Purchased

Respondents were asked about the types of products they purchased on their last visit to a hardware store (TABLE 5, APPENDIX C refers). The types of goods most frequently purchased were as follows:

▶	nails/screws/fixings	...	26%
▶	gardening equipment	...	20%
▶	electrical goods	...	15%
▶	tools	...	15%
▶	paint	...	14%
▶	plumbing products	...	12%

4.5 Satisfaction with Hardware Services

4.5.1 Range and Quality

Respondents were asked how satisfied they were with the quality and range of hardware stores in the Ryde area (CHART 4, TABLE 6 refers). Less than half (42%) of the sample indicated they were either "satisfied" or "very satisfied" with the quality/range of hardware stores in the Ryde area.

A further 15% said they were "somewhat dissatisfied" while 25% were either "dissatisfied" or "very dissatisfied" with the quality and range of hardware stores in the Ryde area. Thus, overall 40% of respondents expressed some level of dissatisfaction with this issue.



CHART 4
Source: Table 6 Survey Results

4.5.2 Price Competitiveness

Respondents were also asked how satisfied they were with the price competitiveness of hardware stores in the Ryde area (CHART 5, TABLE 7 refers)

Slightly more than a third (34%) of respondents indicated that they were either “very satisfied” or “quite satisfied” with the price competitiveness of hardware stores in the Ryde area. A similar proportion (32%) expressed varying levels of dissatisfaction—18% described themselves as being either “dissatisfied” or “very dissatisfied” while 14% described themselves as “somewhat dissatisfied”.

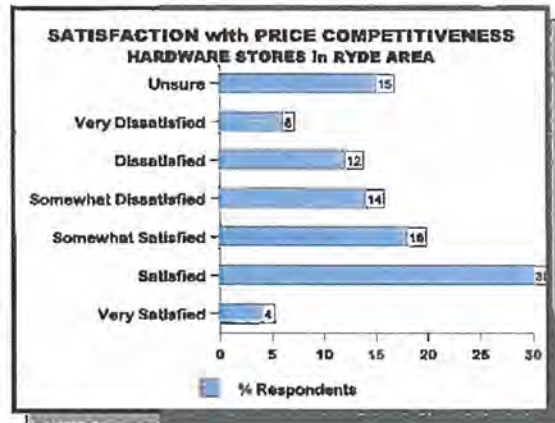


CHART 5
Source: Table 7 Survey Results

4.5.3 Residents' Proximity to Stores

Respondents were also asked about their level of satisfaction with the proximity of hardware stores to the suburb in which they lived (CHART 6, TABLE 8 refers).

Overall about one third (34%) were either “very satisfied” or “satisfied” with their proximity to hardware stores. Almost the same

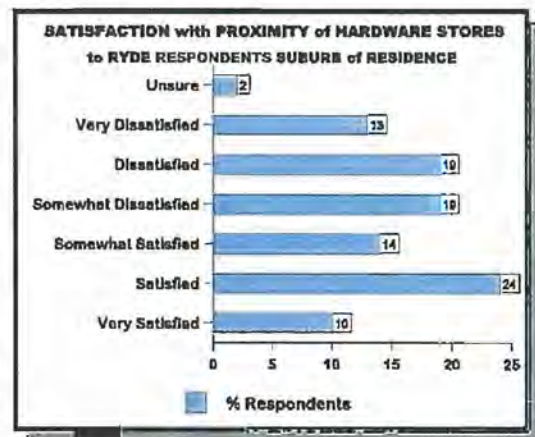


CHART 6
Source: Table 8 refers.

proportion (32%) described their attitude as either being "dissatisfied" or "very dissatisfied" with their proximity to hardware stores while 19% described themselves as being "somewhat dissatisfied".

In total, therefore, the majority of the sample (51%) expressed some degree of dissatisfaction with the proximity of local hardware stores to their place of residence.

Based on our past experience in conducting such surveys the data obtained in this instance points clearly to a significant level of dissatisfaction with the range, competitiveness and accessibility of hardware stores on the part of Ryde residents.

There is no doubt that if a major Bunnings hardware store was to be developed in Ryde LGA it would address the level of dissatisfaction which exists among residents by reducing the need for them to travel to more distant stores, substantially widening the range of hardware and related products available locally and, importantly, introducing substantial new price competition to the hardware sector in Ryde LGA.

4.6 Survey Sample Demography

Data on the sex and age of respondents is provided in TABLES 9 and 10 in APPENDIX C respectively. Data on a household type is provided in TABLE 11.

5 CONCLUSION

As indicated in this Report, there are no major hardware stores located within Ryde LGA. Nevertheless, substantial latent demand exists for both bulky goods-type floorspace in general and floorspace devoted to hardware, home renovations and improvements goods and services in particular.

We have estimated demand generated within Ryde LGA in 2009 for **traditional bulky goods floorspace** at approximately 53,895 sq.m.. The demand for **hardware, home renovations and improvements** floorspace meanwhile is estimated to range between 50,800-65,000 sq.m. at present. The demand for floorspace will increase by 2016 due to growth in annual available spending of an estimated +\$38.0 million (\$2009).

The survey of 300 households in Ryde LGA undertaken as part of this study reveals considerable locally-generated expenditure is “escaping”—that is, flowing out of Ryde LGA to hardware and bulky goods-type stores located at Artarmon, Auburn, Thornleigh and Carlingford.

Survey respondents reported a significant level of dissatisfaction with the range and quality, price competitiveness and accessibility of hardware stores in Ryde.

Taking the above factors into account, we conclude an overwhelming case exists for the rezoning of land in Ryde to facilitate the development of a major hardware store of the type envisaged by Bunnings.



APPENDIX A

APPENDIX A

BULKY GOODS EXPENDITURE CATEGORIES

(by ABS Household Expenditure Survey (HES) Category)

CORE

Furniture and floor coverings (0701)
Household appliances (0703)
Audio-visual equipment and parts (110101)

ANCILLARY

Blankets, household linen and household furnishings (0702)
Glassware, tableware, cutlery and household utensils (0704)
Home computer equipment (including pre-packaged software) (110102)
Camping equipment (1101051001)
Motor vehicle parts and accessories purchased separately (100105)

HARDWARE and RELATED

Lawnmowers (including electric) (0705010101)
Gardening tools (0705010201)
Other hand and power tools (0705010301)
Tools and other household durables nec (0705019999)
Nails, screws and other fasteners (0801010101)
Trees, shrubs and plants (0801010601)
Other gardening products (0801010701)
Swimming pool chemicals (0801010801)
Household non-durables nec (0801019999)

HOME RENOVATIONS and IMPROVEMENTS

Repairs and maintenance (materials only) (010106)

CAPITAL HOUSING COSTS

Additions and extensions (16010103)
Internal renovations (16010104)
Insulation (16010105)
Outside building (16010107)
Other outside improvements (16010109)

APPENDIX B

1. How recently have you visited a hardware store?

- i. During last week
- ii. Last 2-3 weeks
- iii. Last month
- iv. More than a month ago
- v. More than 6 months ago

2. Can you recall which hardware store you last visited?

- i. Bunnings Thornleigh
- ii. Bunnings Carlingford
- iii. Bunnings Artarmon
- iv. Bunnings Chatswood
- v. Seymour Building Supplies Gladesville (Victoria Road)
- vi. Cox's Road Hardware North Ryde
- vii. Taffa's Mitre 10 Handy West Ryde (Chatham Rd)
- viii. Weils Mitre 10 Handy Gladesville (Victoria Road)
- ix. Lane Cove Hardware & Builders' Supplies (Longueville Rd)
- x. Lindfield Hardware (Belfore Lane)
- xi. Turramurra Hardware (Pacific Hwy)
- xii. Other store (please specify) _____

3. Which store do you visit most frequently?

- i. Bunnings Thornleigh
- ii. Bunnings Carlingford
- iii. Bunnings Artarmon
- iv. Bunnings Chatswood
- v. Seymour Building Supplies Gladesville (Victoria Road)
- vi. Cox's Road Hardware North Ryde
- vii. Taffa's Mitre 10 Handy West Ryde (Chatham Rd)
- viii. Weils Mitre 10 Handy Gladesville (Victoria Road)
- ix. Lane Cove Hardware & Builders' Supplies (Longueville Rd)
- x. Lindfield Hardware (Belfore Lane)
- xi. Turramurra Hardware (Pacific Hwy)
- xii. Other store (please specify) _____

4. On your last visit, can you recall what products you purchased? (permit multiple answers)

- i. Paint
- ii. Timber
- iii. Tools
- iv. Gardening Equipment
- v. Electrical Goods
- vi. Storage Products
- vii. Landscaping
- viii. Nails/Screws/Fixings
- ix. Cleaning Products
- x. Plumbing Products
- xi. Other Products

5. How satisfied are you with the quality and range of hardware stores in the Ryde area?

- i. Very satisfied
- ii. Satisfied
- iii. Somewhat satisfied
- iv. Somewhat dissatisfied
- v. Dissatisfied
- vi. Very dissatisfied
- vii. Unsure

6. How satisfied are you with the price competitiveness of hardware stores in the Ryde area?

- i. Very satisfied
- ii. Satisfied
- iii. Somewhat satisfied
- iv. Somewhat dissatisfied
- v. Dissatisfied
- vi. Very dissatisfied
- vii. Unsure

7. How satisfied are you with the proximity of major hardware stores to your suburb?

- i. Very satisfied
- ii. Satisfied
- iii. Somewhat satisfied
- iv. Somewhat dissatisfied
- v. Dissatisfied
- vi. Very dissatisfied
- vii. Unsure

8. We would like to obtain some brief demographic details from you.

a. Age:

- 18-29 years
- 30-39 years
- 40-49 years
- 50-59 years
- 60+ years

b. Household Type:

- Couple + dependents
- Couple only
- Couple + non-dependents
- Single parent
- Single person
- Group household
- Other (please specify) _____

c. Name of suburb _____

APPENDIX C

RYDE HARDWARE - 22/05/2009

TABLE 1	PANEL *BY* Q8c.SUBURB	PAGE 1
TABLE 2	PANEL *BY* Q1.RECENT VISIT TO HARDWARE STORE	PAGE 2
TABLE 3	PANEL *BY* Q2.HARDWARE STORE LAST VISITED	PAGE 3
TABLE 4	PANEL *BY* Q3.HARDWARE STORE VISIT MOST FREQUENTLY	PAGE 5
TABLE 5	PANEL *BY* Q4.PRODUCTS PURCHASED ON LAST VISIT	PAGE 7
TABLE 6	PANEL *BY* Q5.LEVEL OF SATISFACTION WITH QUALITY/RANGE OF HARDWARE STORES IN RYDE AREA	PAGE 9
TABLE 7	PANEL *BY* Q6.LEVEL OF SATISFACTION WITH PRICE COMPETITIVENESS OF HARDWARE STORES IN RYDE AREA	PAGE 10
TABLE 8	PANEL *BY* Q7.LEVEL OF SATISFACTION WITH PROXIMITY OF HARDWARE STORES IN SUBURB	PAGE 11
TABLE 9	PANEL *BY* Q8.GENDER	PAGE 12
TABLE 10	PANEL *BY* Q8a.AGE	PAGE 13
TABLE 11	PANEL *BY* Q8b.HOUSEHOLD TYPE	PAGE 14

	Total	SUBURB														
		Denistone	Denistone East	Denistone West	East Ryde	Macquarie Park	Marsfield	Meadowbank	North Ryde	Putney	Ryde	Tennyson Point	West Ryde	Eastwood	Gladesville	Melrose Park
RESPONDENTS	300 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	8 100%	32 100%	10 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
QSc.SUBURB																
Denistone	11 4%	11 100%														
Denistone East	6 2%		6 100%													
Denistone West	2 1%			2 100%												
East Ryde	7 2%				7 100%											
Macquarie Park	17 6%					17 100%										
Marsfield	37 12%						37 100%									
Meadowbank	8 3%							8 100%								
North Ryde	32 11%								32 100%							
Putney	10 3%									10 100%						
Ryde	63 21%										63 100%					
Tennyson Point	4 1%											4 100%				
West Ryde	35 12%												35 100%			
Eastwood	37 12%													37 100%		
Gladesville	27 9%														27 100%	
Melrose Park	4 1%															4 100%

EXAS (Manly)
TABLE 2

PANEL #BY# Q1.RECENT VISIT TO HARDWARE STORE

	Total	SUBURB														
		Denistone East	Denistone East	Denistone West	East Ryde	Macquarie Park	Marsfield	Meadowbank	North Ryde	Putney	Ryde	Tennyson Point	West Ryde	Eastwood	Gladesville	Melrose Park
RESPONDENTS	300 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	0 100%	32 100%	10 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
Q1.RECENT VISIT TO HARDWARE STORE																
During last week	74 25%	2 18%	1 17%	1 50%	5 71%	2 12%	5 14%		10 31%	2 20%	21 33%		14 40%	6 16%	4 15%	1 25%
Last 2-3 weeks	57 19%	1 9%	3 50%	1 50%		5 29%	5 14%	1 13%	8 25%	2 20%	10 16%		7 20%	8 22%	5 19%	1 25%
Last month	60 20%	3 27%			1 14%	3 18%	9 24%	3 38%	3 9%	1 10%	10 16%	1 25%	7 20%	11 30%	7 26%	1 25%
More than a month ago	77 26%	4 36%	1 17%		1 14%	3 18%	14 38%	3 38%	7 22%	4 40%	16 25%	2 50%	6 17%	7 19%	8 30%	1 25%
More than 6 months ago	32 11%	1 9%	1 17%			4 24%	4 11%	1 13%	4 13%	1 10%	6 10%	1 25%	1 3%	5 14%	3 11%	

	Total	SUBURB														
		Denistone	Denistone East	Denistone West	East Ryde	Macquarie Park	Marsfield	Meadowbank	North Ryde	Putney	Ryde	Tennyson Point	West Ryde	Eastwood	Gladesville	Melrose Park
RESPONDENTS	300 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	8 100%	32 100%	10 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
Q2.HARDWARE STORE LAST VISITED																
NETT Bunnings RESPONDENTS	156 52%	5 45%	6 100%	1 50%	4 57%	11 65%	29 78%	5 63%	8 25%	6 60%	20 44%	1 25%	14 40%	26 78%	9 33%	3 75%
Bunnings Auburn	33 11%	2 10%	1 17%	1 50%	1 14%		2 5%	2 25%	1 3%	2 20%	11 17%		3 9%	1 3%	4 15%	2 50%
Bunnings Artarmon	30 10%		3 50%		2 29%	3 18%	7 19%		6 19%		3 5%		2 6%	1 3%	3 11%	
Bunnings Carlingford	22 7%	1 9%	2 33%				5 14%			1 10%	2 3%		2 6%	9 24%		
Bunnings Thornleigh	15 5%	2 18%				2 12%	1 3%				1 2%		2 6%	7 19%		
Bunnings Lidcombe	12 4%				1 14%	1 6%	1 3%				1 2%	1 25%	4 11%	2 5%		1 25%
Bunnings North Parramatta	9 3%				1 6%	5 14%			1 10%	1 2%			1 3%			
Bunnings Chatswood	8 3%				2 12%	3 8%				2 3%			1 3%			
Bunnings Ashfield	6 2%							1 13%	1 10%	2 3%			1 3%	1 4%		
Other Bunnings	21 7%				2 12%	5 14%	2 25%	1 3%	1 10%	5 8%			1 3%	3 8%	1 4%	
NETT Mitre 10 RESPONDENTS	74 25%	5 45%		1 50%			2 5%	2 25%	2 6%	4 40%	10 29%	2 50%	17 49%	5 14%	15 50%	1 25%
Taffa's Mitre 10 Handy West Ryde (Chatman Rd)	41 14%	5 45%		1 50%			1 3%	2 25%		1 10%	8 13%		17 49%	5 14%		1 25%
Wells Mitre 10 Handy Gladesville (Victoria Rd)	30 10%									3 30%	10 16%	2 50%			15 50%	

RYDE HARDWARE - 22/05/2009

EKAS (Mainly)
TABLE 3 (CONT.)

PANEL #BV# Q2.HARDWARE STORE LAST VISITED

PAGE 1

	Total	SUBURB														
		Denistone	Denistone	Denistone	East Macquarie	Marsfield	Meadowbank	North Ryde	Putney	Ryde	Tennyson	West Ryde	Eastwood	Gladesville	Melrose Park	
		East	West	Ryde	Park						Point	Ryde				
RESPONDENTS	369 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	8 100%	32 100%	10 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
Q2.HARDWARE STORE LAST VISITED																
Other Mitre 10	3 1%						1 3%		2 6%							
Cox's Road Hardware North Ryde	50 17%				2 29%	5 29%	6 16%		22 69%		12 19%		1 3%	2 5%		
Seymour Building Supplies Gladesville (Victoria Road)	3 1%				1 14%						1 2%					1 4%
Other	16 5%	1 9%				1 6%		1 13%			3 5%	1 25%	3 9%	1 11%		2 7%
Don't know	1 0%											1 2%				

	Total	SUBURB														
		Denistone	Denistone East	Denistone West	East Ryde	Macquarie Park	Marsfield	Meadowbank	North Ryde	Putney	Ryde	Tennyson Point	West Ryde	Eastwood	Gladesville	Belrose Park
RESPONDENTS	369 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	8 100%	32 100%	10 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
Q3.HARDWARE STORE VISIT MOST FREQUENTLY																
NETT Bunnings RESPONDENTS	177 59%	6 55%	6 100%	1 50%	5 71%	10 59%	31 84%	4 50%	11 34%	0 0%	32 51%	3 75%	10 60%	25 66%	13 40%	4 100%
Bunnings Artarmon	47 16%		4 67%		3 43%	3 10%	13 35%		10 31%		6 10%		2 6%	2 5%	4 15%	
Bunnings Auburn	39 13%	2 10%	1 17%	1 50%	1 14%		3 8%	2 25%		3 30%	13 21%		4 11%	2 5%	4 15%	3 75%
Bunnings Thornleigh	20 7%	2 10%				2 12%	3 8%				1 2%		2 6%	9 24%	1 4%	
Bunnings Lidcombe	14 5%	1 5%			1 14%	2 12%					3 5%		5 14%	1 3%		1 25%
Bunnings Carlingford	12 4%		1 17%				2 5%			1 10%	1 2%		3 9%	4 11%		
Bunnings Ashfield	11 4%							1 13%		2 20%	1 2%	2 50%	1 3%	2 5%	2 7%	
Bunnings North Parramatta	11 4%	1 9%					3 8%	1 13%		1 10%	2 3%			2 5%	1 4%	
Bunnings Chatswood	4 1%					1 6%	2 5%				1 2%					
Other Bunnings	19 6%					2 12%	5 14%		1 3%	1 10%	4 6%	1 25%	1 3%	3 8%	1 4%	
NETT Mitre 10 RESPONDENTS	56 19%	3 27%		1 50%		1 6%	2 5%	2 25%	2 6%	1 10%	13 21%	1 25%	15 43%	5 14%	10 37%	
Taffa's Mitre 10 Handy West Ryde (Chatman Rd)	35 12%	3 27%		1 50%			1 3%	2 25%			0 13%		15 43%	5 14%		
Wells Mitre 10 Handy Gladesville (Victoria Rd)	17 6%									1 10%	5 6%	1 25%			10 37%	

	Total	SUBURB														
		Denistone East	Denistone West	Denistone East	East Ryde	Macquarie Park	Marsfield	Meadowbank	North Ryde	Putney	Ryde	Tennyson Point	West Ryde	Eastwood	Gladesville	Melrose Park
RESPONDENTS	389 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	8 100%	32 100%	16 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
Q3.HARDWARE STORE VISIT MOST FREQUENTLY																
Other Mitre 10	4 1%					1 6%	1 3%		2 6%							
Cox's Road Hardware North Ryde	43 14%				1 14%	5 29%	4 11%		17 53%		13 21%			3 8%		
Seymour Building Supplies Gladesville (Victoria Road)	2 1%															2 7%
Other	17 6%	1 9%			1 14%	1 6%		1 13%	2 6%		4 6%		1 3%	4 11%		2 7%
No particular store	3 1%							1 13%		1 16%			1 3%			
Don't know	2 1%	1 9%									1 2%					

	Total	SUBURB														
		Denistone East	Denistone East	Denistone West	East Ryde	Macquarie Park	Marsfield	Meadowbank	North Ryde	Pulney	Ryde	Tennyson Point	West Ryde	Eastwood	Gladesville	Melrose Park
RESPONDENTS	399 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	8 100%	32 100%	19 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
Q4.PRODUCTS PURCHASED ON LAST VISIT																
Nails/Screws/Fixings	78 26%	1 9%	1 17%	1 50%	2 29%	5 29%	11 30%	1 13%	5 16%	2 20%	22 35%	2 50%	10 29%	10 27%	4 15%	1 25%
Gardening Equipment	59 20%	3 27%	2 33%		2 29%		9 24%	1 13%	9 20%	5 50%	10 16%		4 11%	11 30%	2 7%	1 25%
Electrical Goods (light globes and batteries)	45 15%	3 27%	1 17%		1 14%	5 29%	3 8%	1 13%	7 22%	3 30%	13 21%		3 9%	2 5%	2 7%	1 25%
Tools	44 15%	1 9%	1 17%		1 14%	5 29%	5 14%	1 13%	2 6%	2 20%	9 14%	1 25%	7 20%	4 11%	5 19%	
Paint	42 14%		2 33%		1 14%	2 12%	5 14%	1 13%	5 16%	1 10%	12 19%		6 17%	4 11%	3 11%	
Plumbing Products	35 12%	3 27%	1 17%				8 22%	1 13%	7 22%	1 10%	4 6%		2 6%	4 11%	3 11%	1 25%
Timber	22 7%		1 17%		1 14%	2 12%	4 11%		1 3%	1 10%	3 5%		3 9%	4 11%	1 4%	1 25%
Cleaning Products	22 7%	1 9%	1 17%				5 14%		2 6%	1 10%	5 8%	1 25%	6 17%			
Landscaping	12 4%				2 29%	1 6%	1 3%		2 6%		1 2%		1 3%	1 3%	2 7%	1 25%
Storage Products	10 3%	1 9%			1 14%				1 3%	1 10%	3 5%	1 25%	1 3%	1 3%		
Cement/Sand/Plaster/ Concrete	9 3%							1 13%	2 6%		1 2%			2 5%	3 11%	
Outdoor furniture/ Shade cloth/ Tarpaulin	9 3%					1 6%	1 3%	1 13%			2 3%		1 3%	1 3%	2 7%	
Locks/Keys	5 2%	1 9%							1 3%		2 3%		1 3%			
Gift Voucher	3 1%		1 17%				1 3%				1 2%					

RYDE HARDWARE - 22/05/2009

ENAS (Mainly)
TABLE 5 (CONT.)

PANEL #BY# Q4.PRODUCTS PURCHASED ON LAST VISIT

PAGE 8

	Total	SUBURB														
		Denistone	Denistone	Denistone	East	Macquarie	Marsfield	Meadowbank	North	Putney	Ryde	Tennyson	West	Eastwood	Gladesville	Melrose
		East	East	West	Ryde	Park			Ryde		Point	Ryde			Park	
RESPONDENTS	300 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	0 100%	32 100%	10 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
Q4.PRODUCTS PURCHASED ON LAST VISIT																
Other products	33 11%	2 10%		1 50%		1 6%	2 5%	1 13%	6 19%	1 10%	9 14%		2 6%	5 14%	3 11%	
Don't know/Can't recall	23 8%	1 9%				1 6%	5 14%		3 9%		3 5%	1 25%	1 3%	5 14%	3 11%	
No purchase	3 1%										1 2%		2 6%			
TOTALS	454 151%	17 155%	11 103%	2 100%	11 157%	23 135%	60 162%	9 113%	53 166%	18 100%	101 160%	6 150%	50 143%	54 146%	33 122%	6 150%

	Total	SUBURB														
		Denistone East	Denistone West	East Ryde	Macquarie Park	Marsfield	Meadowbank	North Ryde	Putney	Ryde	Tennyson Point	West Ryde	Eastwood	Gladesville	Melrose Park	
RESPONDENTS	399 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	8 100%	32 100%	10 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
QS.LEVEL OF SATISFACTION WITH QUALITY/RANGE OF HARDWARE STORES IN RYDE AREA																
Very satisfied (6)	39 13%				1 14%	4 24%	4 11%	1 13%	11 34%		9 14%		2 6%		4 15%	2 50%
Satisfied (5)	86 29%	4 36%	1 17%	1 50%	3 43%	1 6%	5 14%	3 38%	13 41%	7 70%	20 32%	2 50%	13 37%	8 22%	5 19%	
Somewhat satisfied (4)	46 15%	4 36%	1 17%	1 50%	1 14%	1 6%	3 8%		2 6%		11 17%		7 20%	7 19%	7 26%	1 25%
Somewhat dissatisfied (3)	46 15%	1 9%	3 50%			3 18%	9 24%	2 25%	5 16%	1 10%	6 10%		3 9%	10 27%	3 11%	
Dissatisfied (2)	43 14%	2 18%			2 29%	6 35%	7 19%	1 13%		1 10%	6 10%	1 25%	7 20%	6 16%	4 15%	
Very dissatisfied (1)	33 11%		1 17%				7 19%	1 13%	1 3%	1 10%	9 14%	1 25%	3 9%	5 14%	3 11%	1 25%
Unsure	8 3%					2 12%	2 5%				2 3%			1 3%	1 4%	
MEANS	3.76	3.91	3.17	4.50	4.14	3.60	3.11	3.75	4.04	4.10	3.89	3.25	3.74	3.19	3.73	4.25
STD. DEVIATION	1.59	1.14	1.33	0.71	1.57	1.72	1.66	1.75	1.25	1.52	1.66	2.06	1.50	1.35	1.61	2.36

	Total	SUBURB														
		Denistone	Denistone East	Denistone West	East Ryde	Macquarie Park	Marsfield	Meadowbank	North Ryde	Putney	Ryde	Tennyson Point	West Ryde	Eastwood	Gladesville	Melrose Park
RESPONDENTS	300 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	8 100%	32 100%	10 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
Q6.LEVEL OF SATISFACTION WITH PRICE COMPETITIVENESS OF HARDWARE STORES IN RYDE AREA																
Very satisfied (6)	13 4%	1 9%		1 50%				1 13%	3 9%		6 10%					1 25%
Satisfied (5)	89 30%	4 36%			3 43%	4 24%	9 24%	2 25%	16 50%	2 20%	17 27%	2 50%	15 43%	8 22%	6 22%	1 25%
Somewhat satisfied (4)	55 18%	2 18%	2 33%		1 14%	2 12%	6 16%	1 13%	7 22%	3 30%	11 17%		3 9%	10 27%	6 22%	1 25%
Somewhat dissatisfied (3)	42 14%		1 17%	1 50%		2 12%	5 14%		3 9%	2 20%	9 14%		5 14%	6 16%	7 26%	1 25%
Dissatisfied (2)	37 12%	4 36%	3 50%		2 29%	3 18%	3 8%	1 13%			9 14%	1 25%	6 17%	5 14%		
Very dissatisfied (1)	19 6%						4 11%	1 13%			7 11%		3 9%	1 3%	3 11%	
Unsure	45 15%				1 14%	6 35%	10 27%	2 25%	3 9%	3 30%	4 6%	1 25%	3 9%	7 19%	5 19%	
MEANS	3.77	3.82	2.83	4.50	3.83	3.64	3.48	3.83	4.66	4.08	3.68	4.08	3.66	3.63	3.55	4.50
STD. DEVIATION	1.39	1.54	0.98	2.12	1.47	1.29	1.45	1.94	0.81	0.82	1.57	1.73	1.47	1.16	1.30	1.29

	Total	SUBURB														
		Denistone	Denistone East	Denistone West	East Ryde	Macquarie Park	Marsfield	Meadowbank	North Ryde	Putney	Ryde	Tennyson Point	West Ryde	Eastwood	Gladesville	Melrose Park
RESPONDENTS	399 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	8 100%	32 100%	19 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
Q7.LEVEL OF SATISFACTION WITH PROXIMITY OF HARDWARE STORES IN SUBURB																
Very satisfied (6)	36 16%			1 50%	1 14%		2 5%		11 34%	1 10%	3 5%		2 6%		7 26%	2 50%
Satisfied (5)	73 24%	3 27%		1 50%	3 43%	3 18%	7 19%	2 25%	18 31%	5 50%	17 27%	1 25%	11 31%	6 16%	4 15%	
Somewhat satisfied (4)	42 14%	3 27%	1 17%			2 12%	2 5%	2 25%	2 6%		11 17%	1 25%	7 20%	8 22%	1 4%	2 50%
Somewhat dissatisfied (3)	56 19%	2 18%	3 50%			2 12%	12 32%	1 13%	6 19%		8 13%		4 11%	18 27%	8 30%	
Dissatisfied (2)	56 19%	2 18%		3 43%	6 35%	7 19%	1 13%	1 3%	2 20%	2 24%	15 24%	1 25%	7 20%	0 22%	3 11%	
Very dissatisfied (1)	38 13%	1 9%	2 33%		3 18%	7 19%	1 13%	2 6%	2 20%	7 11%	1 25%	3 9%	5 14%	4 15%		
Unsure	5 2%				1 6%		1 13%				2 3%		1 3%			
MEANS	3.49	3.45	2.50	5.50	3.86	2.75	3.03	3.43	4.56	3.78	3.41	3.00	3.65	3.85	3.70	5.00
STD. DEVIATION	1.59	1.37	1.22	0.71	1.77	1.44	1.52	1.51	1.52	1.95	1.52	1.83	1.50	1.29	1.81	1.15

RYDE HARDWARE - 22/05/2009

EXAS (Mainly)
TABLE 9

PANEL «BY» Q8.GENDER

PAGE 12

	Total	SUBURB														
		Denistone East	Denistone West	East Ryde	Macquarie Park	Marsfield	Meadowbank	North Ryde	Putney	Ryde	Tennyson Point	West Ryde	Eastwood	Gladesville	Melrose Park	
RESPONDENTS	300 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	0 100%	32 100%	10 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
Q8.GENDER																
Male	152 51%	5 45%	2 33%	2 100%	4 57%	10 59%	22 59%	3 30%	12 38%	4 40%	34 54%	1 25%	22 63%	17 46%	12 44%	2 50%
Female	148 49%	6 55%	4 67%		3 43%	7 41%	15 41%	5 63%	20 63%	6 60%	29 46%	3 75%	13 37%	20 54%	15 56%	2 50%

	Total	SUBURB														
		Denistone	Denistone	Denistone	East	Macquarie	Marsfield	Meadowbank	North	Putney	Ryde	Tennyson	West	Eastwood	Gladesville	Melrose
			East	West	Ryde	Park		Ryde			Point	Ryde			Park	
RESPONDENTS	300 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	8 100%	32 100%	19 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
QBa.AGE																
18-29 years	14 5%							2 6%			3 5%		2 6%	3 8%	4 15%	
30-39 years	45 15%	3 27%	1 17%			2 12%	10 27%		2 6%	1 10%	9 14%	1 25%	6 17%	4 11%	6 22%	
40-49 years	65 22%	1 9%	3 50%	1 50%	2 29%	1 6%	5 14%	1 13%	12 38%	2 28%	13 21%	1 25%	11 31%	6 16%	4 15%	2 50%
50-59 years	72 24%	1 9%	2 33%	1 50%		7 41%	11 30%	5 63%	6 19%	4 40%	11 17%		7 20%	10 27%	7 26%	
60 plus years	104 35%	6 55%			5 71%	7 41%	11 30%	2 25%	10 31%	3 30%	27 43%	2 50%	9 26%	14 38%	6 22%	2 50%

PANEL #BY# Q8b.HOUSEHOLD TYPE

	Total	SUBURB														
		Denistone	Denistone East	Denistone West	East Ryde	Macquarie Park	Marsfield	Meadowbank	North Ryde	Putney	Ryde	Tennyson Point	West Ryde	Eastwood	Gladesville	Melrose Park
RESPONDENTS	300 100%	11 100%	6 100%	2 100%	7 100%	17 100%	37 100%	8 100%	32 100%	10 100%	63 100%	4 100%	35 100%	37 100%	27 100%	4 100%
Q8b.HOUSEHOLD TYPE																
Single person	104 35%	3 27%			2 29%	14 82%	13 35%	6 75%	9 28%	2 20%	22 35%		11 31%	13 35%	9 33%	
Couple and dependents (children under 18)	80 27%	4 36%	3 50%	1 50%	2 29%	1 6%	6 16%		10 31%	4 40%	17 27%	2 50%	10 29%	13 35%	6 22%	1 25%
Couple only	53 18%	3 27%		1 50%	3 43%	1 6%	10 27%	1 13%	7 22%	2 20%	10 16%	1 25%	5 14%	4 11%	4 15%	1 25%
Couple and Non-dependents (children aged 18+)	24 8%		2 33%			1 6%	2 5%		2 6%	2 20%	5 8%		2 6%	3 8%	4 15%	1 25%
Single parent	14 5%						3 8%		3 9%		2 3%		1 3%	2 5%	3 11%	
Group household	12 4%						2 5%	1 13%	1 3%		2 3%	1 25%	4 11%			1 25%
Other	13 4%	1 9%	1 17%				1 3%				5 8%		2 6%	2 5%	1 4%	

**PROPOSED REZONING FOR
BULKY GOODS DEVELOPMENT
VICTORIA ROAD GLADESVILLE**

***Assessment of Traffic and
Parking Implications***

June 2012
(Revision B)

Reference 10192

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
Transportation, Traffic and Design Consultants
Suite 502, Level 5
282 Victoria Avenue
CHATSWOOD 2067
Telephone (02) 411 5660
Facsimile (02) 904 6622
Email: tpa@tpa.com.au

TABLE OF CONTENTS

1.	INTRODUCTION.....	1
2.	DEVELOPMENT SCHEME	2
	2.1 Site, Context and Existing Use	2
	2.2 Envisaged Development.....	3
3.	ROAD NETWORK AND TRAFFIC CONDITIONS.....	5
	3.1 Road Network.....	5
	3.2 Traffic Controls	6
	3.3 Traffic Conditions.....	7
	3.4 Future Circumstances.....	8
4.	TRAFFIC.....	10
5.	PARKING.....	14
6.	INTERNAL CIRCULATION AND SERVICING	15
7.	ISSUES	16
8.	CONCLUSION	21

APPENDIX A	EXISTING ROAD AND INTERSECTION ARRANGEMENTS
APPENDIX B	TRAFFIC SURVEYS
APPENDIX C	PROPOSED ROAD AND INTERSECTION ARRANGEMENTS
APPENDIX D	BUNNINGS TRAFFIC CHARACTERISTICS
APPENDIX E	DIVERTED TRIP RESEARCH
APPENDIX F	SCATES RESULTS

LIST OF ILLUSTRATIONS

FIGURE 1	LOCATION
FIGURE 2	SITE
FIGURE 3	ROAD NETWORK
FIGURE 4	TRAFFIC CONTROLS
FIGURE 5	EXISTING PEAK VOLUMES
FIGURE 6	PROJECTED FUTURE VOLUMES

1. INTRODUCTION

This report has been prepared to accompany an application to Ryde City Council for a proposed rezoning of a large existing industrial site to permit Hardware/Building Supplies and Bulky Goods use on Victoria Road at Gladesville (Figure 1).

The site is known as 'Enterprise Park' and the existing uses comprise a mix of warehouse, manufacturing, office/commercial and services uses with a gym and a childcare centre. The site has ready access to the arterial road system and is strategically located in relation to access for the central Metropolitan Area where there are only a limited number of Bunnings outlets at present.

The envisaged development, subject to the rezoning, would comprise:

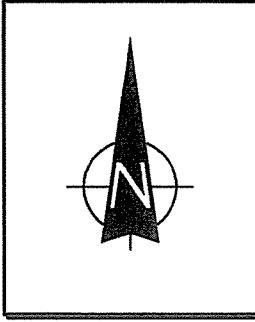
<u>Bunnings</u>	
Warehouse	
Trade Area	
Nursery, B/G's	
Total	15,255m²
<u>Bulky Goods</u>	21,885m²
<u>Retained Building</u>	1,200m²

The purpose of this report is to:

- * describe the site, its context and the development proposal
- * describe the road network serving the site and traffic conditions on that network
- * describe the proposed road network development
- * assess the traffic potential implications of the development
- * assess the proposed access, internal circulation and servicing arrangements.



LEGEND



LOCATION

FIG 1

2. DEVELOPMENT SCHEME

2.1 SITE, CONTEXT AND EXISTING USE

The site (Figure 2) is Lot 1 in DP 1008105 being a generally rectangular shaped area of some 3.8 ha with extensive frontages to Victoria Road, Frank Street and College Street located just to the west of the Gladesville Centre.

The site, which falls away sharply to the north (former quarry), is known as "Enterprise Park" and comprises:

- * manufacturing
- * showrooms
- * office/commercial
- * warehouse
- * gym
- * Child Care Centre

Total Floor Area 21,984m²

There are a number of access driveways along the College Street frontage and an access on Frank Street for the multi level building on the corner of Victoria Road.

The nearby uses comprise:

- * the Ryde Aquatic and Leisure Centre located on the southern side of Victoria Road.
- * the industrial uses along the western side of Frank Street and northern side of College Street.



SITE

LEGEND



SITE

FIG 2

- * the mixed uses extending along Victoria Road including educational, commercial, retail, automotive and fast food.
- * the surrounding residential areas.

2.2 ENVISAGED DEVELOPMENT

Due to the extreme level differences on the site the development scheme would involve a multi-level building complex as well as the retention of the greater part of the existing building on the corner of Victoria Road and Frank Street as follows:

Bunnings (2 levels)

Warehouse

Trade area

Total

15,255m²

Bulky Goods Retail (2 levels)

21,885m²

Retained Building

1,200m²

Parking for 895 cars will be provided on a two lower levels with vehicle accesses comprising:

- * a combined ingress/egress on the Frank Street frontage
- * a traffic signal controlled ingress/egress on Victoria Road integrated into the existing Victoria Road/Tennyson Road intersection
- * a combined ingress/egress on the corner of Frank Street and College Street

Bunnings delivery vehicles will ingress through the Frank Street access, circulate to the docks and travel along the northern boundary to egress to Victoria Road at the signal controlled intersection while the Bulky Goods delivery vehicles will ingress from Victoria Road.

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES

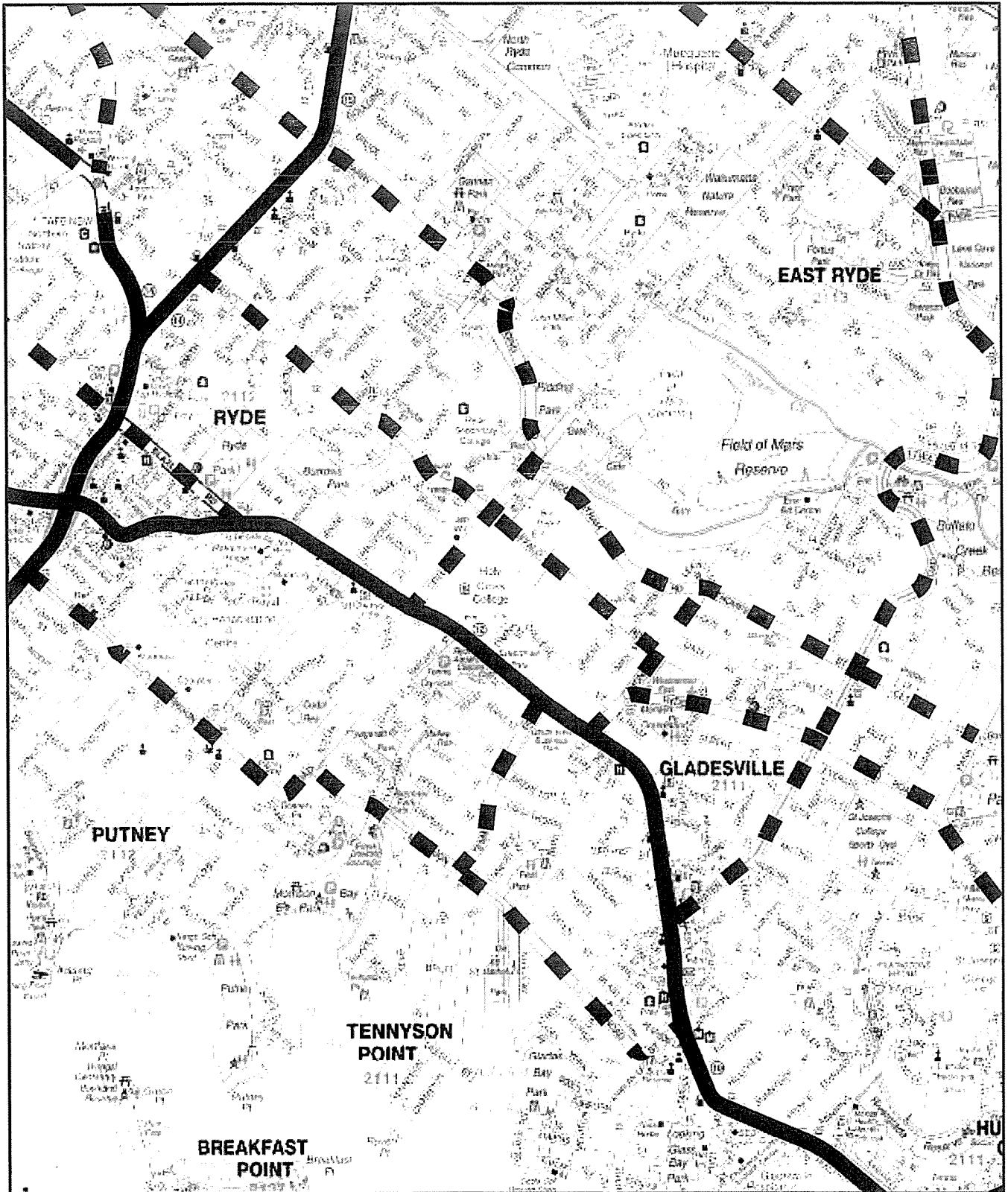
Details of the envisaged development are provided on the plan prepared by John R Brogan and Associates which accompany the Rezoning Application.

3. ROAD NETWORK AND TRAFFIC CONDITIONS




3.1 ROAD NETWORK

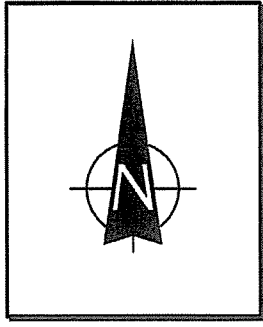
The road network serving the site (Figure 3) comprises:

- * *Church Street/Delhi Road/Lane Cove Road* – a State Road and arterial route linking across the centre of the Metropolitan Area
- * *Victoria Road* – a State Road and arterial route which links between the City and Parramatta
- * *Pittwater Road* – a Regional Road and major collector route connecting between Victoria Road and Epping Road
- * *Morrison Road* – a collector road, linking between Church Street and Victoria Road
- * *Monash Road-Ryde Road* – a Regional Road and collector road connecting between Victoria Road and Hunters Hill
- * *Buffalo Road and Quarry Road/Paldais Road* – collector road routes connecting east-west across Lane Cove Road and Pittwater Road
- * *Tennyson Road* – a minor collector road connecting to the south of Victoria Road
- * *Frank Street/College Street* – a local road route linking between Victoria Road and Monash Road.



LEGEND

-  ARTERIAL
-  SUB-ARTERIAL
-  COLLECTOR



ROAD NETWORK

FIG 3

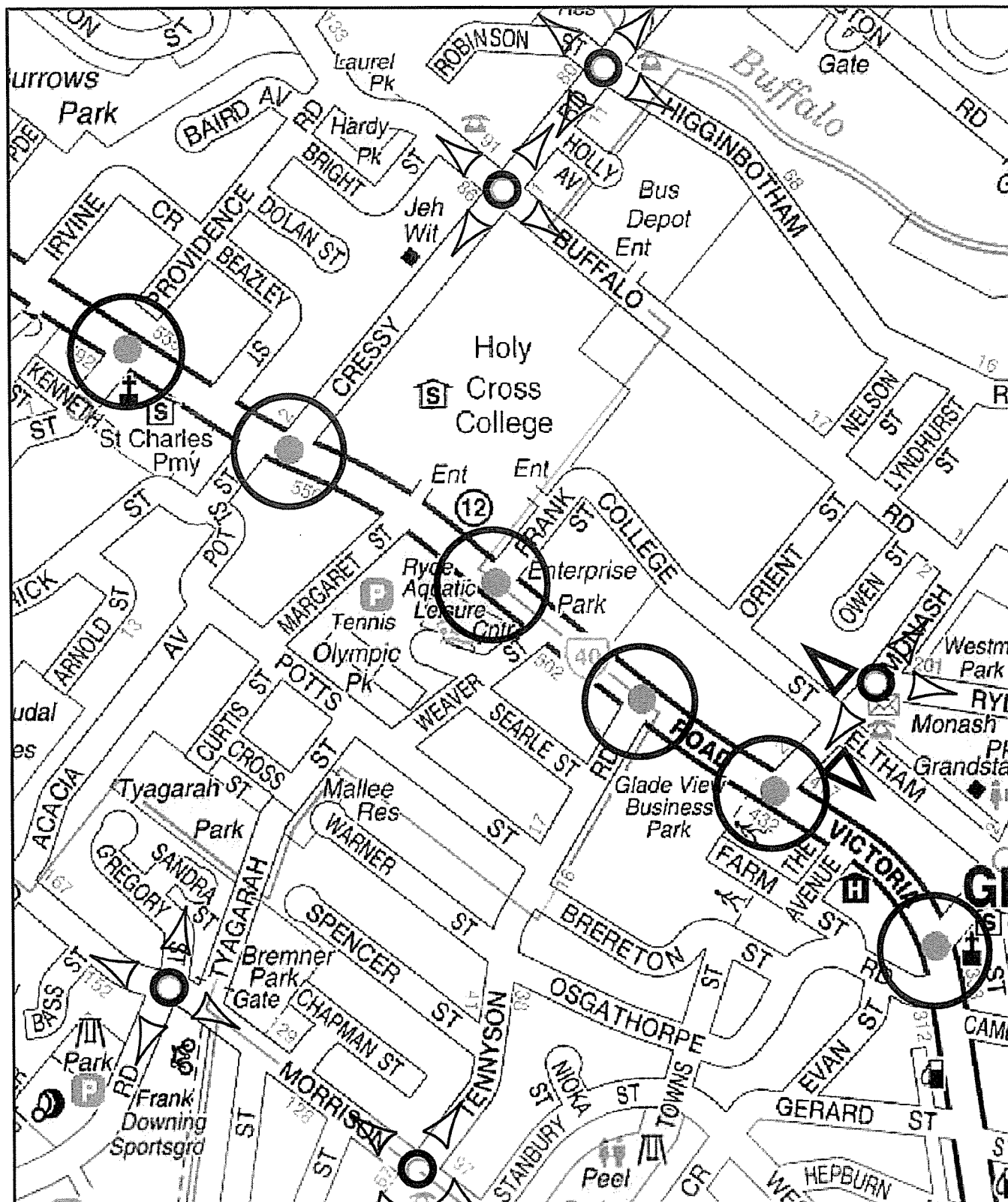
Victoria Road generally has three lanes in each direction. However, intersections where right-turn movements are permitted 'S' lanes have been formed by the elimination of a through lane. Locations in the vicinity of the site which incorporate this arrangement include Tennyson Road, Frank Street and Monash Road intersections, while the 'S lane' treatments also incorporates a Bus Stops on the southern side of Victoria Road opposite the site and between Tennyson Road and Monash Road.

Frank Street is relatively narrow while College Street has a standard 12.8m wide roadway.

3.2 TRAFFIC CONTROLS

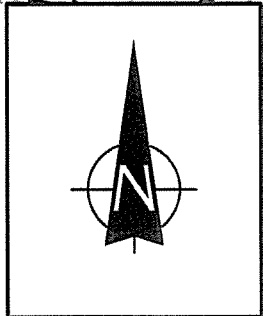
The traffic controls on the road network in the vicinity of the site (Figure 4) comprise:

- * the traffic control signals at the Victoria Road/Frank Street intersection which incorporate a phase for the right-turn movements into Frank Street. Details of this intersection are provided on the design plan reproduced in Appendix A.
- * the traffic control signals on Victoria Road at the Tennyson Road and Monash Road intersections which incorporate right-turn phases. Details of these intersections are also provided in the images in Appendix A
- * the central median island along Victoria Road and the BUS LANE along the northern kerbside lane
- * the roundabout at the Monash Road/Ryde Road intersection
- * the 3 tonne LIGHT TRAFFIC restriction on Orient Street and Nelson Street
- * the full time NO STANDING and peak period CLEARWAY restrictions on both sides of Victoria Road
- * the BUS ZONES located on both sides of Victoria Road



LEGEND

- TRAFFIC SIGNAL CONTROL
- ⊕ ROUNDABOUT
- ⊘ RESTRICTED TURNING MOVEMENT
- ▽ GIVE WAY



TRAFFIC CONTROLS

FIG 4

- * the approved B Double route along Victoria Road (but not along Frank Street, College Street or Monash Road).

3.3 TRAFFIC CONDITIONS

An indication of the prevailing traffic conditions on the road system serving the site is provided by data published by the RMS. A counting station located on Victoria Road indicates the following average annual daily traffic (AADT) flow information:

	AADT
Victoria Road east of Weaver Street	53,898

An extract of the published RMS Volume data is reproduced overleaf indicating that the total 2 way volume on Victoria Road during the week day morning and afternoon peaks is some 5,000 vph while the volume during the weekend midday peaks is only some 3,600 vph (72%).

Details of the traffic movements at intersections in the vicinity of the site (Fig 5) are provided for weekday morning, afternoon and weekend midday peak periods in Appendix B and summarized in the following:

		AM	PM	WE Midday
Victoria Road	Eastbound	2,207	2,126	1,767
	Left-turn	170	47	31
	Westbound	1,651	1,862	1,693
	Right-turn	45	25	7
Frank Street	Right-turn	100	174	38
	Left-turn	35	33	21
Victoria Road	Eastbound	2,091	1,991	1,637
	Right-turn	123	166	151
	Westbound	1,646	1,805	1,637
	Left-turn	57	132	88

HOURLY TRAFFIC VOLUMES for Week commencing MON 12/08/02

Station No. 31.111.E

VICTORIA RD,MR165

HUNTLEYS PT-E OF HUNTLEYS POINT RD

HOUR comm.	MON 12/08	TUE 13/08	WED 14/08	THU 15/08	FRI 16/08	SAT 17/08	SUN 18/08	WEEKDAYS			WEEKEND (+HOLIDAYS)			WHOLE WEEK		
								TOTAL	MEAN	%	TOTAL	MEAN	%	TOTAL	MEAN	%
0	137	121	127	182	189	449	508	756	151	0.48	957	479	1.96	1713	245	0.83
1	57	55	58	81	100	272	355	351	70	0.22	627	314	1.28	978	140	0.47
2	53	67	77	85	112	205	216	394	79	0.25	421	211	0.86	815	116	0.39
3	89	87	82	112	134	184	209	504	101	0.32	393	197	0.80	897	128	0.43
4	167	192	158	174	185	183	169	876	175	0.55	352	176	0.72	1228	175	0.59
5	702	698	697	710	712	421	256	3519	704	2.22	677	339	1.39	4196	599	2.02
6	2113	2459	2476	2430	2346	984	379	11824	2365	7.45	1363	682	2.79	13187	1884	6.35
7	3207	3088	3046	3286	3110	1051	508	15737	3147	9.91	1559	780	3.19	17296	2471	8.33
8	2553	2525	2546	2467	2579	1428	783	12670	2534	7.98	2211	1106	4.53	14881	2126	7.17
9	2013	2270	2274	2245	2142	1691	1211	10944	2189	6.89	2902	1451	5.94	13846	1978	6.67
10	1783	1792	1813	1903	1736	1768	1531	9027	1805	5.69	3299	1650	6.76	12326	1761	5.94
11	1527	1707	1597	1686	1826	1587	1730	8343	1669	5.25	3317	1659	6.79	11660	1666	5.62
12	1500	1575	1626	1654	1642	1964	1972	7997	1599	5.04	3936	1968	8.06	11933	1705	5.75
13	1377	1473	1483	1544	1654	1837	1654	7531	1506	4.74	3491	1746	7.15	11022	1575	5.31
14	1452	1461	1548	1498	1559	1696	1526	7518	1504	4.73	3222	1611	6.60	10740	1534	5.17
15	1648	1725	1687	1676	1773	1541	1384	8509	1702	5.36	2925	1463	5.99	11434	1633	5.51
16	1756	1898	1897	1942	1909	1589	1439	9402	1880	5.92	3028	1534	6.20	12430	1776	5.99
17	2275	2409	2459	2475	2392	1880	1557	12010	2402	7.56	3437	1719	7.04	15447	2207	7.44
18	1908	1878	2134	2052	2266	1803	1192	10238	2048	6.45	2995	1498	6.13	13233	1890	6.37
19	1098	1287	1276	1329	1590	1603	860	6580	1316	4.14	2463	1232	5.04	9043	1292	4.36
20	791	877	908	937	1068	917	736	4581	916	2.89	1653	827	3.39	6234	891	3.00
21	724	882	855	920	868	835	592	4249	850	2.68	1427	714	2.92	5676	811	2.73
22	502	598	636	686	809	795	433	3231	646	2.03	1228	614	2.51	4459	637	2.15
23	267	304	351	376	692	729	221	1990	398	1.25	950	475	1.95	2940	420	1.42
DAY TOT	29699	31428	31811	32450	33393	27412	21421	158781	31756	100.00	48833	24417	100.00	207614	29659	100.00
MAX	3207	3088	3046	3286	3110	1964	1972	AWT =	31756		AWE =	24417		ADT =	29659	

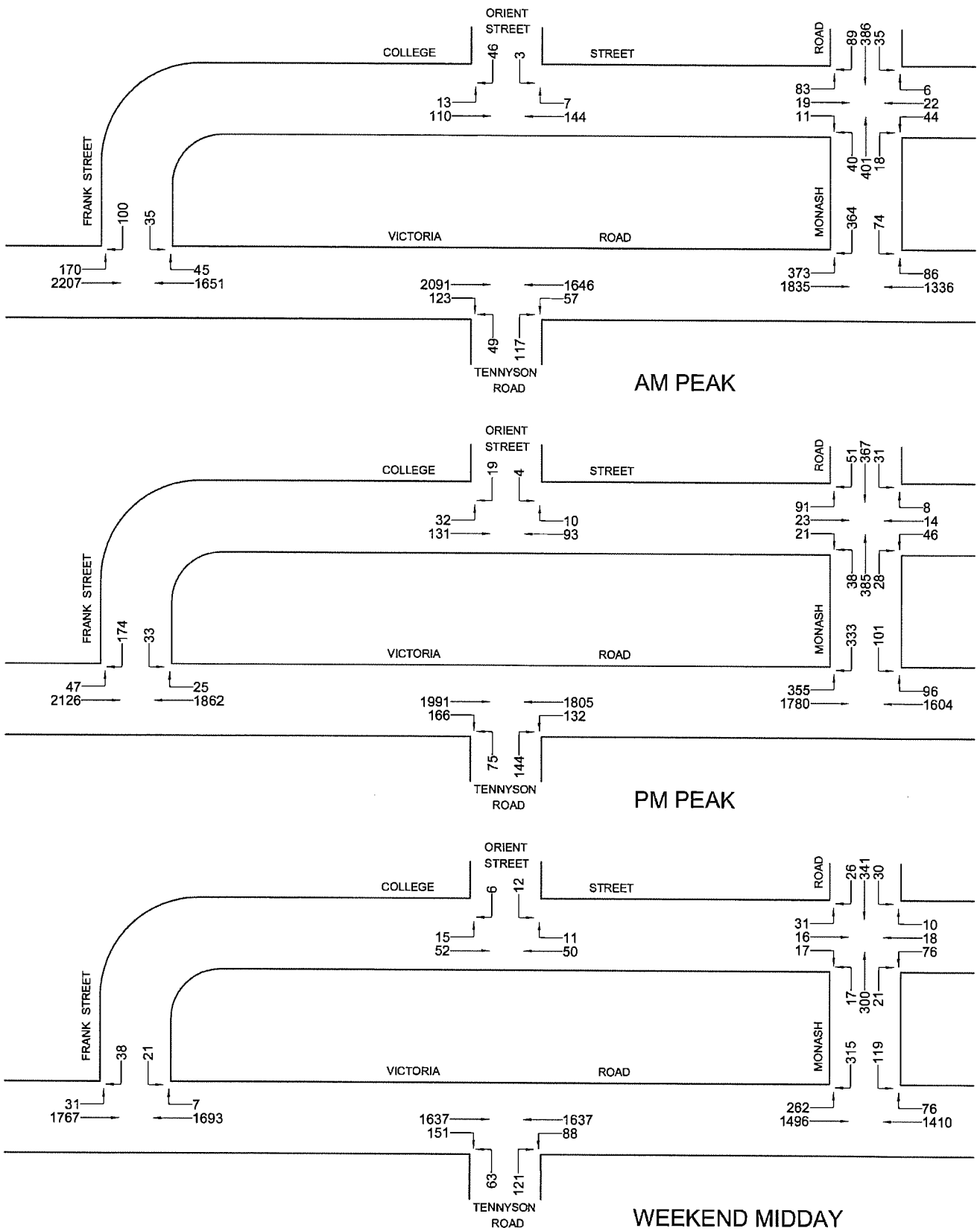
HOURLY TRAFFIC VOLUMES for Week commencing MON 12/08/02

Station No. 31.111.W

VICTORIA RD,MR165

HUNTLEYS PT-E OF HUNTLEYS POINT RD

HOUR comm.	MON 12/08	TUE 13/08	WED 14/08	THU 15/08	FRI 16/08	SAT 17/08	SUN 18/08	WEEKDAYS			WEEKEND (+HOLIDAYS)			WHOLE WEEK		
								TOTAL	MEAN	%	TOTAL	MEAN	%	TOTAL	MEAN	%
0	215	218	256	311	328	728	920	1328	266	0.91	1648	824	3.60	2976	425	1.55
1	97	115	133	169	184	513	657	698	140	0.48	1170	585	2.55	1868	267	0.97
2	87	84	88	107	115	363	456	481	96	0.33	819	410	1.79	1300	186	0.68
3	81	65	77	93	119	268	336	435	87	0.30	604	302	1.32	1039	148	0.54
4	117	86	104	100	120	187	242	527	105	0.36	429	215	0.94	956	137	0.50
5	207	222	206	199	211	255	177	1045	209	0.71	432	216	0.94	1477	211	0.77
6	730	741	732	764	717	407	253	3684	737	2.52	660	330	1.44	4344	621	2.26
7	1933	1998	2005	1930	1847	704	372	9713	1943	6.64	1076	538	2.35	10789	1541	5.62
8	2407	2549	2395	2484	2350	1011	570	12185	2437	8.34	1581	791	3.45	13766	1967	7.17
9	1409	1439	1537	1495	1665	1220	821	7545	1509	5.16	2041	1021	4.45	9586	1369	4.99
10	1260	1340	1339	1401	1354	1433	1263	6694	1339	4.58	2696	1348	5.88	9390	1341	4.89
11	1314	1363	1372	1424	1434	1629	1311	6907	1381	4.72	2940	1470	6.41	9847	1407	5.13
12	1367	1491	1502	1492	1622	1584	1461	7474	1495	5.11	3045	1523	6.64	10519	1503	5.48
13	1478	1578	1540	1629	1598	1714	1407	7823	1565	5.35	3121	1561	6.81	10944	1563	5.70
14	1673	1817	1839	1896	1919	1727	1369	9144	1829	6.26	3096	1548	6.75	12240	1749	6.37
15	2184	2314	2290	2243	2361	1701	1546	11392	2278	7.79	3247	1624	7.08	14639	2091	7.62
16	2215	2338	2333	2402	2294	1786	1742	11582	2316	7.92	3528	1764	7.70	15110	2159	7.87
17	2515	2357	2533	2406	2455	1820	1599	12266	2453	8.39	3419	1710	7.46	15685	2241	8.17
18	2238	2213	2353	2186	2094	1304	1195	11084	2217	7.58	2499	1250	5.45	13583	1940	7.07
19	1292	1525	1567	1519	1413	1032	803	7316	1463	5.00	1835	918	4.00	9151	1307	4.77
20	885	1040	1024	1122	908	690	786	4979	996	3.41	1476	738	3.22	6455	922	3.36
21	808	956	930	967	829	708	695	4490	898	3.07	1403	702	3.06	5893	842	3.07
22	665	785	895	917	953	923	585	4215	843	2.88	1508	754	3.29	5723	818	2.98
23	422	469	580	644	1062	1155	411	3177	635	2.17	1566	783	3.42	4743	678	2.47
DAY TOT	27599	29103	29630	29900	29952	24862	20977	146184	29237	100.00	45839	22920	100.00	192023	27432	100.00
MAX	2515	2549	2533	2484	2455	1820	1742	AWT =	29237		AWE =	22920		ADT =	27432	

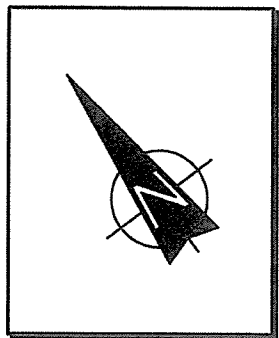


AM PEAK

PM PEAK

WEEKEND MIDDAY

LEGEND



EXISTING PEAK VOLUMES

FIG 5

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES

Tennyson Road	Right-turn	117	144	121
	Left-turn	49	75	63
<hr/>				
Victoria Road	Eastbound	1,835	1,780	1,496
	Left-turn	373	355	262
	Westbound	1,336	1,604	1,410
	Right-turn	86	96	76
Monash Road	Right-turn	367	333	315
	Left-turn	74	101	119

It can be seen that the existing right-turn movements into Frank Street and Monash Road are relatively light as are the movements out of Frank Street.

Traffic conditions in the area during the morning and afternoon peak periods are generally quite free flowing. There is some congestion to the west around the Devlin Street overpass intersection and to the east through the Gladesville Shopping Centre and more further to the east of Gladesville Bridge and through Drummoyne. Traffic conditions during the weekend days are quite satisfactory with no undue congestion or delay. The site benefits, in traffic terms, from:

- * the flexibility of access via Frank Street/Victoria Road and College Street/ Monash Road
- * the traffic signal controlled intersections on Victoria Road
- * the absence of any other major traffic generation in the near vicinity.

3.4 FUTURE CIRCUMSTANCES

The RTA has a narrow road widening reservation along the northern side of Victoria Road which affects part of the site frontage. This reservation was created in 1999 just prior to the Olympic Games when schemes were being considered for modifying sections of Victoria Road to facilitate transport movements for the Games.

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES

RMS have been investigating the opportunity to upgrade the BUS LANE provisions along Victoria Road and the Bunnings purchase of the large site has provided the potential opportunity to undertake road widening which would facilitate access for the envisaged development and additional BUS LANE provision.

A significant effort has been undertaken with survey, detail road design and cost estimating to support the negotiations with RMS. Details of the agreed upgrading works are provided in Appendix C and comprise:

- dedication and road widening along the northern side of Victoria Road
- provision of continuous BUS LANES along both sides of Victoria Road
- extended right turn lanes for the turns into Frank Street and Tennyson Road
- widening of Frank Street
- provision of an access road connecting at the Tennyson Road intersection
- modification of the intersection signals

4. TRAFFIC

The significant existing development on the site consists of a total floorspace of 21,984m² comprising:

- a child care centre
- a gym
- office and commercial
- manufacturing
- showrooms
- warehousing
- service industries

This a somewhat unusual combination of uses and since the on-street traffic surveys were undertaken a number of the units have become vacant as leases have not been renewed due to the impending redevelopment (ie survey of existing generation is not representative or practical). Indicative RMS generation rates for these uses are as follows:

- | | |
|---------------------|--------------------------------|
| - office/commercial | 2.0 vtpm per 100m ² |
| - gym | 9.0 vtpm per 100m ² |
| - childcare | 8.0 vtpm per 100m ² |
| - manufacturing | 1.0 vtpm per 100m ² |
| - showroom | 1.2 vtpm per 100m ² |
| - warehouse | 0.5 vtpm per 100m ² |

A modest adopted overall generation rate of some 1.5 vtpm per 100m² would indicate a total peak period traffic generation for the existing floorspace/use (21,984m²) of some 330 vtpm. However in order to provide a robust assessment a 'discount' generation of 250 vtpm has been adopted. There would be very little generation on weekends (say 50 vtpm).

A guide to the traffic generation of 'Large Format Hardware' and 'Bulky Goods' developments is provided by recent RMS studies and other comparable assessments. The common feature of the traffic generation/floorspace/use relationship is that the larger the floorspace the lower the traffic generation rate is per 100m² and the proposal represents large contemporary floorspaces.

The RMS "Hardware" study surveyed sites ranging from 1,600m² to 14,111m² while the "Bulky Goods" sites ranged from 600m² to 14,849m². A study undertaken by Project Planning Associates involved 11 sites ranging from 970m² to 18,000m² while a study by Transport and Urban Planning involved the Auburn Homemakers Centre of 21,000m².

The established RMS results (see Appendix D) for the large floorspace Hardware outlets (the lower rate per 100m²) are:

AM	0.60 vtpm (say 1.0)
PM	2.05 vtpm (say 2.5)
WEEKEND	3.15 vtpm (say 3.5)

The established RMS rates for the large floorspace Bulky Goods outlets (see Appendix D) are:

AM	Nil
PM	1.21 vtpm
WEEKEND	1.56 vtpm

The results of the other consultant surveys are:

	PP A	T U P	AVG (3)
AM	-	-	-
PM	1.14	0.53	1.00
WEEKEND	2.12	2.12	2.00

Thus the proposed Bunnings of 15,255m² will have a projected generation (in isolation) of:

AM @ 1.0 160 vtpH (say)
 PM @ 2.5 400 vtpH (say)
 WEEKEND @ 3.5 560 vtpH (say)

The proposed Bulky Goods of 21,885m² will have a projected generation (in isolation) of:

AM @ - -
 PM @ 1.00 230 vtpH (say)
 WEEKEND @ 2.00 460 vtpH (say)

The total generation would be discounted by a normal 20% dual visitation circumstance together with passing trade factors (Appendix E) as follows:

	-20% Dual Vis.	P/Trade		Distribution of Additional
160 vtpH	0% 160 vtpH	0% (-)	160 vtpH	100 IN 60 OUT
664 vtpH	530 vtpH	20% (110)	420 vtpH	180 IN 240 OUT
1090 vtpH	870 vtpH	25% (220)	650 vtpH	330 IN 320 OUT

The assessed peak generation of existing uses on the site of 250 vtpH is distributed as follows:

	AM*	PM
IN	200	50
OUT	50	200

** Note: The future morning peak generation will be less than the existing generation*

The projected distribution of future site generated traffic is as follows:

- west (Victoria) 35%
- east (Victoria) 35%
- north (Monash) 15%
- west (Buffalo) 10%
- south (Tennyson) 5%

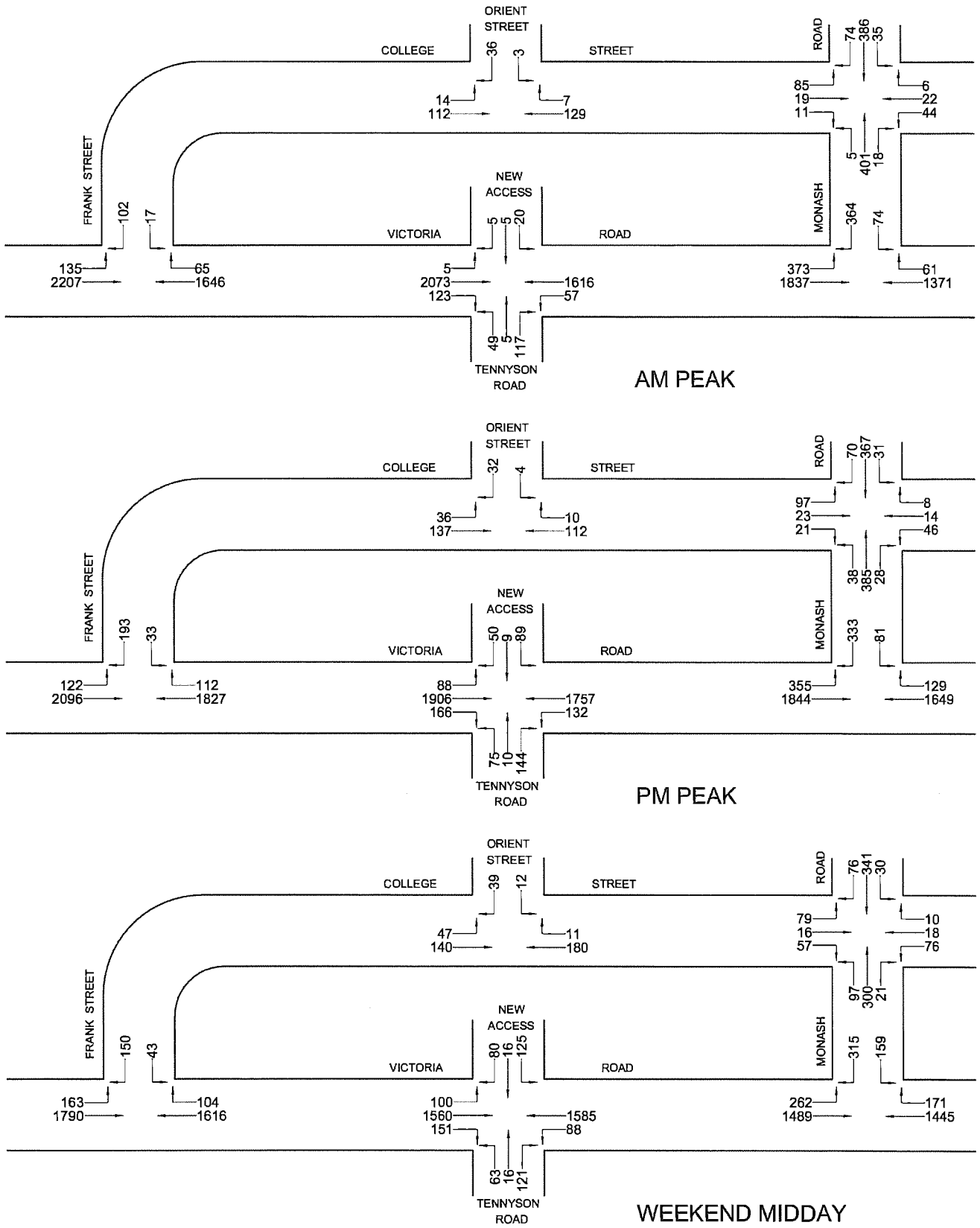
The future traffic circumstances have been 'constructed' with a process of:

- deleting the existing peak movements
- adjusting for passing trade access (on Victoria Road)
- adding the "additional" generated movements

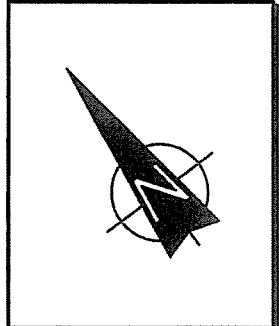
The projected future traffic volumes resultant to the proposed development (Figure 6) have been modelled using the SCATES program. For the proposed road geometry/intersection treatments as indicated on the Appendix C concept design. The results of this modelling indicating a satisfactory outcome are provided in Appendix F and are summarised in the following:

	AM		PM		WEMD	
	LOS	AVD	LOS	AVD	LOS	AVD
Victoria/Frank	A	6.9	A	12.7	A	10.8
Victoria/Tennyson	A	13.4	B	17.2	B	19.4
Victoria/Monash	B	15.0	A	13.8	B	17.3

The SCATES file has been provided electronically to RMS (Gordon Trotter).



LEGEND



PROJECTED FUTURE VOLUMES

FIG 6

5. PARKING

Ryde City Councils' Development Control Plan 2010 does not specify a parking provision for Hardware/Building Supplies or Bulky Goods use. RMS suggest parking provisions as follows:

Peak Parking (per 100 m²)

	Min	Max	Av
Larger Format Hardware	0.78	1.67	1.16
Bulky Goods		0.90	

Application of this criteria to the envisaged development would indicate the following:

Bunnings	15,255m ² @ 1.67 spaces per 100m ²	-	255 spaces
Bulky Goods	21,885m ² @ 0.90 spaces per 100m ²	-	198 spaces
	Total		453 spaces

It is proposed to provide a total of 895 spaces and this will be quite adequate to meet seasonal peak demands.

6. INTERNAL CIRCULATION AND SERVICING

Internal Circulation

Cars will access through the 3 available ingress/egress points and circulate through the central parking area. The design of the aisles and parking bays etc will accord with the design criteria of AS 2890.1 as well as Council's DCP and the circulation system will be very flexible due to the two-way traffic provisions.

Servicing

There will be internal circulation systems for cars and trucks which will largely be independent of each other. The larger trucks associated with the Bunnings Store and Bulky Goods will ingress through the access on Frank Street into the delivery areas. The departure route will follow along the northern side then through the general access to exit through the Access Road to the signal controlled Victoria Road intersection. The Bulky Goods deliveries will ingress by left turn from Victoria Road.

The design provisions for service vehicles will accord with the AS 2890.2 criteria and the requirements of all vehicles requiring to access the site.

7. ISSUES

Council has responded to the rezoning proposal and the documents which accompanied the application (including the Traffic and Parking Assessment Report) by letter dated 24.4.12. The issues contained in the letter were clarified during a meeting with Council Officers on 10 May 2012. Issues raised by Council in relation to Traffic Impact and Assessment and these are responded to in the following:

- * *A traffic analysis of the local road network in the area. A traffic impact analysis that is limited to Victoria Road will not be acceptable to Council*

This, unfortunately, is a misconception and indicates that the contents of this report were not fully recognised. Page 14 of the report identifies:

- the projected distribution of generated traffic onto the both the arterial, collector and local roads which provide access to the site
- the process in which the post development traffic volumes were established by deleting movements generated by the existing uses on the site and adding the movements generated by Bunnings

The existing peak traffic movements (AM, PM and weekend) are identified on Figure 5 and include movements in Frank Street, Orient Street, Monash Road and Eltham Street. The comparative post development volumes are provided in Figure 6 for the same roads and intersections for the same peak periods (ie with the existing generated movements deleted and the Bunnings and Bulky Goods Retailing movements added).

Comparison of this traffic volume data reveals that volumes on the local/collector road system will:

- be less in the morning peak period
- approximately the same in the afternoon peak

- somewhat more on the weekend peak

The volumes were not 'tracked' further afield (eg to Monash Road etc) as they are relatively minor and would simply dissipate further away from the site. There are three very relevant and important issues to consider in relation to the potential traffic impact on the local and collector road system namely:

- the existing development has its vehicle accesses (3) on Frank Street in the east-west section (west of Orient Street) whereas the proposed development will have no accesses in this area
- the existing development generates significant truck movements whereas Bunnings and Bulky Goods Retail components will have less truck movements and these will not travel along the east-west section of Frank Street or other local streets
- the existing development is only some 22,000m² whereas the "existing floorspace ratio controls of 1:1" would allow a redevelopment of up to 38,000m². Having regard to the permitted uses and the existing use "make up" an alternative redevelopment of the site could comprise:

Transport Logistics (60%) 22,800m ² @ 0.5 per 100m ²	114 vtpH
Office/Commercial (10%) 3,800m ² @ 2.0 per 100m ²	76 vtpH
Manufacturing Light Industry (10%) 3,800m ² @1.0 per 100m ²	38 vtpH
Gyms (10%) 3,800m ² @ 6 per 100m ²	228 vtpH
Child Care (5%) 1,900m ² 180 children @ 0.4	72 vtpH
Vehicle Repair (5%) 1,900m ² @ 1 per 100m ²	19 vtpH
Total For AM and PM Peaks	547 vtpH

This can be compared to the projected "additional" traffic generated by the proposed development of 160 vtpH in the morning peak and 420 vtpH in the evening peak. What is more this alternative development could retain all vehicle access on Frank Street the same as the existing development circumstances.

A “rule of thumb” approximation of “average daily traffic” flow is 10 times the average of the AM and PM flows. If this factor is applied to the existing and projected volumes (Figure 5 and 6) then the projected change in traffic flows will be as follows:

	Existing	Future
Orient Street	670	710 (+6%)
Frank Street (East of Orient Street)	2510	2570 (+2.4%)

In terms of “environmental capacity” these projected future volumes will not contravene the existing status of Orient Street (a local road) or Frank Street (a minor collector road). The outcome however with an alternative development scenario would be quite different and would most likely infringe the environmental capacity limits because the AADT traffic generation of the alternative development scenario would be much higher (ie the generation of Bunnings and Bulky Goods is quite low in the morning peak).

- * *Consideration of the cumulative impacts of local traffic generating activities such as Ryde Aquatic Centre, Holy Cross College and the bus depot.*

The traffic impacts of local traffic generating activities including Ryde Aquatic Centre, Holy Cross College, the Bus Depot and the other existing uses are all reflected in the “base” traffic surveys relative to the peak Bunnings trading times. Some local activities may have higher traffic generation at other times however the highest cumulative impact is reflected in the periods where Bunnings and the on-street traffic peaks occur (eg PM commuter peak)

- * *It must be demonstrated that the proposed traffic solution can be achieved at Tennyson Road intersection without the need encroach on the easement burdening 459 Victoria Road (adjoining car wash) or details of how the use of the easement will be obtained to facilitate the operation of this traffic solution.*

It is understood that this issue has arisen due to a comment offered by RMS. However there is no impediment (easement or otherwise) which would constrain the identified traffic solution for this intersection

- * *The Catchment Area of the site to be further defined.*

Studies of existing Bunnings outlets have been undertaken to identify customer origins by questionnaire recording of Postcode place of residence. The results established a very unexpected diverse pattern which to some extent is explained by the "passing trade" element which is very similar in Bulky Goods retailing.

The Gladesville site has significant barriers for road access being the Parramatta River to the south and Lane Cove River and National Park to the north and east. The assessed distribution of generated traffic took some advice from the retail assessment for the site feasibility analysis however the assessed distribution was driven by:

- the nature and geography of the various access routes
- the "passing trade" characteristics (ie along Victoria Road)
- the barriers to the north, south and east
- the directness and ease of movement along the various access routes and the relative size of the "population pools" accessed
- the location of the site access points

The assessed route distribution is documented on page 13 of the report and if anything the distribution to/from Victoria Road is understated.

- * *Consideration of the use of a Paramics model to be explored.*

It is understood that Council has had some recent experience with Paramics modeling and its complexities in relation to the developing North Ryde – Macquarie area. The Paramics model does not distribute traffic in itself, it either as Guide by "Journey to work data" or a prescribed distribution with factoring in relation to the nature and capacity of roads/intersections.

The circumstances for the proposed development are quite different particularly as the development will have adequate and traffic signal controlled access to/from Victoria Road. If the assessed distribution parameters were input to a

Paramics model, the output would essentially be no different to the assessment undertaken given:

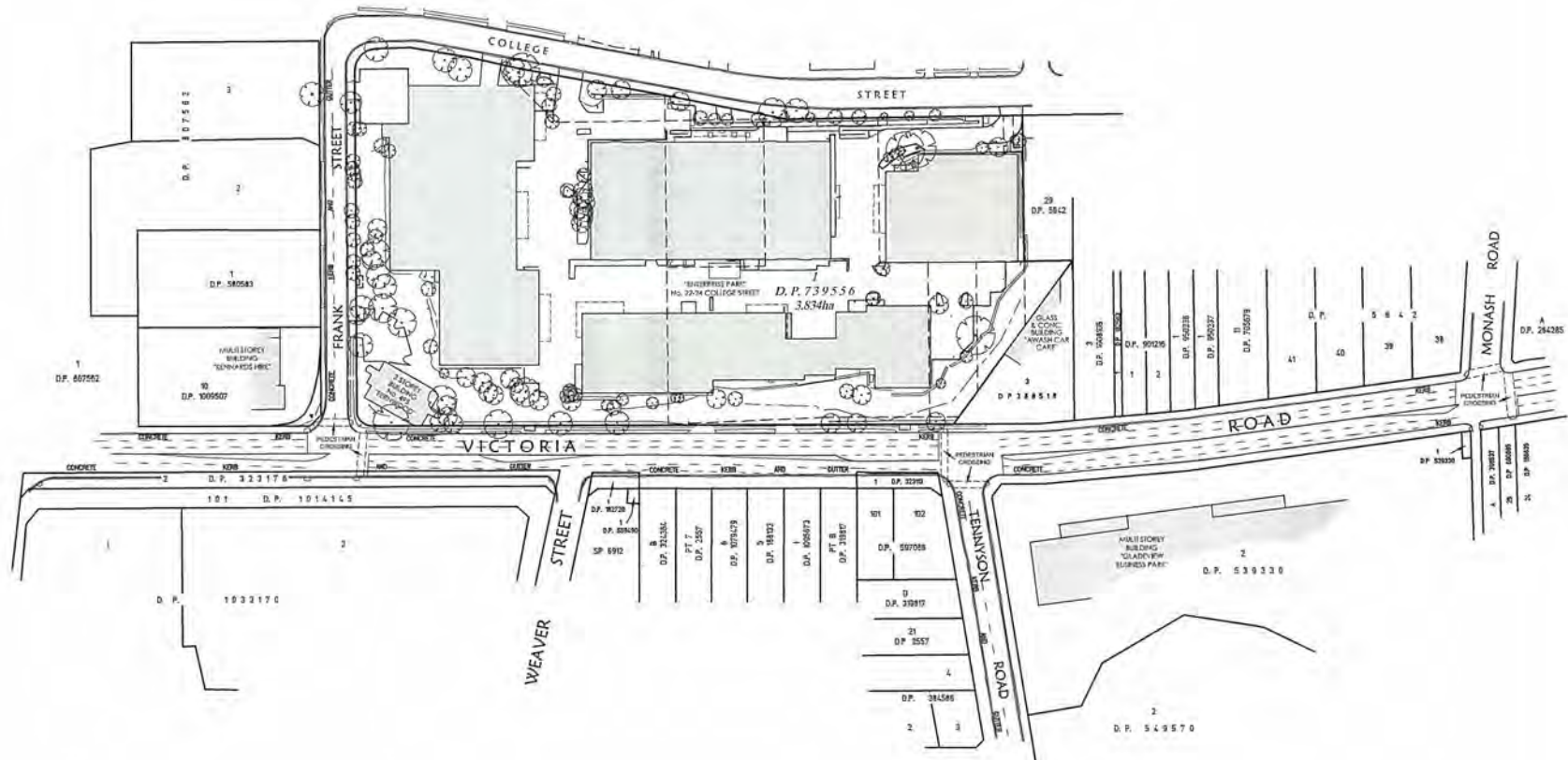
- the simplicity of the assignment
- the absence of any constraints which would cause indirect diversion
- the strong 'passing trade' influence
- the absence of any specific origin/destination data for traffic which would be generated

8. CONCLUSION

The proposed rezoning to permit Hardware/Building Supplies and Bulky Goods development at Gladesville will utilise the relatively large site which has convenient access to the arterial road system. This assessment has concluded that the envisaged development in terms of vehicle access, circulation, parking and servicing is appropriate and that there will not be any adverse traffic impacts on the road system serving the site.

Appendix A

EXISTING ROAD AND INTERSECTION ARRANGEMENTS



Notes:-
 Location of boundaries approximate only.
 The adjoining boundaries are derived from the latest available Cadastral Records only and are subject to survey.
 Boundaries and Dimensions are by deed only and are subject to Field Survey. Except where shown by dimension, the millimetre of improvements to boundaries is discretionary only. The two positions are subject to Field Survey.
 These sites are estimates and indicate only.
 Services and utilities shown have been located by physical subsurface and/or by reference to records from the relevant authorities. They may not have been opened to verify the type of utility. Excavation trials may be carried out to confirm underground location. Services details should be confirmed with the relevant service authority during design and prior to commencement of construction.
 As part of your duty of care, please contact the following when necessary:-
 AGL Gas Company Ph: 13 2465
 Eastlink Gas Ph: 13 2465
 Energy Australia Ph: 13 1335
 Inland Energy Ph: 13 1335
 Optus Communications Ph: 1800 005 777
 Sydney Water Ph: 13 2282
 Telstra Corporation Ph: 13 2293
 This plan has been prepared for the exclusive use of the individual as stated in the title block.
 Any construction on or near the boundaries will require further survey so that marks defining boundaries can be placed.
 © Copyright Craig & Rhodes Pty. Ltd. 2010.
 No part of this survey may be retransmitted, stored in a retrieval system or disseminated in any form without the express permission of the copyright owner except as permitted under the Copyright Act 1968.
 Any scanned drawings, electronic storage, display, print, copy or reproduction of this survey shall contain no alteration or addition to the original.
 These terms must not be removed.



	No. _____ Date _____ Description _____		Project PLAN SHOWING APPROXIMATE LOCATION OF KERBS AND BOUNDARIES ALONG VICTORIA ROAD, FRANK STREET AND TENNISON ROAD, GLADEVILLE	Project A.J.W. SECURITIES	Scale: 1:1000	Date: 12.01.2011	Council Ref: _____
	Drawn: R.N.				Project: R.N.	D.B.	LGA: RYDE
Checked: _____		Project No: 214 85		LGA: RYDE		214 85	

CRAIG & RHODES
 SURVEYORS PLANNERS CIVIL & STRUCTURAL ENGINEERS

48877 202 228 881
 Level 4, 505/402
 65-70, Cornhill St
 GLENWARRIBONG NSW 2074
 PO Box 212
 GLENWARRIBONG NSW 2170
 www.craigandrhodes.com.au
 © Craig & Rhodes

435 015 208 951
 SU 4/08 EPWING
 18 180-182
 7th, 78/2241
 435 015 208 951
 www.craigandrhodes.com.au
 © Craig & Rhodes

Sheet No. 01 of 01 Sheets
 Date: 191-10
 Drawn: 21191-10
 Check: 1911074 [00]

0165.387.VV.1987

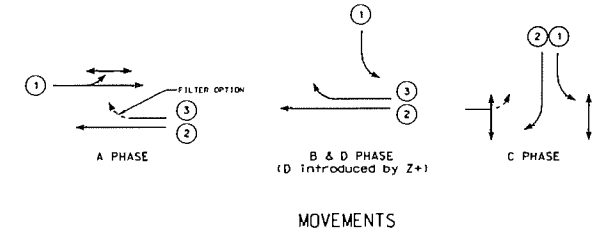
DRAWN BY CADD
DO NOT AMEND MANUALLY

DATE IN SERVICE : 28/09/62

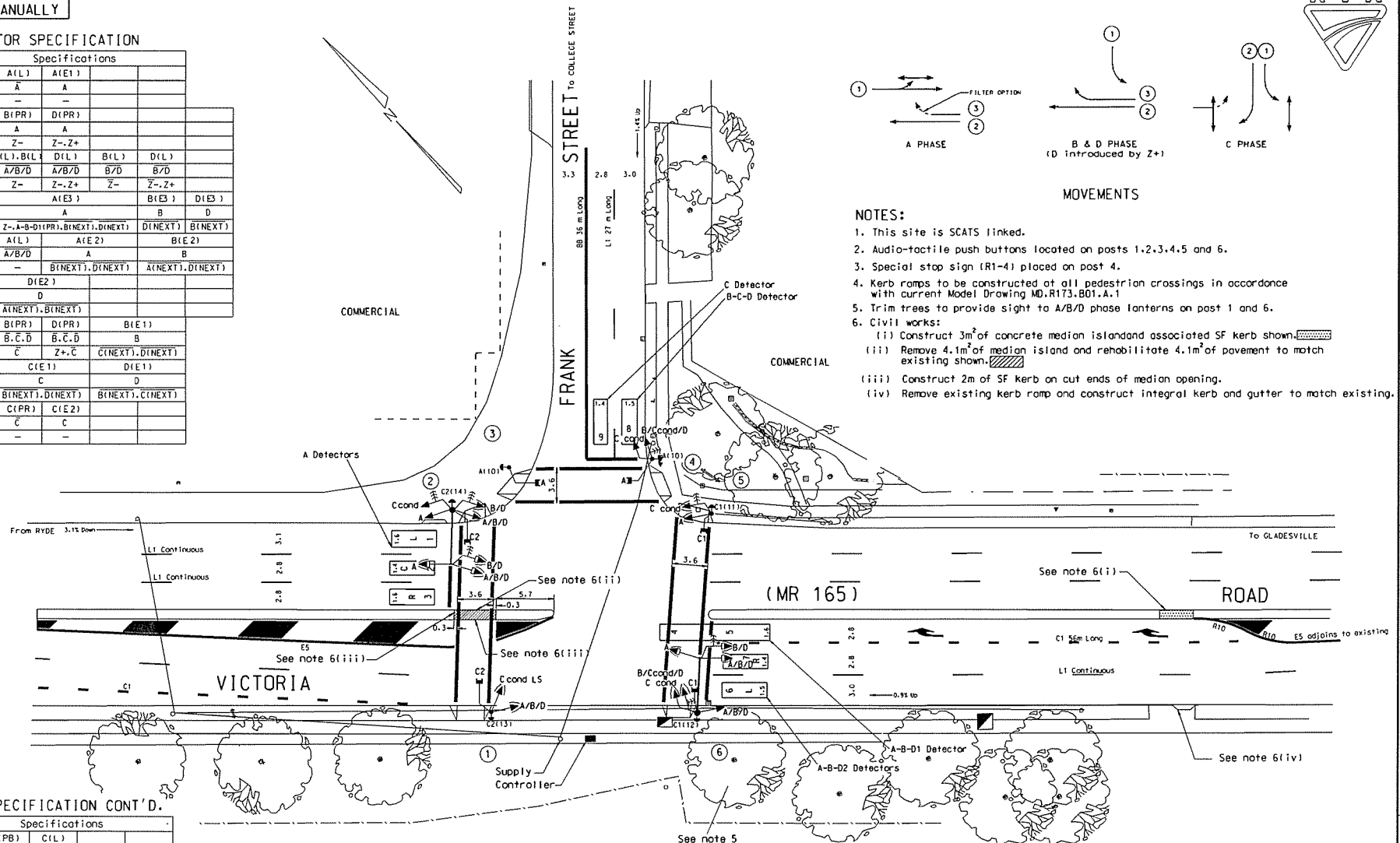


DETECTOR SPECIFICATION

Detector	Specifications			
A	FN A(L)	A(E1)		
SG/PS	A	A		
DS	-	-		
A-B-D	FN B(PR)	D(PR)		
SG/PS	A	A		
DS	Z-	Z-,Z+		
A-B-D	FN A(L),B(L)	D(L)	B(L)	D(L)
SG/PS	A/B/D	A/B/D	B/D	B/D
DS	Z-	Z-,Z+	Z-	Z+,Z+
cont. A-B-D	FN A(E3)	B(E3)	D(E3)	
SG/PS	A	B	D	
DS	Z-,A-B-D(PR),B(NEXT),D(NEXT)	D(NEXT)	B(NEXT)	
A-B-D2	FN A(L)	A(E2)	B(E2)	
SG/PS	A/B/D	A	B	
DS	-	B(NEXT),D(NEXT)	A(NEXT),D(NEXT)	
cont. A-B-D2	FN D(E2)			
SG/PS	D			
DS	A(NEXT),B(NEXT)			
B-C-D	FN B(PR)	D(PR)	B(E1)	
SG/PS	B,C,D	B,C,D	B	
DS	C	Z+,C	C(NEXT),D(NEXT)	
cont. B-C-D	FN C(E1)	D(E1)		
SG/PS	C	D		
DS	B(NEXT),D(NEXT)	B(NEXT),C(NEXT)		
C	FN C(PR)	C(E2)		
SG/PS	C	C		
DS	-	-		



- NOTES:**
- This site is SCATS linked.
 - Audio-tactile push buttons located on posts 1,2,3,4,5 and 6.
 - Special stop sign (R1-4) placed on post 4.
 - Kerb ramps to be constructed at all pedestrian crossings in accordance with current Model Drawing MD.R173.B01.A.1
 - Trim trees to provide sight to A/B/D phase lanterns on post 1 and 6.
 - Civil works:
 - (i) Construct 3m² of concrete median island and associated SF kerb shown.
 - (ii) Remove 4.1m² of median island and rehabilitate 4.1m² of pavement to match existing shown.
 - (iii) Construct 2m of SF kerb on cut ends of median opening.
 - (iv) Remove existing kerb ramp and construct integral kerb and gutter to match existing.



DETECTOR SPECIFICATION CONT'D.

Detector	Specifications			
A	FN A(PB)	C(L)		
SG/PS	A(WALK)	A,WALK		
DS	-	B,C,D		
C1	FN C(PB)	A(L)		
SG/PS	C1(WALK)	C1,WALK		
DS	-	A,B,D		
C2	FN C(PB)	A(L)		
SG/PS	C2(WALK)	C2,WALK		
DS	-	A,B,D		

SPECIAL SIGNAL GROUP DISPLAY SEQUENCE

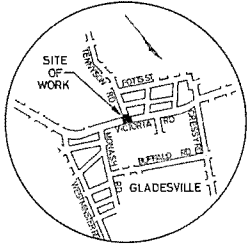
SIGNAL GROUP	TABLE TYPE	REMARKS
A/B/D	3	-
B/D (RT)	39	Timed R.A. protection for A peds. Z- Filter option.
B/C Cond/D(LT)	77	Timed R.A. protection for C1 pedestrians. Δ
C Cond (LT)	23	Timed R.A. protection for A peds.
Cond	74	Timed red aspect protection for C2 pedestrian. #

Δ Pushbutton on post 6 extends R.A. subject to timer.
Pushbutton on post 2 extends R.A. subject to timer.

POSTS

POST	TYPE	LENGTH	OFFSET	REMARKS
1	2	4.1	1.0	EXISTING
2	5XL	-	1.0	EXISTING
3	2	3.2	1.0	EXISTING
4	2	4.1	0.6	EXISTING
5	2	4.1	0.6	EXISTING
6	5XL	-	1.0	EXISTING

<p>A ORIGINAL ISSUE</p> <p>ISSUED BY: CADD CHECKED BY: J.P. PIERCE DRAWN BY: J.P. PIERCE DATE: 23/12/04</p>	<p>PUBLIC UTILITY LEGEND</p> <p>SYMBOLS/ABB. REF. TO: 214 AS</p> <p>SYMBOLS/ABB. U0003-5 SYMBOLS/ABB. U0003-6 SYMBOLS/ABB. U0003-7 SYMBOLS/ABB. U0003-8 SYMBOLS/ABB. U0003-9 SYMBOLS/ABB. U0003-10 SYMBOLS/ABB. U0003-11 SYMBOLS/ABB. U0003-12 SYMBOLS/ABB. U0003-13 SYMBOLS/ABB. U0003-14 SYMBOLS/ABB. U0003-15 SYMBOLS/ABB. U0003-16 SYMBOLS/ABB. U0003-17 SYMBOLS/ABB. U0003-18 SYMBOLS/ABB. U0003-19 SYMBOLS/ABB. U0003-20 SYMBOLS/ABB. U0003-21 SYMBOLS/ABB. U0003-22 SYMBOLS/ABB. U0003-23 SYMBOLS/ABB. U0003-24 SYMBOLS/ABB. U0003-25 SYMBOLS/ABB. U0003-26 SYMBOLS/ABB. U0003-27 SYMBOLS/ABB. U0003-28 SYMBOLS/ABB. U0003-29 SYMBOLS/ABB. U0003-30 SYMBOLS/ABB. U0003-31 SYMBOLS/ABB. U0003-32 SYMBOLS/ABB. U0003-33 SYMBOLS/ABB. U0003-34 SYMBOLS/ABB. U0003-35 SYMBOLS/ABB. U0003-36 SYMBOLS/ABB. U0003-37 SYMBOLS/ABB. U0003-38 SYMBOLS/ABB. U0003-39 SYMBOLS/ABB. U0003-40 SYMBOLS/ABB. U0003-41 SYMBOLS/ABB. U0003-42 SYMBOLS/ABB. U0003-43 SYMBOLS/ABB. U0003-44 SYMBOLS/ABB. U0003-45 SYMBOLS/ABB. U0003-46 SYMBOLS/ABB. U0003-47 SYMBOLS/ABB. U0003-48 SYMBOLS/ABB. U0003-49 SYMBOLS/ABB. U0003-50</p>	<p>REFERENCE PLANS</p> <p>DESIGNED BY: D. STEFANOVSKI CHECKED BY: K. IRONSIDE DATE: 23/12/04</p>	<p>DESIGN APPROVAL</p> <p>APPROVED: [Signature] DATE: 23/12/04</p>	<p>RTA ACCEPTANCE</p> <p>RECOMMENDED: [Signature] DATE: 23/12/04</p>	<p>ROADS AND TRAFFIC AUTHORITY, N.S.W.</p> <p>RYDE COUNCIL AREA TRAFFIC SIGNALS AT VICTORIA ROAD (MR 165) AND FRANK STREET RYDE</p>	<p>EXISTING <input checked="" type="checkbox"/> PROPOSED <input type="checkbox"/></p> <p>CADD FILE: vv1987_9D.dgn</p> <p>SCALE: 1:200</p> <p>FILE: 387 TS 300</p> <p>REGN: 0165.387.VV.1987</p>
	<p>DESIGN PREPARED BY</p> <p>PROJECT DESIGN SERVICES RTA OPERATIONS DATE: 23/12/04</p>	<p>DESIGN CHECKED BY</p> <p>DATE: 23/12/04</p>	<p>DESIGN APPROVED BY</p> <p>DATE: 23/12/04</p>	<p>DESIGN ACCEPTED BY</p> <p>DATE: 23/12/04</p>	<p>TCS No 1987</p>	<p>SHEET 9</p>
	<p>© COPYRIGHT ROADS AND TRAFFIC AUTHORITY</p>					<p>ISSUE</p>
	<p>3/24/2008 4:52:28 PM F1LCA0004</p>					<p>9C</p>



LOCALITY SKETCH
NOT TO SCALE

POST CHART

POST	TYPE	LENGTH	REMARKS
1	2	4-1	EXISTING
2	2	4-1	EXISTING
3	2	4-1	EXISTING
4	2	4-1	EXISTING
5	2	4-1	EXISTING
6	2	4-1	EXISTING
7	2	4-1	EXISTING
8	2	3-2	EXISTING

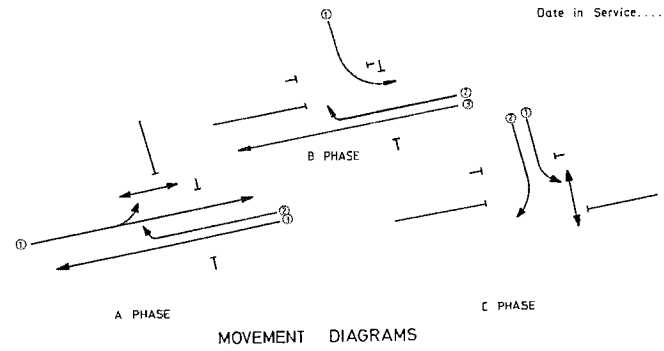
DETECTOR SPECIFICATION SCHEDULE

DETECTOR	SPECIFICATION			
A	FN	AIL1	AI21	
	SG	A	A	
	DS			
A-B1	FN	B1P1		
	SG	A		
	DS	Z		
A-B1	FN	AN1, AN1	AN21	BE21
	SG	A/B	A	B
	DS	Z	Z	Z
A-B2	FN	AIL1	AI21	BE21
	SG	A/B	A	B
	DS	Z	Z	Z
B-C	FN	CP1	BE1	CS1
	SG	C	B	C
	DS			
C	FN	CL1	CE21	
	SG	C	C	
	DS			
A	FN	AP1	EL1	
	SG	A/W	A/W	
	DS			
C	FN	CP1	AL1	
	SG	C/W	C/W	
	DS	A-B	A-B	

Z - ALLOWS FILTERING

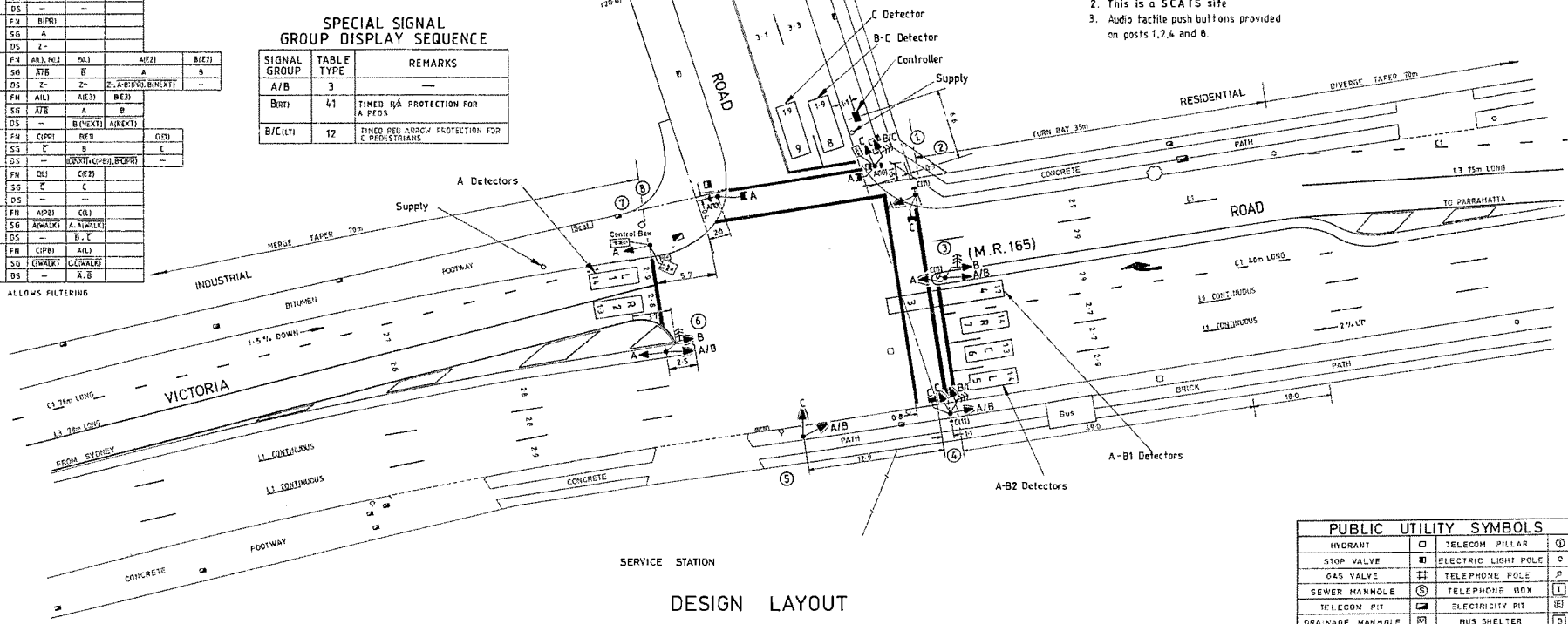
SPECIAL SIGNAL GROUP DISPLAY SEQUENCE

SIGNAL GROUP	TABLE TYPE	REMARKS
A/B	3	
B/C	41	TIMED BA PROTECTION FOR A PDS
B/C(LT)	12	TIMED RED ARROW PROTECTION FOR C PEDESTRIANS



NOTES

- Out of Service Signposting: Stop sign to be placed on post 1.
- This is a SCATS site
- Audio tactile push buttons provided on posts 1, 2, 4 and 8.



PUBLIC UTILITY SYMBOLS

HYDRANT	TELECOM PILLAR
STOP VALVE	ELECTRIC LIGHT POLE
GAS VALVE	TELEPHONE POLE
SEWER MANHOLE	TELEPHONE BOX
TELECOM PIT	ELECTRICITY PIT
DRAINAGE MANHOLE	BUS SHELTER

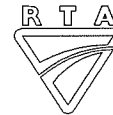
<p>ORIGINAL ISSUE</p> <p>1. Issue 01/01/85</p> <p>2. Issue 02/01/85</p> <p>3. Issue 03/01/85</p> <p>4. Issue 04/01/85</p> <p>5. Issue 05/01/85</p> <p>6. Issue 06/01/85</p> <p>7. Issue 07/01/85</p> <p>8. Issue 08/01/85</p> <p>9. Issue 09/01/85</p> <p>10. Issue 10/01/85</p> <p>11. Issue 11/01/85</p> <p>12. Issue 12/01/85</p>	<p>REFERENCE PLANS</p> <p>SYMBOLS & ABS V00024</p> <p>STANDARD PANS V00015</p> <p>DET. SIGNAGE EXP. V00187</p>	<p>SURVEYOR R.V. BYRAN</p> <p>DATE 21-8-78</p> <p>PLD. BK. 387 LB 290</p> <p>U.G. BK. REF. SE 1/5</p> <p>DESIGNED B. McLEAN</p> <p>CHECKED [Signature]</p> <p>PASSED [Signature]</p>	<p>THESE DRAWINGS HAVE BEEN TAKEN TO THE SITE OF THE WORK AND ARE RECOMMENDED</p> <p>APPROVED [Signature]</p> <p>DIVISIONAL ENGINEER</p> <p>SUPERVISING ENGINEER [Signature]</p> <p>DATE 24-10-84</p>	<p>ROADS & TRAFFIC AUTHORITY OF N.S.W.</p> <p>MUNICIPALITY OF RYDE</p> <p>VICTORIA ROAD AND TENNYSON ROAD</p> <p>GLADESVILLE</p>	<p>CENTRAL REGION</p> <p>FILE NO 387.TS.143</p> <p>NO OF SHEETS 1</p> <p>SHEET NO 1</p> <p>SCALE 1:200</p> <p>NO 0165.387.VV.1677</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------

V.V.1677.1
VV 1677
SHAW Z.

0165.387.VV.0366

DRAWN BY CADD
DO NOT AMEND MANUALLY

DATE IN SERVICE : 23/12/65



NOTES

- This site is SCATS linked.
- Push buttons on posts 4 and 5 are audio tactile.
- Special stop sign (R1-202) placed on post 3.
- Kerb ramps to be constructed at all pedestrian crossings in accordance with fig 8 of AS 1428.1-1993, tactile ground tiles to be excluded from the ramps.
- Candy bar locations shown as:-
OTHER TIMES.....
PM PEAK.....
- Mode switch to be installed in the controller to allow switching from the outside marked:- PM PEAK and OTHER TIMES.
- The A-B-D2 Approach Detector (7) in PM PEAK is to operate as a through detector, the A-B-D2 Departure Detector (6) is disabled in PM PEAK. In OTHER TIMES the A-B-D2 Approach and Departure Detectors are to operate as right turn detectors in an exclusive right turn lane with filter/non-filter option.
- For details of civil road works Refer to Plan Reg 0165.387.RC.2507.
- Pot holing has been carried out to determine the location of sub-surface utilities in the vicinity of posts 1 and 5. Results of the pot holing are available from Mr K Inlandside Ph 9846 2846, Sydney Technical Services.
- For details of adjustments to the awning of post 5 refer to Plan Reg No 0165.387.PA.0001.

DETECTOR SPECIFICATION

Detector	FN	A(L)	A(E)	OTHER TIMES
A1	SG/PS	X	A	
	DS	-	-	
A2	FN	A(L)	A(E)	
	SG/PS	A	A	
	DS	-	-	
A-B-D	FN	B(PR)	D(PR)	
Depart. & Approach	SG/PS	A	A	
	DS	Z-	Z-2+	
A-B-D	FN	A(L),B(L)	D(L)	
Approach	SG/PS	A/B/D	B/D	
	DS	Z-	Z-2+	
A-B-D	FN	A(E)	B(E)	
Approach	SG/PS	A	D	
	DS	Z-	B(NEXT)	
A-B-D	FN	B(PR)	D(PR)	
Depart. & Approach	SG/PS	C	B	
	DS	-	C(NEXT),D(NEXT),B-C-B(PR)	
A-B-D	FN	A(L),B(L)	D(L)	
Approach	SG/PS	A/B/D	A/B/D	
	DS	-	Z+	
A-B-D	FN	A(E)	B(E)	
Approach	SG/PS	A	D	
	DS	-	A(NEXT),D(NEXT)	
A-B-D	FN	A(E)	B(E)	
Approach	SG/PS	A	D	
	DS	-	A(NEXT),D(NEXT)	
A-B-D	FN	A(E)	B(E)	
Approach	SG/PS	A	D	
	DS	-	A(NEXT),D(NEXT)	
A-B-D	FN	A(E)	B(E)	
Approach	SG/PS	A	D	
	DS	-	A(NEXT),D(NEXT)	

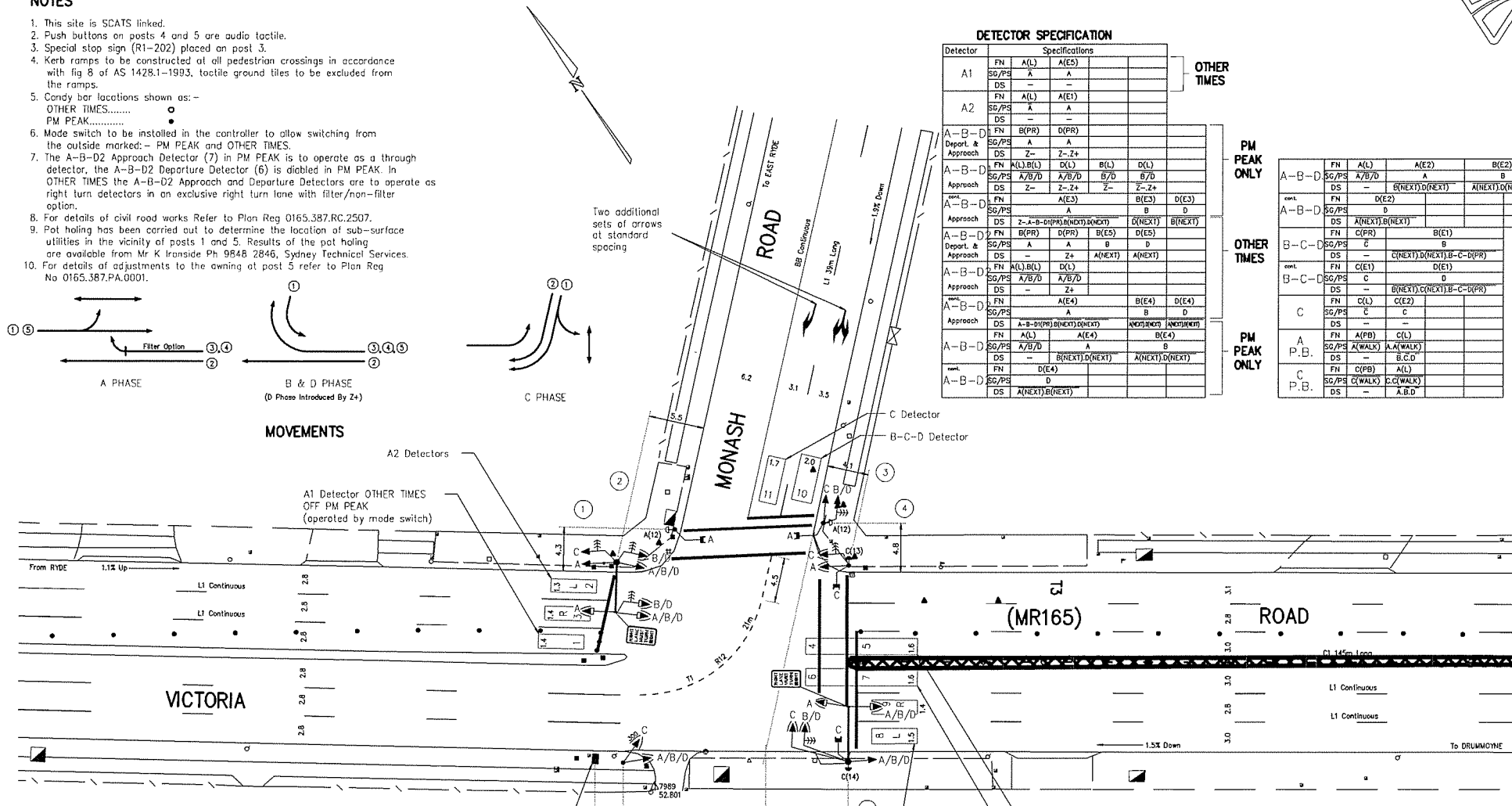
OTHER TIMES

PM PEAK ONLY

OTHER TIMES

PM PEAK ONLY

Detector	FN	A(L)	A(E)	B(E)
A-B-D	SG/PS	A/B/D	A	B
	DS	-	B(NEXT),D(NEXT)	A(NEXT),D(NEXT)
A-B-D	FN	D(E)	B	
Approach	SG/PS	A(NEXT),B(NEXT)	B(E)	
	DS	-	C(NEXT),D(NEXT),B-C-B(PR)	
A-B-D	FN	C(E)	D(E)	
Approach	SG/PS	C	D	
	DS	-	B(NEXT),C(NEXT),B-C-B(PR)	
A-B-D	FN	C(L)	C(E)	
Approach	SG/PS	C	C	
	DS	-	-	
A	FN	A(PB)	C(L)	
P.B.	SG/PS	A(WALK)	A(WALK)	
	DS	-	B(C)	
B	FN	C(PB)	A(L)	
P.B.	SG/PS	C(WALK)	C(WALK)	
	DS	-	A,B,D	



MOVEMENTS

SPECIAL SIGNAL GROUP DISPLAY SEQUENCE

SIGNAL GROUP	TABLE TYPE	REMARKS
A/B/D	3	
B/D (RT)	39	Timed R.A. protection for 'A' pedestrians. Z- filter option.
B/D (LT)	12	Timed R.A. protection for 'C' pedestrians. P.B. on post 5 extends protection subject to timer.
C (LT)	21	Timed R.A. protection for 'A' pedestrians.

POSTS

POST	TYPE	LENGTH	OFFSET	REMARKS
1	5L	-	1.0	NEW
2	2	3.2	0.6	NEW
3	2	4.1	0.8	EXIST
4	2	4.1	0.6	EXIST
5	5XL	-	1.0	NEW
6	2	4.1	1.0	EXIST

A. ORIGINAL ISSUE

PUBLIC UTILITY LOGNO	REFERENCE PLANS	U.R.D. Ref	Map 214 C6
STRAIGHT	SYMBOLS/ARDS	SC	E 311 348
SIDE VALVE	STD. FOOT	SC	CO-CRDS N:1 200 300
BASE VALVE	RECT. SPOED LTP	DESIGNED	S.HANLEY
SEWER MANHOLE	DETS. DETECT	CHECKED	KIRONOSIDE
TELECOM PIT	SSG DES. SEQ.		
ELECT LIGHT POLE			
POWER POLE			
STAY POLE			
TELEPHONE BOX	SURVEYOR: D.F. VANDERBURG		
TELECOM PILLAR	DATE : 1993		

APPROVED
[Signature]
NAME: F. O. REID
POSITION: MANAGER URBAN DESIGN
DATE: 8/2/2000

THIS DRAWING IS RECOMMENDED FOR ACCEPTANCE
[Signature]
NETWORK OPERATIONS TEAM LEADER
ACCEPTED
DATE: 8/2/2000

Roads and Traffic Authority, N.S.W
RYDE COUNCIL AREA
TRAFFIC SIGNALS AT
VICTORIA (MR165) ROAD AND MONASH ROAD
GLADESVILLE
DESIGN LAYOUT ICS No 366

DESIGN OFFICE PARRAMATTA - SYDNEY TECHNICAL SERVICES
CADD FILE: VV0366_10A.dgn
SCALE: 1:200
FILE: 387 TS 142
REGN: 0165.387.VV.0366
ISSUE: A
SHEET: 10
COPYRIGHT ROADS AND TRAFFIC AUTHORITY

Appendix B

TRAFFIC SURVEY RESULTS



R.O.A.R. DATA

Reliable, Original & Authentic Results

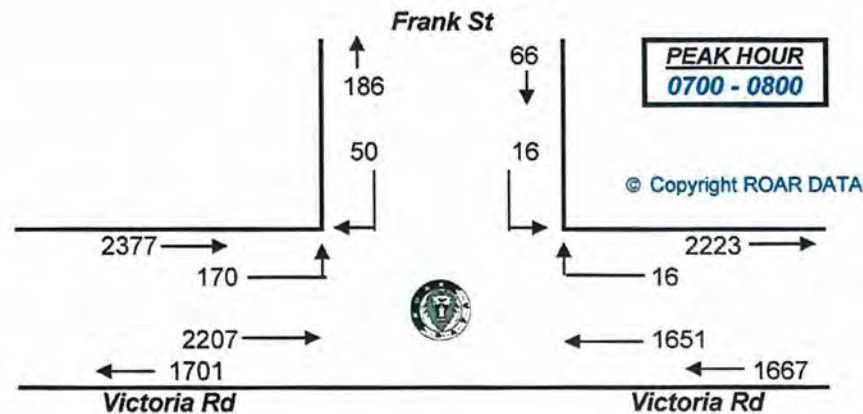
Ph.88196847, Fax 88196849, Mob.0418-239019

Client : T.T.P.A
 Job No/Name : 3737 GLADESVILLE Traffic Counts
 Day/Date : Monday 29th August 2011

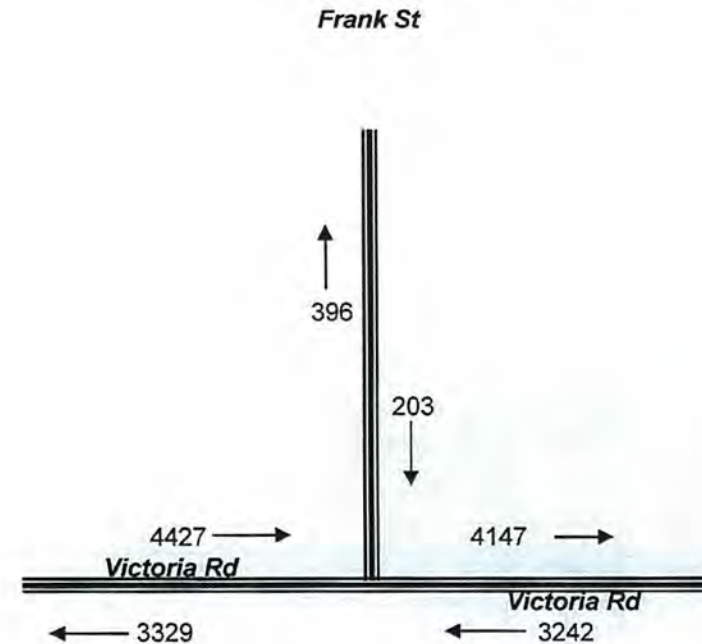
All Vehicles	WEST		NORTH		EAST		TOTAL
	Victoria Rd		Frank St		Victoria Rd		
Time Per	L	T	R	L	T	R	
0700 - 0715	49	615	5	1	345	3	1018
0715 - 0730	53	562	11	4	416	5	1051
0730 - 0745	37	573	16	5	457	3	1091
0745 - 0800	31	457	18	6	433	5	950
0800 - 0815	41	473	19	3	401	10	947
0815 - 0830	53	481	26	10	388	10	968
0830 - 0845	32	450	34	12	393	20	941
0845 - 0900	37	483	21	12	346	7	906
Period End	333	4094	150	53	3179	63	7872

Peak Per	WEST		NORTH		EAST		TOTAL
	Victoria Rd		Frank St		Victoria Rd		
Peak Per	L	T	R	L	T	R	
0700 - 0800	170	2207	50	16	1651	16	4110
0715 - 0815	162	2065	64	18	1707	23	4039
0730 - 0830	162	1984	79	24	1679	28	3956
0745 - 0845	157	1861	97	31	1615	45	3806
0800 - 0900	163	1887	100	37	1528	47	3762

PEAK HR	170	2207	50	16	1651	16	4110
----------------	------------	-------------	-----------	-----------	-------------	-----------	-------------



**TOTAL VOLUMES
FOR COUNT
PERIODS**





R.O.A.R. DATA

Reliable, Original & Authentic Results

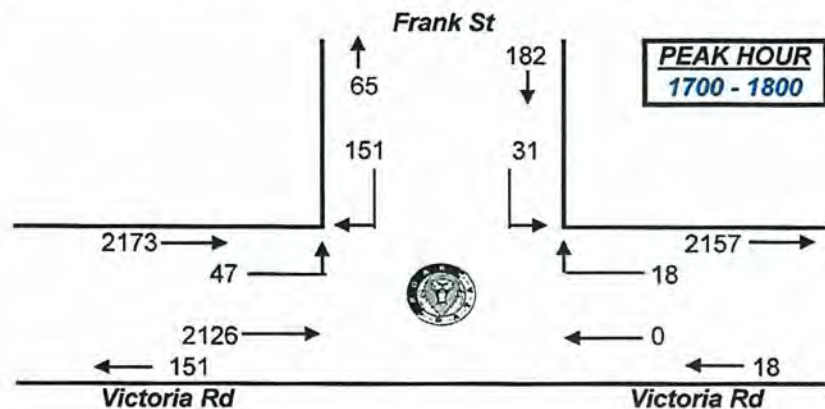
Ph.88196847, Fax 88196849, Mob.0418-239019

All Vehicles

Time Per	WEST		NORTH		EAST		TOTAL
	Victoria Rd		Frank St		Victoria Rd		
	L	T	R	L	T	R	
1530 - 1545	19	337	38	10		4	408
1545 - 1600	10	400	32	6		5	453
1600 - 1615	12	419	46	13		3	493
1615 - 1630	9	461	25	4		1	500
1630 - 1645	13	481	37	6		2	539
1645 - 1700	14	483	30	10		6	543
1700 - 1715	12	512	63	10		3	600
1715 - 1730	12	570	44	7		3	636
1730 - 1745	8	527	22	11		5	573
1745 - 1800	15	517	22	3		7	564
1800 - 1815	17	480	36	4		8	545
1815 - 1830	20	477	19	4		5	525
Period End	161	5664	414	88	0	52	6379

Peak Per	WEST		NORTH		EAST		TOTAL
	Victoria Rd		Frank St		Victoria Rd		
	L	T	R	L	T	R	
1530 - 1630	50	1617	141	33	0	13	1854
1545 - 1645	44	1761	140	29	0	11	1985
1600 - 1700	48	1844	138	33	0	12	2075
1615 - 1715	48	1937	155	30	0	12	2182
1630 - 1730	51	2046	174	33	0	14	2318
1645 - 1745	46	2092	159	38	0	17	2352
1700 - 1800	47	2126	151	31	0	18	2373
1715 - 1815	52	2094	124	25	0	23	2318
1730 - 1830	60	2001	99	22	0	25	2207

PEAK HR	47	2126	151	31	0	18	2373
---------	----	------	-----	----	---	----	------



Client : T.T.P.A.

Job No/Name : 3259 GLADESVILLE Victoria Rd

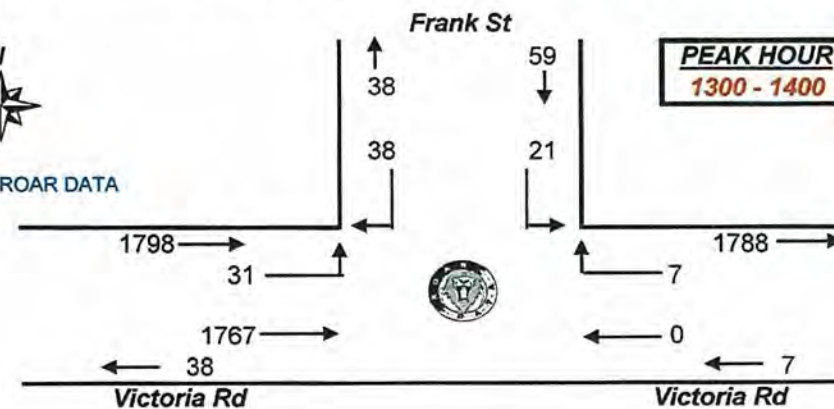
Day/Date : Friday 27th & Saturday 28th August 2010

All Vehicles

Time Per	WEST		NORTH		EAST		TOTAL
	Victoria Rd		Frank St		Victoria Rd		
	L	T	R	L	T	R	
1200 - 1215	8	444	13	5		2	472
1215 - 1230	10	458	15	6		2	491
1230 - 1245	9	438	5	7		0	459
1245 - 1300	7	415	4	7		4	437
1300 - 1315	10	432	7	6		0	455
1315 - 1330	7	456	6	1		3	473
1330 - 1345	8	445	10	6		1	470
1345 - 1400	6	434	15	8		3	466
1400 - 1415	11	402	15	7		0	435
1415 - 1430	2	432	4	4		3	445
1430 - 1445	11	429	8	6		2	456
1445 - 1500	11	415	12	3		0	441
Period End	100	5200	114	66	0	20	5500

Peak Per	WEST		NORTH		EAST		TOTAL
	Victoria Rd		Frank St		Victoria Rd		
	L	T	R	L	T	R	
1200 - 1300	34	1755	37	25	0	8	1859
1215 - 1315	36	1743	31	26	0	6	1842
1230 - 1330	33	1741	22	21	0	7	1824
1245 - 1345	32	1748	27	20	0	8	1835
1300 - 1400	31	1767	38	21	0	7	1864
1315 - 1415	32	1737	46	22	0	7	1844
1330 - 1430	27	1713	44	25	0	7	1816
1345 - 1445	30	1697	42	25	0	8	1802
1400 - 1500	35	1678	39	20	0	5	1777

PEAK HR	31	1767	38	21	0	7	1864
---------	----	------	----	----	---	---	------



© Copyright ROAR DATA



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

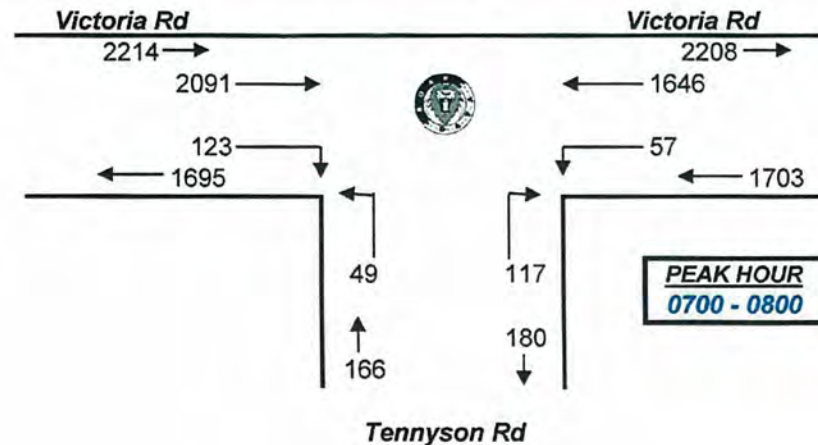
Client : T.T.P.A
 Job No/Name : 3737 GLADESVILLE Traffic Counts
 Day/Date : Monday 29th August 2011

All Vehicles

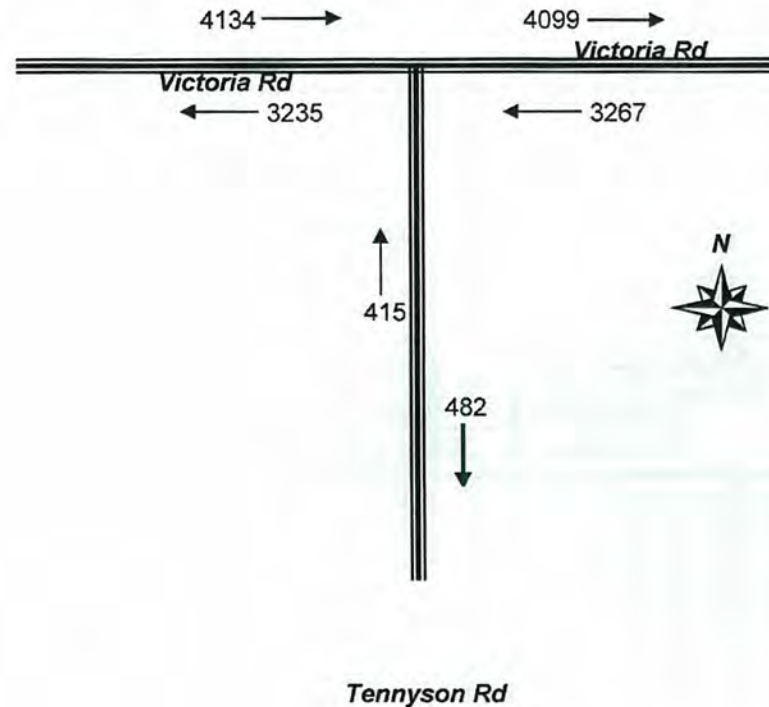
Time Per	WEST Victoria Rd		SOUTH Tennyson Rd		EAST Victoria Rd		TOTAL
	I	R	L	R	L	I	
0700 - 0715	544	25	7	28	10	388	1002
0715 - 0730	558	32	17	33	11	392	1043
0730 - 0745	535	24	14	31	14	429	1047
0745 - 0800	454	42	11	25	22	437	991
0800 - 0815	439	40	17	40	23	384	943
0815 - 0830	426	42	20	41	24	356	909
0830 - 0845	430	56	26	40	24	391	967
0845 - 0900	423	64	13	52	29	333	914
Period End	3809	325	125	290	157	3110	7816

Peak Per	WEST Victoria Rd		SOUTH Tennyson		EAST Victoria Rd		TOTAL
	I	R	L	R	L	I	
0700 - 0800	2091	123	49	117	57	1646	4083
0715 - 0815	1986	138	59	129	70	1642	4024
0730 - 0830	1854	148	62	137	83	1606	3890
0745 - 0845	1749	180	74	146	93	1568	3810
0800 - 0900	1718	202	76	173	100	1464	3733

PEAK HR	2091	123	49	117	57	1646	4083
---------	------	-----	----	-----	----	------	------



**TOTAL VOLUMES
FOR COUNT
PERIODS**





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : T.T.P.A.
 Job No/Name : 3259 GLADESVILLE Victoria Rd
 Day/Date : Friday 27th & Saturday 28th August 2010

All Vehicles

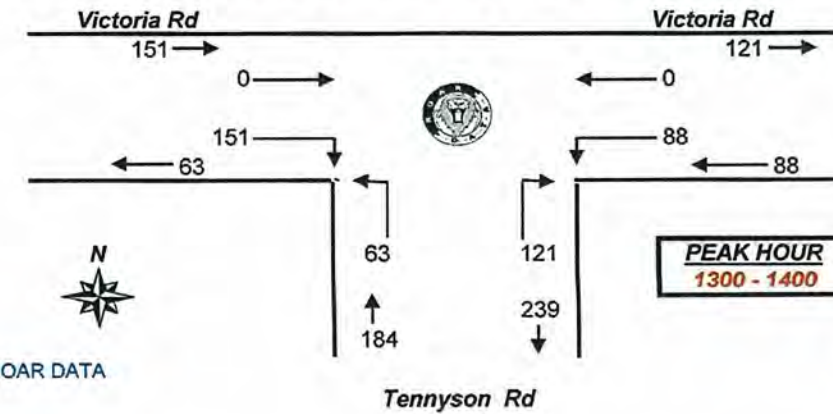
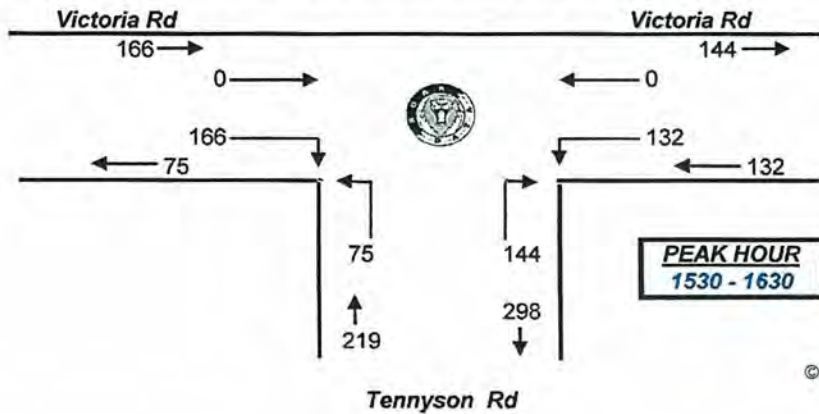
Time Per	WEST		SOUTH		EAST		TOTAL
	Victoria Rd		Tennyson		Victoria Rd		
	R	I	L	R	I	L	
1530 - 1545	44		27	30		35	136
1545 - 1600	44		12	34		39	129
1600 - 1615	46		19	45		31	141
1615 - 1630	32		17	35		27	111
1630 - 1645	37		25	35		24	121
1645 - 1700	45		25	39		21	130
1700 - 1715	20		25	35		25	105
1715 - 1730	38		25	33		33	129
1730 - 1745	28		19	46		26	119
1745 - 1800	41		18	38		30	127
1800 - 1815	35		12	39		19	105
1815 - 1830	29		16	39		25	109
Period End	439	0	240	448	0	335	1462

All Vehicles

Time Per	WEST		SOUTH		EAST		TOTAL
	Victoria Rd		Tennyson		Victoria Rd		
	R	I	L	R	I	L	
1200 - 1215	26		16	45		24	111
1215 - 1230	25		12	38		21	96
1230 - 1245	29		18	32		19	98
1245 - 1300	23		9	34		27	93
1300 - 1315	34		17	30		20	101
1315 - 1330	34		17	27		19	97
1330 - 1345	40		14	26		33	113
1345 - 1400	43		15	38		16	112
1400 - 1415	22		11	19		17	69
1415 - 1430	26		11	24		15	76
1430 - 1445	27		14	33		14	88
1445 - 1500	33		13	35		23	104
Period End	362	0	167	381	0	248	1158

Peak Per	WEST		SOUTH		EAST		TOTAL
	Victoria Rd		Tennyson		Victoria Rd		
	R	I	L	R	I	L	
1530 - 1630	166	0	75	144	0	132	517
1545 - 1645	159	0	73	149	0	121	502
1600 - 1700	160	0	86	154	0	103	503
1615 - 1715	134	0	92	144	0	97	467
1630 - 1730	140	0	100	142	0	103	485
1645 - 1745	131	0	94	153	0	105	483
1700 - 1800	127	0	87	152	0	114	480
1715 - 1815	142	0	74	156	0	108	480
1730 - 1830	133	0	65	162	0	100	460
PEAK HR	166	0	75	144	0	132	517

Peak Per	WEST		SOUTH		EAST		TOTAL
	Victoria Rd		Tennyson		Victoria Rd		
	R	I	L	R	I	L	
1200 - 1300	103	0	55	149	0	91	398
1215 - 1315	111	0	56	134	0	87	388
1230 - 1330	120	0	61	123	0	85	389
1245 - 1345	131	0	57	117	0	99	404
1300 - 1400	151	0	63	121	0	88	423
1315 - 1415	139	0	57	110	0	85	391
1330 - 1430	131	0	51	107	0	81	370
1345 - 1445	118	0	51	114	0	62	345
1400 - 1500	108	0	49	111	0	69	337
PEAK HR	151	0	63	121	0	88	423





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : T.T.P.A
 Job No/Name : 3784 GLADESVILLE College St
 Day/Date : Friday 23rd September 2011

All Vehicles

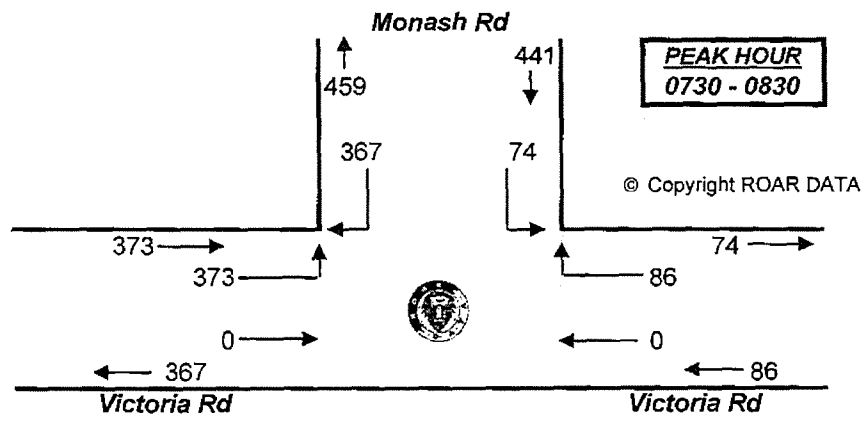
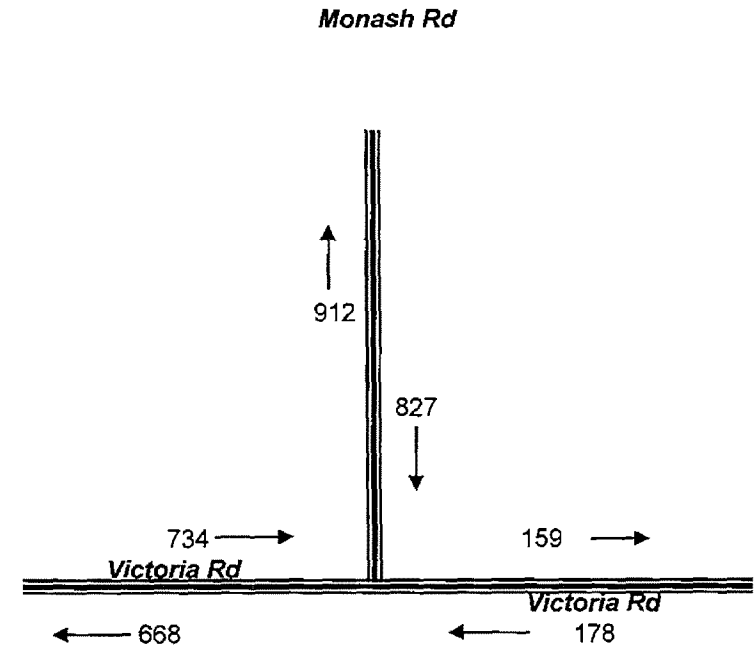
Time Per	WEST <i>Victoria Rd</i>		NORTH <i>Monash Rd</i>		EAST <i>Victoria Rd</i>		TOTAL
	L	I	R	L	I	R	
0700 - 0715	109		59	18		14	200
0715 - 0730	87		83	19		25	214
0730 - 0745	97		103	23		16	239
0745 - 0800	101		82	10		26	0
0800 - 0815	95		87	19		19	220
0815 - 0830	80		95	22		25	222
0830 - 0845	83		91	27		30	231
0845 - 0900	82		68	21		23	194
Period End	734	0	668	159	0	178	1520

**TOTAL VOLUMES
FOR COUNT
PERIODS**



Peak Per	WEST <i>Victoria Rd</i>		NORTH <i>Monash Rd</i>		EAST <i>Victoria Rd</i>		TOTAL
	L	I	R	L	I	R	
0700 - 0800	394	0	327	70	0	81	872
0715 - 0815	380	0	355	71	0	86	892
0730 - 0830	373	0	367	74	0	86	900
0745 - 0845	359	0	355	78	0	100	892
0800 - 0900	340	0	341	89	0	97	867

PEAK HR	373	0	367	74	0	86	900
----------------	------------	----------	------------	-----------	----------	-----------	------------





R.O.A.R. DATA

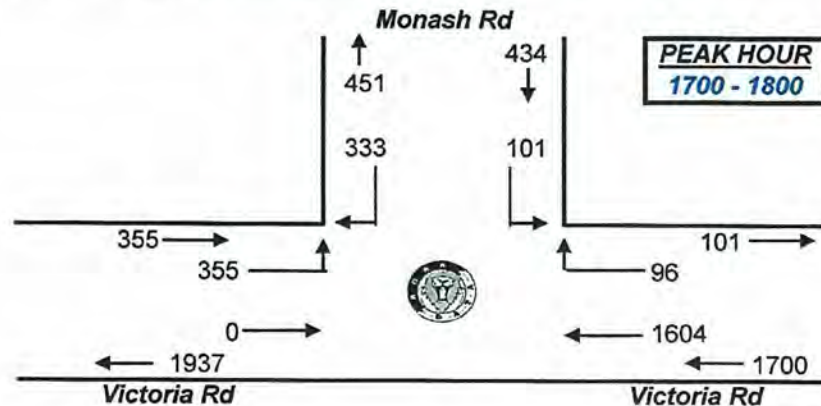
Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

All Vehicles

Time Per	WEST		NORTH		EAST		TOTAL
	Victoria Rd		Monash Rd		Victoria Rd		
	L	T	R	L	T	R	
1530 - 1545	81		85	28	358	43	595
1545 - 1600	73		67	31	351	36	558
1600 - 1615	101		85	29	411	44	670
1615 - 1630	67		68	24	413	36	608
1630 - 1645	78		62	17	316	12	485
1645 - 1700	80		77	19	391	15	582
1700 - 1715	92		81	24	394	30	621
1715 - 1730	101		89	29	412	20	651
1730 - 1745	75		79	18	349	24	545
1745 - 1800	87		84	30	449	22	672
1800 - 1815	91		68	28	371	15	573
1815 - 1830	98		82	29	417	26	652
Period End	1024	0	927	306	4632	323	7212

Peak Per	WEST		NORTH		EAST		TOTAL
	Victoria Rd		Monash Rd		Victoria Rd		
	L	T	R	L	T	R	
1530 - 1630	322	0	305	112	1533	159	2431
1545 - 1645	319	0	282	101	1491	128	2321
1600 - 1700	326	0	292	89	1531	107	2345
1615 - 1715	317	0	288	84	1514	93	2296
1630 - 1730	351	0	309	89	1513	77	2339
1645 - 1745	348	0	326	90	1546	89	2399
1700 - 1800	355	0	333	101	1604	96	2489
1715 - 1815	354	0	320	105	1581	81	2441
1730 - 1830	351	0	313	105	1586	87	2442
PEAK HR	355	0	333	101	1604	96	2489



Client : T.T.P.A.

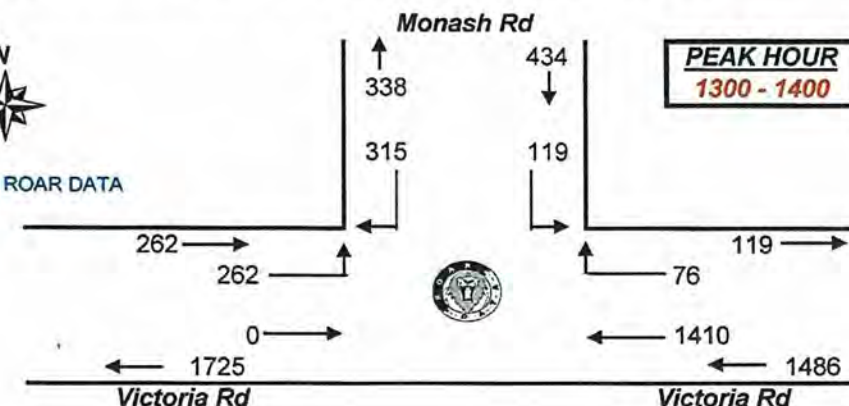
Job No/Name : 3259 GLADESVILLE Victoria Rd

Day/Date : Friday 27th & Saturday 28th August 2010

All Vehicles

Time Per	WEST		NORTH		EAST		TOTAL
	Victoria Rd		Monash Rd		Victoria Rd		
	L	T	R	L	T	R	
1200 - 1215	74		85	45	371	24	599
1215 - 1230	74		79	43	337	24	557
1230 - 1245	49		97	32	274	23	475
1245 - 1300	71		93	23	301	21	509
1300 - 1315	54		75	35	314	23	501
1315 - 1330	68		89	26	393	17	593
1330 - 1345	69		75	30	366	19	559
1345 - 1400	71		76	28	337	17	529
1400 - 1415	55		63	19	325	19	481
1415 - 1430	51		69	34	340	13	507
1430 - 1445	69		66	28	365	16	544
1445 - 1500	70		85	24	370	26	575
Period End	775	0	952	367	4093	242	6429

Peak Per	WEST		NORTH		EAST		TOTAL
	Victoria Rd		Monash Rd		Victoria Rd		
	L	T	R	L	T	R	
1200 - 1300	268	0	354	143	1283	92	2140
1215 - 1315	248	0	344	133	1226	91	2042
1230 - 1330	242	0	354	116	1282	84	2078
1245 - 1345	262	0	332	114	1374	80	2162
1300 - 1400	262	0	315	119	1410	76	2182
1315 - 1415	263	0	303	103	1421	72	2162
1330 - 1430	246	0	283	111	1368	68	2076
1345 - 1445	246	0	274	109	1367	65	2061
1400 - 1500	245	0	283	105	1400	74	2107
PEAK HR	262	0	315	119	1410	76	2182



© Copyright ROAR DATA



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : T.T.P.A.

Job No/Name : 3784 GLADESVILLE College St

Day/Date : Friday 23rd September 2011

All Vehicles

Time Per	WEST		NORTH		EAST		TOTAL
	College St		Orient St		College St		
	L	I	R	L	I	R	
0700 - 0715	1		10	1		2	14
0715 - 0730	1		12	1		1	15
0730 - 0745	4		8	1		1	14
0745 - 0800	2		13	1		1	17
0800 - 0815	3		8	0		2	13
0815 - 0830	1		8	1		3	13
0830 - 0845	7		17	1		1	26
0845 - 0900	3		7	2		0	12
Period End	22	0	83	8	0	11	124

All Vehicles

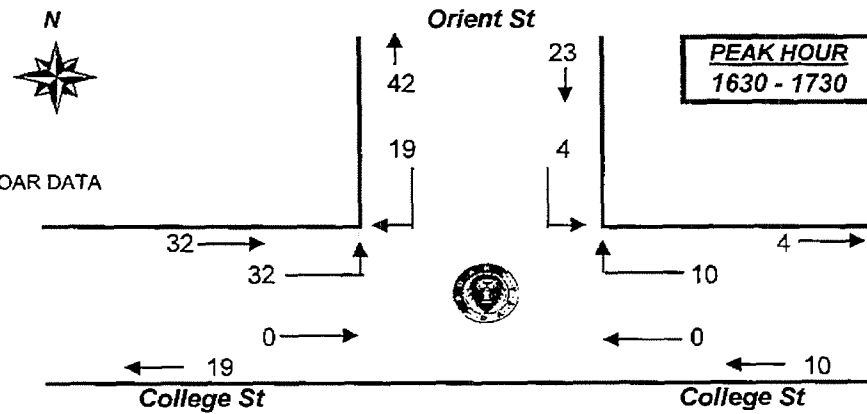
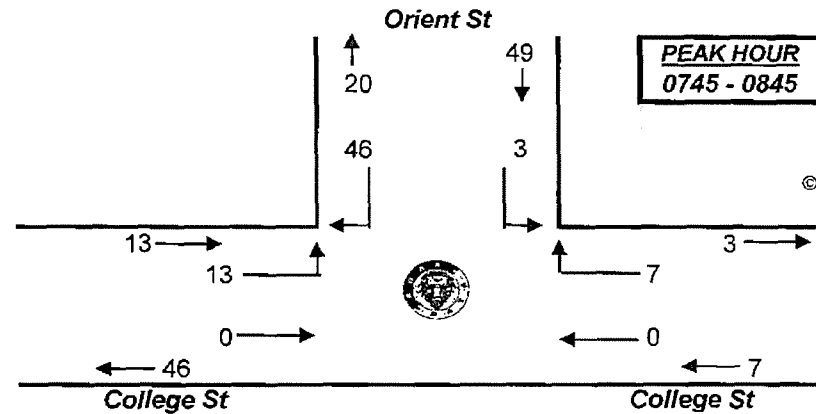
Time Per	WEST		NORTH		EAST		TOTAL
	College St		Orient St		College St		
	L	I	R	L	I	R	
1600 - 1615	12		5	0		2	19
1615 - 1630	5		4	0		3	12
1630 - 1645	7		6	3		3	19
1645 - 1700	6		4	0		4	14
1700 - 1715	12		5	0		0	17
1715 - 1730	7		4	1		3	15
1730 - 1745	7		4	1		3	15
1745 - 1800	5		2	0		2	9
Period End	61	0	34	5	0	20	120

Peak Per	WEST		NORTH		EAST		TOTAL
	College St		Orient St		College St		
	L	I	R	L	I	R	
0700 - 0800	8	0	43	4	0	5	60
0715 - 0815	10	0	41	3	0	5	59
0730 - 0830	10	0	37	3	0	7	57
0745 - 0845	13	0	46	3	0	7	69
0800 - 0900	14	0	40	4	0	6	64

Peak Per	WEST		NORTH		EAST		TOTAL
	College St		Orient St		College St		
	L	I	R	L	I	R	
1600 - 1700	30	0	19	3	0	12	64
1615 - 1715	30	0	19	3	0	10	62
1630 - 1730	32	0	19	4	0	10	65
1645 - 1745	32	0	17	2	0	10	61
1700 - 1800	31	0	15	2	0	8	56

PEAK HR	13	0	46	3	0	7	69
----------------	-----------	----------	-----------	----------	----------	----------	-----------

PEAK HOUR	32	0	19	4	0	10	65
------------------	-----------	----------	-----------	----------	----------	-----------	-----------





R.O.A.R. DATA

Reliable, Original & Authentic Results

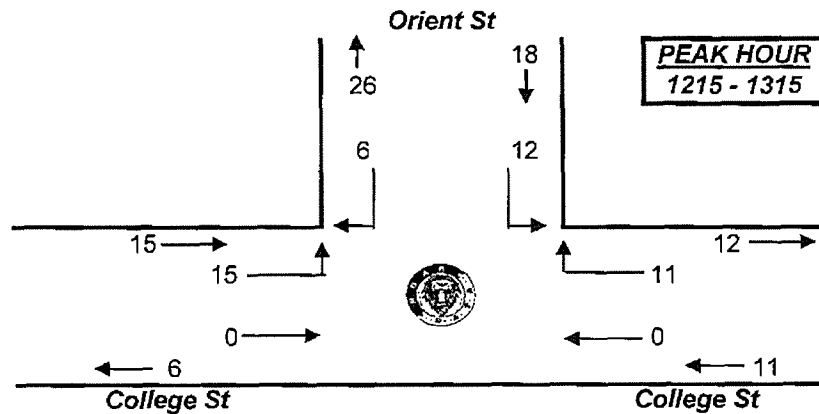
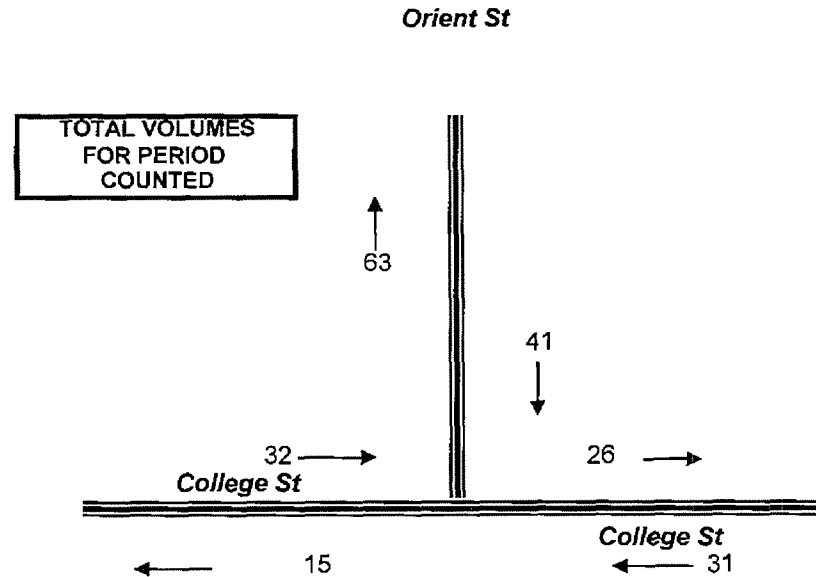
Ph.88196847, Fax 88196849, Mob.0418-239019

All Vehicles

Client : T.T.P.A.
 Job No/Name : 3784 GLADESVILLE College St
 Day/Date : Saturday 24th September 2011

Time Per	WEST		NORTH		EAST		TOTAL
	College St		Orient St		College St		
	L	I	R	L	I	R	
1200 - 1215	3		1	1		2	7
1215 - 1230	4		1	1		3	9
1230 - 1245	1		2	3		1	7
1245 - 1300	5		1	3		5	14
1300 - 1315	5		2	5		2	14
1315 - 1330	2		1	1		1	5
1330 - 1345	3		2	0		3	8
1345 - 1400	3		0	1		1	5
1400 - 1415	0		0	3		3	6
1415 - 1430	1		0	3		3	7
1430 - 1445	5		3	1		4	13
1445 - 1500	0		2	4		3	9
Period End	32	0	15	26	0	31	104

Peak Per	WEST		NORTH		EAST		TOTAL
	College St		Orient St		College St		
	L	I	R	L	I	R	
1200 - 1300	13	0	5	8	0	11	37
1215 - 1315	15	0	6	12	0	11	44
1230 - 1330	13	0	6	12	0	9	40
1245 - 1345	15	0	6	9	0	11	41
1300 - 1400	13	0	5	7	0	7	32
1315 - 1415	8	0	3	5	0	8	24
1330 - 1430	7	0	2	7	0	10	26
1345 - 1445	9	0	3	8	0	11	31
1400 - 1500	6	0	5	11	0	13	35
PEAK HR	15	0	6	12	0	11	44



© Copyright ROAR DATA



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : T.T.P.A.

Job No/Name : 3784 GLADESVILLE College St

Day/Date : Friday 23rd September 2011

All Vehicles Time Per	NORTH Monash Rd			WEST College St			SOUTH Monash Rd			EAST Eltham St			TOT
	L	I	R	L	I	R	L	I	R	L	I	R	
	0700 - 0715	5		3	21	2	6	8		6	5	3	
0715 - 0730	8		18	18	3	2	8		5	11	2	1	76
0730 - 0745	12		16	23	10	2	6		6	14	5	1	95
0745 - 0800	6		27	20	6	3	9		5	11	2	3	92
0800 - 0815	9		19	15	1	3	14		4	8	9	1	83
0815 - 0830	8		27	25	2	3	11		3	11	6	1	97
0830 - 0845	5		31	22	2	3	11		6	5	3	2	90
0845 - 0900	7		18	18	5	9	19		6	4	5	2	93
Period End	60	0	159	162	31	31	86	0	41	69	35	12	686

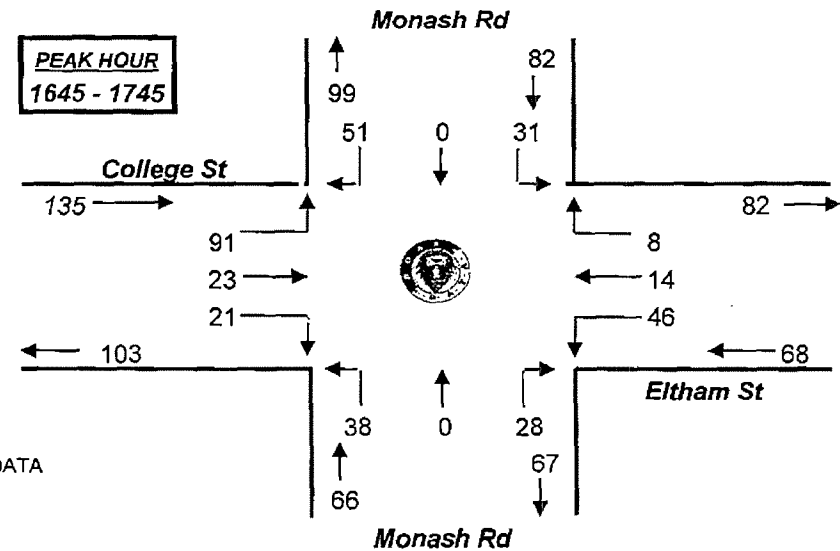
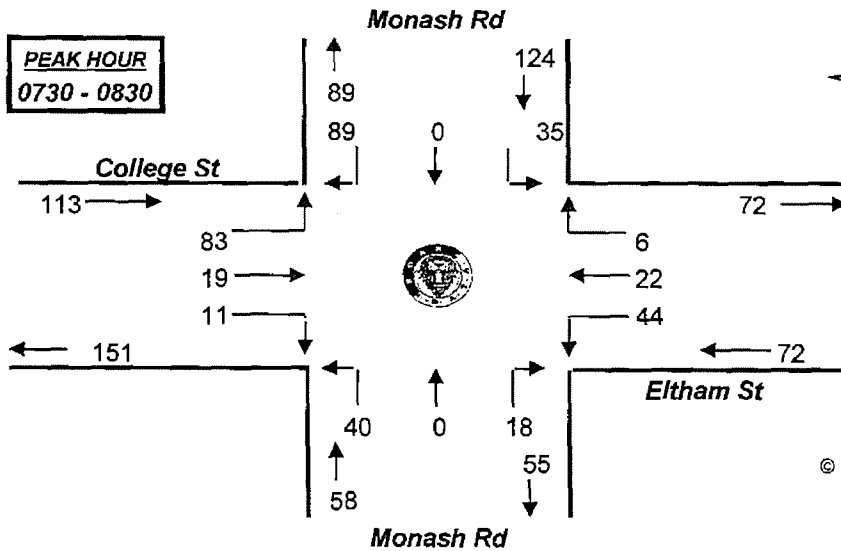
All Vehicles Time Per	NORTH Monash Rd			WEST College St			SOUTH Monash Rd			EAST Eltham St			TOT
	L	I	R	L	I	R	L	I	R	L	I	R	
	1600 - 1615	5		8	13	4	6	9		7	10	7	
1615 - 1630	2		11	10	2	12	4		9	7	5	2	64
1630 - 1645	8		12	16	6	6	8		3	16	6	1	82
1645 - 1700	6		17	17	7	9	15		7	6	5	1	90
1700 - 1715	8		13	27	4	3	7		10	12	1	3	88
1715 - 1730	12		9	26	6	2	6		6	14	1	2	84
1730 - 1745	5		12	21	6	7	10		5	14	7	2	89
1745 - 1800	10		11	17	6	3	4		5	12	4	2	74
Period End	56	0	93	147	41	48	63	0	52	91	36	15	642

Peak Time	NORTH Monash Rd			WEST College St			SOUTH Monash Rd			EAST Eltham St			TOT
	L	I	R	L	I	R	L	I	R	L	I	R	
0700 - 0800	31	0	64	82	21	13	31	0	22	41	12	6	323
0715 - 0815	35	0	80	76	20	10	37	0	20	44	18	6	346
0730 - 0830	35	0	89	83	19	11	40	0	18	44	22	6	367
0745 - 0845	28	0	104	82	11	12	45	0	18	35	20	7	362
0800 - 0900	29	0	95	80	10	18	55	0	19	28	23	6	363

Peak Time	NORTH Monash Rd			WEST College St			SOUTH Monash Rd			EAST Eltham St			TOT
	L	I	R	L	I	R	L	I	R	L	I	R	
1600 - 1700	21	0	48	56	19	33	36	0	26	39	23	6	307
1615 - 1715	24	0	53	70	19	30	34	0	29	41	17	7	324
1630 - 1730	34	0	51	86	23	20	36	0	26	48	13	7	344
1645 - 1745	31	0	51	91	23	21	38	0	28	46	14	8	351
1700 - 1800	35	0	45	91	22	15	27	0	26	52	13	9	335

PEAK HOUR	35	0	89	83	19	11	40	0	18	44	22	6	367
-----------	----	---	----	----	----	----	----	---	----	----	----	---	-----

PEAK HOUR	31	0	51	91	23	21	38	0	28	46	14	8	351
-----------	----	---	----	----	----	----	----	---	----	----	----	---	-----





R.O.A.R. DATA

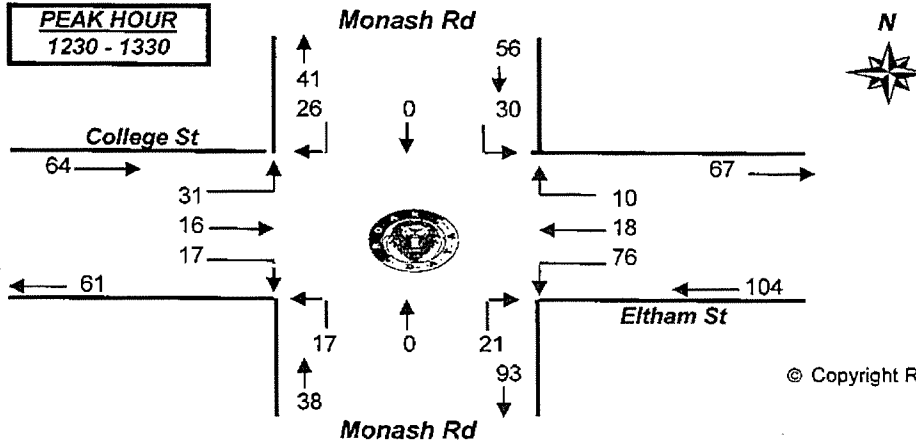
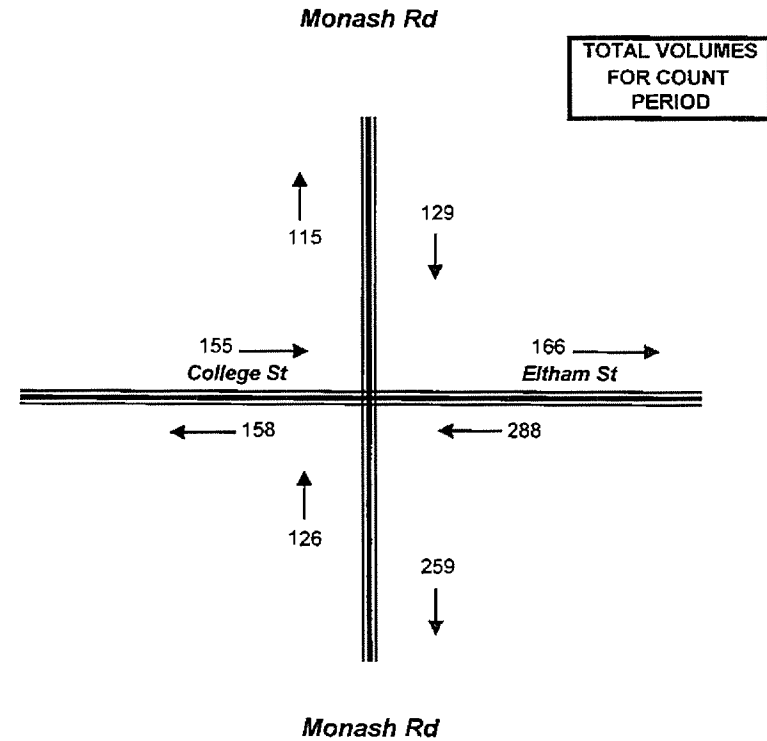
Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : T.T.P.A.
 Job No/Name : 3784 GLADESVILLE College St
 Day/Date : Saturday 24th September 2011

All Vehicles Time Per	NORTH Monash Rd			WEST College St			SOUTH Monash Rd			EAST Eltham St			TOT
	L	I	R	L	I	R	L	I	R	L	I	R	
1200 - 1215	5		9	14	1	9	7		9	23	3	5	85
1215 - 1230	4		6	5	1	6	6		2	17	1	5	53
1230 - 1245	6		5	7	3	5	2		2	17	7	5	59
1245 - 1300	6		5	6	2	1	5		9	24	3	2	63
1300 - 1315	8		9	10	8	8	5		5	19	5	2	79
1315 - 1330	10		7	8	3	3	5		5	16	3	1	61
1330 - 1345	2		0	3	0	0	2		5	23	3	3	41
1345 - 1400	3		10	3	4	2	3		7	14	1	1	48
1400 - 1415	8		2	5	1	4	4		5	19	3	5	56
1415 - 1430	3		1	5	1	4	4		8	11	4	4	45
1430 - 1445	8		4	8	2	5	8		5	14	6	3	63
1445 - 1500	3		5	3	2	3	3		10	12	2	2	45
Period End	66	0	63	77	28	50	54	0	72	209	41	38	698

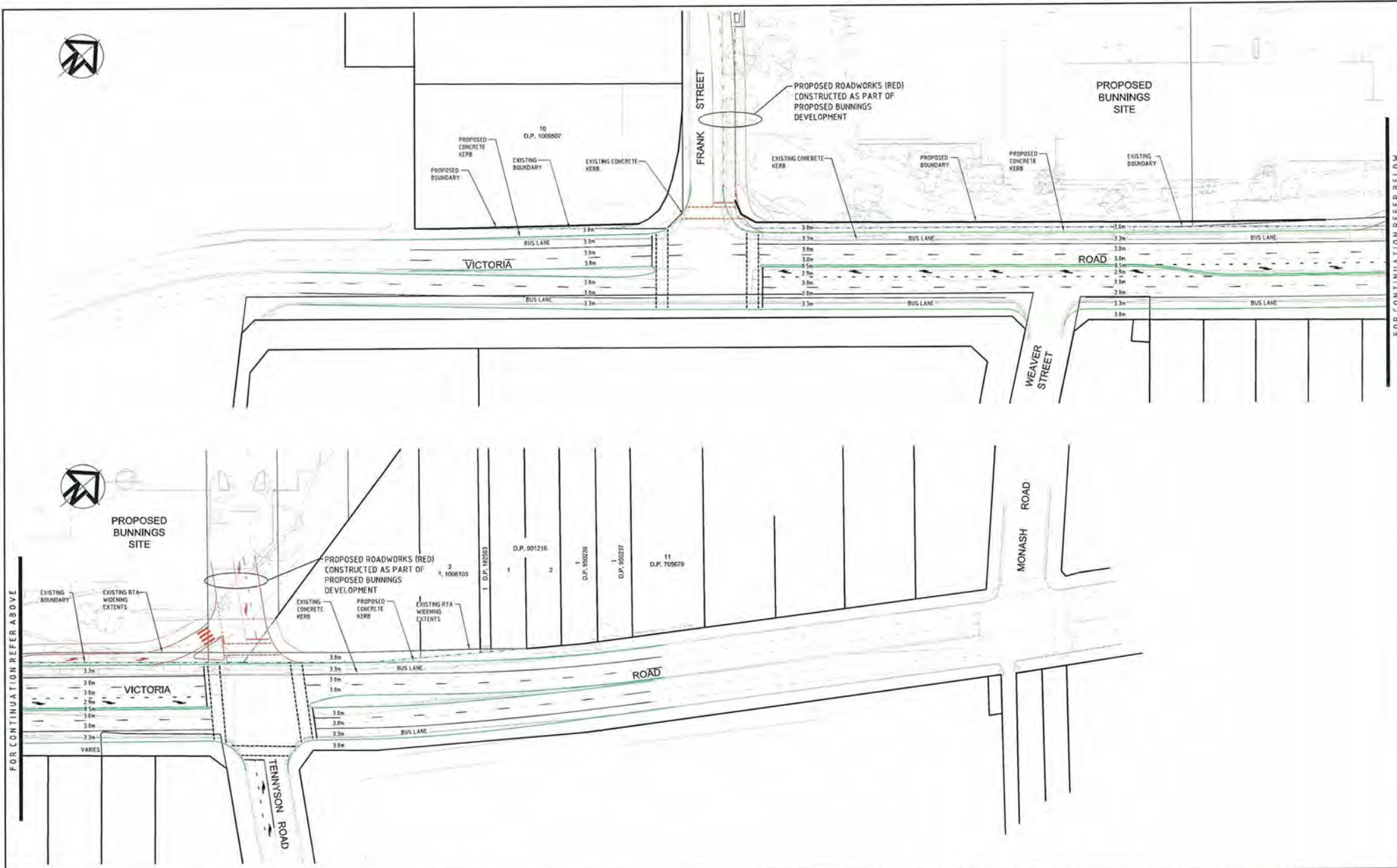
Peak Time	NORTH Monash Rd			WEST College St			SOUTH Monash Rd			EAST Eltham St			TOT
	L	I	R	L	I	R	L	I	R	L	I	R	
1200 - 1300	21	0	25	32	7	21	20	0	22	81	14	17	260
1215 - 1315	24	0	25	28	14	20	18	0	18	77	16	14	254
1230 - 1330	30	0	26	31	16	17	17	0	21	76	18	10	262
1245 - 1345	26	0	21	27	13	12	17	0	24	82	14	8	244
1300 - 1400	23	0	26	24	15	13	15	0	22	72	12	7	229
1315 - 1415	23	0	19	19	8	9	14	0	22	72	10	10	206
1330 - 1430	16	0	13	16	6	10	13	0	25	67	11	13	190
1345 - 1445	22	0	17	21	8	15	19	0	25	58	14	13	212
1400 - 1500	22	0	12	21	6	16	19	0	28	56	15	14	209
PEAK HOUR	30	0	26	31	16	17	17	0	21	76	18	10	262



© Copyright ROAR DATA

Appendix C

PROPOSED ROAD AND INTERSECTION ARRANGEMENTS



FOR CONTINUATION REFER ABOVE

FOR CONTINUATION REFER BELOW

Bar Scales							
<table border="1"> <tr> <th>Issue</th> <th>Description</th> <th>Date</th> </tr> <tr> <td>P1</td> <td>ISSUE FOR INFORMATION</td> <td>17-04-11</td> </tr> </table>	Issue	Description	Date	P1	ISSUE FOR INFORMATION	17-04-11	<p>THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L</p>
Issue	Description	Date					
P1	ISSUE FOR INFORMATION	17-04-11					

Client:

Scale:	1 : 500	Drawn:	NM	Project:	BUNNINGS WAREHOUSE GLADESVILLE
Grid:		Designed:	NM		
Height Datum:	AHD	Checked:			
		Approved:		Title:	PROPOSED RTA ROADWORKS PLAN OPTION 3

Status:	PRELIMINARY ONLY NOT TO BE USED FOR CONSTRUCTION	A1	
Drawing No.:	SKC07	Issue:	P1
Project No.:	11-58		

Civil Engineers and Project Managers

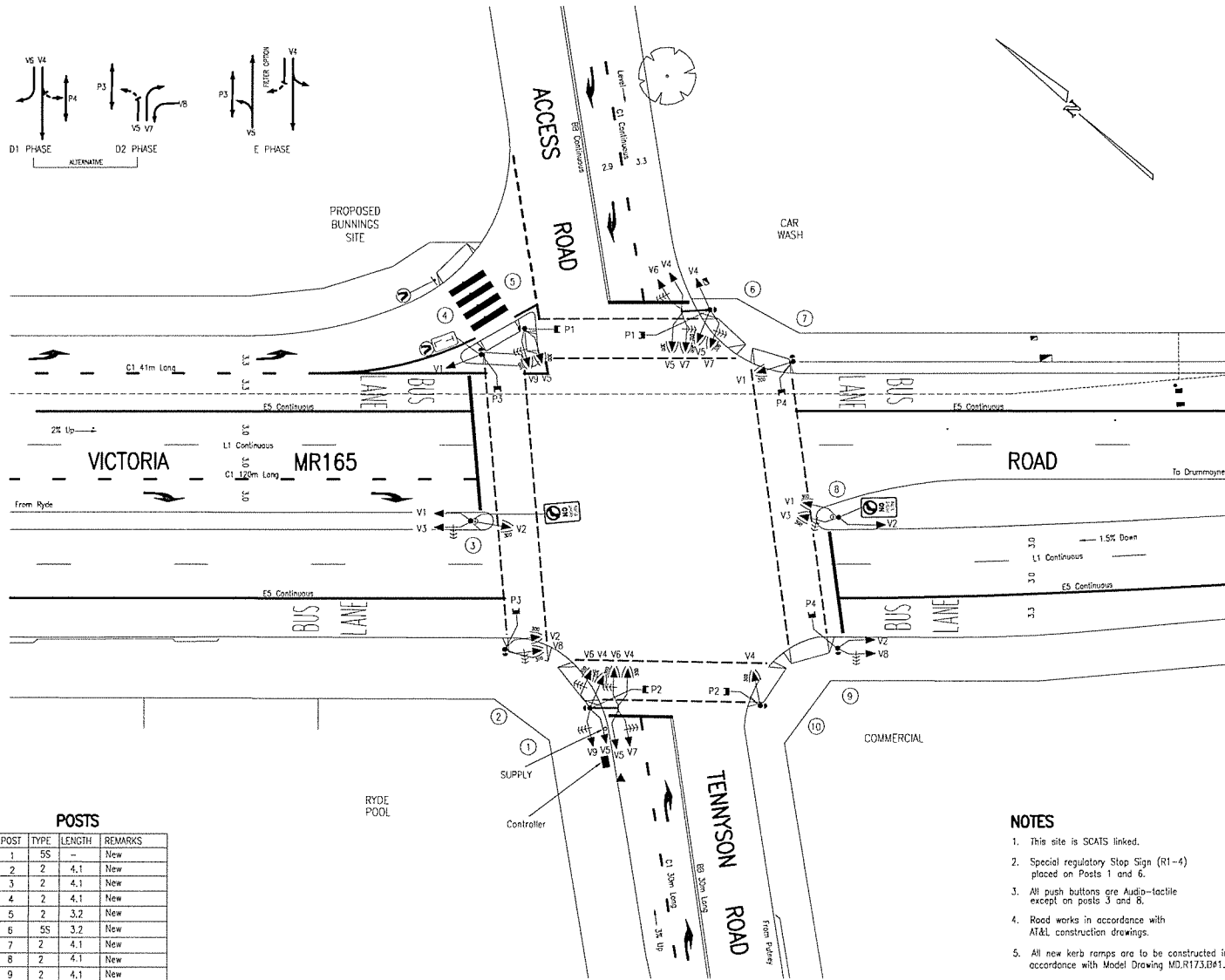
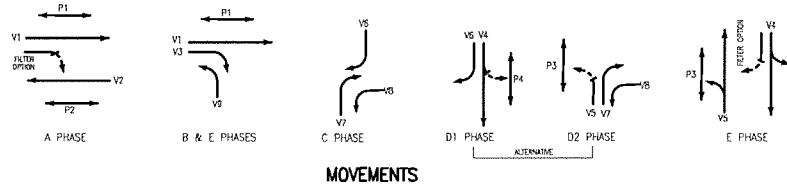
Suite 702, 6A Glen Street
Miltons Point NSW 2051
ABN 95 130 882 405
Tel: 02 8920 2456
Fax: 02 9922 5102
www.atl.net.au
info@atl.net.au

DRAWN BY CADD
DO NOT AMEND MANUALLY

Date in Service 00/00/00



0165.387.W.1677



POSTS

POST	TYPE	LENGTH	REMARKS
1	SS	-	New
2	2	4.1	New
3	2	4.1	New
4	2	4.1	New
5	2	3.2	New
6	SS	3.2	New
7	2	4.1	New
8	2	4.1	New
9	2	4.1	New
10	2	4.1	Existing

NOTES

- This site is SCATS linked.
- Special regulatory Stop Sign (R1-4) placed on Posts 1 and 6.
- All push buttons are Audio-tactile except on posts 3 and 8.
- Road works in accordance with AT&L construction drawings.
- All new kerb ramps are to be constructed in accordance with Model Drawing MD.R173.B41.A.1.
- Red colored pavement on BUS LANE in accordance with specification R110 and T.D. 99/9.
- Single Diamond overlap in accordance with Standard Drawing V0018-5.

CONCEPT DESIGN

A. ORIGINAL ISSUE	PUBLIC UTILITY LEGEND	REFERENCE PLANS	U B D Ref Map 214 B6	DESIGN APPROVAL	RTA ACCEPTANCE	Roads and Traffic Authority, N.S.W	EXISTING <input type="checkbox"/>	PROPOSED <input checked="" type="checkbox"/>	
	HYDRANT <input type="checkbox"/>	SYMBOLS/ABIS. V0001-6	SS.C. 1" 311 T78	APPROVED	RECOMMENDED	RYDE CITY COUNCIL AREA	CADD FILE: W1677-2.DGN	ISSUE	
	STOP VALVE <input type="checkbox"/>	SIG. POST. V0001-5	1:250.019	POSITION DATE: 05.05.11	DESIGN PREPARED BY: [Signature]	TRAFFIC SIGNALS AT THE INTERSECTION OF VICTORIA ROAD (MR165), TENNYSON ROAD AND ACCESS ROAD	SCALE: 1:200	FILE: 387 TS 143	SUPERSEDES SHEET/ISSUE: 7B
	RAIL VALVE <input type="checkbox"/>	RET. SCHED EXP. V0018-10	DESIGNED VCT	DATE: 05.05.11	TRANSPORT AND TRAFFIC PLANNING ASSOCIATES	GLADESVILLE	TCS No: 1677	REGN. 0165.387.W.1677	SHEET: ?

0165.387.VV.1987

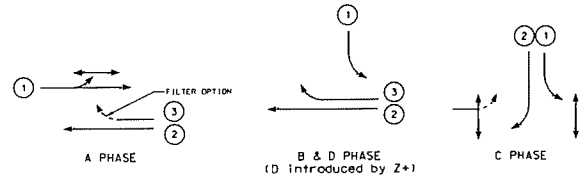
DRAWN BY CADD
DO NOT AMEND MANUALLY

DATE IN SERVICE : 28/09/62



DETECTOR SPECIFICATION

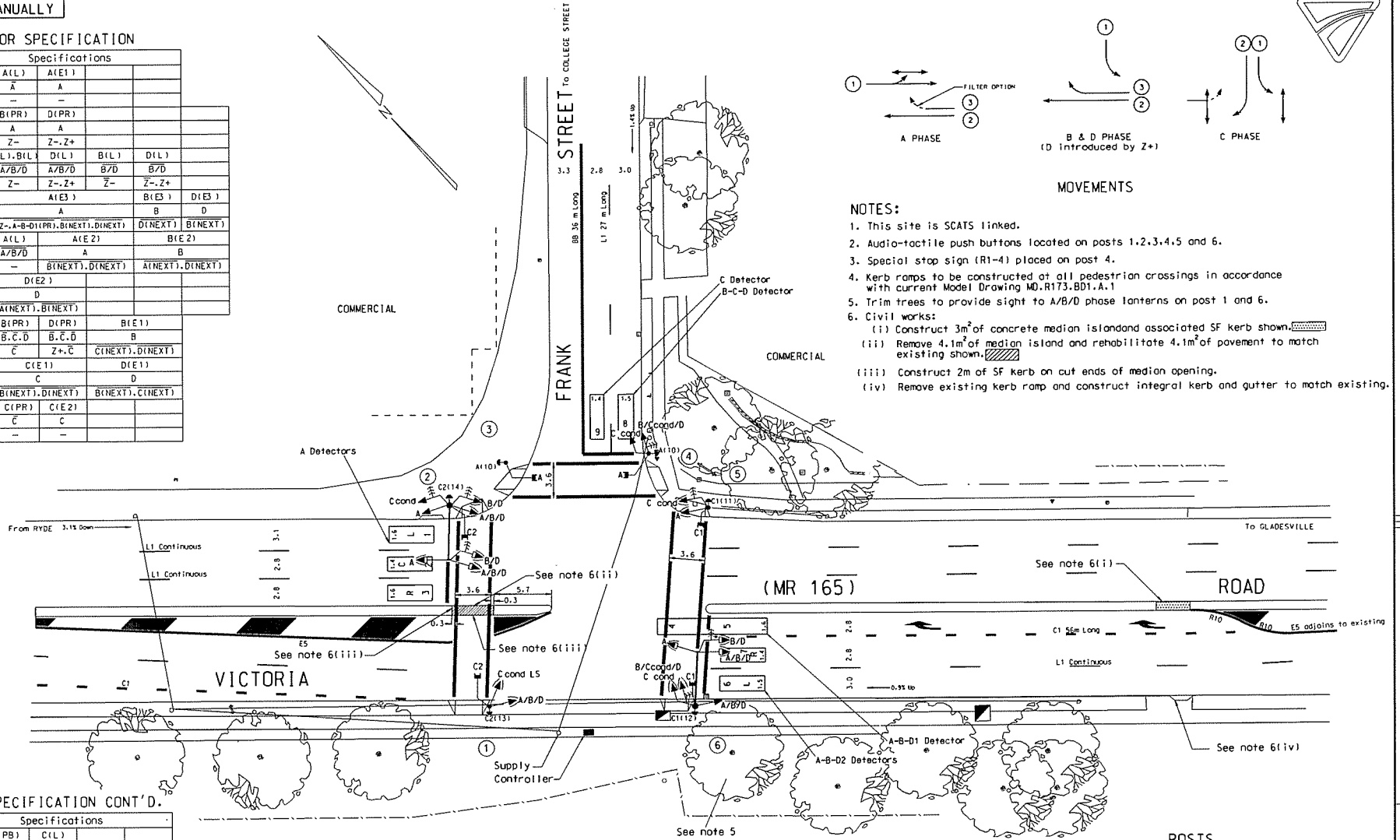
Detector	Specifications
A	FN A(L) A(E1) SG/PS A A DS - -
A-B-D1	FN B(PR) D(PR) SG/PS A A DS Z- Z-.Z+
A-B-D1	FN A(L), B(L) D(L) B(L) D(L) SG/PS A/B/D A/B/D B/D B/D DS Z- Z-.Z+ Z- Z-.Z+
A-B-D1	FN A(E1) SG/PS A B D DS Z-.A-B-D(PR), B(NEXT), D(NEXT) B(NEXT) B(NEXT)
A-B-D2	FN A(L) A(E2) SG/PS A/B/D A B DS - B(NEXT), D(NEXT) A(NEXT), D(NEXT)
A-B-D2	FN D(E2) SG/PS D DS A(NEXT), B(NEXT) B(E1)
B-C-D	FN B(PR) D(PR) SG/PS B.C.D B.C.D B DS C Z+.C C(NEXT), D(NEXT)
B-C-D	FN C(E1) D(E1) SG/PS C D DS B(NEXT), D(NEXT) B(NEXT), C(NEXT)
C	FN C(PR) C(E2) SG/PS C C DS - -



MOVEMENTS

NOTES:

- This site is SCATS linked.
- Audio-tactile push buttons located on posts 1,2,3,4,5 and 6.
- Special stop sign (R1-4) placed on post 4.
- Kerb ramps to be constructed at all pedestrian crossings in accordance with current Model Drawing MD.R173.BD1.A.1
- Trim trees to provide sight to A/B/D phase lanterns on post 1 and 6.
- Civil works:
 - (i) Construct 3m² of concrete median island and associated SF kerb shown.
 - (ii) Remove 4.1m² of median island and rehabilitate 4.1m² of pavement to match existing shown.
 - (iii) Construct 2m of SF kerb on cut ends of median opening.
 - (iv) Remove existing kerb ramp and construct integral kerb and gutter to match existing.



DETECTOR SPECIFICATION CONT'D.

Detector	Specifications
A	FN A(PB) C(L) SG/PS A(WALK) A.A(WALK) DS - B.C.D
C1	FN C(PB) A(L) SG/PS C1(WALK) C.C1(WALK) DS - A.B.D
C2	FN C(PB) A(L) SG/PS C2(WALK) C.C2(WALK) DS - A.B.D

RYDE SWIMMING POOL

SPECIAL SIGNAL GROUP DISPLAY SEQUENCE

SIGNAL GROUP	TABLE TYPE	REMARKS
A/B/D	3	-
B/D (RT)	39	Timed R.A. protection for A peds. Z- Filter option.
B/C Cond/D(LT)	77	Timed R.A. protection for C1 pedestrians. Δ
C Cond (LT)	23	Timed R.A. protection for A peds.
Cond	74	Timed red aspect protection for C2 pedestrian. #

Δ Pushbutton on post 6 extends R.A. subject to timer.
Pushbutton on post 2 extends R.A. subject to timer.

POSTS

POST	TYPE	LENGTH	OFFSET	REMARKS
1	2	4.1	1.0	EXISTING
2	5XL	-	1.0	EXISTING
3	2	3.2	1.0	EXISTING
4	2	4.1	0.6	EXISTING
5	2	4.1	0.6	EXISTING
6	5XL	-	1.0	EXISTING

A ORIGINAL ISSUE	B ISSUE - see accordance to reg.
C ISSUE - see accordance to reg.	D ISSUE - see accordance to reg.
E ISSUE - see accordance to reg.	F ISSUE - see accordance to reg.
G ISSUE - see accordance to reg.	H ISSUE - see accordance to reg.
I ISSUE - see accordance to reg.	J ISSUE - see accordance to reg.

PUBLIC UTILITY LEGEND	REFERENCE PLANS	U.B.D. Ref. Mod 214 45
HYDRANT	SYMBOLS/STARS	1:5.G. E1 310 970
GAS VALVE	STIP POSIT	CO-ORPS. H1 256 205
GAS VALVE	DET SCHED EXP	DESIGNED: D. STEFANOVSKI
SEWER MANHOLE	PIPK. PICKET	CHECKED: K. IRONSTONE
TELECOM PIT	SSG DIS. TEND.	DATE: 23.12.04
ELECTR LIGHT POLE		RECOMMENDED
POWER POLE		
STAY POLE		
TELEPHONE BOX	SURVEYOR I.P. PIERCE	
TELECOM PILLAR	DATE	132.10.99

DESIGN APPROVAL	ACCEPTANCE
APPROVED	ACCEPTED
MANAGER PROJECT	DATE
POSITION REGION SERVICES	DATE

DESIGN PREPARED BY	DATE
PROJECT DESIGN SERVICES	DATE
RTA OPERATIONS	DATE

DESIGN LAYOUT	TCS No 1987
---------------	-------------

Roads and Traffic Authority, N.S.W.
RYDE COUNCIL AREA
TRAFFIC SIGNALS AT
VICTORIA ROAD (MR 165) AND FRANK STREET
RYDE

EXISTING <input checked="" type="checkbox"/>	PROPOSED <input type="checkbox"/>
CADD FILE: vv1987_9D.dgn	SCALE 5:1 (1:200)
FILE 387 TS 300	SUPERSEDES SHEET/ISSUE 9C
REGN. 0165.387.VV.1987	SHEET 9

Appendix D

BUNNINGS TRAFFIC CHARACTERISTICS

Table 3-2 Trips Rate Summary – Hardware/DIY

Trips/ 100m ² GFA	Sydney Metropolitan Area HW1 to HW5			Non-Metropolitan Area HW6 to HW9			All Survey Sites HW1 to HW9			Avg Non-metro / Metro %
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	
Weekdays										
Person-based Trips										
- Site Peak Hour	4.00	5.77	5.06	3.95	6.40	5.49	3.95	6.40	5.25	108.6%
- Vehicle Network AM Peak	0.65	2.72	2.01	1.28	4.75	2.97	0.65	4.75	2.43	147.9%
- Vehicle Network PM Peak	2.48	4.89	3.50	2.79	4.65	3.78	2.48	4.89	3.63	108.0%
Daily Total Person Trips	32.88	53.26	42.42	29.22	43.40	38.34	29.22	53.26	40.61	90.4%
Vehicle-based Trips										
- Site Peak Hour	3.15	4.67	4.03	2.74	5.60	4.41	2.74	5.60	4.20	109.6%
- Network AM Peak	0.60	2.22	1.68	1.09	3.88	2.50	0.60	3.88	2.05	148.7%
- Network PM Peak	2.05	3.56	2.70	1.99	3.80	3.03	1.99	3.80	2.85	112.5%
Daily Total LV Trips	25.21	38.25	30.59	20.66	35.90	30.30	20.66	38.25	30.46	99.0%
Daily Total HV Trips	0.99	6.17	2.40	0.69	2.25	1.49	0.69	6.17	2.00	62.0%
Daily Total Vehicle Trips	26.80	39.75	32.99	21.35	38.15	31.79	21.35	39.75	32.46	96.4%
Peak Parking Accumulation	0.78	1.67	1.16	1.05	1.90	1.48	0.78	1.90	1.30	127.8%

Table 3-4 Traffic Results Summary – Bulky Goods

Site ID	Sydney Metropolitan Area			Non-Metropolitan Area		
	BG1	BG2	BG3	BG4	BG5	BG6
Gross floor area (m2)	4,300	14,849	600	6,029	1,200	1,700
Weekdays						
Person-based Trips						
- Site Peak Hour	104	531	42	159	94	61
Trips/ 100m ² GFA	2.42	3.58	7.00	2.64	7.83	3.59
- Vehicle Network AM Peak	Network AM peak is outside of opening hours					
Trips/ 100m ² GFA	Network AM peak is outside of opening hours					
- Vehicle Network PM Peak	57	301	Outside of	104	55	45
Trips/ 100m ² GFA	1.33	2.03	opening hrs	1.72	4.58	2.65
Daily Total Person Trips	683	3,169	218	1,315	599	330
Trips/ 100m ² GFA	15.88	21.34	36.33	21.81	49.92	19.41
Vehicle-based Trips						
- Site Peak Hour	61	232	26	118	57	35
Trips/ 100m ² GFA	1.42	1.56	4.33	1.96	4.75	2.06
- Network AM Peak	Network AM peak is outside of opening hours					
Trips/ 100m ² GFA	Network AM peak is outside of opening hours					
- Network PM Peak	35	180	Outside of	70	27	19
Trips/ 100m ² GFA	0.81	1.21	opening hrs	1.16	2.25	1.12
Daily Total LV Trips	437	1,743	133	898	319	170
Trips/ 100m ² GFA	10.16	11.74	22.17	14.89	26.58	10.00
Daily Total HV Trips	9	0	18	12	28	4
Trips/ 100m ² GFA	0.21	0.00	3.00	0.20	2.33	0.24
Daily Total Vehicle Trips	446	1,743	151	910	347	174
Trips/ 100m ² GFA	10.37	11.74	25.17	15.09	28.92	11.60
% HV	2.0%	0.0%	11.9%	1.3%	8.1%	2.3%
Peak Parking Accumulation	28	133	19	41	24	7
Peak Parking/ 100m ² GFA	0.65	0.90	3.17	0.68	2.00	0.41

Appendix E

DIVERTED TRIP RESEARCH

Appendix F: Linked trips

Traffic generation data for movements in and out of certain development types is readily available. However, there is a need to understand how much of the generated traffic is new and how much is already on the road network prior to opening of the development.

Historically, traffic impact assessments conservatively assumed that all generated traffic was new. More recently, 'discounts' have been applied to generated traffic to account for the 'drop in' component, which is not new traffic to the network.

Research undertaken on this subject has concluded that it is appropriate to make adjustments to generated traffic due to linked trips.

Trips can be broadly categorised into the following types:

<i>Linked Trip</i>	A journey where there is a chain of stops from origin to ultimate destination. A trip from home to work with stops at school and the post office comprises three linked trips: home to school; school to post office; and post office to work.
<i>Unlinked Trip</i>	A journey with no intermediate stops (generally referred to as New Trips in the RIA)

For the purposes of an RIA, the following three types of trips are commonly used:

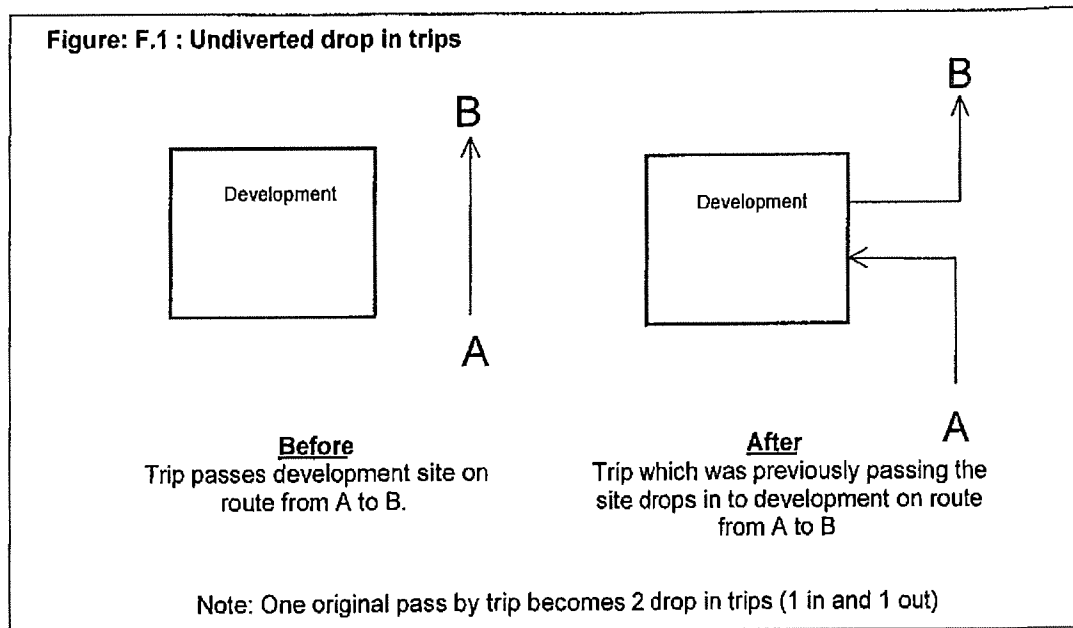
<i>New Trip</i>	In traffic impact studies, unlinked trips are generally referred to as new trips. These are trips attracted to the development and without the development would not have been made – hence a new trip.
<i>Diverted Drop In Trips</i>	A linked trip from an origin to a destination that has made a significant network diversion to use the new development.
<i>Undiverted Drop In Trips</i>	A linked trip from an origin to a destination that previously passed the development site. This is also referred to as a 'pass by' trip and the new development is an intermediate stop on a trip that is made from an origin to a destination.

The diverted and undiverted drop-in trips are considered to be trips that are already part of the existing flows on the road network.

The treatment of the different trip types varies with the level of assessment. Hallam (1988) provides a reasoned basis for separating assessment into three levels:

- Regional Assessment – consideration of the impact of a development in the context of the total urban area;
- Local Assessment – consideration of the effect of a development over a substantial area focussed on the development; and
- Access Level – micro level assessment.

At the regional level, insertion of a new development could be considered to only increase travel by the new trips proportion of generation. Diverted and undiverted drop in trips would already be on the network.



An RIA is usually conducted over a limited part of the network. At a local level, both the new trips and diverted drop-in trips are introduced into the area and represent additional trips on the local network. This local network may contain roads of regional significance. The undiverted drop-in trips to developments on roads of regional significance can be regarded as already on the local network. It is important that these trips are considered. They must be rerouted from movements past the development to movements into and out of the development. For every two development trips assigned as undiverted drop-in trips (one in / one out), one through trip should be removed from passing traffic.

In 1995, Eppell Olsen & Partners carried out surveys for Main Roads to segment traffic generation for specific developments. The results of these surveys are documented in the report, *Development Traffic Surveys: Linked / Unlinked Trips*.

The segmentation of traffic generation for shopping centres and fast food outlets is shown below:

Development	Trip Segmentation		
	New (%)	Diverted Drop In (%)	Undiverted Drop In (%)
Shopping Centres >20 000 m ²	63	18	19
Shopping Centre 3 000 m ² – 20 000 m ²	50	22	28
Shopping Centres <3 000 m ²	50	32	18
Fast Food Outlets	40	25	35

Shopping Centres

The traffic generated by shopping centres is most influenced by the proximity of other centres. On site facilities such as cinemas, restaurants etc. can also have a significant impact on generation rates.

Thursday design generation rates are shown on Figure 2A.4 while Saturday rates are included as Figure 2A.5. Survey results indicate that during these peak hour periods the in/out proportion is approximately 50/50.

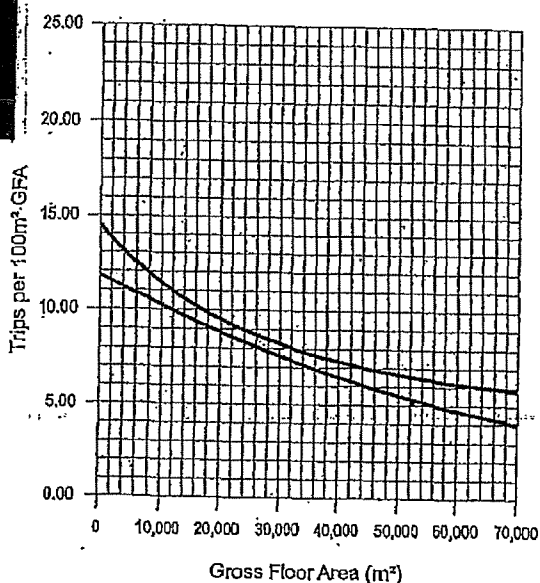


Figure 2A.1 SEQ Shopping Centre Generation (Thursday Afternoon peak)

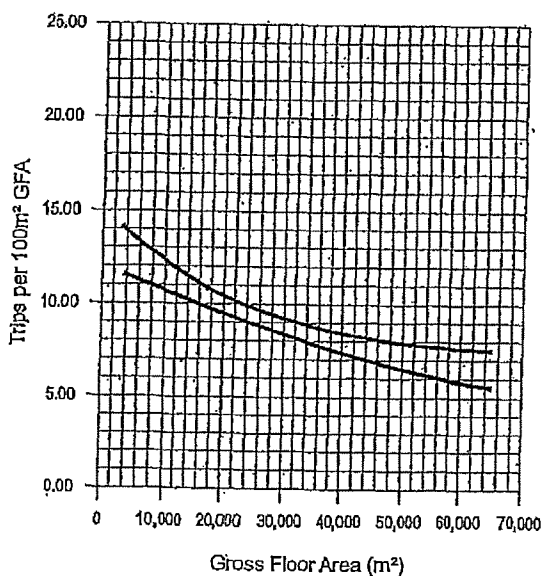


Figure 2A.2 SEQ Shopping Centre Generation (Saturday peak)

Considering the adjacent road network, three shopping centre trip types have been defined as follows:

- New Trips

Trips that would not have appeared on the immediate approaches local street network or

shopping centre. These trips only appear as a consequence of the opening of the centre.

- Diverted Trips

Linked trips (i.e. in conjunction with another trip purpose) which are diverted off the regional road network to access the shopping centre.

- Drop-In Trips

Linked trips that would have appeared in the local road network irrespective of the presence of the shopping centre.

Research undertaken by Hallam that developed the rates shown in Table 2A.7 for estimating the proportion of drop-in and diverted trips.

Table 2A.7 Proportion of Drop-In and Diverted Trips

Trip Type	Proportion of Trips	
	Thursday	Saturday
New Trip	50%	68%
Diverted Trip	30%	20%
Drop-In Trip	20%	12%

Studies undertaken in the USA suggest the factors in Table 2A.8 are applicable to the above percentages to accommodate different diverted pattern trips for different sized centres.

Table 2A.8 Factors in Drop-in and Diverted Trips

Shopping Centre Size	Factors to be Applied to Proportion of Drop-In and Diverted Trips
0 - 10,000 m ²	1.2
10,000 - 35,000 m ²	1.0
> 35,000 m ²	0.8

Upon determining the proportion of drop-in and diverted trips the traffic discounts in Table 2A.9 would be applicable.

Table 2A.9 Trip Discounts

Road Network Element	Trip Discounts Applicable
Immediate approach and site access	None
Local Road Network	Drop-in Trips
Regional Road Network	Drop-in + Diverted Trips

Appendix F

SCATES RESULTS

Intersection with Victoria Road		SCATES ANALYSIS – VICTORIA ROAD, GLADESVILLE Comparison – Proposed changes with cycle length minimum 120 seconds		
		AM	PM	Weekend
Frank Street # 1987	LOS	A	A	A
	DS	0.71	0.71	0.54
	AVD	6.9	12.7	10.8
Tennyson Road # 1677	LOS	A	B	B
	DS	0.69	0.75	0.61
	AVD	13.4	17.2	19.4
Monash Road # 366	LOS	B	A	B
	DS	0.82	0.61	0.58
	AVD	15.0	13.8	17.3
Filename		VICAM1EX	VICPM1EX	VICWE1EX

Notes:

1. To simulate bus lane operation in this system, it was necessary to remove the bus lane and subsequent recorded bus numbers converted to PCU'S for the peak direction of bus lane in AM and PM only.
2. left turning vehicles adjacent bus lane were then provided with a dummy 30m left turn lane at each affected intersection.

Our Ref PN-00602.L001A

Contact Anthony Mancone

15 June 2012



Bunnings Group Ltd
Locked Bag 30
GRANVILLE NSW 2142

Attention: Philip Drew

C & M Consulting Engineers Pty Ltd
ABN 21 118 134 240
Suite 2, 241-245 Pennant Hills Road
Carlingford NSW 2118
PO Box 2986
Carlingford NSW 2118
T: 8209 3846
F: 9687 9393
E: info@cmce.com.au

Dear Philip

**461-495 VICTORIA ROAD, GLADESVILLE
PROPOSED WATER MANAGEMENT FOR THE SITE**

This report has been prepared to support the Planning Proposal for 461-495 Victoria Road, Gladesville by providing information on the proposed water management for the site.

Site Description

The site is located at 461-495 Victoria Road, Gladesville (also known as 22-24 College Street, Gladesville) and is bounded by Victoria Road to the south, College Street to the north and Frank Street to the west (refer Figure 1).



Figure 1 – Aerial View of Site

The site is currently fully developed with several large warehouse structures across the site and associated roads and car parking areas. There is also a multi-storey commercial building on the corner of Victoria Road and Frank Street.

There is limited vegetation on the site mostly in the form of small landscape and garden areas.

The entire site is significantly lower than the surrounding roads. The site is up to 14m lower than Victoria Road and Frank Street and up to 10m lower than College Street.

Existing Stormwater Drainage and Flooding

As mentioned in the site description, the entire site is significantly lower than the surrounding roads.

Currently the site drains via a low level (deep) stormwater drain which runs from the northern part of the site, across College Street and then through the private property (via an easement) to the north to Buffalo Road (refer Figure 2).

Given that the site is lower than all surrounding roads, there is no overland flow path available from this site in its current configuration. This creates the following risks for the site in its current configuration:

1. If the stormwater drain is blocked or damaged downstream of the development site, there is potential for stormwater to backup in the system and surcharge from low level pits upstream of the blockage or damage.
2. Section 1.1(b) of the Deed of Covenant and Indemnity (see below) infers that the stormwater drain has been designed with a capacity of a 1 in 10 year Average Recurrence Interval (ARI) storm event. Any storm events that exceed a 1 in 10 year ARI would have the potential to surcharge the drain similar to Point 1 above.

Without an overland flow path from the site, there is no way for stormwater to discharge from the site under the above circumstances and flooding of the site would occur. Even if stormwater was pumped up to College Street and into the drainage network it would re-surcharge again into the site.

It is worthwhile noting that there is a Deed of Covenant and Indemnity on the subject site between Council and the land owner (and any future owners) due to the above risks.

Redevelopment of the site will enable the above flooding issue to be alleviated by setting the podium level for the development at a level higher than the lowest street level in College Street. This will enable an overland flow path from the site to be established. Low level inlets and pits at the site would also be disconnected from the aforementioned stormwater drain preventing the possibility of surcharge.

If modelling of the overland flow path is required, we envisage that HEC-RAS will be a suitable model for this particular application as the flow path is generally 1-dimensional. The catchment hydrology and estimated overland flow would likely be determined using DRAINS as the existing and proposed drainage systems could be incorporated into the model to provide a better estimate of the likely overland flow that could be expected.

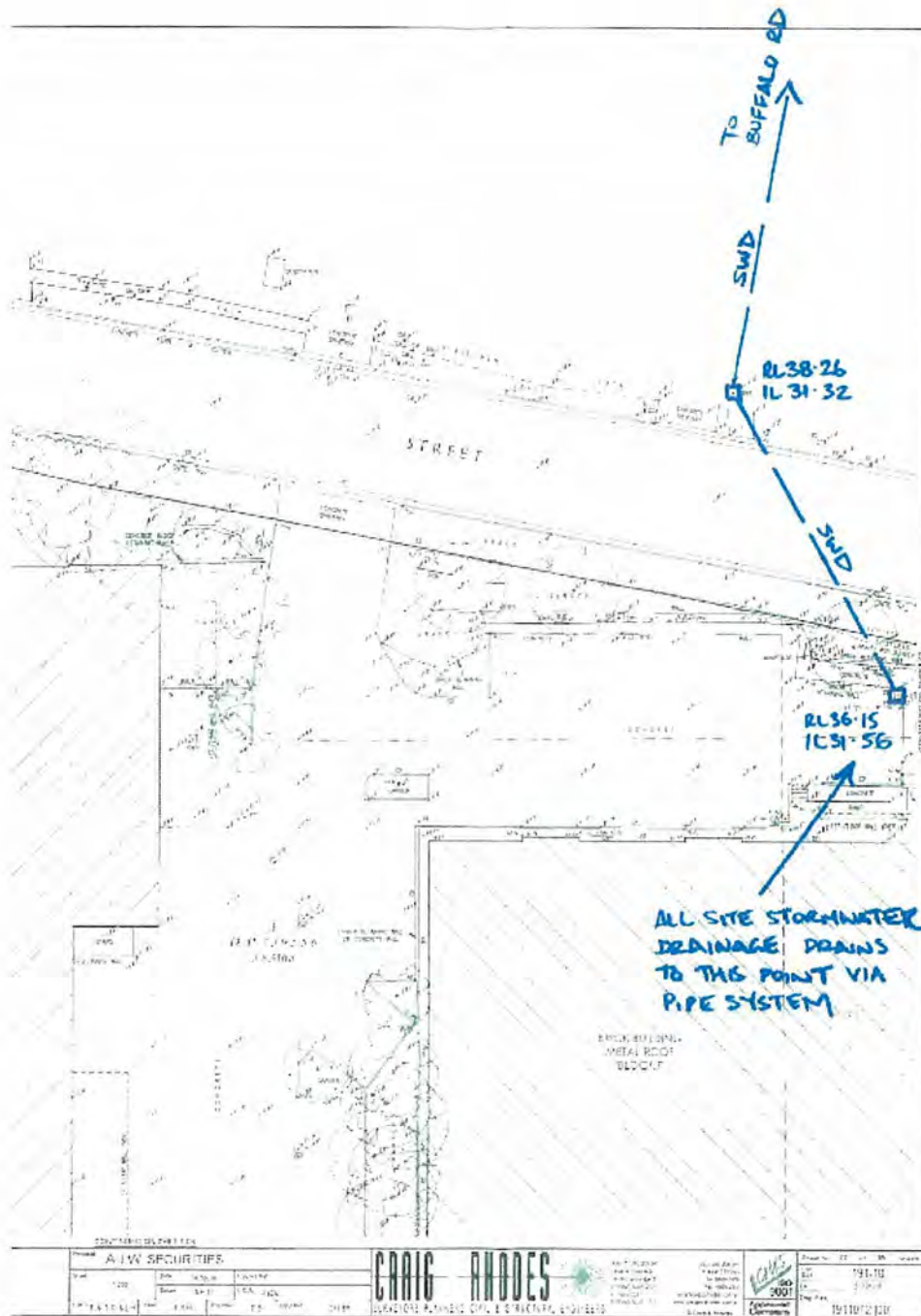


Figure 2 - Survey of Drain

Proposed Stormwater Management

The proposed development of the site would be completed in accordance with the relevant Ryde City Council Development Control Plan(s) (DCP). Council's DCP requires that the development be adequately drained without detriment to downstream waterways and properties.

On-site Stormwater Detention (OSD)

OSD will be required as part of any redevelopment of this site. Ryde Council's policy for large redevelopment sites of a commercial or industrial nature is that no credit is given for existing impervious surfaces and the permissible site discharge for the development is limited to the peak flowrate from the site in its "state of nature" or "greenfield" condition. Our preliminary calculations indicate that an OSD storage volume in the order of 2,000m³ will be required for this site. Due to the nature of the site, this storage volume may need to be split over several detention storages.

We envisage that either DRAINS or XP-RAFTS will be used for future modelling of the catchment hydrology and determination of the appropriate size of the on-site stormwater detention system as part of any future Development Applications for the site.

Rainwater Harvesting and Reuse

Rainwater harvesting from the main roof, retention of rainwater in a storage tank and rainwater re-use system within the development. Typically the rainwater would be used toilet flushing, watering of the outdoor nursery and further watering of external landscape areas.

Stormwater Quality

Stormwater quality is also an important factor to consider. For this development, the Stormwater Quality Improvement Devices (SQID's) would typically be provided to remove the majority of total suspended solids and sediment in the stormwater and will also be very effective at capturing and retaining very fine suspended solids, petroleum hydrocarbons and nutrients such as nitrogen and phosphorous which we expect will be the major types of stormwater pollution from any proposed development. Several devices may be required depending on whether the drainage system is split over several detention storages and/or discharge points.

We envisage that MUSIC will be used for future modelling to determine the effectiveness of the proposed stormwater treatment systems as part of any future Development Applications for the site.

We trust that the above provides a summary of the existing and proposed drainage conditions for the site. However, should you have any further queries please don't hesitate to contact the undersigned.

Yours faithfully



Anthony Mancone
Civil Engineer – Director
C & M Consulting Engineers Pty Ltd

**HERITAGE IMPACT ASSESSMENT
FOR A PLANNING PROPOSAL
FOR 461 VICTORIA ROAD GLADESVILLE**

Prepared by

RUTH DANIELL

B. Arch Hons (Syd)

42 Glenmore Road Paddington NSW 2021

tel: 9358 1923 m: 0408 649 854

rdaniell@ihug.com.au

ABN 71 575 099 221

JUNE 2012

CONTENTS

1.0 INTRODUCTION

- 1.1 Authorship
- 1.2 Methodology

2.0 THE SITE

- 2.1 Description
- 2.2 Former Use
- 2.3 Context

3.0 DESCRIPTION OF THE PROPOSAL

- 3.1 Description of the Planning Proposal
- 3.2 Description of the Planning Concept

4.0 DEVELOPMENT CONSIDERATIONS

5.0 THE HERITAGE ITEMS IN THE VICINITY

- 5.1 Description Of The Heritage Items And Statement Of Significance And Views And Vistas Analysis

6.0 STATEMENTS OF HERITAGE IMPACT

7.0 CONCLUSION

8.0 REFERENCES

1.0 INTRODUCTION

This heritage impact statement was prepared by Ruth Daniell for the Bunnings Group to accompany a Planning Proposal application for 461 Victoria Road Gladesville (the subject site) to amend the Land Use table and the Height of Buildings Map under the Ryde Local Environmental Plan 2010 (RLEP 2010) so as to enable the development of the land as a Bunnings warehouse and outlet.

The subject site is not an item of environmental heritage nor is the site in a conservation area. The subject site is located 'in the vicinity' of a number of heritage items.

A heritage impact assessment had been requested by Ryde Council to assist council in the assessment of how the Planning Proposal may impact on the heritage items in the vicinity as required under Ryde Local Environmental Plan (Ryde LEP) 2010.

Section 2 of this report describes the site, past use and the development in the context of the site. This report notes in particular existing development in the context of the heritage items and existing development lies between the subject site and the heritage items.

Section 3 of this report describes the Planning Proposal and the Planning Concept. The Planning Concept is illustrated by the inclusion of plans and sectional diagrams

Section 4 of this report deals with the heritage planning considerations: listing the heritage items in the vicinity and the heritage provisions in the Ryde LEP 2010.

Section 5 describes the heritage items, their heritage significance and assesses the significant views and vistas to the heritage items, that are important considerations in determining whether their expanded curtilage, and/or their setting is retained and will not be impacted upon by the proposed planning proposal and the planning concept. It also determines whether the proposed development will be seen in relation to the heritage items, and whether disruptive visual contrast are an issue.

Section 6 of this report addresses the proposal in the 'Statements of Heritage Impact', which address NSW Heritage Office questions on development in the vicinity of heritage items. This section of the report considers any archaeological potential of the

site and determines as the site was a former quarry the site has been excavated and there is archaeological potential.

This report concludes that the Planning Proposal and the Planning Concept do not impact adversely impact on the heritage significance of the heritage items, their setting and expanded curtilage.

1.1 Authorship

The report has been prepared by Ruth Daniell. As background Ruth Daniell has Bachelor of Science (Architecture), Bachelor of Architecture (Honours) University of Sydney and has completed the 'Conservation of Historic Structures', Institute of Advanced Architectural Studies University of York, United Kingdom and MARC 99 - The Conservation of Modern Architecture, Helsinki 1999 [ICCROM and the Helsinki University of Technology].

Ruth Daniell is a specialist conservation architect with extensive experience in conservation and its management. Ruth has been involved in architectural projects, urban design projects, main street projects, conservation management plans and conservation assessments. Ruth has worked for local government State Government at the NSW Heritage Office and has been an expert witness in the NSW Land and Environment Court.

1.2 Methodology

This report uses the methodology outlined in the NSW Heritage Manual and the Australian ICOMOS Burra Charter.

2.0 THE SITE

2.1 Site Description

The subject site 461 Victoria Road is located on the north eastern side of Victoria Road between Monash Road and Frank Street. The site bounds Frank Street and is separated by housing from Monash Road. The site is described as Lot 1 DP 739556.

The site has a site area of 3.834 hectares, with frontages to: Victoria Road (240 metres); Frank Street (140 metres); and College Street (240 metres).

The site has a number of existing two storey warehouse buildings, which have a light industrial uses. There is access within the site by an internal road with access points from Victoria Road, Frank Street and College Street.



Figure 1. Location Plan showing the subject site.

2.2 FORMER USES OF THE SITE

The subject site was a former a quarry. The site is shown as a quarry on the 1943 aerial photo shown following.



Figure 2 Department of Lands Aerial Photograph Sydney Suburbs 1943 shows the site as a quarry.

2.3 Site Context

The site context is shown of the aerial photograph in figure 1.

Development to the west along Victoria Road

Development to the west along Victoria Road is:

- The Holy Cross College. This building and site are heritage listed. Refer to Section 4 of this report.
- Kennards Self Storage – a contemporary building, coloured orange with a height of approximately 14 to 17 metres. The Kennards Self Storage visually separates the subject site from the Holy Cross Site.



Figure 3 showing the Holy Cross College which is located to the west of the subject site. The photograph is taken from the opposite side of Victoria Road looking east. It is not possible to view the subject site from this point.



Figure 4 the Kennards self storage building which is located to the east of the Holy Cross College (the frontage is visible on the left hand side), and to the west of the subject site.

Development to the South In Victoria Road

Development to the south of the site is:

- The Ryde Aquatic Leisure Centre (opposite the subject site)
- A three storey residential flat building (on the corner of Weaver Street)

- A block of single detached storey housing (between the three storey residential flat building and Tennyson Road).
- The Gladesville Business Centre, a four storey contemporary commercial building, (east of Tennyson Road).

Development to the East in Victoria Road

Development to the east of the site is:

- A car wash building
- A mixture of commercial and light industrial buildings (further to the east)

Development to the East in College Street

- The development to the East in College Street is single storey detached residential development.

It visually separates the site from any views from Monash Road, and the heritage items located in Ryde Road (the Drill Hall and the Obelisk in Gladesville Monash Park).



Figure 5 showing the development that lies to the east of College Street and the west of Monash Road. This photograph is taken in Monash Road, near the corner of Ryde Road looking west.



Figure 6 showing the townhouse development visually and physically separating the Drill Hall from views from Monash Road. The photograph is taken in Monash Road at the corner of Ryde Road looking east.

Development to the North in College Street

- The northern side of College Street has light industrial uses and the buildings are two storey in scale.
- Single storey detached housing and single storey villa development opposite the eastern end of the site

Development to the West In Frank Street

- The development on the western side of Frank Street comprises two storey warehouse buildings.
- Adjacent and to the north is the playing field of the Holy Cross College, which is not part of the heritage curtilage of the Holy Cross College

The development in Frank Street creates a physical and visual barrier between the subject site and the heritage listed Holy Cross College.



Figure 7 showing the Kennards building (located on the corner of Victoria Road and Frank Street) on the left and the adjoining commercial building.



Figure 8 showing the two of the commercial buildings on the western side of Frank Street.

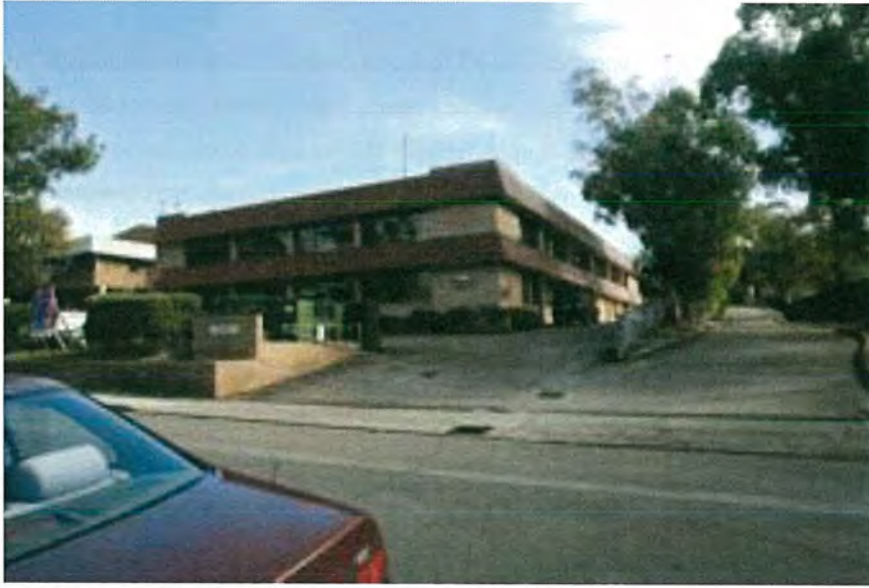


Figure 9 showing the views to the commercial building in Frank Street adjacent to the Holy Cross playing field.



Figure 10 showing the Holy Cross playing field viewed from Frank Street.

3.0 DESCRIPTION OF THE PROPOSAL

3.1 Description of the Planning Proposal

The Planning proposal submission set out in the DFP Planning Consultants Report recommends that Council proceeds with the preparation of a Planning Proposal to amend Ryde LEP 2010 in the following manner:

- To amend Schedule 1 to incorporate an additional clause to include bulky goods premises, garden centre and hardware and building supplies as additional land uses for 461-495 Victoria Road, being Lot 1 DP 739556. This report also proposes that Clause 4 - which permits development for the purpose of existing business premises or office on Part Lot DP 739556 (Building H) be retained.
- To amend the height of building map to indicate maximum RLs over the subject site.

3.2 Description of the Planning Concept

The planning concept is set out in the DFP Planning Consultants Report as:

- a concept plan has been prepared and is provided in Appendix B DFP Planning Consultants Report
- Sectional diagrams of the concept are contained in the Urban Design Report prepared by Annand Associates Urban Design and attached at Appendix C - DFP Planning Consultants Report.

The concept plans have assisted in informing the proposed building heights for the site.

The plans indicate a two level building with parking below, a Bunnings warehouse located at the western end of the site and a two level tenancy area intended for bulky goods retail at the eastern end of the site. The gross floor area (GFA) of the land uses illustrated in the concept plans is:

▪ Bunnings warehouse	15,255M2	
▪ Tenancy (bulky goods)	21,885M2	
▪ Retained commercial building at corner of Victoria Road and Frank Street		1,200M2

4.0 DEVELOPMENT CONSIDERATIONS

The subject site and buildings are not listed as a heritage item, nor is the site located in a heritage conservation area. The site is located in the vicinity of heritage items:

The heritage items in the vicinity are listed in Schedule 5 of the RLEP and the Heritage Map (Refer to Section 5.0 of this report.) They are:

Item No. 143 - Ryde Holy Cross College 499–521 Victoria Road Lot 1, DP 807562 – State Item

Item No. 144 - Ryde Chapel 512–550 Victoria Road SP 48164 – Local Item

Item No. 145 - Ryde -“Squireville” (House) 512-550 Victoria Road SP 48164 Local

Item No. 112 - Gladesville Monash Park (Obelisk) 142 Ryde Road Lot 7060, DP 93662 – Local Item

Item No. 113 - Drill Hall building No. 144 Ryde Road SP69924 Local

Item No 54 - Great Northern Road

The heritage relevant provisions in the Ryde City LEP 2010 are set out below:

5.10 Heritage conservation

Note. Heritage items (if any) are listed and described in Schedule 5. Heritage conservation areas (if any) are shown on the Heritage Map as well as being described in Schedule 5.

(1) Objectives

The objectives of this clause are as follows:

- (a) to conserve the environmental heritage of Ryde,
- (b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,
- (c) to conserve archaeological sites,
- (d) to conserve Aboriginal objects and Aboriginal places of heritage significance.

The Heritage Impact Statement is in the format nominated in the guidelines provided by the NSW Heritage Office for Statements of Heritage Impact is set out in Section 7.0 of this report.

5.0 THE HERITAGE ITEMS

The heritage items in the vicinity are listed in Schedule 5 of the RLEP and the Heritage Map.

Item No. 143 - Ryde Holy Cross College 499–521 Victoria Road Lot 1, DP 807562 - State

Item No. 144 - Ryde Chapel 512–550 Victoria Road SP 48164 - Local

Item No. 145 - Ryde -"Squireville" (House) 512-550 Victoria Road SP 48164 - Local

Item No. 112 - Gladesville Monash Park (Obelisk) 142 Ryde Road Lot 7060, DP 93662 - Local

Item No. 113 - Drill Hall building No. 144 Ryde Road SP69924 - Local

Item No 54 - Great Northern Road



Figure 11 Detail from Heritage Map 06 - RLEP 2010 showing the heritage items in the vicinity.

5.1 Description Of The Heritage Items And Statement Of Significance And Views And Vistas Analysis

Ryde Councils' Heritage Item Listing Sheets provide the following descriptions of the heritage items:

Item - 143 Ryde Holy Cross College 499–521 Victoria Road Lot 1, DP 807562 State

Physical Description:

Grand three storey ecclesiastical building of the Federation period, set in extensive grounds and prominently located on Victoria Road with views to the river. The grounds to the front of the college incorporate many mature trees and are bounded by stone and palisade fence and gates. New construction has been carried out behind the building alignment of the college and an appropriate garden setting has been maintained. Additions to either side of the building have been carried out in blond brickwork. The building comprises a simple symmetrical gable form with a central tower and robust Romanesque styling. The main roof is slate and features close eaves and symmetrically placed stone chimneys. The tower has a copper pyramidal roof and features strongly modelled corbelled stone balustrading above three elongated window openings. Highly visible across the municipality, the tower has landmark qualities. The walls of rusticated stonework are enlivened with dressed stone capping, coursing and reveals. Fenestration is regular and vertically oriented and comprises timber double hung sash windows with multiple upper sashes and coloured glazing.

Statement of Heritage Significance

Significant as a highly intact school externally and important public building.



Figure 12 Photograph of the Holy Cross College taken from Victoria Road.



Figure 13. View analysis for Holy Cross College. The yellow arrows indicate the primary views and vistas.

Analysis of Significant Views and Vistas

- Significant views and vistas are vistas on approach along Victoria Road.
- Three commercial buildings on the western side of Frank Street physically and visually separate the subject site from the heritage item, Holy Cross College

The planning proposal and the planning concept will not impact on significant views and vistas to the heritage item, Holy Cross College.

Item 144 - Ryde Chapel 512–550 Victoria Road SP 48164 Local

Physical Description:

A simple stone structure with gabled roof clad in corrugated sheet metal and featuring ventilated gablets. The front facade features 3 arch head openings, a central door with fanlight and two double hung timber windows. The gable end features a simple circular vent. The structure is set in landscaped grounds behind the Squireville development, and is obscured from public view.

Statement of Heritage Significance:

Significant as a relatively intact rare stone chapel of high quality.

Significant as a reasonably intact residence in a compromised setting. Significant as a highly intact school externally and important public building. 'Squireville' as the home of the long serving Member of Parliament and one time Premier, James Squire Farnell; 'Squireville' as part of an early villa estate related to development along the Parramatta River in the mid-nineteenth century; 'Squireville' as a local example of an early-Victorian villa with elaborate embellishments dating from the late 1870s to the early 1880s. The orphanage in illustrating the attitudes and social conditions related to welfare institutions in the early to mid-twentieth century. The orphanage as part of the consolidation of the presence of the Catholic Church in Ryde in the 1890s. The stone laundry as an example of an early particular Baptist Chapel; The site as an important landmark along Victoria Road.

Analysis of Significant Views and Vistas

Refer to Figure 14 on the following pages.

Item 145 - Ryde "Squireville" (House) 512-550 Victoria Road SP 48164 Local Physical Description:

Squireville is a large two storey residence, featuring a handsome cast iron verandah, and a projecting wing that has a grotto-like niche (stucco cornice and statue) at the second storey. The verandah has a central projecting segmented bay over the entrance. The building is roofed in terra-cotta tiles. The interiors are plain, with the exception of a fine staircase.

The ground floor of the house has features which suggest construction prior to 1860, and the exuberant Victorian character which is evident today probably dates from a major reconstruction in the late 1870's.

Statement of Heritage Significance:

Significant as a reasonably intact residence in a compromised setting. Significant as a highly intact school externally and important public building. 'Squireville' as the home of the long serving Member of Parliament and one time Premier, James Squire Farnell; 'Squireville' as part of an early villa estate related to development along the Parramatta River in the mid-nineteenth century; 'Squireville' as a local example of an early-Victorian villa with elaborate embellishments dating from the late 1870s to the early 1880s. The orphanage in illustrating the attitudes and social conditions related to welfare institutions in the early to mid-twentieth century. The orphanage as part of the

consolidation of the presence of the Catholic Church in Ryde in the 1890s. The stone laundry as an example of an early particular Baptist Chapel; The site as an important landmark along Victoria Road.



Figure 14. View analysis for 'Squireville' and 'Ryde Chapel'. The yellow arrows indicate the primary views and vistas, which are within the site.

Analysis of Significant Views and Vistas

- Significant views and vistas to the heritage items are vistas are within the site due to the topography and the surrounding 'Squireville' townhouse development
- The site is physically and visually separate the subject site
-

The planning proposal and the planning concept will not impact on views and vistas to 'Squireville' and 'Ryde Chapel'.

Item No. 113 - Drill Hall building No. 142 Ryde Road SP69924 – Local item

Physical Description:

The Army Reserve Drill Hall is a sophisticated timber building. The building is rectangular in plan with a corrugated iron sheet gable roof and a skillion extension to the west. The details in this timber building are of a fine quality with timber double hung, multi-paned sash windows and highlights finely moulded and detailed

architraves to the windows and main entrance door. The exterior is lined with beaded boarding and the base of the main building is filled with a masonry wall. The skillion extension of similar detail appears to have been built not long after. The gable ends of the main hall have highlight windows with louvres above to the apex. The interior of the hall was originally a double storey open space that been filled in with modern partitioning. The space characterised by open king trusses. Each gable end is dominated by a highlight allowing natural light into the main hall space. The interior of the external walls are unlined stud walls. The modern fitout is largely intrusive and of no significance. Minor alterations to the Drill Hall include the modern entrance roller door which replaced timber doors. On the south elevation there has been the recent insertion of aluminium highlight windows and a flush fire exit doors, and to the east a former window that has been filled in and replaced with a door to the mens' toilet. This has also meant the insertion of louvered windows to the toilets on the south-east elevation.

Statement of Heritage Significance:

Significant as a highly intact finely detailed timber Drill Hall.



Figure 15 Photograph of the Drill Hall taken from the north in Gladesville Monash Park.



Figure 16 Photograph of the Drill Hall taken from the north looking through the grounds of the town house development to the north, and west of the Drill Hall.

Item No. 112 - Gladesville Monash Park (Obelisk) 144 Ryde Road Lot 7060, DP 48164 Local

Physical Description:

Three tiered octagonal stone base topped by doric column fluted to about half way up. Centre section of stone base (two top tiers) have ornate corners. Whole topped by flat projection with ball on top. Southern side base has modern bubbler in a stone receptacle and a tap below.

Statement of Heritage Significance:

Highly significant for members of the Sutton Family. Landscape value in relation to Monash Park. Significant to local historical societies and community organisations as a significant historical marker.



Figures 17 & 18 showing (top) the obelisk in the context of Monash Park and below a detail of the obelisk.

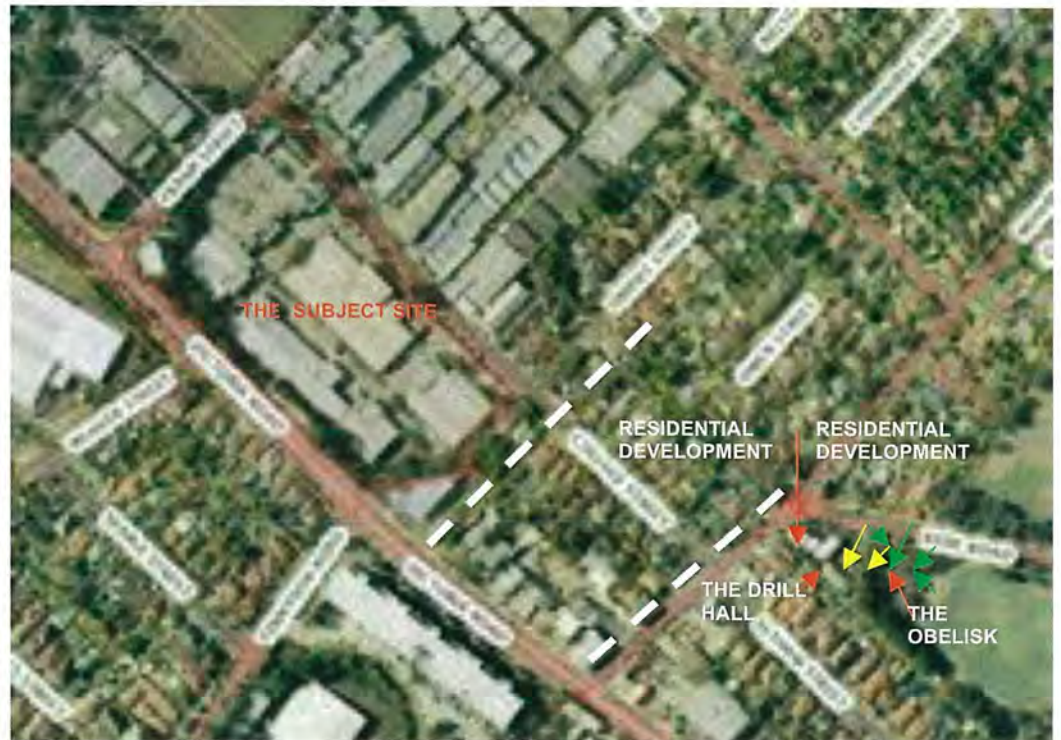


Figure 19 showing the significant views and vistas to the heritage listed 'Drill Hall' and the 'Obelisk' in Monash Park. The yellow arrows indicate the significant views and vistas to the Drill Hall, and the green arrows indicate the views and vistas to the obelisk.

Analysis of Significant Views and Vistas

- Significant views and vistas to the 'Drill Hall' from Ryde Road and from Monash Park
- Significant views and vistas to the obelisk from Ryde Road (directly east of the 'Drill Hall') and within the western end of Monash Park and from the oval in Monash Park
- The 'Drill Hall' and the 'Obelisk' are physically and visually separate the subject site

The planning proposal will not impact on views and vistas to the 'Drill Hall' and the Obelisk.

Item No 54 - Great Northern Road

Primary Address - Bedlam Point To Eastwood, Ryde, Gladesville, Eastwood, NSW

The making of the Great North Road to Newcastle marked an important epoch. It accessed the Hunter River district and drew attention to the large areas of country

suitable for cultivation. The first overland journey from Newcastle to Sydney was made by Major Morriset in 1823. The route in all probability followed the present road from Maitland to Wiseman's Ferry, Glenorie and Dural, Windsor Road. The total distance along this route to Newcastle is about 150 miles. Kissing Point, which the road passes through, was one of the earliest settlements dating back to the beginning of the nineteenth century. In 1800 the Rev Richard Johnson opened a church here and in 1810 one of the first schools in the colony. The old settlements of Kissing Point and Ryde have always been famous for their orchards and early in the nineteenth century a brewery was established here by Mr James Squires. The route passes: Bedlam, a lunatic asylum, now deserted (signal staff named the Bedlam Telegraph), O'Donnells cottage, the church of Kissing Point a small building used also as a school house, the hamlet of Kissing Point on the Parramatta River, a brewery, the new Government sawing establishment and one-tree hill. One of these roads was the Great North Road from Sydney to Wiseman's Ferry. Travellers using this route journeyed out from Sydney along the Parramatta Road as far as Five Dock then turned onto the Great North Road leading to the waterside at Abbotsford, where a punt took them across the river to Bedlam Point. From here the road climbed up the hill to a government flagstaff (located more or less on the site of today's Gladesville Post Office) and continued north-west, running along the line of today's Victoria Road to the church. Above the church the road turned north to Pennant Hills and on to Newcastle. Beyond the church another road followed the line of present-day Victoria Road to Parramatta from which a track ran down the hill to a wharf on the river below the church. Gladesville Drill Hall on the corner of Monash and Ryde Roads and after their exertions the party retired to the Drill Hall for a celebration lunch. (P44 EPH)

The listing sheet does not provide a statement of significance. However, the significance is historic, as an early and important road link rather than for aesthetic or embodying historic fabric.

6.0 STATEMENTS OF HERITAGE IMPACT

It is important that the heritage items retain their setting and curtilage. It is also important that any new development has a sympathetic and appropriate type of visual relationship with the nearby heritage item and its components.

The documents dealing with setting and curtilage of heritage items are:

- The Australian ICOMOS Burra Charter
- The NSW Heritage Office publication *Heritage Curtilages*

The NSW Heritage Office Guidelines Heritage Curtilages defines the term 'heritage curtilage' as:

'the area of land (including land covered by water) surrounding an item or an area of heritage significance which is essential for retaining and interpreting its heritage significance'.

The Australian ICOMOS Burra Charter does not use/or define the notion of curtilage, however it does stress the importance of setting in Article 8:

Conservation requires the maintenance of an appropriate visual setting: eg form, scale, colour texture and materials. No new construction, demolition or modification, which would adversely affect the setting, should be allowed. Environmental intrusions, which adversely affect the setting, should not be allowed. Environmental intrusions, which adversely affect the appreciation or enjoyment of a place, should be excluded.

The curtilage of the heritage items are:

- The space around the heritage items and the unbuilt upon areas of the site
- The legal lot curtilage on which the heritage item is located

In addition there are views and vistas to the heritage item from a wider area. These are known as an expanded curtilage. This may include views and vistas on the road approach or views and vistas within a locality.

The proposed planning proposal is assessed under the relevant criteria from *Statements of Heritage Impact prepared by the NSW Heritage Office* and the relevant criteria have been adapted for development in the vicinity of heritage items.

Why is the planning proposal required for a site adjacent to heritage items?

The proposed planning proposal is for a site on a separate legal allotment to the heritage item, that has development rights. It is not located adjacent to any of the heritage items and is separated physically and visually from the heritage items, the Holy Cross College, Squireville, the Ryde Chapel, the Drill Hall and the Obelisk. The subject site like many sites is located adjacent to Victoria Road, which historically follows the course of the Old Northern Road. The proposed planning proposal does not impact on the historical significance of this heritage item.

Has an adequate setting for the heritage items been provided, enabling the heritage significance to be maintained?

The site for the proposed planning proposal is located at some distance from the heritage items the Holy Cross College Squireville, the Ryde Chapel, the Drill Hall and the Obelisk. There is existing development that physically and visually separates these items from the site. The heritage items are located on their individual legal allotments and the proposed planning proposal does not impact on their legal allotments. The views and vista analysis in Section 5 of this report have determined that the planning proposal does not impact on the significant views and vistas to these heritage items, which form their expanded curtilage and their setting. The site has the same relationship to Victoria Road (the Old Northern Road as many sites with existing development along Victoria Road.

Is the new development sympathetic to the heritage items? In what way (e.g. form, siting, proportions, design)?

The application is for a planning proposal. The planning proposal has been developed with regard to its context and appropriate urban design principles. As previously stated the site is not directly seen in relation to the heritage items. There is no potential for disruptive visual contrasts.

Will the proposed planning proposal dominate the heritage items? How has this been minimised?

The proposed planning proposal for the site will not dominate the heritage items. This is because: the site is physically located at some distance from the heritage items; the subject site is not viewed directly in relationship to the heritage items. The planning proposal proposes a similar in height above Victoria Road as approved existing development.

Is the development sited on any potentially known archaeological deposits?

The subject site has not been identified as being situated on any archaeological deposits. The former use as an excavated quarry has removed any archaeological potential of the site may have had. The proposed planning proposal will not affect any potential archaeological deposits.

7.0 CONCLUSION

This heritage impact statement had been requested by Ryde Council to assist council in the assessment of how the Planning Proposal may impact on the heritage items in the vicinity as required under Ryde Local Environmental Plan (Ryde LEP) 2010.

The subject site is not an item of environmental heritage nor is the site in a conservation area. The subject site is located 'in the vicinity' of a number of heritage items.

This report has examined heritage items. Section 5 describes the heritage items, their heritage significance and assesses the significant views and vistas to the heritage items.

The analysis has determined that there are no adverse heritage impacts on the setting and expanded curtilage of the heritage items from the planning proposal.

The proposed planning proposal for the site will not result in any dominance of the heritage items. This report has determined that the site will not be seen in relation to the heritage items, and consequently there will be no disruptive visual contrasts.

This report has reviewed the archaeological potential of the site, and as the site was an excavated quarry it is unlikely that the proposed planning amendments will affect any potential archaeological deposits.

The planning proposal will have an acceptable heritage impact and on this basis it should be considered for approval.

8.0 REFERENCES

Statements of Heritage Impact NSW Heritage Office

Australia ICOMOS Burra Charter 1999

Heritage Curtilages NSW Heritage Office

APPENDIX H –CONSISTENCY WITH SEPPs

Environmental Planning Instrument	Consistency
SEPP 1 Development Standards	Not applicable because SEPP 1 does not apply to the SEPP.
SEPP 4 Development Without Consent and Miscellaneous Exempt and Complying Development	Not applicable because SEPP 4 does not apply to the SEPP.
SEPP 6 Number of Storeys in a Building Consistent	The Planning Proposal does not propose controls for numbers of storeys. A building height development standard is proposed to control height and scale.
SEPP 14 Coastal Wetlands	Not applicable
SEPP 15 Rural Landsharing Communities	Not applicable
SEPP 19 Bushland in Urban Areas	Not applicable
SEPP 21 Caravan Parks	Not applicable
SEPP 22 Shops and Commercial Premises	Not applicable
SEPP 26 Littoral Rainforests	Not applicable
SEPP 29 Western Sydney Recreation Area	Not applicable
SEPP 30 Intensive Agriculture	Not applicable
SEPP 32 Urban Consolidation (Redevelopment of Urban Land)	Not applicable
SEPP 33 Hazardous and Offensive Development	Not applicable
SEPP 36 Manufactured Home Estates	Not applicable
SEPP 39 Spit Island Bird Habitat	Not applicable
SEPP 41 Casino Entertainment Complex	Not applicable
SEPP 44 Koala Habitat Protection	Capable of consistency
SEPP 47 Moore Park Showground	Not applicable
SEPP 50 Canal Estate Development	Not applicable
SEPP 52 Farm Dams, Drought Relief and Other Works	Not applicable
SEPP 53 Metropolitan Residential Development	Not applicable
SEPP 55 Remediation of Land.	Capable of consistency
SEPP 59 Central Western Sydney Economic and Employment Area	Not applicable
SEPP 60 Exempt and Complying Development	Not applicable because SEPP 60 does not apply to Ryde LEP 2010.
SEPP 62 Sustainable Aquaculture	Not applicable
SEPP 64 Advertising and Signage	The Planning Proposal will not contain provisions that would be inconsistent with, or hinder the application of the SEPP.
SEPP 65 Design Quality of Residential Flat Development	Not applicable
SEPP 70 Affordable Housing (Revised Schemes)	Not applicable
SEPP 71 Coastal Protection	Not applicable

Planning Proposal

461 Victoria Road, Gladesville

Environmental Planning Instrument	Consistency
SEPP (Affordable Rental Housing) 2009	Not applicable
SEPP (Building Sustainability Index: BASIX) 2004	Not applicable
SEPP (Exempt and Complying Development Codes) 2008	The Planning Proposal will not contain provisions that would be inconsistent with, or hinder the application of the SEPP.
SEPP (Housing for Seniors or People with a Disability) 2004	Not applicable
SEPP (Infrastructure) 2007	The Planning Proposal will not contain provisions that would be inconsistent with, or hinder the application of the SEPP.
SEPP (Kosciuszko National Park-Alpine Resorts) 2007	Not applicable
SEPP (Kurnell Peninsula) 1989	Not applicable
SEPP (Major Development) 2005	Not applicable
SEPP (Mining, Petroleum Production and Extractive Industries) 2007	Not applicable
SEPP (Rural Lands) 2008	Not applicable
SEPP (SEPP 53 Transitional Provisions) 2011	Not applicable
SEPP (State and Regional Development) 2011	The proposal is not state significant development or state significant infrastructure.
SEPP (Sydney Drinking Water Catchment) 2011	Not applicable
SEPP (Sydney Region Growth Centres) 2006	Not applicable
SEPP (Temporary Structures) 2007	Not applicable
SEPP (Western Sydney Employment Area) 2009	Not applicable
SEPP (Western Sydney Parklands) 2009	Not applicable
REP 9 Extractive Industry (No 2-1995)	Not applicable
REP 11 Penrith Lakes Scheme	Not applicable
REP 16 Walsh Bay	Not applicable
REP 19 Rouse Hill Development Area	Not applicable
REP 20 Hawkesbury–Nepean River (No. 2-1997)	Not applicable
REP 24 Homebush Bay Area	Not applicable
REP 25 Orchard Hills	Not applicable
REP 26 City West	Not applicable
REP 28 Parramatta	Not applicable
REP 30 St Marys	Not applicable
REP 33 Cooks Cove	Not applicable
Sydney Regional Environmental Plan (Sydney Harbour Catchment)	The Planning Proposal will not contain provisions that would be inconsistent with, or hinder the application of the SEPP.

APPENDIX I – CONSISTENCY WITH SECTION 117 DIRECTIONS

Section 117 Direction	Consistency
1. Employment and Resources	
1.1 Business and Industrial Zones	Refer to discussion in Section 7.3.2
1.2 Rural Zones	Not applicable
1.3 Mining, Petroleum Production and Extractive Industries	The Direction applies, however the subject land is already zoned for industrial development.
1.4 Oyster Aquaculture	Not applicable
1.5 Rural Lands	Not applicable
2. Environment and Heritage	
2.1 Environment Protection Zones	Not applicable
2.2 Coastal Protection	Not applicable
2.3 Heritage Conservation	The land is already zoned IN2 and the intent of Planning Proposal would not result in intensification of the land.
2.4 Recreation Vehicle Areas	Not applicable
3. Housing, Infrastructure and Urban Development	
3.1 Residential Zones	Not applicable
3.2 Caravan Parks and Manufactured Home Estates	Not applicable
3.3 Home Occupations	Not applicable
3.4 Integrating Land Use and Transport	Capable of consistency
3.5 Development Near Licensed Aerodromes	Not applicable
3.6 – Shooting Ranges	Not applicable
4. Hazard and Risk	
4.1 Acid Sulfate Soils	The land is already zoned IN2 and the intent of Planning Proposal would not result in intensification of the land.
4.2 Mine Subsidence and Unstable Land	Not applicable
4.3 Flood Prone Land	This issue is discussed in Section 6.4 in relation to localised stormwater flooding issues.
4.4 Planning for Bushfire Protection	The land is not bushfire prone land.
5. Regional Planning	
5.1 Implementation of Regional Strategies	There are no Regional Strategies that apply. Consistency with the draft Inner North Subregional Strategy is discussed in Section 7.3.2.
5.2 Sydney Drinking Water Catchments	Not applicable
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	Not applicable
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable
5.5 Development in the vicinity of Ellalong, Paxton and Millfield (Cessnock LGA)	Revoked 18 June 2010

APPENDIX I – CONSISTENCY WITH SECTION 117 DIRECTIONS

Section 117 Direction	Consistency
1. Employment and Resources	
1.1 Business and Industrial Zones	Refer to discussion in Section 7.3.2
1.2 Rural Zones	Not applicable
1.3 Mining, Petroleum Production and Extractive Industries	The Direction applies, however the subject land is already zoned for industrial development.
1.4 Oyster Aquaculture	Not applicable
1.5 Rural Lands	Not applicable
2. Environment and Heritage	
2.1 Environment Protection Zones	Not applicable
2.2 Coastal Protection	Not applicable
2.3 Heritage Conservation	The land is already zoned IN2 and the intent of Planning Proposal would not result in intensification of the land.
2.4 Recreation Vehicle Areas	Not applicable
3. Housing, Infrastructure and Urban Development	
3.1 Residential Zones	Not applicable
3.2 Caravan Parks and Manufactured Home Estates	Not applicable
3.3 Home Occupations	Not applicable
3.4 Integrating Land Use and Transport	Capable of consistency
3.5 Development Near Licensed Aerodromes	Not applicable
3.6 – Shooting Ranges	Not applicable
4. Hazard and Risk	
4.1 Acid Sulfate Soils	The land is already zoned IN2 and the intent of Planning Proposal would not result in intensification of the land.
4.2 Mine Subsidence and Unstable Land	Not applicable
4.3 Flood Prone Land	This issue is discussed in Section 6.4 in relation to localised stormwater flooding issues.
4.4 Planning for Bushfire Protection	The land is not bushfire prone land.
5. Regional Planning	
5.1 Implementation of Regional Strategies	There are no Regional Strategies that apply. Consistency with the draft Inner North Subregional Strategy is discussed in Section 7.3.2.
5.2 Sydney Drinking Water Catchments	Not applicable
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	Not applicable
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable
5.5 Development in the vicinity of Ellalong, Paxton and Millfield (Cessnock LGA)	Revoked 18 June 2010