

Feature lighting example - uplights to trees



Feature lighting example - strip lights along seating



Pathway lighting example - post top luminaires



Example of borrowed light from windows



Reflective light example - uplights to wall

### Landscape lighting

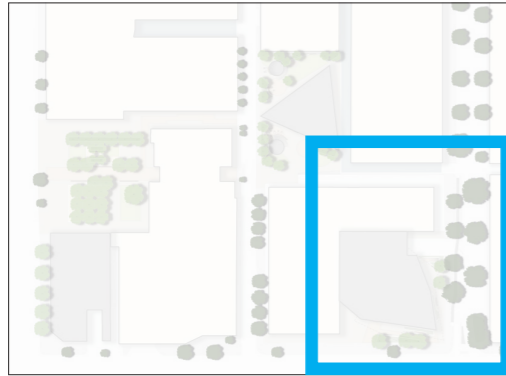
In key locations throughout the surrounding landscape, feature lighting can be used to emphasise elements such as trees and seating areas. These types of lighting would be localised and would improve the ambience and usability of the outdoor areas.

Key pathways which are most likely to attract foot traffic at night should be adequately lit to provide a safe environment. This would involve providing an even spread of light with appropriate colour rendition, contrast and illuminance to allow safe movement and facial recognition from a reasonable distance. Luminaires would incorporate features to avoid undesirable light spill or glare such as baffles or glare shields.

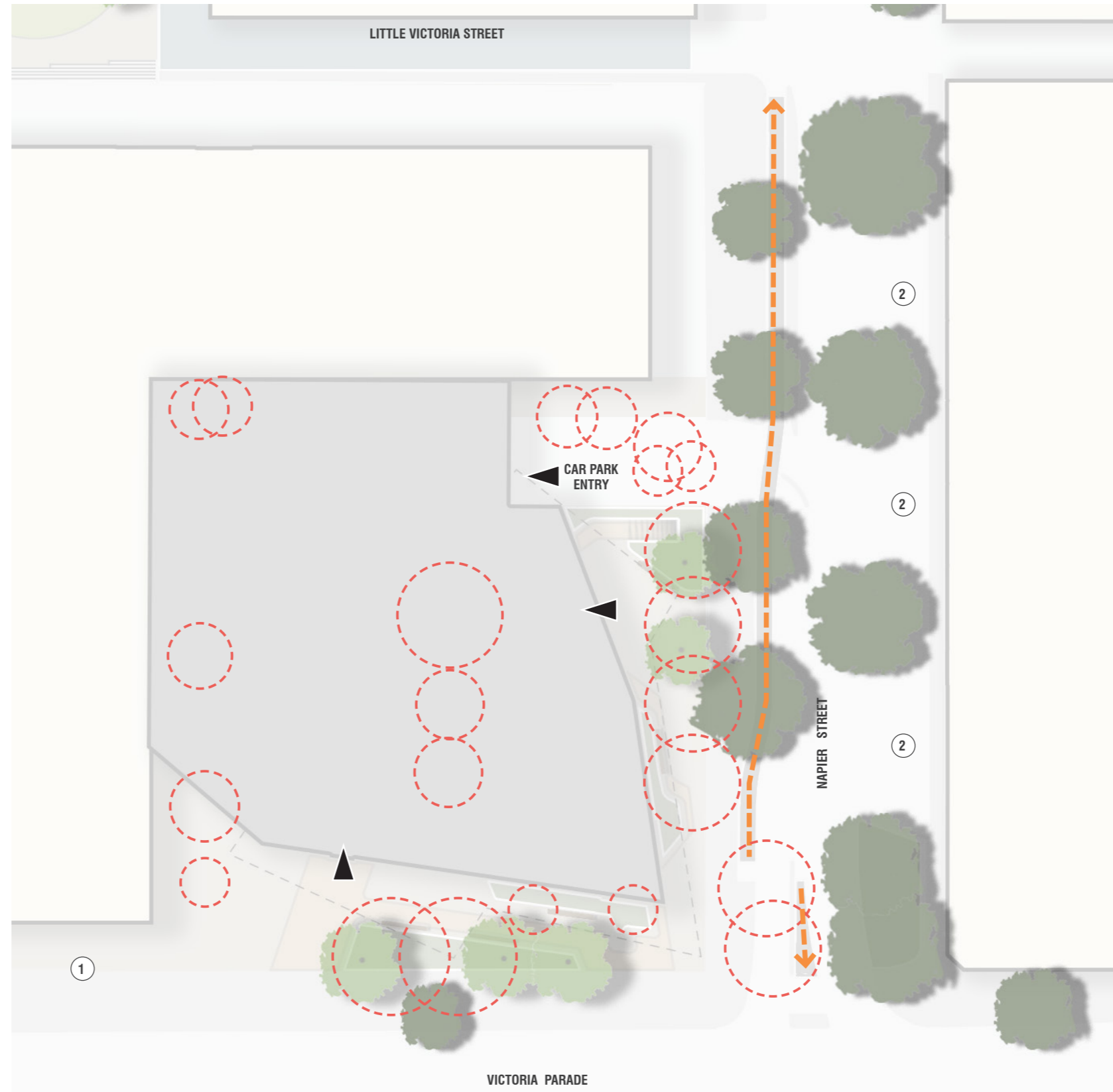
### Little Napier St lighting

Little Napier Street is a secondary path of movement, requiring some lighting to allow the space to feel safe, but not to the same degree as the more highly trafficked areas. Depending on the detailed design of the Campus Hub building, lighting could be provided through reflective lighting on the building walls (e.g. in-ground uplights) and/or borrowed light through the windows. Such approaches would seek to avoid glare and have no light spill to adjoining residential properties.

4.10.9 INDICATIVE VICTORIA PARADE ENTRY PLAN

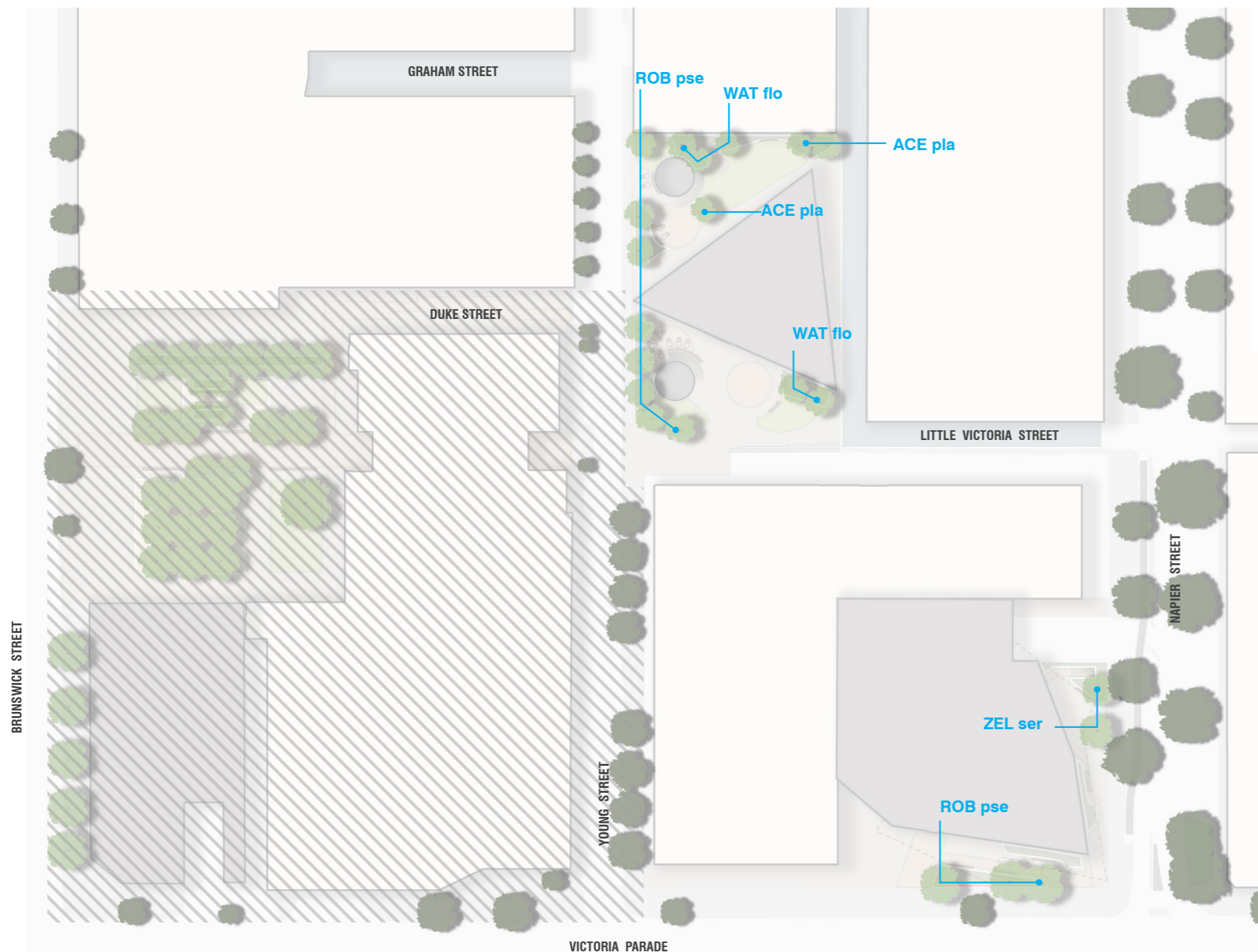


- Legend**
-  Existing trees to be retained
  -  Proposed trees
  -  Integrated bench seating
  -  Turf
  -  Planter bed (low shrubs & groundcover)
  -  Feature paving
  -  New paved area
  -  Proposed Buildings
  -  Laneways
  -  Existing Trees to be removed
  -  Building entries
  -  Bike Lane
  -  Bike Share Pod
  -  Car parking to be retained



SCALE 1:400 @ A3  
0 5 10 15 20  
NORTH

4.10.10 INDICATIVE TREE SPECIES






INDICATIVE PLANTING SCHEDULE

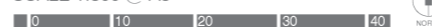
Code	Botanical Name	Common name	Pot size	Typical size at maturity (HxW)
<b>TREES</b>				
ACE pla	<i>Acer platanoides</i> 'Crimson Sentry'	Crimson Sentry Maple	100 litre, 2.4m ht	7 x 5m
ROB pse	<i>Robinia pseudoacacia</i> 'Frisia'	Golden Robinia	100 litre, 3.3m ht	7 x 5m
WAT flo	<i>Waterhousia floribunda</i>	Weeping Lilly Pilly	75 litre, 2.0m ht	7 x 5m
ZEL ser	<i>Zelkova serrata</i> 'Green Vase'	Green Vase Zelkova	100 litre, 3.6m ht	9 x 6m
<b>SHRUBS / TUFTING</b>				
CLI min	<i>Clivia minata</i>	Orange Clivia	150mm pot size	0.7m tuft
DIA cae	<i>Dianella caerulea</i> 'Little Jess'	Little Jess Dianella	150mm pot size	0.4m tuft
DIA eme	<i>Dianella</i> 'Emerald Arch'	Emerald Arch Dianella	200mm pot size	0.4m tuft
LIR mus	<i>Liriope muscari</i> 'Amethyst'	Amethyst Liriope	150mm pot size	0.4m tuft
OPH jap	<i>Ophiopogon japonica</i> 'Nana'	Dwarf Mondo Grass	150mm pot size	0.1m tuft
<b>GROUNDCOVERS &amp; CLIMBERS</b>				
BRA mul	<i>Brachycome multifida</i>	Cut Leaf Daisy 'Break O'Day'	150mm pot size	0.3 x 0.5m
COP kir	<i>Coprosma kirkii</i>	Creeping Coprosma	200mm pot size	0.6 x 1.2m
COR alb	<i>Correa alba</i> (prostrate form)	Prostrate White Correa	150mm pot size	0.6 x 1.0m
JUN con	<i>Juniperus conferta</i>	Prostrate Juniper	200mm pot size	0.3 x 1.2m
MYO par	<i>Myoporum parvifolium</i> 'Fine Leaf Form'	Creeping Boobialla	150mm pot size	0.2 x 1.2m
TRA jas	<i>Trachelospermum jasminoides</i>	Star Jasmine	200mm pot size	3m ht
SCA hum	<i>Scaevola humilis</i> 'Purple Fusion'	Purple Fan Flower	150mm pot size	0.2m x 1.0m

Advanced tree min 3 m. tall with 40 mm caliper

Legend

-  Existing trees to be retained
-  Proposed trees
-  Area subject to separate approval

SCALE 1:800 @ A3



## 4.11 Heritage Matters

The heritage nature of particular built form both on campus and within the surrounding streetscape is an important consideration. Appropriate integration, design characteristics, and the interface to neighbouring heritage built form and streetscapes will be integral to the development.

The proposed building envelopes have been reviewed by heritage consultant Bryce Raworth who has provided the following assessment.



30 November 2017

Re: *Australian Catholic University  
Development Plan PLN16-0085, November 2017*

The following discussion has been prepared at the request of Urbis on behalf of the Australian Catholic University. It comments upon heritage considerations in relation to the amended form of the proposed Development Plan (DP) for the St Patrick's Campus of the Australian Catholic University (ACU) in Fitzroy (drawings dated October 2016), which has been prepared in consultation with Council and the community. It sets out relevant heritage considerations that have informed the design and location of new works anticipated through the amended DP, drawing largely upon an earlier letter that addressed the DP documentation submitted to Council in December 2015. The DP and proposed Development Plan Overlay (DPO) are intended to guide future planning permit applications for development at this campus, within the DPO area. The campus is located in the block bounded by Brunswick Street, Napier Street, Victoria Parade and Gertrude Street.

In the amended DP the proposed envelope has been altered to decrease the associated impacts upon views within the South Fitzroy Heritage Overlay precinct, and more specifically to decrease the visual impact associated with its height and bulk as seen from the north within Napier Street and the immediate environs of the site. The changes include a reduction in height by two storeys and increases to setbacks to the upper levels of the proposal relative to the Napier Street frontage. These changes are discussed in more detail on page 5 below.

The focus of future change countenanced in the DP is to be located at the Victoria Parade frontage of the site, away from residential properties further north. New buildings are anticipated at 115B Victoria Parade (corner of Napier Street) and 81-89 Victoria Parade (corner of Brunswick Street) – not part of the DP land. The Mary Glowrey building, the former Commonwealth Note and Stamp Printing Building, will be refurbished and extended. The site of the current car park site at 28-42 Young Street will also be redeveloped, and the amended DP includes some indication of what is proposed for that site.

This commentary draws upon inspections of the site and its surrounds and a review of relevant heritage studies and planning scheme documents including the City of Yarra's heritage policy at clause 22.02. In addition, regard has been had for the buildings and streetscapes adjacent this site, which is within the South Fitzroy Heritage Overlay precinct, HO334, and for the building gradings found in Council's heritage database. A copy of heritage advice provided to Council by its heritage advisor has also been reviewed and has informed the amendments to the DP.

The heritage overlay precinct that includes the subject land and the land to the north, east and west, the South Fitzroy precinct, is a key consideration in the development of the ACU land, and it is important that new built form acknowledge the sensitivity of the South Fitzroy precinct and nearby heritage buildings. Development of the ACU land is subject to the heritage overlay and will be assessed against the relevant heritage policies.

The statement of significance for HO334 in the *City of Yarra Heritage Review* (2007) states that:

*The South Fitzroy Heritage Overlay Area is significant:*

- *As the earliest urban area outside the Melbourne City grid to be settled in the Melbourne municipality, with several buildings from the mid nineteenth century surviving as testimony to its early establishment;*
- *For the unusually high number of early Victorian-era and some Regency period buildings, being generally simply detailed and a clear reflection of the early date of Fitzroy's settlement.*
- *As evidence of early government planning controls or Acts of Parliament, from the 1850s, that aimed to solve street alignment problems in this privately planned suburb, arising from a hitherto lack of co-ordination between neighbouring allotment owners;*
- *As a good example of the successful application of the Act for Regulating Buildings and Party Walls, and for Preventing Mischiefs by Fire in the City of Melbourne (Melbourne Building Act 1849), which forced the use of fireproof construction and gave South Fitzroy a character distinct from other inner suburbs such as Richmond and Collingwood, that have a greater proportion of Victorian-era timber buildings.*
- *As a substantially intact collection of predominantly mid to late nineteenth and early twentieth century building stock, interspersed with well preserved inter-war residential, commercial, retail and industrial buildings that contribute to the historical character of the area.*
- *For the relatively large number of individually significant buildings, being predominantly solid masonry rather than clad with timber, largely as a result of the Melbourne Building Act, 1849.*
- *For the ornate and exuberant detail of many late nineteenth and early twentieth century buildings in the suburb, reflecting the affluence of many of the inhabitants of this area, particularly in the late 19th century.*
- *For the early street, lane and allotment layouts, some original bluestone kerbs, paving and guttering, and some mature exotic street trees, providing an appropriate setting for this collection of residential, retail, commercial and industrial buildings.*
- *For the landmark qualities of some large factory and warehouse buildings from the late 19th and earlier 20th century, such as the MacRobertson confectionary complex which are significant features in the skyline of this predominantly low rise suburb; and*
- *For the major early institutions that developed on its fringes, in particular, St Vincent's Hospital and The Convent of Mercy, as closely linked with the area's history, education and welfare within the metropolitan area.*

The statement of significance for the former Commonwealth Note and Stamp Printing Building at 115 Victoria Parade (now known as the Mary Glowrey building) is as follows:

*What is significant?*

*The Commonwealth Note and Stamp Printing department ... was created in 1929-1931 for the Australian Commonwealth Government and has close historical associations with that important function.*

*The place has a fair integrity to its creation date (now altered cosmetically, as conversion to university; car park at rear and side).*

*Fabric from the creation date at the Commonwealth Note and Stamp Printing department, former is locally significant within the City of Yarra, compared to other similar places from a similar era.*

*How is it significant?*

*The Commonwealth Note and Stamp Printing department, former at 115 Victoria Parade, Fitzroy is historically significant to the locality of Fitzroy and the City of Yarra.*

*Why is it significant?*

*The Commonwealth Note and Stamp Printing department is significant as the former origin of all legal tender in Australia, receiving extensive publicity on its completion and with suitably monumental Greek Revival styling.*

It is to be noted that alterations to the former Commonwealth Note and Stamp Printing Building have been somewhat more than cosmetic – this statement of significance seems to predate a number of works that have been completed within the site, the additions to the southern facade and to the east elevation of the main, southern wing in particular. In addition, most of the windows have been replaced with simple modern glazing in place of the original steel framed windows. The northern wing has been similarly altered.

The Former Commonwealth Note and Stamp Printing Department (115 Victoria Parade, Fitzroy) was added to the Victorian Heritage Register (reference VHR H2372) on 31 August, 2017. The extent of registration extends between Victoria Parade, Young Street and Napier Streets and is bound by Little Victoria Street (comprising all of Lot 1 on Title Plan 844284, all of Title Plan 3475 and all of Lot 1 on Title Plan 568633).

The building is recognised as being of historical significance to the State of Victoria on the basis of:

- *Criterion A: Importance to the course, or pattern, of Victoria's cultural history.*
- *Criterion B: Possession of uncommon, rare or endangered aspects of Victoria's cultural history.*

A copy of the VHR citation is included as an attachment. Future works within the Registered area will require approval under the Heritage Act (as applicable).

Accepting this, it is noted that Yarra's heritage policy at Clause 22.02-5.7.1 provides detailed guidelines for new development and alterations and additions heritage overlay areas, with key policy including the following:

*Encourage the design of new development and alterations and additions to a heritage place or a contributory element to a heritage place to:*

- *Respect the pattern, rhythm, orientation to the street, spatial characteristics, fenestration, roof form, materials and heritage character of the surrounding historic streetscape.*
- *Be articulated and massed to correspond with the prevailing building form of the heritage place or contributory elements to the heritage place.*
- *Be visually recessive and not dominate the heritage place.*
- *Be distinguishable from the original historic fabric.*
- *Not remove, cover, damage or change original historic fabric.*
- *Not obscure views of principle façades.*
- *Consider the architectural integrity and context of the heritage place or contributory element.*

*Encourage setbacks from the principal street frontage to be similar to those of adjoining contributory buildings; where there are differing adjoining setbacks, the greater setback will apply.*

*Encourage similar façade heights to the adjoining contributory elements in the street. Where there are differing façade heights, the design should adopt the lesser height.*

Clause 22.02-5.7.2 encourages the following specific requirements with regard to corner sites and sites with dual frontages:

*Encourage new building and additions on a site with frontages to two streets, being either a corner site or a site with dual street frontages, to respect the built form and character of the heritage place and adjoining or adjacent contributory elements to the heritage place.*

*Encourage new buildings on corner sites to reflect the setbacks of buildings that occupy other corners of the intersection.*

This Clause also includes specific requirements for upper level additions to Industrial, Commercial and Retail Heritage Places or Contributory Elements:

*Encourage new upper level additions and works to:*

- *Respect the scale and form of the existing heritage place or contributory elements to the heritage place by being set back from the lower built form elements. Each higher element should be set further back from lower heritage built forms.*
- *Incorporate treatments which make them less apparent.*

The extent of development proposed under the DP is substantial and will lead to appreciable change in the built form of the campus and associated change to views and character within adjoining streets. This said, the DP seeks to realise this substantial change in such a manner as to achieve an acceptable level of compliance with the heritage policy.

The VCAT approval for a fourteen storey development at the corner of Brunswick Street and Victoria Parade, ie 81-89 Victoria Parade (Premier Projects Pty Ltd v Yarra CC [2007]; VCAT reference no. P2540/2006), establishes a relevant benchmark for redevelopment along this part of Victoria Parade and within the ACU campus. While there are buildings along Victoria Parade within the context of the site that are of individual heritage significance, the streetscape to this part of Victoria Parade is of mixed character, is not of particular significance, and lends itself to higher development. The scale of current and proposed development to the west of ACU along Victoria Parade, at the St Vincent Hospital sites, and the scale of buildings to the south side of Victoria Parade, also suggest that built form of substantial scale may be considered in the Victoria Parade context.

The amended DP contemplates a new building of 12 storeys on the carpark site at the corner of Victoria Parade and Napier Street, known as 115B Victoria Parade. This is to be attached to the east side of the former Commonwealth Note and Stamp Printing Department Building at 115 Victoria Parade, and also to the south side of the northern wing of the Commonwealth Note and Stamp Printing Department Building.

The new building is to provide a new major point of entry to the campus, and will utilize the lift and stair 'core' attached to the east side of the heritage building. The existing glazed entry and disabled access ramp addition to the front of 115 Victoria Parade will be removed and that part of the facade reinstated.

The residential streetscapes to Napier Street to the east and north of the site at 115B Victoria Parade include heritage buildings of one and two storeys, with two storeys being predominant. It is a fine heritage street, particularly to the north of ACU. On this basis it is appropriate that new built form be very carefully designed to limit impact upon the character, appearance and significance of the streetscapes to Napier Street.

Young Street, located more centrally in relation to the ACU land holdings, is less significant at its southern end, already containing built form of scale, but includes a heritage building at the Victoria Parade corner, west side, and the former Commonwealth Note and Stamp Printing Department Building on the east corner.

The DP concept for ACU at 115B Victoria Parade proposes to:

- Remove the existing glazed entry and disabled access ramp from the front facade of 115 Victoria Parade.
- Consolidate the entry for both 115 and 117 Victoria Parade to create an active and prominent entry.
- Angle the entry and south elevation to 115B Victoria Parade back from the alignment of 115 Victoria Parade in order to reveal the robust corner detailing of 115 Victoria Parade. This corner will remain visible in views from Victoria Parade, with the angled form of the new works providing a 'setback' against the heritage building.
- Use a similar strategy to provide views to the eastern wing of the Mary Glowrey building (former Commonwealth Note and Stamp Printing Department).
- Integrate the floor plans of 115 Victoria Parade and 115B Victoria Parade, the new building being attached to a side of 115 Victoria Parade that has already been the subject of considerable modification and additions.
- The new built form will in part overhang 115 Victoria Parade, albeit with a degree of vertical separation that will enable the two forms to read separately.
- The building adopts a stepped profile to create a height relationship with the built form along Napier Street.
- An addition of three levels to the rear part of the northern wing of the Mary Glowrey building (former Commonwealth Note and Stamp Printing Department), well set back from Napier Street in accordance with heritage policy for upper level additions to industrial buildings.

The existing car park building at 28-42 Young Street will be demolished and replaced with a low rise building that incorporates an open plaza or community space at ground level. The development of this part of the campus is not seen to raise heritage issues insofar as it is in a highly altered environment with negligible heritage fabric to its streetscape.

Having regard for the DP, it is apparent that the anticipated works will result in substantial change and to some extent impacts upon heritage values and views, relative to both the former Commonwealth Note and Stamp Printing Department Building and the streetscapes extending to the north along Napier Street and to the east along Victoria Parade. This said, the DP seeks to limit these impacts through focusing change within the already altered environment of Victoria Parade, at the very southern edge of the South Fitzroy precinct.

As noted, a number of changes introduced in the amended design seek to limit the appearance of scale and bulk in terms of views from the north, particularly in Napier Street. The view analysis provided for the amended DP compares the massing of the form as originally contemplated in 2015, the massing of the form as revised in September 2016, and a indication of the architectural treatment that may accompany the revised massing.

The key amendments to the DP scheme in relation to heritage considerations are as follows.

*Reduction in height*

The DP scheme submitted to Council in December 2015 was of 14 storeys plus plant. The present scheme is reduced to 12 storeys plus plant. The reduction in height result in a lessening of the visibility and visual impact of the proposal in terms of the view analysis provided in the DP documentation. This is apparent in each of the views assessed within the documentation, including views along Napier Street from the north. The documentation shows that in these views from the north the building is not only apparently lower in terms of the number of storeys per se, but that the plant level is also less visible, further diminishing the apparent bulk of the envelope in these views.

*Podium design along Napier Street*

The podium to Napier Street is effectively of 6 storeys, albeit with the Ground and Lower Ground floors being relatively open and setback. The treatment of the podium to Napier Street is not substantially changed, although the setback has increased at ground floor relative to the south face of the northern wing of the former Commonwealth Note and Stamp Printing Department Building, and marginally decreased at the floors above. However, it is acknowledged that the podium should respond to some degree to the streetscape condition of buildings that are aligned with the property boundaries.

*Setbacks of higher levels from Napier Street*

The upper levels of the proposal have generally been increased relative to Napier Street, particularly in terms of levels 6 & 7 (and above). At levels 6 & 7 the setbacks are essentially twice those of levels 7-9 in the previous concept, with the minimum dimension from Napier Street increasing from 8.28m to 17.1m. The various alignments of the faces of the upper levels have also changed, further reducing the visual bulk in terms of views along Napier Street. The built form remains visible, but is viewed as being appreciably further from the alignment of the street than in the earlier scheme.

*Additional structure to support new levels above northern wing of the former Commonwealth Note and Stamp Printing Department Building*

The DP concept has consistently included an addition of 3 storeys (plus plant and undercroft space) above the northern wing of the former Commonwealth Note and Stamp Printing Department Building. The setbacks of this built form have been increased relative to Napier Street, and the modelling has altered. These changes help limit visual impact in terms of views from the north.

This said, an element of the scheme that was not previously contemplated is the provision of additional structure to the exterior of the host building to assist in supporting the new levels. The additional structure will comprise new piers or columns that will be attached to the

existing vertical structure of the host building, in a manner that is intended to complement rather than disrupt the articulation and character of that building. The easternmost pier carries angled struts that support an overhanging section of the new envelope. This new structure is to be sited well back from Napier Street and will result in minimal change to the character and appearance of the additions as seen from the north within Napier Street.

*Details and materials*

The DP scheme includes an indication of how the architecture of the proposal might be resolved. This is essentially limited to an indicative arrangement of glazing and walls, with some suggestion of a pale colour or white as the primary finish to greater part of the building. The architects have documented a range of indicative materials illustrating options that may be considered as the design is further refined. This said, the materials, finishes and colours have not been determined at this stage, and will be subject to further amendment and refinement as part of a future permit application process.

*Conclusion*

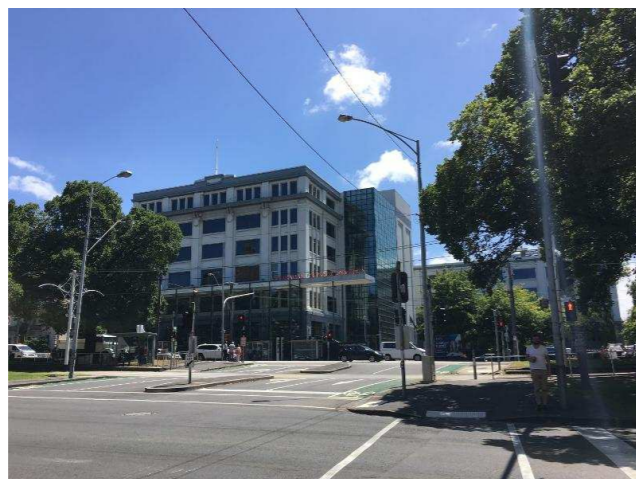
The original DP scheme of December 2015 was developed having regard for the potential for impacts upon the setting of the former Commonwealth Note and Stamp Printing Department Buildings and upon views within Napier Street and Victoria Parade, having regard for the location at Victoria Parade and taking a 'whole of planning' view that accepts the importance of ACU within this precinct and within the City of Yarra. In the present amendments to the form and scale of the built form anticipated in the DP, a concerted attempt has been made to further limit impacts upon buildings, views and the broader heritage overlay precinct, while still seeking to achieve ACU's requirements.

**Bryce Raworth and Carolyne Baker**



## HERITAGE CITATION REPORT

<b>Name</b>	FORMER COMMONWEALTH NOTE AND STAMP PRINTING DEPARTMENT	<b>File No</b>	FOL/17/2735,FOL/17/30822 HCV,FOL/17/2735-2
<b>Address</b>	115 VICTORIA PARADE FITZROY	<b>Significance Level</b>	Unknown
<b>Place Type</b>	Printing Works		



1924 building fronting Victoria Parade

<b>Recommended Heritage Protection</b>	VHR - HI - PS -	<b>Architectural Style</b>	Interwar Period (c.1919-c.1940) Commercial Palazzo
<b>Maker / Builder</b>	F E Shillabeer		

### History and Historical Context

#### HISTORY

*The development of an Australian currency and postage stamp*

*Bank notes*

When the colony of New South Wales was established in 1788, there was little need for currency. A barter system based primarily on rum emerged, however as the colony progressed, the need for a more formal currency became evident. A

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variety of systems followed, including handwritten credit notes, English and Spanish coins, and in 1817, following the formation of the Bank of New South Wales, the first bank notes. Following the discovery of gold in 1851, many private banks were established, each of whom produced their own notes which were exchanged for gold. The *Australian Notes Act of 1910* gave responsibility for the issue of bank notes to the Commonwealth Treasury, and notes issued by States or private banks were overprinted and used as Australian bank notes.

#### Stamps

Prior to the formation of the Commonwealth of Australia in 1901, each of the six individual colonies produced their own stamps through their own postal systems. Following Federation, this became a centralised Commonwealth responsibility, administered through the Postmaster-General's Department.

#### Establishment of the Commonwealth Note and Stamp Printing Department

Between Federation in 1901 and the official opening of the Commonwealth Parliament House in Canberra in 1927, Melbourne was the seat of the Commonwealth Government. Tasks relating to the administration of the Government took place in Melbourne, including the design, manufacture and issuing of postage stamps, which was the responsibility of the Postmaster General, and the design, manufacture and issuing of bank notes and all other secure products, which was the responsibility of the Commonwealth Department of Treasury.

In 1908, part of the Queens Warehouse (VHR H1211) also known as the King's Warehouse was acquired for the Commonwealth Stamp Printer and in 1912, the remainder of the building was taken over by the Commonwealth Note Printer. In 1913, the first Australian bank notes and stamps were produced in this building. The bank notes were designed and printed by Thomas Harrison, Note Printer. The first Australian stamp was the outcome of a controversial design competition which reflected the differences between monarchists and republicans. The winning design featured King George V, however Post Master General Charles Frazer (appointed by the new Labor Government) intervened and the final design was produced by artist Blamire Young, with input from Frazer. It featured a kangaroo within an outline of Australia. When the Liberal Government won the next election, Frazer was replaced by Agar Wynne, who delivered a new stamp featuring King George V. Both versions remained in circulation until 1948.

#### A proposal for new premises

Although Australia's first bank notes were printed at the Queens Warehouse (VHR H1211), the building was unsuitable for printing purposes, which required an environment free from dust, smoke and chemicals. However the establishment of new premises could not be considered during World War One.

Following the war, in 1919, the Government acquired a property at the corner of Victoria Parade and Young Street with the intention of relocating the Stamp and Note Printing departments to this site. It had previously been occupied by the Turn Verein, a German social and gymnastics Club which had been forced to close in 1915 by the Commonwealth Government. Substantial nineteenth century buildings remained on the site and all note sorting staff (who were located at either the Queens Warehouse or the Commonwealth Offices) initially worked from these.

Following the purchase of the property, evidence was heard by the Commonwealth Parliamentary Standing Committee on Public Works regarding the Proposed Erection of the Commonwealth Note Printing Offices. Twenty five witnesses were heard, including Thomas Harrison, Note and Stamp Printer. The Committee also considered other locations for the new premises, including Canberra and Sydney. It was considered that Sydney would not be cost effective as all the equipment would require relocation from Melbourne. Canberra was also considered unsuitable due to the cost of establishing new premises, as well as a new village to accommodate 220 staff. In addition it was not known when the Seat of Federal Government would be transferred to Canberra and this uncertainty, together with the exorbitant costs, prompted the Committee to conclude that Melbourne was the most appropriate location for new printing premises.

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Thomas Harrison had given strong evidence to the Standing Committee which condemned the Queen's Warehouse (VHR H1211) premises. He stated that the building was a fire risk due to the storage of note printing chemicals, as well as chemicals stored by Customs. If a fire did break out, he claimed that the 'girls on the top floor had no means of escape' and production would be delayed while replacement equipment, inks and papers were imported. In addition, the nearby gasworks emitted sulphur and ammonia which tarnished the machines and affected certain print colours. He advised the Committee that the most suitable premises would require almost airtight conditions, free from gas, smoke and damp.

Harrison was in favour of the Victoria Parade location due to its elevation and atmospheric conditions. He visited the site with the government's Chief Architect, John Smith Murdoch and advised on the size and layout of the new building.

### *New premises for the Commonwealth Note and Stamp Printing Department*

John Smith Murdoch completed designs for the new building, however they were never constructed. In December 1920, the *Commonwealth Bank Act* transferred responsibility for the issue of bank notes from the Treasury Department to the Commonwealth Bank of Australia which had been formed in 1911. Commonwealth Bank Governor Denison Miller had appointed his cousin John Kirkpatrick as official bank architect in 1912. In 1921, based on the evidence of witnesses heard by the Standing Committee, Kirkpatrick proposed a new, larger design, and it was his design which was constructed.

In 1920, the Treasury note sorting staff moved into the former Turn Verein buildings and in 1922, work commenced on the new building with the intention of retaining the Turn Verein buildings for note sorting and engraving. New imported note presses were installed, and existing machinery and equipment was transferred from the Queens Warehouse (VHR H1211). The building was completed in 1924, however both Miller and Kirkpatrick died in 1923, before its completion. In 1926, Thomas Harrison resigned, having made a significant contribution to the development of Australian bank note and stamp production, and to the design of the new premises.

Stamp and note production commenced in the building in 1924.

### *Additions and alterations*

Within years, the department outgrew its new building, and by 1931 a four storey wing at the rear of the site was under construction. This wing was built in two stages to allow operations to continue in the former Turn Verein building. Once the eastern section was completed, equipment was moved in, the Turn Verein building was demolished and the wing was completed. The building was expected to be ready for occupation in February 1933. In 1953 an additional two storeys were added to the western end of the wing, bringing it up to the same height as the 1924 building.

### *Towards new premises*

From its establishment the Commonwealth Note and Stamp Printing Department premises saw many changes in production and technology. In 1960, responsibility for the issue of bank notes was transferred to the newly established Reserve Bank, which oversaw the change to decimal currency in 1966, one of the biggest changes in the history of the Department. During the 1970s, the Currency Note Research Development and CSIRO began research into the production of polymer notes.

On 19 October 1981, 115 Victoria Parade ceased to be the premises of the note and stamp printing department. Although the research development department remained at the site, all other operations were relocated to Craigieburn where bank notes are still produced. The Victoria Parade site was purchased by the Australian Catholic University in 1998. It has undergone extensive alterations and now operates as the University's Melbourne campus.

## HERITAGE CITATION REPORT

### KEY REFERENCES USED TO PREPARE ASSESSMENT

Minutes of Evidence (1919) Report relating to the proposed erection of Commonwealth Printing Offices *Parliamentary Standing Committee on Public Works*

Entries in Australian Dictionary of Biographies for Sir Denison Miller and John Kirkpatrick.

### Description

#### Physical Description

The Former Commonwealth Note and Stamp Printing Department is an L shaped building contained within a block bounded by Victoria Parade, and Young, Little Victoria and Napier Streets. The building was completed in stages, which is evident in the design. A carpark is located in the south-eastern corner of the site and there are low height boundary walls surrounding access to the basement level on the north eastern corner of the site.

The earliest building fronts Victoria Parade and is designed in the Interwar Commercial Palazzo style with rendered walls alternating with window bays. It is six storeys high with a symmetrical front elevation comprising five bays, with the outer bays containing three narrow windows and the centre bays containing a single large window each. All windows are of plate glass. The upper floor is separated from the lower floors by a cornice supported by moulded decorative brackets. The ground and first floors to the front facade are partially enclosed by a modern metal and glass entrance ramp. The side elevations are of similar design, with the addition of a glass enclosed staircase to the eastern elevation.

The later additions are located at the rear of the site and are six storeys high at the western end and four storeys high at the eastern end. They extend along Little Victoria Street, between Young and Napier Streets. The architectural detailing is similar to the earlier building, but more simplistic in design and form and a modern glass addition encloses most of the southern elevation. Internally, the buildings have been substantially altered, although the structure of the building, including external walls, reinforced concrete columns and load bearing floors is still evident.

#### Physical Condition

CONDITION <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">

The place is in excellent condition. Its current use as the Melbourne campus of the Australian Catholic University has ensured that the extant building fabric is well maintained. (February 2017)

#### Archaeological Potential

#### ARCHAEOLOGY

There is no identified archaeology of state level significance at this place.

#### Intactness

Intactness - The overall external form and appearance of the place is mostly intact, although elements relating to security and fireproofing have been removed or altered, such as the perimeter fence which has been removed, and the original



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windows of steel and reinforced fireproof glass which have been replaced with plate glass. Internally the building has been significantly altered although load bearing floors and the reinforced concrete framework is intact. (February 2017)

**Integrity** - The exterior integrity of this place is good. The heritage values of the Former Note and Stamp Printing Department are evident in the overall form and the architectural style remains readable. The interior integrity is substantially compromised but still readable to a certain degree. (February 2017)

### Plaque Citation

This building was erected in 1924 when Melbourne was the seat of the new nation's federal government. Until 1981 Australia's bank notes, postage stamps and high security products were designed and produced within the building.

### Comparative Analysis

#### COMPARISONS

##### *Comparison - Commonwealth Government buildings*

The Federal Court of Australia (VHR H1476)

The Federal Court of Australia, originally the High Court, was built in 1926 to a stripped Classical design by Chief Commonwealth Architect, John Smith Murdoch. The Court was extended in 1935 by HJ MacKenna, chief architect for the Victorian Branch of the Commonwealth Works Department, with the addition of an upper storey in the same materials and style. Further additions were made in 1946 and in 1991-92.

The building was designed as the High Court of Australia when Melbourne was the nation's capital from 1901 until 1927, but a new High Court was only opened in Canberra in 1980. Until then this building, and others in the other State capitals, continued to be used for sittings of the High Court. In 1977, the building became the Melbourne premises of the Federal Court, being used solely for this purpose after the opening of the High Court in Canberra. The Federal Court of Australia is of historical significance as a reminder of Melbourne's dominance of federal politics before the development of Canberra, and for its associations with the highest levels of Australian legal administration over a lengthy period. The Federal Court of Australia is of architectural significance as an excellent example of the inter-war Stripped Classical style which characterised many Commonwealth buildings of the time, and as an early work of the fledgling Commonwealth Department of Works and its first chief architect, John Smith Murdoch.

The Former Mail Exchange: (VHR H0881)

The Former Mail Exchange, completed in 1917, was designed by Commonwealth Home Affairs architect John Smith Murdoch. The seven storey, steel-framed building was constructed in a beaux-arts classical style. The dominant feature of the facade is the paired giant order fluted columns, with ionic capitals, rising through three storeys. Bronzed steel framed windows fill the bays between the columns, contrasting with the mass and solidity of the masonry. The building is a distinguished example of beaux-arts classical design which was not common in Australia, tending to be used for large and important buildings. It was the sense of monumentality that it imparted that Murdoch considered appropriate for Commonwealth buildings and classicism became the style of choice for Commonwealth buildings during Murdoch's time. Its dignified conservatism was thought appropriate for major public buildings. The Former Mail Exchange is of historical significance as an important reminder of the development of the Australian mail service in the early decades of the twentieth century.

Commonwealth Government Offices (This place cannot be included in the VHR because it is in Commonwealth

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ownership)

The Commonwealth Offices building at 4 Treasury Place, Melbourne was designed by Australia's first Commonwealth Government Architect, John Smith Murdoch and built between 1912 and 1914. It is an outstanding example of Edwardian Baroque design in Victoria. The Commonwealth Offices building was the first office building constructed by the Commonwealth, and was initially occupied by the Prime Minister's office, the Attorney General, the Treasurer's Department and the Post Master General. It has been used as the Melbourne offices of the Prime Minister and Cabinet and the Governor General since 1912. The building has a close association with the foundation of the Commonwealth of Australia, and particularly as a physical legacy as the primary home of the Commonwealth Government until the establishment of Canberra in 1927. With the intention to store gold reserve and bank notes in a Strong Room in the basement, the floors and structure of the building were constructed in reinforced concrete for fire protection. This was an early application of this type of construction.

### Comparison summary

Together with the Former Mail Exchange Building and the Commonwealth Government Offices, the Former Commonwealth Note and Stamp Printing Department is one of a very small number of buildings constructed in Victoria for a specific government purpose when Melbourne was the seat of the Commonwealth Government. These buildings represent the significant duties which they were designed to perform and are an important legacy in understanding the development of Australia as a new nation.

### Statement of Significance

What is significant?

The Former Commonwealth Note and Stamp Printing Department building, including all architectural elements, a reinforced concrete frame and load bearing floors, and remnant fencing, located on a block bounded by Victoria Parade, and Young, Little Victoria and Napier Streets. The elements of the late twentieth century/early twenty-first century exterior and interior refurbishment are not of significance.

#### *History Summary*

Between Federation in 1901 and the establishment of Parliament in Canberra in 1927, Melbourne was the seat of the Commonwealth Government. Administration of important government processes including the design, manufacture and issuing of postage stamps, bank notes and government security products took place in Melbourne. The Note and Stamp Printing departments initially operated from the Queens Warehouse (VHR H1211), but these premises were considered inadequate and in 1919, the Government acquired a property on Victoria Parade with the intention of establishing new premises. After consideration of Sydney and Canberra as alternative locations, the Victoria Parade site was regarded as the most suitable, and designs were prepared by Commonwealth Architect, John Smith Murdoch. However, when the Commonwealth Bank took over responsibility for the issue of bank notes in 1920, Murdoch's designs were replaced with those prepared by John Kirkpatrick, the Bank's official architect. Kirkpatrick's design was constructed by 1924, and construction of a new wing to the design of Commonwealth Chief Architect, E H Henderson began in 1930. The Victoria Parade premises saw many changes in production and technology, including the change to decimal currency in 1966, which affected both notes and stamps, and research into polymer bank notes in the 1970s. On 19 October 1981, the Victoria Parade premises were closed and operations were relocated to Craigieburn where notes continue to be printed. The Victoria Parade site was purchased by the Australian Catholic University in 1998 and has undergone extensive alterations to operate as the University's Melbourne campus.

#### *Description Summary*

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HERITAGE CITATION REPORT

The Former Commonwealth Note and Stamp Printing Department is an L shaped building contained within a block bounded by Victoria Parade, and Young, Little Victoria and Napier Streets. The building was completed in stages, which is evident in the design. A carpark is located in the south-eastern corner of the site.

The earliest building faces Victoria Parade and is six storeys high with a symmetrical front elevation comprising large plate glass windows to the three centre bays, flanked by end bays each containing three narrow windows. The two lower levels are partially enclosed by a modern glass and metal framed entrance ramp and a modern glass enclosed staircase is located on the eastern wall.

The 1930s wing is located along Little Victoria Street at the rear of the site. The architectural detailing is similar to the earlier building, but more simplistic in design and form. A modern glass addition encloses most of the southern elevation. Internally, the buildings have been substantially altered, although the structure of the building, including external walls, reinforced concrete columns and load bearing floors is still evident.

There is currently no Registered Aboriginal Party or Registered Native Title Body Corporate for the subject land.

How is it significant?

The Former Commonwealth Note and Stamp Printing Department is of historical significance to the State of Victoria. It satisfies the following criterion for inclusion in the Victorian Heritage Register:

**Criterion A**

Importance to the course, or pattern, of Victoria's cultural history.

**Criterion B**

Possession of uncommon, rare or endangered aspects of Victoria's cultural history.

Why is it significant?

The Former Commonwealth Note and Stamp Printing Department is significant at the State level for the following reasons:

The Former Commonwealth Note and Stamp Printing Department is historically significant as the place where all Commonwealth secure products, including stamps and bank notes for Australia and its overseas territories were designed, printed and issued from 1924. It was designed and constructed when Melbourne was the seat of the Commonwealth Government and produced stamps and bank notes until 1981. The Former Commonwealth Note and Stamp Printing Department is also historically significant for its association with the Commonwealth Bank of Australia which was established in 1911 by the Commonwealth Government and was responsible for the issue of bank notes from 1920. [Criterion A]

The Former Commonwealth Note and Stamp Printing Department is historically significant as one of a suite of buildings constructed during the important period when Melbourne was the seat of government from Federation in 1901, to 1927 when Parliament was established in Canberra. Other buildings constructed during this period include the Federal Court of Australia (VHR H1476), the Former Mail Exchange (VHR H0881), the Commonwealth Offices building (which cannot be included in the VHR as it remains in Commonwealth ownership) and the Commonwealth Clothing Factory (now demolished). These buildings were constructed to perform specific Commonwealth duties and as symbols of the new nation, were designed to focus on modernity, efficiency and innovation. [Criterion A]

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The Former Commonwealth Note and Stamp Printing Department is rare as a purpose built building for the design, manufacture and issue of banknotes, stamps and other secure government products for use in Australia and its territories, during the comparably short period when Melbourne was the seat of the Commonwealth Government (1901-1927). The place is rare as one of only three places in Victoria, indeed in Australia, where Federal Government note printing and issue took place. The other two are the Queens Warehouse (VHR H1211) and the existing Craigieburn premises in use since 1981. [Criterion B]

**Assessment Against Criteria**

The Former Commonwealth Note and Stamp Printing Department is of historical significance to the State of Victoria. It satisfies the following criterion for inclusion in the Victorian Heritage Register:

**Criterion A**

Importance to the course, or pattern, of Victoria's cultural history.

**Criterion B**

Possession of uncommon, rare or endangered aspects of Victoria's cultural history.

**Recommendations**

<b>External Paint Controls</b>	-
<b>Internal Alteration Controls</b>	-
<b>Tree Controls</b>	-
<b>Fences &amp; Outbuildings</b>	-
<b>Prohibited Uses May Be Permitted</b>	-
<b>Incorporated Plan</b>	-
<b>Aboriginal Heritage Place</b>	-

This information is provided for guidance only and does not supersede official documents, particularly the planning scheme. Planning controls should be verified by checking the relevant municipal planning scheme.

## 4.12 Possible ESD Principles

ACU promotes a holistic view of sustainability and embraces the need to be a leader, a good neighbour and a global citizen. The following principles summarise the way that ACU and their project team will progress the projects within the Development Plan.

### PURSUING THE COMMON GOOD

Part of ACU's mission is to pursue the common good. Within the context of this Development Plan, this is translated as the following:

- Demonstrating environmental stewardship through the application of recognised frameworks, such as the City of Yarra's Built Environment Sustainability Scorecard (BESS) and Green Star.
- Being a place-maker by providing spaces for community use
- Protecting heritage value through considered and sensitive design

### ENHANCING USER EXPERIENCE

The success of education buildings relies in part on the user experience they provide. In this case, users includes students, academic and administrative staff, and the community. Research has shown that our local environment can influence our health, wellbeing and productivity. As such, the Development Plan will enhance the user experience through:

- High quality daylight and artificial lighting
- Good indoor air quality
- Good acoustics
- High levels of thermal comfort
- Desirable external spaces and microclimates (wind, rain, sun, heat island etc)
- Opportunities to connect to nature
- Cyclist facilities

### PROGRESSING WITH CONFIDENCE

We live in an uncertain world, with a changing climate, increasing rate of change in pedagogy and student needs, and rising utility prices. Through design and project processes such as those listed below, the projects within the Development Plan will give ACU, the City of Yarra and surrounding community confidence.

- Design for future climate
- Flexible and adaptable buildings and spaces
- Efficient consumption, onsite generation of energy, and capture and reuse of water
- Quality control in design, construction and operation (e.g. planning and building code compliance, as-built green star rating, commissioning, tuning, metering and monitoring)

### SAVING MONEY

Sustainability initiatives provide an opportunity for ACU to save money upfront and in the long term. The projects within the Development Plan will be vigilant for opportunities to reduce costs, enabling ACU to focus its spending in higher value areas.

- Energy efficiency leading to smaller plant (chiller, substation etc) size
- Durable materials and finishes
- Appropriate access for maintenance
- Efficient consumption, onsite generation of energy, and capture and reuse of water

BESS CATEGORY	CREDIT	CREDIT SUMMARY	DEVELOPMENT PLAN RESPONSE
Management	Pre-application meeting		To be part of building design stage.
	Thermal performance modelling	Preliminary Section J glazing assessment undertaken.	To be part of building design stage.
	Building users guide	A building users' guide be produced and issued to occupants.	To be part of building design stage.
Energy	Greenhouse Gas Emissions	Reduction in emissions compared to a code compliant reference building	To be part of building design stage. The development plan notes that appropriate solar controls, such as external shading and screens, expect to be added to the façade as part of design optimisation.
	Peak Demand	Has the instantaneous (peak-hour) demand been reduced by >20%	As for Greenhouse Gas Emissions above.
	Energy consumption (Electricity and Gas)	Is the annual electricity consumption >10% below the benchmark Is the annual gas consumption >10% below the benchmark?	As for Greenhouse Gas Emissions above.
	Car Park Ventilation	If you have a basement carpark, is it either: (a) fully naturally ventilated (no mechanical ventilation system), or (b) use Carbon Monoxide monitoring to control the operation and speed of the ventilation fans?	To be part of building design stage. Car park ventilation will use carbon monoxide control.
	Domestic Hot Water	Does the hot water system use >10% less energy (gas and electricity) than the reference case?	To be part of building design stage.
	External lighting	The external lighting is controlled by a motion detector.	To be part of building design stage.
	Internal lighting	The maximum illumination power density (W/m <sup>2</sup> ) in at least 90% of the relevant Building Class is at least 20% lower than required by Table J6.2a of the NCC BCA (2013) Volume 1 Section J (Class 2 to 9).	To be part of building design stage. All external lighting to be controlled by PE sensors and time clocks.
Water	Rainwater capture and reuse.	Installation of rainwater tanks and reticulation of captured rainwater for reuse (e.g. toilet flushing, irrigation).	To be part of building design stage. Space for rain water storage has been allowed for within the basement as part of the building massing.
	Fixtures and fittings	WELS rating of water fixtures, fittings and connections.	To be part of building design stage.
	Water efficient landscaping	Water efficient landscaping is installed.	To be part of building design stage.
	Fire test system water	Measures have been taken to reduce water consumption when testing fire safety systems.	To be part of building design stage. Space for capture and reuse of fire system test water has been allowed for within the basement as part of the building massing.
Stormwater	Stormwater treatment	Best practice stormwater management is demonstrated.	As for Rainwater capture and reuse above. The overflow from the rainwater tank will have appropriate treatment to improve the quality of discharged stormwater quality.
IEQ	Daylight access - non-residential	Percentage of the nominated area has at least 2% daylight factor.	To be part of the building design stage.

BESS CATEGORY	CREDIT	CREDIT SUMMARY	DEVELOPMENT PLAN RESPONSE
Transport	Bicycle parking – non-residential	The planning scheme requirements for employee bicycle parking been exceeded by at least 50%.	Refer to section 4.6 for proposed bicycle parking facilities.
	Bicycle parking – non-residential visitor	The planning scheme requirements for visitor bicycle parking been exceeded by at least 50%.	Refer to section 4.6 for proposed bicycle parking facilities.
	End of trip facilities - non-residential	End of trip facilities provided with: 1 shower for the first 5 bicycle spaces plus 1 for each 10 bicycles spaces thereafter. Changing facilities adjacent to showers. One secure locker per required bicycle space in the vicinity of the changing / shower facilities.	End of trip facilities will be provided across the campus, the detail will follow at the planning permit stage.
	Electric vehicle infrastructure	Facilities for the charging of electric vehicles are provided.	Refer to Integrated Transport and Access Plan in appendices
	Car share scheme	A formal car sharing scheme has been integrated into the development.	Refer to Integrated Transport and Access Plan in appendices
	Motorbikes/mopeds	A minimum of 5% of vehicle parking spaces are designed and labelled for motorbikes (must be at least five motorbike space).	Refer to Integrated Transport and Access Plan in appendices
Waste	Construction waste management	There is a commitment to re-use and recycle construction & demolition waste.	To be part of building design stage.
	Building re-use	If the development is on a site that has been previously developed, at least 30% of the existing building has been re-used.	Existing building is being retained in full.
	Food & garden waste	Facilities are provided for on-site management of food and garden waste.	To be considered as part of building design stage.
	Convenience of recycling	The recycling facilities are at least as convenient for occupants as facilities for general waste.	Spatial allowance has been considered as part of the Development Plan
Urban Ecology	Communal spaces	There is at least the following amount of common space (m2): 1m <sup>2</sup> for each of the first 50 occupants, an additional 0.5m <sup>2</sup> for each occupant between 51 and 250, and an additional 0.25m <sup>2</sup> for each occupant above 251.	To be part of building design stage.
	Vegetation	Percentage of the ground area of the site that is covered with vegetation.	Refer to landscape master plan
	Green roof	The development includes outdoor terraces .	To be considered as part of the building design stage.
	Green wall or façade	The development incorporates a green wall or façade.	To be considered as part of building design stage.
	Food production - non-residential	There is at least 0.25m <sup>2</sup> of space per occupant dedicated to food production.	To be considered as part of building design stage.

## 5.0 CONCLUSION

The Development Plan has been developed in line with ACUs Vision for the St Patrick's Campus and will guide key developments within the Development Plan Overlay area for the coming decade.

The Development Plan will guide development of the parts of ACU subject to the Development Plan Overlay in accordance with the Yarra Planning Scheme.

Through the Development Plan the projects will improve the public realm through providing new landscaping opportunities, open space and pedestrian connectivity through the campus. The new building projects will continue ACUs tradition of providing excellent teaching and learning spaces.



## APPENDICES

**Integrated Transport and Access Plan - Cardno**

**Environmental Wind Assessment - 115B Victoria Parade  
& Young Street Carpark - ARUP**

**Arboricultural Impact Assessment Replot - Simone Howe  
of John Patrick Landscape Architects**



# Integrated Transport and Access Plan

Australian Catholic University, St. Patricks Campus, Fitzroy



Prepared for Australian Catholic University  
1 December 2017

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## Appendices

- Appendix A** Concept Functional Layout Plans
- Appendix B** Bicycle Parking Products



# 1 Introduction

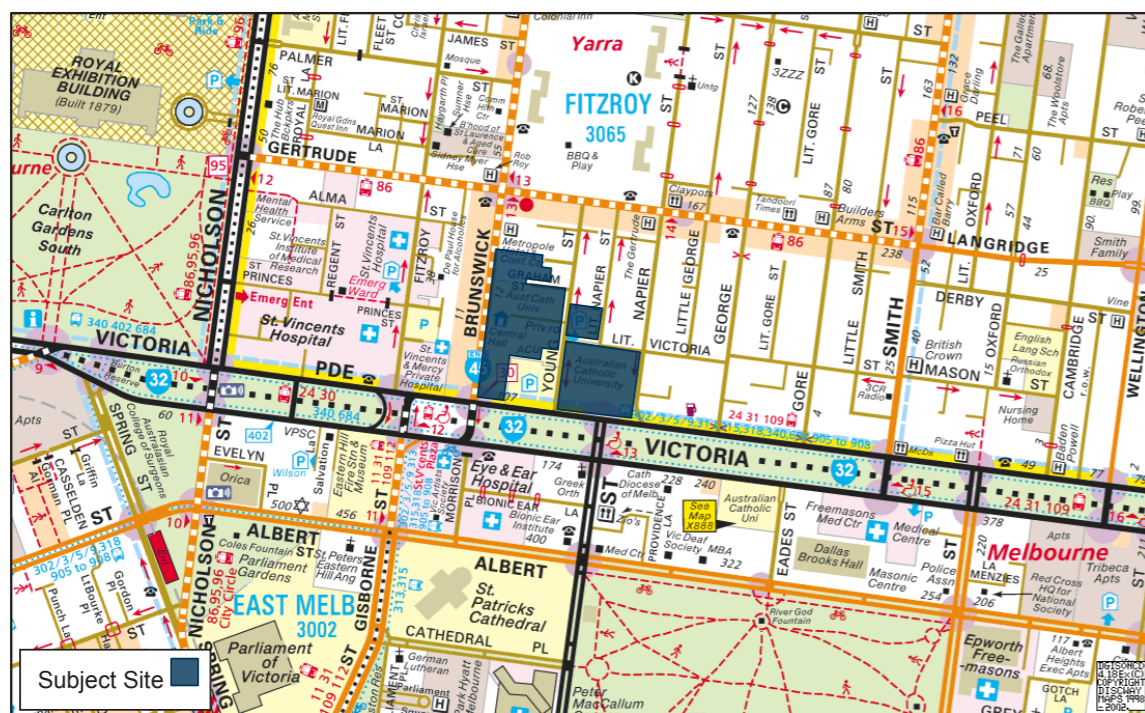
## 1.1 Background

A Development Plan is being prepared for the Australian Catholic University (ACU) St Patrick's Campus to deliver a mixed use development to accommodate the planned growth in students, teachers and research activities, improve the quality of teaching and learning environments and improve the pedestrian and public environments for students and the wider community.

To accompany the Development Plan, Cardno was engaged by Australian Catholic University to prepare an Integrated Transport and Access Plan (ITAP). The subject site comprises a number of buildings generally located to the north of Victoria Street between Brunswick Street and Napier Street, as shown in Figure 1-1.

The site is located within the suburb of Fitzroy and is situated approximately 500 metres to the east of the Melbourne Central Activities District (CAD).

Figure 1-1 Site Location



Schedule 2 to the Development Plan Overlay (DPO) (or Schedule 2 to Clause 43.04 of the Yarra Planning Scheme) applies to the subject site and provides criteria for any future use and development of the land at 115 Victoria Parade and 20-23 Brunswick Street, Fitzroy.

Schedule 2 to the DPO is dated 19 January 2006 and provides the following requirements for the Development Plan which are considered relevant to transport:

- > The development plan must show:
  - The number, location, dimensions and layout of all car parks and access ways to and from them;
  - A management plan for the operation and maintenance of the car park areas;
  - The location and dimensions of all bicycle, vehicle and pedestrian ways;
  - A traffic management plan which must show any traffic management and traffic control works considered necessary in adjoining and nearby roads when the development is completed; and
  - The means of vehicular and pedestrian ingress to and egress from the land.

## 1.2 Purpose

The purpose of this report is to provide an integrated transport approach to any future use and development at ACU.

This report considers all modes of transport, with a view to updating and incorporating a more integrated transport approach to the transport related requirements in Schedule 2 to the DPO.

## 2 Existing Conditions

### 2.1 Population and Employment

ACU currently operates with 10,000 effective full time (EFT) students and approximately 800 staff.

### 2.2 Mode Share and Journey to Work

Relevant journey to work and journey to education data has been sourced from the 2011 ABS Census and the Victorian Integrated Survey of Travel and Activity (VISTA) which is an ongoing survey of travel and activity that helps the government make better transport and land-use planning decisions.

Table 2-1 shows journey to work data based on work destinations for the suburb of Fitzroy from the 2011 ABS Census and for the City of Yarra from the VISTA 09 surveys.

**Table 2-1 Journey to Work Data Based on Work Destination**

Travel Mode	2011 ABS Census Suburb of Fitzroy	VISTA 09 City of Yarra
Car Based	53%	57%
Public Transport	32%	30%
Bicycle/Walking	15%	13%

Table 2-2 shows journey to education data based on education destinations for RMIT in Melbourne and the Kangan Institute of TAFE in Cremorne. The results are noticeably different, with significantly higher public transport use at RMIT and higher car and bicycle/walking use at Kangan Institute of TAFE.

**Table 2-2 Journey to Education Data Based on Education Destination**

Travel Mode	VISTA09 RMIT, Melbourne City of Melbourne	VISTA 09 Kangan Institute of TAFE, Cremorne City of Yarra
Car Based	10%	37%
Public Transport	67%	30%
Bicycle/Walking	23%	33%

The site is more similarly located to RMIT with respect to its public transport accessibility and proximity to the CAD, however on-site parking at ACU is more readily available.

In this respect, it is anticipated that car use would be in between the results for RMIT and Kangan Institute of TAFE.

This is confirmed by results from a questionnaire survey that was distributed by ACU staff in May and August 2009.

Approximately 800 surveys were completed and returned, with the results of the survey summarised in Table 2-3, Table 2-4 and Table 2-5 overleaf.

The data collected by the University reveals that a large contingent of the existing student and staff population either catch public transport or walk or cycle to the facility.

**Table 2-3 Student Travel Modes**

Travel Mode	Number	Percentage
Car (Driver)	122	19%
Car (Passenger)	38	6%
Public Transport	445	68%
Walked	31	5%
Cycled	17	2%
Total	653	100%

**Table 2-4 Staff Travel Modes**

Travel Mode	Number	Percentage
Car (Driver)	62	34%
Car (Passenger)	12	7%
Public Transport	80	44%
Walked	15	8%
Cycled	8	4%
Other	3	2%
Total	180	100%

**Table 2-5 University Travel Modes**

Travel Mode	Number	Percentage
Car (Driver)	184	22%
Car (Passenger)	50	6%
Public Transport	525	63%
Walked	46	6%
Cycled	25	3%
Other	3	0%
Total	833	100%

### 2.3 Pedestrian Network

The existing pedestrian network in the vicinity of the site includes footpaths on both sides of Brunswick Street, Young Street and Napier Street providing access towards Gertrude Street and Victoria Street to the north and south respectively, both of which are also provided with footpaths along both sides.

Victoria Street is also provided with footpaths along both sides of the central median.

Pedestrian crossings are provided at all signalised intersections, including:

- > Brunswick Street / Gertrude Street;
- > Brunswick Street / Victoria Street / Gisborne Street; and
- > Victoria Street / Lansdowne Street.

At all other intersections, pedestrian crossings are facilitated by pram ramps.

Tram stops associated with tram routes 11, 30, 86, 109 and 120 are readily accessible from the subject site via the pedestrian network, whilst Parliament Train Station is also readily accessible via footpaths along both sides of Gisborne Street.

The pedestrian network in the vicinity of the site also provides access towards neighbouring suburbs, including Collingwood, Fitzroy North, Carlton, East Melbourne and the Central Activities District (CAD).

Key pedestrian links in the vicinity of the site is shown graphically in Figure 2-1, whilst Figure 2-2 shows the pedestrian links within the campus and their connections to the key pedestrian links.

Figure 2-1 Key Pedestrian Links

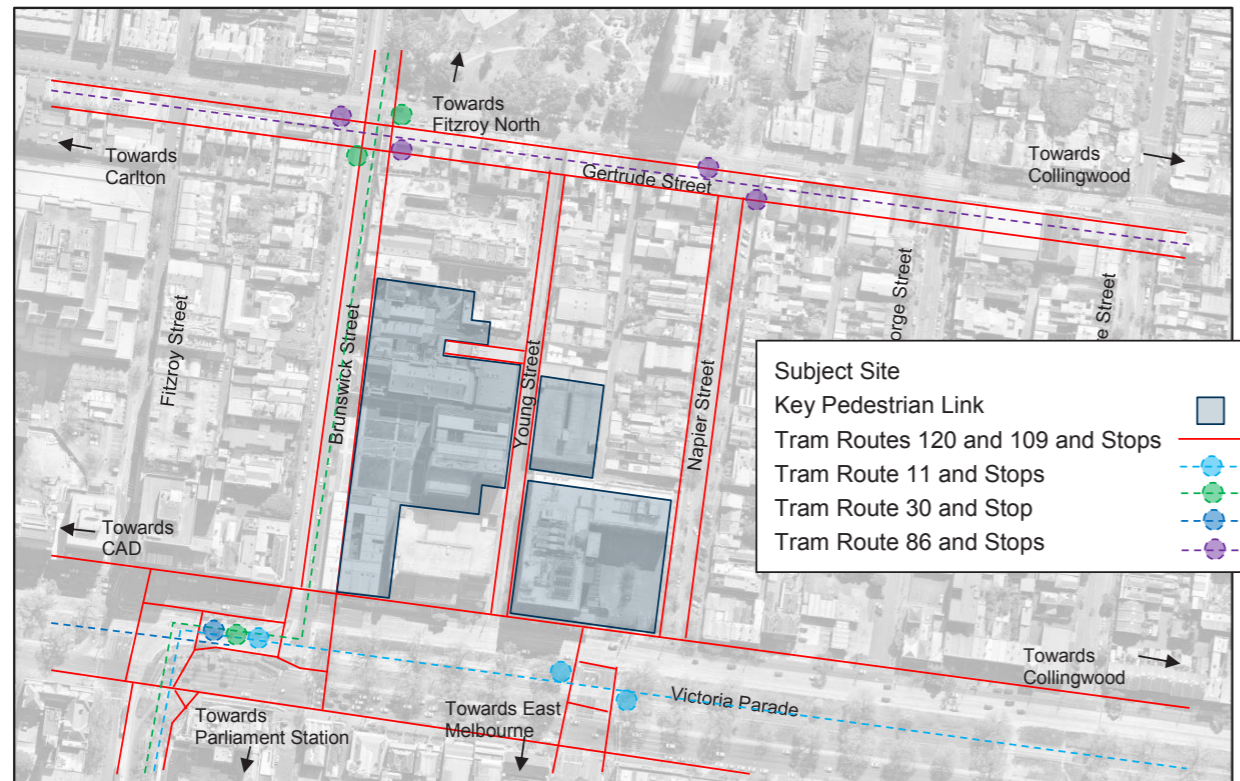
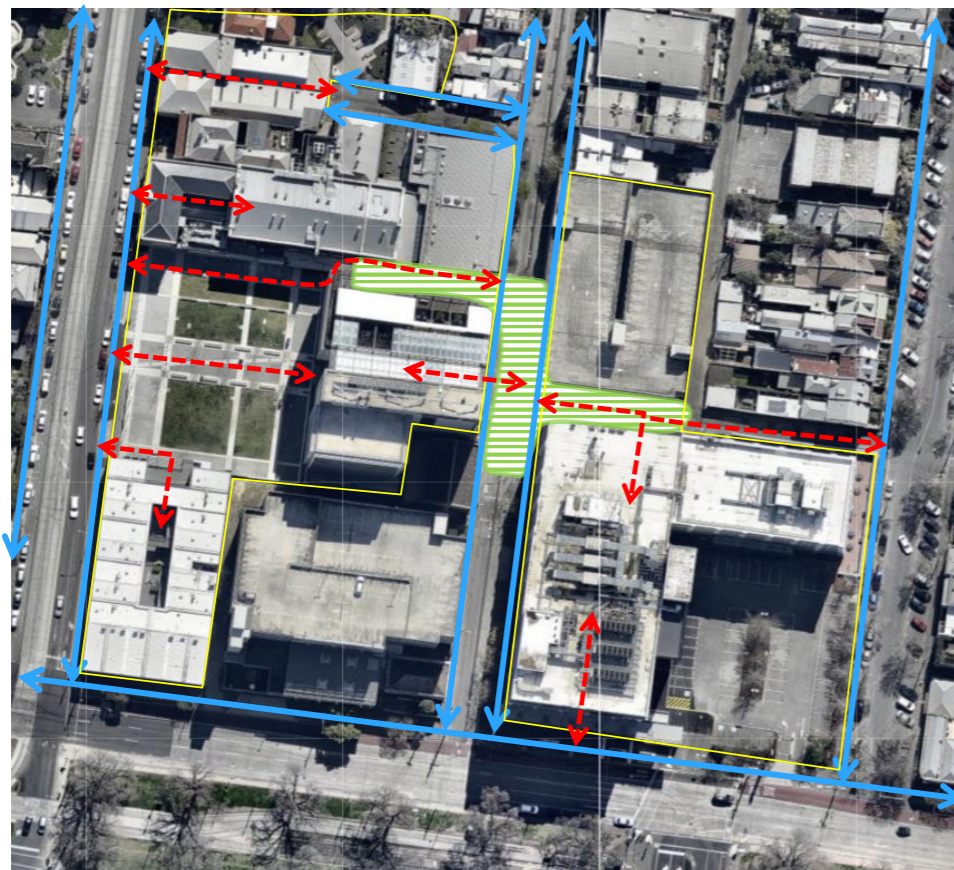


Figure 2-2 Campus Pedestrian Links



## 2.4 Bicycle Network

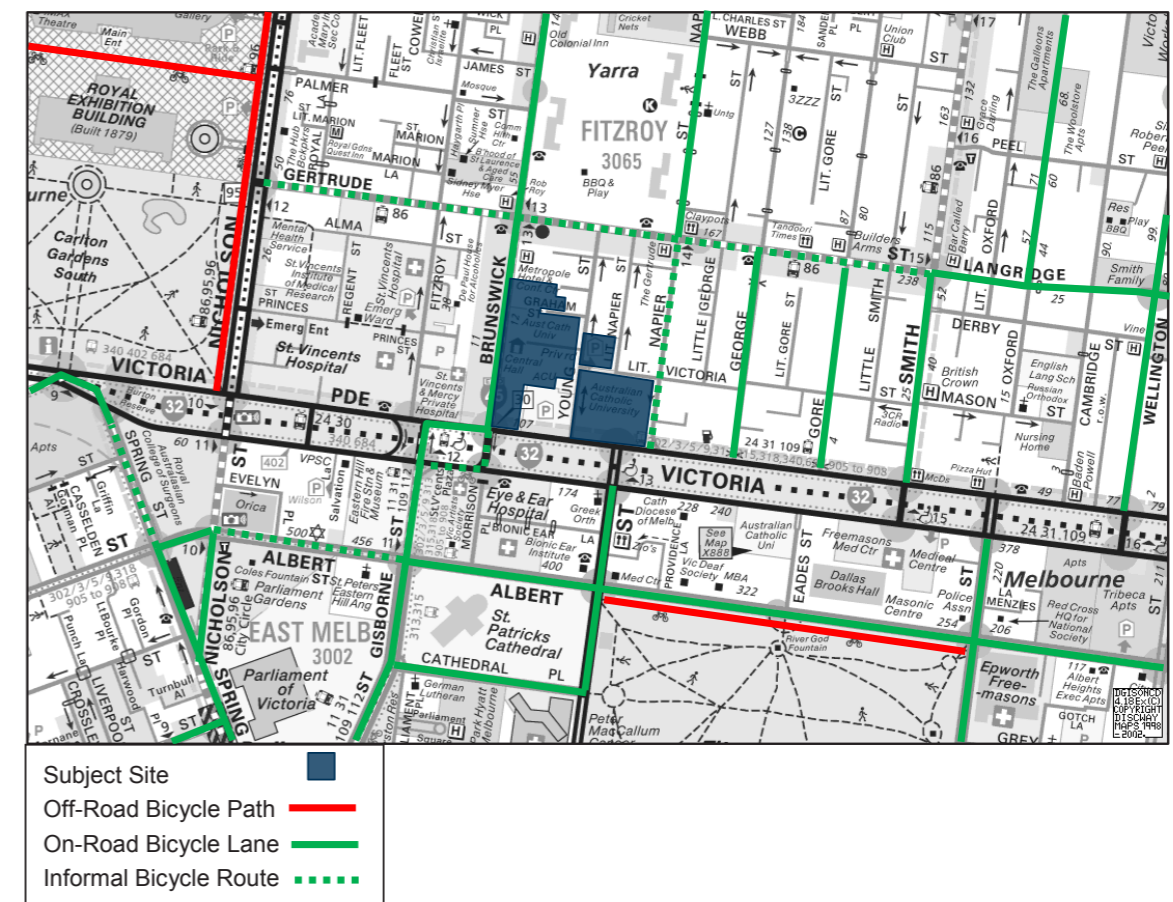
The subject site is well serviced by Melbourne's extensive bicycle network, with numerous off-road paths, on-road bicycle lanes and informal bicycle routes (generally designated by painted bicycle symbols and the provision of bicycle storage boxes at signalised intersections).

As shown in Figure 2-3, on-road bicycle lanes on Brunswick Street provide access towards Fitzroy North to the north and towards the CAD to the south via Gisborne Street.

The informal route along Gertrude Street provides access towards Collingwood to the east and towards Carlton to the west via the off-road path between the Royal Exhibition Building and the Melbourne Museum.

Additional on-road bicycle lanes along key streets, including Napier Street, Albert Street, Clarendon Street and Wellington Street provide further connections to surrounding suburbs, including East Melbourne and Richmond.

Figure 2-3 Existing Bicycle Network



It is noted that to improve safety for cyclists that traverse between Napier Street and Lansdowne Street, new traffic signals have been installed on the departure side (eastbound) of the Victoria Parade / Lansdowne Street intersection.

Council have also recently installed bike share pods along Napier Street, proximate to its intersection with Victoria Parade, and we understand that they also plan to install an additional bike share pod at the Fitzroy Town Hall.

## 2.5 Public Transport

The subject site has excellent access to public transport, with all train lines accessible via Parliament Station approximately 550 metres walking distance from the subject site and numerous bus and tram routes operating either along the site frontage or in close proximity to the subject site.

The St Vincents Plaza / Victoria Parade tram stop and the Australian Catholic University / Victoria Parade bus stop are located directly adjacent to the site and provide access to a total of 4 tram routes and 11 bus routes. Parliament Station is also accessible via tram routes 11, 12 and 109 which are serviced by the abovementioned St Vincents Plaza / Victoria Parade tram stop.

Tram lines along Victoria Street, Nicholson Street and Gisborne Street are separated from the traffic lanes, whilst the tram lines along Gertrude Street, Brunswick Street and Smith Street are shared with a traffic lane.

Notably, bus lanes have recently been installed along Victoria Parade to provide bus priority through this corridor. It is also understood that plans are being progressed to upgrade the Brunswick Street tram corridor, with the works including the provision of DDA compliant stops.

The public transport services in the vicinity of the site are summarised in Table 2-6 and illustrated graphically in Figure 2-4.

Figure 2-4 Public Transport Map

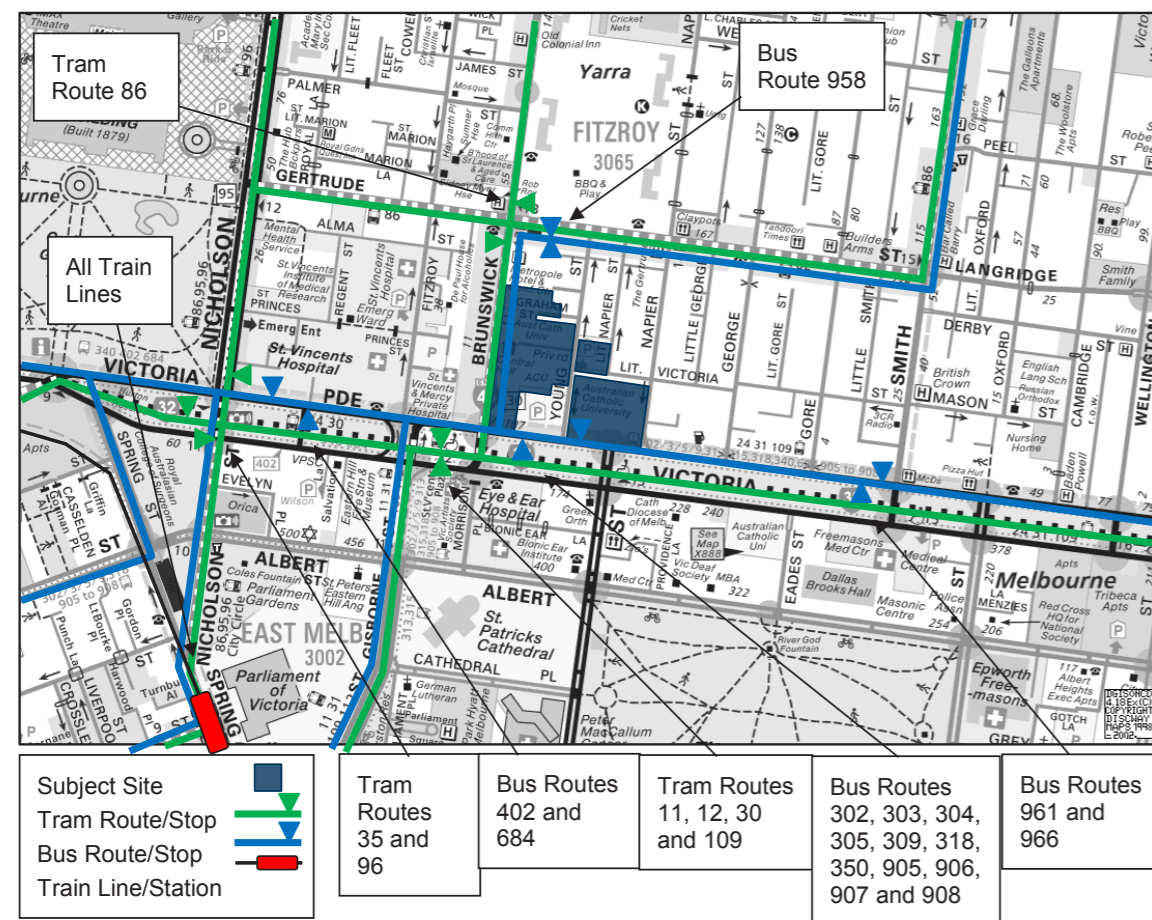
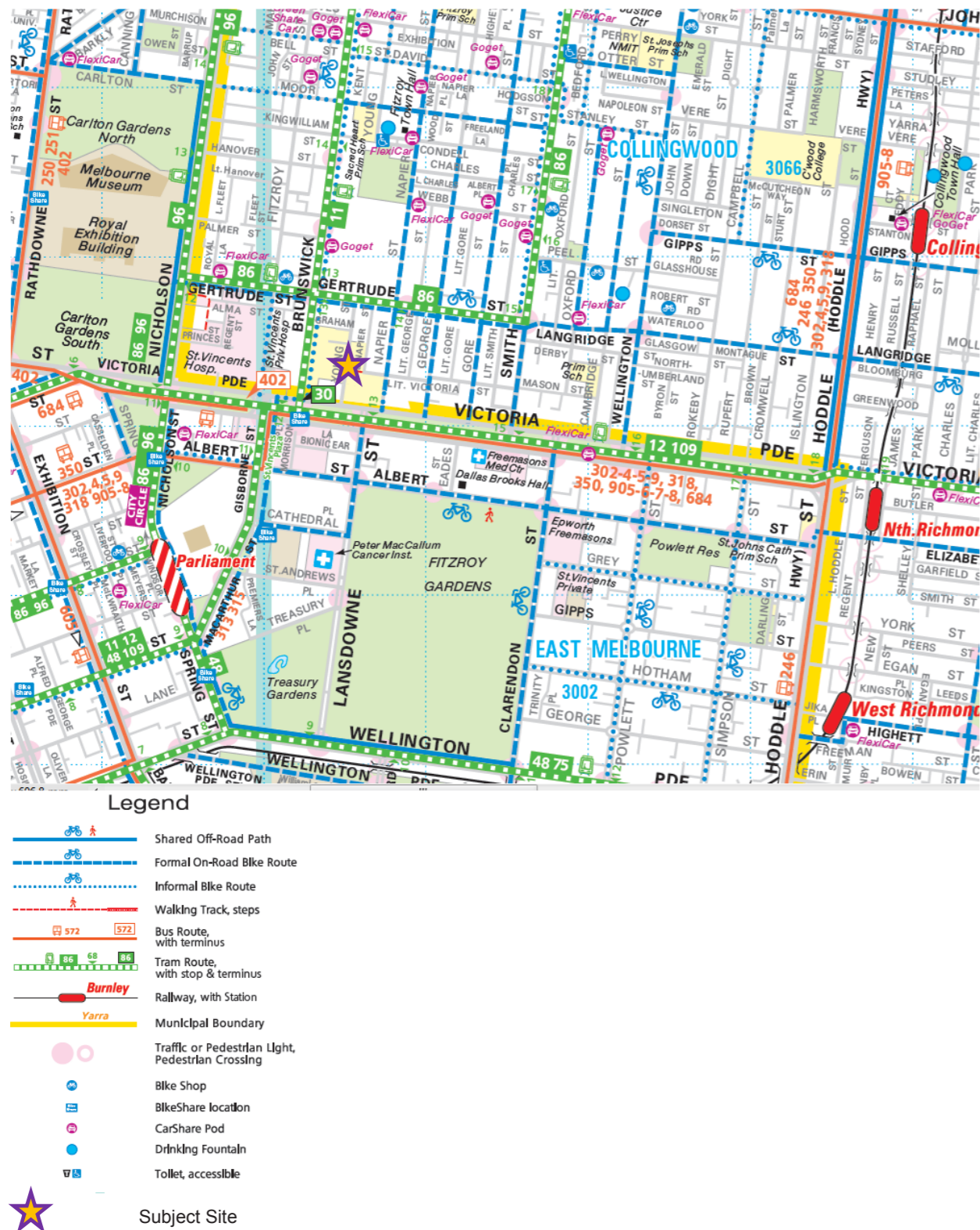


Table 2-6 Public Transport Services

Service	Route No's	Route	Nearest Stop	Approximate Walking Distance		
Tram	11	West Preston – Victoria Harbour Docklands	St Vincents Plaza/Victoria Pde	Adjacent Site		
	12	Victoria Gardens – St Kilda				
	30	St Vincents Plaza – Docklands via La Trobe St				
	109	Box Hill – Port Melbourne	Brunswick St/Gertrude St	100 m		
	86	Bundoora RMIT – Waterfront City Docklands				
	35	City Circle (Free Tourist Tram)				
Bus	96	East Brunswick – St Kilda Beach	Australian Catholic University / Victoria Pde	Adjacent Site		
	302	Box Hill via Belmore Rd and Eastern Fwy				
	303	City – Ringwood North via Park Rd				
	304	City – Doncaster SC via Belmore Rd and Eastern Fwy				
	305	City – The Pines SC via Eastern Fwy				
	309	City – Donvale via Reynolds Rd				
	318	City – Deep Creek				
	350	City – La Trobe University via Eastern Fwy				
	905	City – The Pines SC via Eastern Fwy, Templestowe (SMARTBUS Service)				
	906	City – Warrandyte via The Pines SC (SMARTBUS Service)				
	907	City – Mitcham via Doncaster Road (SMARTBUS Service)				
	908	City – The Pines SC via Eastern Fwy (SMARTBUS Service)				
	402	Footscray – East Melbourne via North Melbourne			St Vincents Hospital / Victoria Pde	200 m
	684	Eildon – Melbourne via Lilydale Station				
958	NightRider – City – Eltham via Smith Street, Darebin Road	Brunswick St / Gertrude St	100 m			
961	NightRider – City – Doncaster via Eastern Freeway, James Street	Smith St / Victoria Pde	300 m			
966	NightRider – City – Croydon – Lilydale via Victoria Street, Maroondah Highway					
Train	All Train Lines		Parliament Station	550 m		

A consolidated public transport and bicycle network plan is provided as Figure 2-5 overleaf.

Figure 2-5 Public Transport and Bicycle Network



## 2.6 Traffic Network

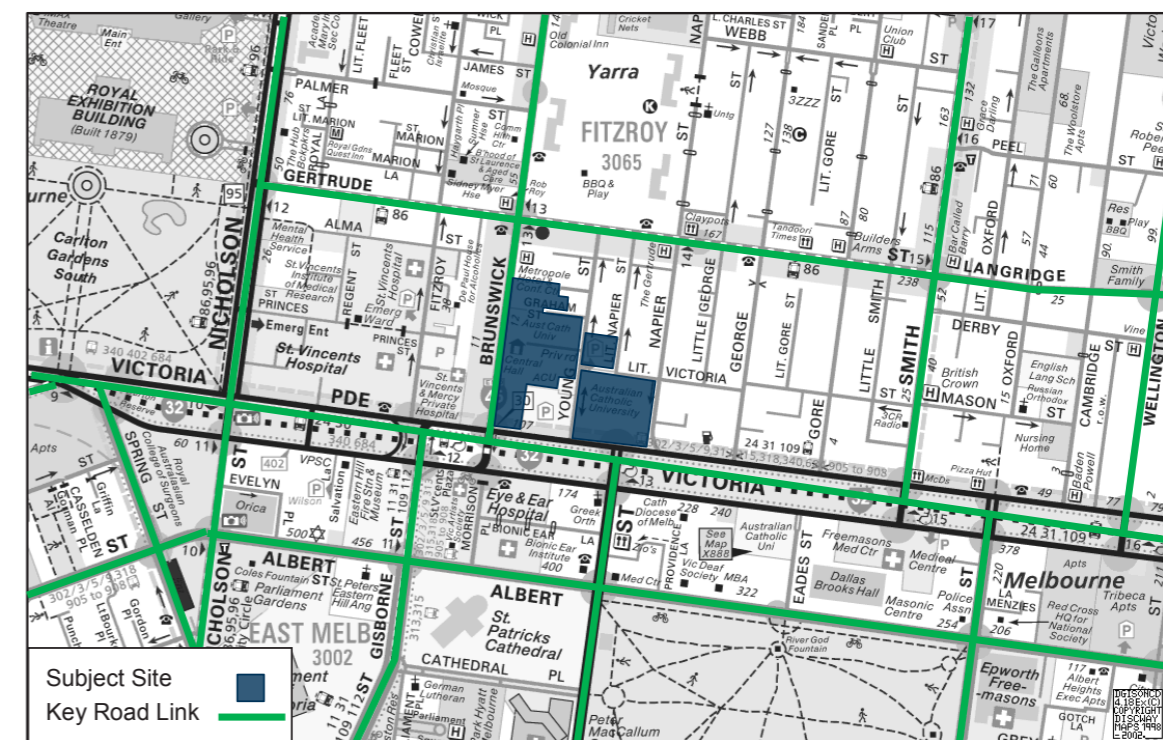
### 2.6.1 General

The subject site is primarily accessible via Victoria Parade and Young Street. Various additional crossovers and roller doors provide secondary access, generally for loading and other authorised vehicles.

The key road links in the vicinity of the site are shown in Figure 2-6, providing access to surrounding suburbs including Collingwood and Richmond to the east, Fitzroy North to the north, Carlton and the CAD to the west and East Melbourne to the south.

Both the Eastern Freeway and CityLink are readily accessible from Hoddle Street via Victoria Parade. A detailed review of the streets in the immediate vicinity of the site is provided in the following sections.

Figure 2-6 Key Road Links in the Vicinity of the Site



### 2.6.2 Brunswick Street

Brunswick Street is generally aligned in a north-south direction from St Georges Road in Fitzroy North to Victoria Parade in Fitzroy. North of Alexandra Parade, Brunswick Street is a Declared Main Road. ACU is located on the east side of Brunswick Street.

Adjacent the subject site, Brunswick Street operates with two lanes in each direction, with the central lanes shared between tram lines and traffic and the kerbside lanes generally operate as shared parking and bicycle lanes, with the exception of between 7:00am – 9:00am Monday to Friday when 'No Stopping' restrictions apply on the eastern kerb.

Both the Brunswick Street / Gertrude Street and Brunswick Street / Victoria Parade intersections are controlled by traffic signals.

In the vicinity of the site, Brunswick Street operates with a posted speed limit of 40 kilometres per hour. A view of Brunswick Street in the vicinity of the site is provided in Figure 2-7.

Figure 2-7 Cross Section of Brunswick Street in the Vicinity of the Site



### 2.6.3 Young Street

Young Street is a local road aligned in a north-south direction from Gertrude Street to Victoria Parade. Young Street primarily serves an access function, with speed humps used along its length for traffic calming purposes. ACU is located on both the east and west sides of Young Street, with vehicle access provided to an ACU car park and an ACU private road named Duke Street.

Along its length, Young Street operates with a varying cross section. Between Victoria Parade and the entrance to the ACU car park, Young Street operates with a single traffic lane in each direction. This section of Young Street operates with a posted speed limit of 40 kilometres per hour. Beyond this point, Young Street operates as one way, northbound only.

Between Little Victoria Street and Duke Street, Young Street operates as a shared zone, within a carriageway which allows for a single lane of northbound traffic. As required for shared zones, this section of Young Street operates with a speed limit of 10 kilometres per hour. There is generally no provision for kerbside parking, with the exception of a single indented parallel disabled car space.

Between Duke Street and Graham Street, Young Street operates with a single northbound traffic lane, with no provision for kerbside parking. North of the shared zone, Young Street operates with a default speed limit of 50 kilometres per hour.

Between Graham Street and Gertrude Street, Young Street allows for a single lane of northbound traffic, with kerbside parallel parking permitted on the west kerb clear of traffic.

The Young Street / Victoria Parade intersection operates as a left in/left out 'Give Way' controlled T-intersection, with priority given to Victoria Parade.

The Young Street / Gertrude Street intersection operates as a 'Stop' controlled T-intersection, with priority given to Gertrude Street and allows for outbound movements out of Young Street only. Right turns are banned between 7:00am – 9:00am Monday to Friday.

The various cross sections of Young Street are shown in Figure 2-8 through to Figure 2-11.

Figure 2-8 Cross Section of Young Street Between Victoria Parade and ACU Car Park Entrance



Figure 2-9 Cross Section of Young Street Between ACU Car Park Entrance and Duke Street



Figure 2-10 Cross Section of Young Street Between Duke Street and Graham Street



Figure 2-11 Cross Section of Young Street Between Graham Street and Gertrude Street



#### 2.6.4 Napier Street

Napier Street is a local road aligned in a north-south direction from Cecil Street to Victoria Parade. Various traffic calming treatments are used along the length of Napier Street, including speed humps and no through roads. ACU is located on the west side of Napier Street. No vehicle access to ACU is provided via Napier Street.

In the vicinity of the site, Napier Street allows for a single lane of traffic in each direction, with angle parking permitted alongside one kerb and parallel parking permitted on the other kerb and a bicycle symbol identifying Napier Street in the vicinity of the site as an informal bicycle route.

The Napier Street / Gertrude Street intersection operates as a 'Stop' controlled cross intersection, with priority given to Gertrude Street. Right turns out of the southern Napier Street approach are not permitted between 7:30am – 9:00am Monday to Friday.

The Napier Street / Victoria Parade intersection is a left out only 'Stop' controlled intersection, with priority given to Victoria Parade. Inbound movements into Napier Street are not permitted.

In the vicinity of the site, Napier Street operates with a posted speed limit of 40 kilometres per hour.

A view of Napier Street in the vicinity of the site is provided in Figure 2-12.

Figure 2-12 Cross Section of Napier Street in the Vicinity of the Site



#### 2.6.5 Victoria Parade

Victoria Parade is a Declared Main Road which extends generally in an east-west direction from Hoddle Street to La Trobe Street. At both ends, Victoria Parade continues as Victoria Street. ACU is located on the north side of Victoria Parade, with access provided to an on-site car park.

In the vicinity of the site, Victoria Parade operates with three traffic lanes and a bus lane in each direction, separated by a wide central median which accommodates tram lines, tram stops and footpaths. Left and right turn deceleration lanes are provided at key intersections.

Along its length, parallel parking is intermittently permitted on both the north and south kerbs and as well as both kerbs of the central median, however in the vicinity of the site, parking is only permitted on the south kerb.

Victoria Parade operates with a posted speed limit of 60 kilometres per hour. A view of Victoria Parade in the vicinity of the site is provided in Figure 2-13.

Figure 2-13 View of Victoria Parade in the Vicinity of the Site



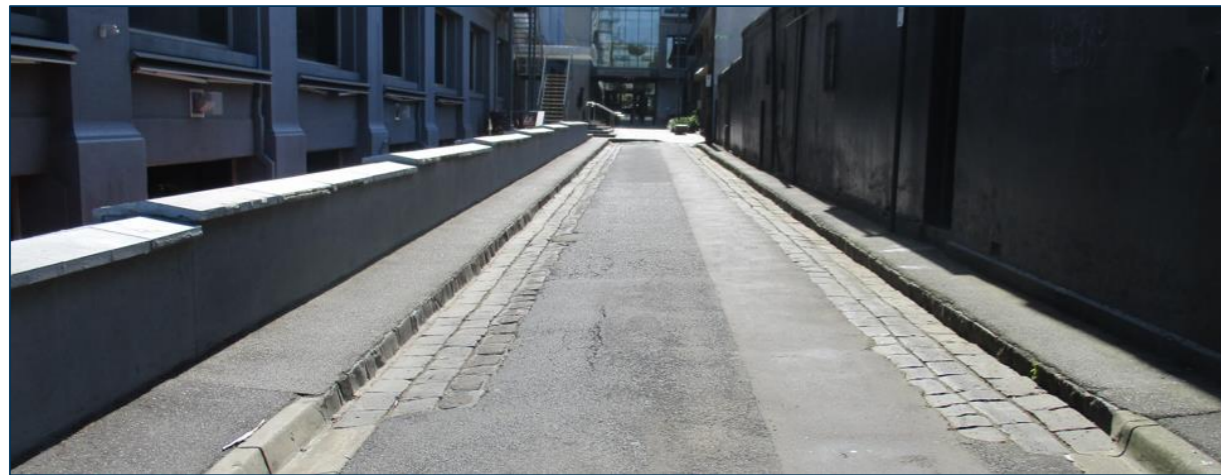
**2.6.6 Little Victoria Street**

Little Victoria Street is a right of way (ROW) which extends in an east-west direction from George Street to Little Napier Street. Little Victoria Street terminates at the eastern boundary of ACU, however does not provide vehicle access to the ACU.

In the vicinity of the site, Little Victoria Street operates as one way westbound only within a single traffic lane and provides access to Little Napier Street which services dwellings fronting Napier Street. Kerbside parking is not permitted.

A view of Little Victoria Street in the vicinity of the site is provided in Figure 2-14.

**Figure 2-14 Cross Section of Little Victoria Street in the Vicinity of the Site**



**2.6.7 Little Napier Street**

Little Napier Street is a right of way (ROW) which extends in a north-south direction from Gertrude Street to Little Victoria Street. Little Napier Street is aligned along part of ACU's eastern boundary, however does not provide vehicle access.

Little Napier Street operates as one way northbound only within a single traffic lane and services dwellings fronting Napier Street.

A view of Little Napier Street is provided in Figure 2-15.

**Figure 2-15 Cross Section of Little Napier Street in the Vicinity of the Site**



**2.6.8 Graham Street**

Graham Street is a local road which extends west from Young Street for approximately 45 metres before terminating. Graham Street extends to the boundary of ACU.

Graham Street operates as two way, however allows for a single direction of travel at any one time. Parallel parking is permitted on the northern kerb, as shown in Figure 2-16.

**Figure 2-16 Cross Section of Graham Street in the Vicinity of the Site**



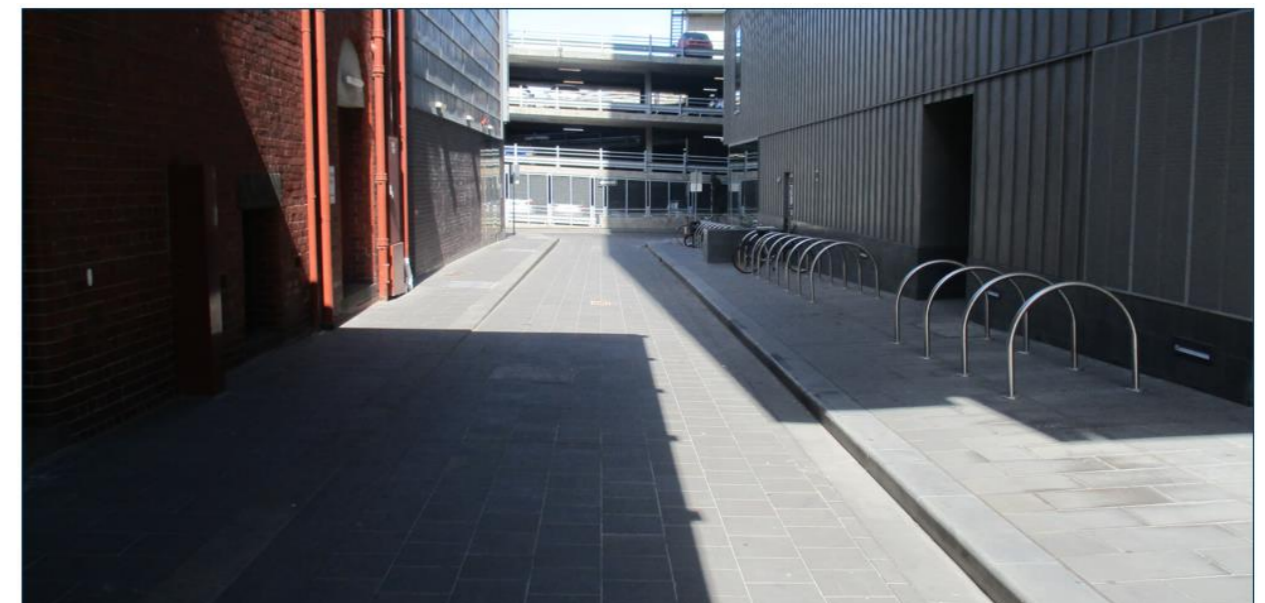
**2.6.9 Duke Street**

Duke Street is a private road within ACU which extends west from Young Street for approximately 40 metres.

Duke Street operates as a shared zone, within a carriageway which allows for a single direction of travel at any one time. As required for shared zones, this section of Young Street operates with a speed limit of 10 kilometres per hour with a speed limit of 10 kilometres per hour.

No entry to Duke Street is permitted with the exception of authorised vehicles. The cross section of Duke Street in the vicinity of the site is provided in Figure 2-17.

**Figure 2-17 Cross Section of Duke Street in the Vicinity of the Site**





## 2.7 Road Network Safety

Casualty accident history for the roads and intersections adjoining the ACU, specifically, roads bound by Victoria Parade to the south, Gertrude Street to the north, Brunswick Street to the west and Napier Street to the east have been sourced from VicRoads CrashStats accident database.

A summary of the accidents in the area defined above for the last available five year period (1 July 2008 to 30 June 2013) are summarised in Figure 2-18.

Figure 2-18 Causality Accident History - 1 July 2008 to 30 June 2013



The CrashStats review indicates that a total of 33 casualty accidents have been reported within the nominated area within the five year period. Table 2-7 provides a broad summary of the accident categories.

Table 2-7 Accident Categories

Accident Type	Number
Involving Bicyclists	16
Involving Motor Cyclists	8
Involving Pedestrian	5
Involving Motorists Only	4
<b>Total</b>	<b>33</b>

## 2.8 Car Parking

The site is located in an area with constrained long term and short term on street parking opportunities with observations revealing that on street parking opportunities in the vicinity of the site are generally ticketed and or marked as permit zones with the limited number of long term (4 hours or greater) parking opportunities observed to be well utilised.

Notwithstanding the above, commercial off-street parking facilities are available and include the onsite parking spaces provided by the University, specifically, a 250 space deck car park accessible via Young Street, and a 50 space at grade car park accessible via Victoria Parade.

The location of these onsite parking areas are illustrated in Figure 2-19.

Figure 2-19 ACU Onsite Car Parking Spaces



### 3 State and Local Policies

#### 3.1 State Policies

##### 3.1.1 Plan Melbourne

"Plan Melbourne 2017-2050 is the metropolitan planning strategy to manage Melbourne's growth and change over the next three decades. Integrating long-term land use, infrastructure and transport planning, Plan Melbourne 2017-2050 sets out the strategy for supporting jobs and growth, while building on Melbourne's legacy of distinctiveness, liveability and sustainability. The updated plan builds on the extensive work and consultation underpinning Plan Melbourne 2014 and previous metropolitan strategies and guiding policy documents including Melbourne 2030 and Melbourne at 5million.

Plan Melbourne specifies seven outcomes and objectives for Melbourne, summarised as follows:

1. Melbourne is a productive city that attracts, investment, supports innovation and creates jobs.
2. Melbourne provides housing choice in locations close to jobs and services.
3. Melbourne has an integrated transport system that connects people to jobs and services and goods to market.
4. Melbourne is a distinctive and liveable city with quality design and amenity.
5. Melbourne is a city of inclusive, vibrant and healthy neighbourhoods.
6. Melbourne is a sustainable and resilient city.
7. Regional Victoria is productive, sustainable and supports jobs and economic growth.

Plan Melbourne provides a number of directions to address the abovementioned outcomes and objectives. Those considered relevant to this report include:

- > Direction 3.1: Transform Melbourne's transport system to support a productive city.
- > Direction 3.3: Improve travel options to support 20-minute neighbourhoods".

##### 3.1.2 Transport Integration Act

The Transport Integration Act 2010 creates a new framework for the provision of an integrated and sustainable transport system in Victoria. The Act provides a vision statement, reproduced below:

*"The Parliament recognises the aspirations of Victorians for an integrated and sustainable transport system that contributes to an inclusive, prosperous and environmentally responsible State."*

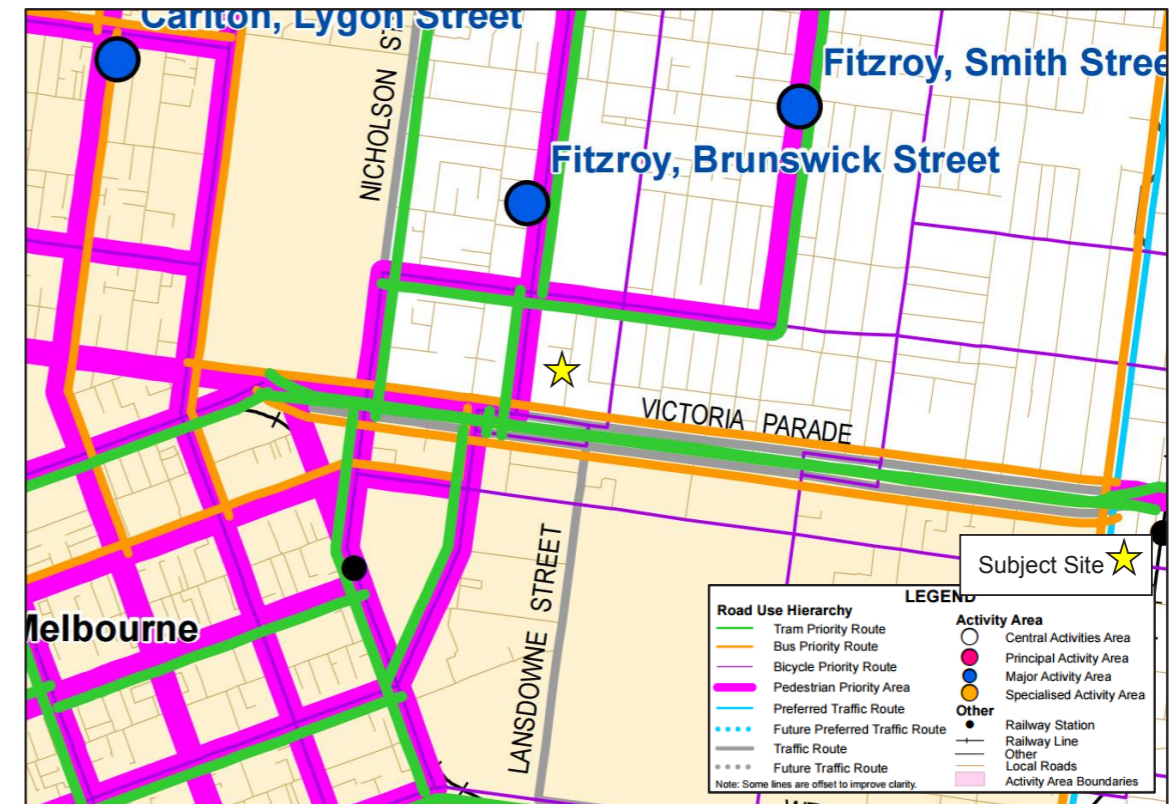
The Transport Integration Act recognises that the transport system should be considered as a single system and ensures that all transport agencies work together.

##### 3.1.3 VicRoads' SmartRoads

SmartRoads is a policy implemented by VicRoads to manage competing interests for limited road space by giving priority use of the road to different transport modes at particular times of the day. Road Use Hierarchy Maps show the priority modes on each road for each Council area and form the foundation for the network operating plan.

The Road Use Hierarchy Map in the vicinity of the site is provided in Figure 3-1 and shows Victoria Parade as a tram priority, bus priority and traffic route, whilst Brunswick Street is shown as a tram priority and bicycle priority route as well as a pedestrian priority area.

Figure 3-1 SmartRoads Road Use Hierarchy Map



##### 3.1.4 Victorian Cycling Action Plan 2013 & 2014

The Victorian Cycling Action Plan 2013 & 2014 was prepared for the Victorian Government and was released in December 2012. The document aims to grow and support cycling in Victoria by making it easier for more people to cycle and to make it safer for people who already ride as well as improving the cycling experience for all types of bike riders.

Six directions are identified within the Victorian Cycling Action Plan to achieve the above aims, reproduced as follows:

- > **Build evidence:** build a stronger evidence base for the Victorian Government to make more informed decisions;
- > **Enhance governance and streamline processes:** clarify accountability and improve co-ordination, planning and delivery;
- > **Reduce safety risks:** reduce conflicts and risks to make cycling safer;
- > **Encourage cycling:** help Victorians feel more confident about cycling and make cycling more attractive;
- > **Grow the cycling economy:** support opportunities to grow and diversify Victoria's economy through cycling; and
- > **Plan networks and prioritise investment:** plan urban cycling networks to improve connectivity and better target infrastructure investment for urban networks, regional trails and specialist cycle sport infrastructure.

##### 3.1.5 Pedestrian Access Strategy

The Pedestrian Access Strategy was prepared in 2010 and aims to increase walking for transport in Victoria and notes that more people walking has the potential to help ease congestion, reduce greenhouse emissions, improve the health of Victorians and promote social connections.

The document lists five strategic directions for walking, reproduced as follows:

- > **Encourage people to walk by changing attitudes and behaviour:** This aims to make walking the top-of-mind choice for Victorians – especially for short trips – by making walking for transport a visible and valued part of daily life;

- > **Collaborate to improve provision for walking:** This aims to clarify the roles and responsibilities of both state and local governments in providing for walking. The Victorian Government will work with local governments to ensure they have the capacity and information they need to provide better pedestrian facilities;
- > **Create pedestrian-friendly built environments, streets and public spaces:** This aims to ensure built environments across Victoria facilitate easy and efficient pedestrian movements;
- > **Increase the safety of walking:** This will identify and address risks to pedestrians across the transport system and give pedestrians the skills to negotiate road environments; and
- > **Continue integrating walking with public transport:** This aims to ensure more Victorians walk in combination with public transport. Walkers need to find it easy to get to major public transport hubs across Victoria and easy walking access should be provided at public transport stops.

### 3.2 Local Policy

#### 3.2.1 Clause 21.06 of the Yarra Planning Scheme

Clause 21.06 of the Yarra Planning Scheme details the City of Yarra's transport related objectives and strategies.

Clause 21.06 acknowledges that the City of Yarra needs to reduce car dependence by promoting walking, cycling and public transport use as viable and preferable alternatives. Clause 21.06 lists four objectives as follows:

- > **Objective 30:** To provide safe and convenient pedestrian and bicycle environments;
- > **Objective 31:** To facilitate public transport usage;
- > **Objective 32:** To reduce the reliance on the private motor car; and
- > **Objective 33:** To reduce the impact of traffic.

Of particular relevance to this report is Strategy 32.2 in response to objective 32, reproduced below:

- > **Strategy 32.2:** Require all new large developments to prepare and implement integrated transport plans to reduce the use of private cars and to encourage walking, cycling and public transport.

#### 3.2.2 Strategic Transport Statement 2006 - City of Yarra

The Strategic Transport Statement is a document prepared by the City of Yarra in 2006 which addresses the access needs of Yarra's community whilst minimising the impact of cars on Yarra's community. The Strategic Transport Statement has a stated vision as follows:

*"To create a city which is accessible to everyone irrespective of levels of personal mobility and where a fulfilling life can be had without the need for a car."*

The Strategic Transport Statement lists seven key Strategic Transport Objectives to achieve the above vision as follows:

- > Create a city which is a great and safe place to walk and increase the numbers of those walking in Yarra.
- > Create the most bicycle friendly city in Australia and increase the numbers of those cycling in Yarra.
- > Advocate for increased performance of public transport across Melbourne and thereby reduce the number of car trips and through traffic by both Yarra and non-Yarra residents.
- > Ensure that any new road construction is not in conflict with encouraging more sustainable transport use.
- > Ensure Council's response to parking demand is based on Yarra's parking hierarchy and sustainable transport principles.
- > Work to limit freight movement to arterial roads and freeways within Yarra and work to reduce freight movement through Yarra.
- > Encourage Council staff to use more sustainable transport for their travel and increase the capacity of the Council as a whole to respond to and initiate positive actions to further strategic transport objectives 1 to 6.

#### 3.2.3 City of Yarra Bicycle Strategy 2010 – 2015

The City of Yarra Bicycle Strategy 2010 – 2015 details the status on bicycle initiatives and lays out future plans for bicycle facilities, with an aim to establish cycling as a legitimate first choice of transport by people of all ages and cycling abilities.

The document lists 11 strategies to achieve the above, listed as follows:

- > **Strategy 1:** Better on-road bicycle network;
- > **Strategy 2:** Better local streets for cycling;
- > **Strategy 3:** Better off-road bicycle network;
- > **Strategy 4:** Better bicycle network maintenance;
- > **Strategy 5:** Better end of trip facilities – bicycle parking;
- > **Strategy 6:** Better bicycle network accountability;
- > **Strategy 7:** Better bicycle safety by reducing conflict;
- > **Strategy 8:** Better Council use of bicycles;
- > **Strategy 9:** Better recruitment and retention of cyclists;
- > **Strategy 10:** Better policies; and
- > **Strategy 11:** Better innovation and relationships.

#### 3.2.4 Inner Melbourne Action Plan (IMAP)

The Inner Melbourne Action Plan (IMAP) was prepared by the Cities of Melbourne, Yarra, Port Phillip, and Stonnington in partnership with VicUrban and was adopted in December 2005. Maribyrnong City Council also became a member of the IMAP in 2013.

The IMAP lists a number of strategies to achieve its vision, including the following which are considered relevant to this report:

- > **Strategy 2:** Effectively link transport routes so that the Inner Melbourne Region is accessible throughout by walking, cycling and public transport;
- > **Strategy 3:** Minimise the growing impact of traffic congestion;
- > **Strategy 4:** Increase public transport use.

## 4 Development Proposal

### 4.1 Development Plan

The Development Plan has been developed to accommodate the ACU's projected growth in students, teaching staff and research from 2015 to 2025, whilst also allowing the consolidation of teaching and research activities onto the Campus.

Specifically it is anticipated that by 2020, ACU will increase their EFT student numbers to 10,700 and staff numbers to 850. A summary of existing and proposed student and staff numbers is provided in Table 4-1.

**Table 4-1 Student and Staff Numbers**

Existing	Proposed	Change
10,000 EFT Students	10,700 EFT Students	+700 EFT Students
800 Staff	850 Staff	+50 Staff

The key principle that will inform the Development Plan from a transport perspective is based on the City of Yarra's commitment to reduce car dependency by promoting walking, cycling and public transport use.

Specifically, the St Patrick's Campus Development Plan seeks to become a pedestrian oriented space that is safe for students and prioritises sustainable modes of transport by:

- > Improving access to public transport along Victoria Parade, Brunswick Street and Gertrude Street;
- > Ensuring pedestrian links from the Campus integrate and form part of the wider pedestrian network;

The above will be achieved through the creation of strong pedestrian linkages through the Campus and to adjacent uses, activities and transport networks. Notably, the facade treatment to Victoria Parade on the Mary Glowrey Building is to be removed and by so doing, substantially increasing the footpath width along Victoria Parade in the section between Young Street and Napier Street. This will be particularly beneficial at the interface of the Mary Glowrey Building and the existing bus stop.

### 4.2 Individual Projects

The individual projects within the Development Plan will include:

#### 4.2.1 115 B Victoria Parade

This project will comprise of the subdivision of 115 Victoria Parade to create a new building site. Within this site, a multi storey building is contemplated, and will include the provision of basement level car parking for up to a maximum of 270 spaces.

Vehicular access to this building is planned via Napier Street. Mitigation works will be required at the intersection of Victoria Parade and Napier Street to accommodate direct access via Victoria Parade.

#### 4.2.2 28 - 42 Young Street (Existing Deck Car Park)

The existing 250 space deck car park is to be demolished and in its place a new building is proposed.

This new building will have no car parking spaces provided, instead, the development of this site will provide the opportunity to make substantial improvements to pedestrian access and connectivity between the campus buildings, and the adjacent campus uses and activities.

## 5 Transport Network Interventions

### 5.1 Pedestrian Network

The Development Plan contemplates improvements to pedestrian access throughout the Campus, with the aim of providing an attractive and safe pedestrian environment that will integrate with the surrounding local precinct.

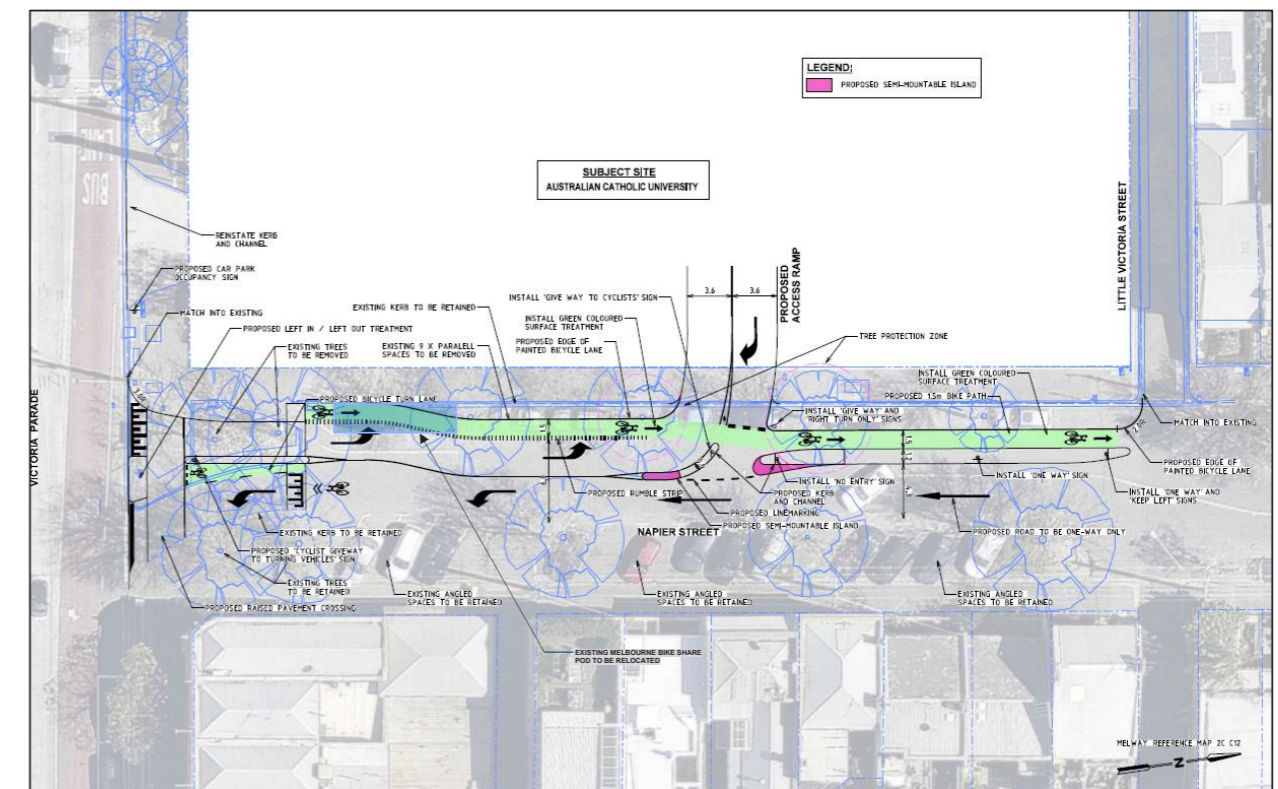
The key initiatives in this regard will be the creation of strong pedestrian linkages through the Campus and to adjacent uses, activities and transport networks. Notably, the facade treatment to Victoria Parade on the Mary Glowrey Building is to be removed and by so doing, substantially increasing the footpath width along Victoria Parade in the section between Young Street and Napier Street. This will be particularly beneficial at the interface of the Mary Glowrey Building and the existing bus stop.

### 5.2 Bicycle Network

The mitigation works required at the intersection of Victoria Parade and Napier Street to accommodate vehicular access to the 115 B Victoria Parade project, provides the opportunity to improve cyclist amenity at this intersection.

The concept plan shown as Figure 5-1 illustrates the proposed mitigation works and improvements to cyclist amenity.

**Figure 5-1 Victoria Parade / Napier Street – Concept Design**



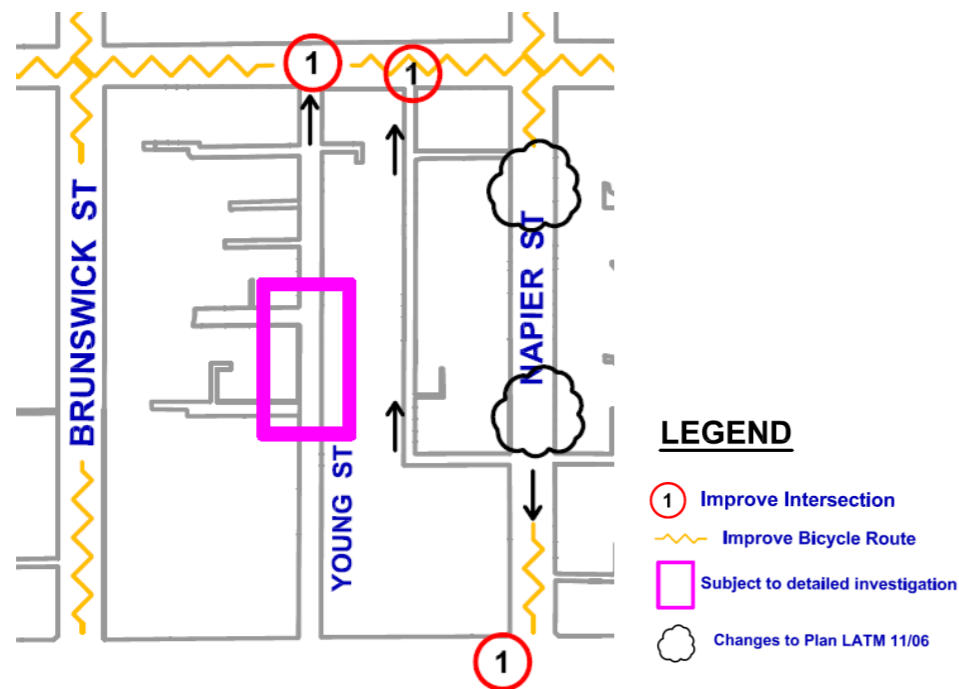
### 5.3 Local Area Traffic Management

The City of Yarra have over the years undertaken Local Area Traffic Management (LATM) studies to improve traffic conditions and road safety in local streets.

The studies looked at issues such as traffic speed and volume, pedestrian safety and comfort, and how to calm traffic so that neighbourhoods are more liveable. Notably, as part of these studies residents and businesses were surveyed about the traffic issues in the area and proposed treatments.

The ACU St Patrick's Campus is located within the bounds of Council's LATMS11 – Fitzroy area. An extract of LATMS11 – Fitzroy is provided as Figure 5-2

Figure 5-2 Extract of LATMS 11 – Fitzroy



LATMS11 identifies the intersection of Victoria Parade and Napier Street as an intersection that requires improvement, furthermore, the section of Young Street between Little Victoria Street and Duke Street has also been identified as an area that is subject to detailed investigation.

Noting the foregoing, the proposed pedestrian and bicycle network interventions could be considered as options consistent with the aspirations of LATMS 11 – Fitzroy.

## 6 Statutory Considerations

### 6.1 Schedule 2 to the Development Plan Overlay

The statutory requirements applicable to the Development Plan are contained within Schedule 2 to the Development Plan Overlay.

The traffic specific requirements are reproduced below.

The development plan must show:

- > The number, location, dimensions, and layout of all car parks and access ways to and from them;
- > A management plan for the operation and maintenance of the car park areas;
- > The location and dimensions of all bicycle, vehicle and pedestrian ways;
- > A traffic management plan which must show any traffic management and traffic control works considered necessary in adjoining and nearby roads when the development is completed; and
- > The means of vehicular and pedestrian ingress to and egress from the land.

An assessment of the Development Plans against the above noted statutory requirements follows:

### 6.2 Design Response

#### 6.2.1 Car Parking and Accessways

Up to a maximum of 270 car spaces are proposed. These spaces are to be provided within basement levels on the 115 B Victoria Parade project.

Specific to the DPO Requirements:

- > Parking spaces are to be provided at a minimum 4.9m long and 2.6m wide;
- > Accessways within the car park are to be provided at a minimum 6.4m wide where they serve car parking spaces and a minimum 5.5m wide where they do not abut parking. The main accessway off Napier Street is provided at a width of 7.6m;
- > A minimum head height of 2.1 metres is proposed within the basement car park, increasing to 2.5m where provision is made for disabled spaces and Small Rigid Vehicles.

These dimensions are consistent with the requirements contained within Clause 52.06 of the City of Yarra Planning Scheme.

#### 6.2.2 Bicycle Ways

A minimum of 160 bicycle spaces are to be provided within the Development Plan area.

These bicycles are to be designed to meet the dimension requirements set out by Bicycle Network and or AS2890.3:2015, and would comprise a mix as appropriate of the products as per the spec sheets provided as Appendix B.

#### 6.2.3 Pedestrian Ways

These pedestrian linkages through the site are to be designed to meet and or exceed the relevant standards.

#### 6.2.4 Means of Vehicular and Pedestrian Access

For the 115B Victoria Parade project, vehicular access is to be facilitated via Napier Street, as illustrated in the accompanying concept functional layout plan, Cardno drawing number CG150178-TR-DG-2502-6 provided as Appendix A.

Pedestrian access is to be provided via Victoria Parade, and Napier Street. The new building will also be accessible via existing pedestrian access points provided for the adjacent Mary Glowrey Building.

With regard to the 28 - 42 Young Street project, no car parking is proposed. Accordingly, no vehicular access is contemplated. Pedestrian access will be via Little Victoria Street and Young Street.

### 6.2.5 Traffic Management Plan

#### Victoria Parade / Napier Street

Vehicular access to the 115B Victoria Parade project will be via Napier Street. Ingress and egress will be restricted to the intersection of Victoria Parade and Napier Street.

This intersection will require mitigation works to allow access via Victoria Parade. The traffic management and traffic control works considered necessary to mitigate the impact of the development at this intersection are illustrated in Cardno drawing number CG150178-TR-DG-2502-6, provided as Appendix A.

#### Young Street

Tube count surveys undertaken on Young Street in October 2015, at a location north of the existing access to the deck car park indicates that on average Young Street carries about 550 vehicles per day northbound, with the car park contributing about 100 vehicles per day to this total figure. On weekends northbound traffic flows reduce to 250 vehicles per day.

On this basis, Young Street can be classified as an Access Place, noting:

- > An Access Place as defined by Clause 56.06 of the City of Yarra Planning Scheme, is a minor street providing local residential access with shared traffic, pedestrian and recreation use, but with pedestrian priority;
- > This road can accommodate an indicative maximum traffic volume of between 300 – 1000 vehicles over a 24-hour period, within a 5.5m wide carriageway with parking on one side of the carriageway.

The proposed demolition of the existing deck car park will remove traffic currently generated by the car park, thus reducing daily traffic flows along this road to the benefit of pedestrian movements via the reduction in the potential for vehicle and pedestrian conflicts.

### 6.2.6 Car Park Management Plan

The following conditions detail the operation and management of the car parking spaces proposed within the 115B Victoria Parade project.

- > The parking area will be secured by boom gates, activated by card readers and ticket machine on entry and departure during the facility's operating hours, anticipated to be between 7:00am – 10:30pm Weekdays and 8:00am – 10:30pm weekends consistent with current operational practises for the existing car park. During afterhours the car park will be secured by roller doors.
- > To alert casual parkers entering the car park and ensure ease of use, clearly visible advisory signs will be posted on the car park entry and also within the car park. Additionally, to avoid conflict between long term (staff) and short term (students) users, spaces will be designated to individual staff members once they are determined, with signage posted at the end of each bay.
- > Operation of the public car park will be limited to the hours listed above, with its fee structure expected to be based on an hourly charge rates in-line with other commercial car park facilities in the vicinity of the site. The actual charge rates will however be determined once an operator is appointed. The car park is to be operated by ticket collection on entry, and then payment at a pay station likely to be located adjacent to the lifts.
- > Dynamic signage on Victoria Parade will be provided to indicate if the car park is full, which will reduce the number of vehicles turning into Napier Street during high occupancy periods. Notwithstanding, U-turn movements can be undertaken within the ROW located on the east side of Napier Street midblock between the site access and Victoria Parade.

### 6.3 Car Parking - Clause 52.06

#### 6.3.1 Car Parking Requirement

Table 1 to Clause 52.06 of the City of Yarra Planning Scheme sets out the car parking provision rates that apply to the Development Plan.

Specifically, Clause 52.06 requires that parking for the University is provided at a minimum rate of:

- > 0.4 spaces to each student that is part of the maximum number of students on site at any one time.

The student population on the campus is projected to increase by 700 students, in the period between 2015 – 2020.

Application of this rate to the proposed increase in students reveals a statutory requirement to provide a minimum 280 spaces.

#### 6.3.2 Car Parking Provision

Up to a maximum of 270 spaces are proposed as part of the 115B Victoria Parade Project, whilst the 28 - 42 Young Street project contemplates the demolition of the 250 space deck car park, with no additional parking provided on this site.

The building at 115B Victoria Parade will also be built on the existing at-grade car park site currently providing 50 spaces.

Accordingly the Development Plan results in a net decrease of 30 spaces, against a statutory requirements of 280 spaces.

This provision is considerably lower than the statutory requirements, and as such is in line with the sustainable transport objectives set out in local and state level policies.

### 6.4 Bicycle Parking – Clause 52.34

#### 6.4.1 Bicycle Parking Requirement

Table 1 to Clause 52.34 of the City of Yarra Planning Scheme sets out the bicycle parking provision rates that apply to the Development Plan.

Specifically, Clause 52.34 requires that bicycle parking for the University is provided at a minimum rate of:

- > 1 space to each 20 employees; plus
- > 1 space to each 20 full time students.

The student population on the campus is projected to increase by 700 students, with a corresponding increase in staff numbers of 50 in the period between 2015 – 2020.

Application of these rates to the proposed increase in staff and students reveals a statutory requirement to provide a minimum 38 bicycle spaces comprising, 3 staff spaces and 35 student spaces.

#### 6.4.2 Bicycle Parking Provision

A minimum of 160 bicycle spaces will be provided within the Development Plan area.

This provision is well in excess of the statutory requirements, and as such is in line with the sustainable transport objectives set out in local and state level policies.

## 7 Traffic Impact

### 7.1 Projected Traffic Volumes

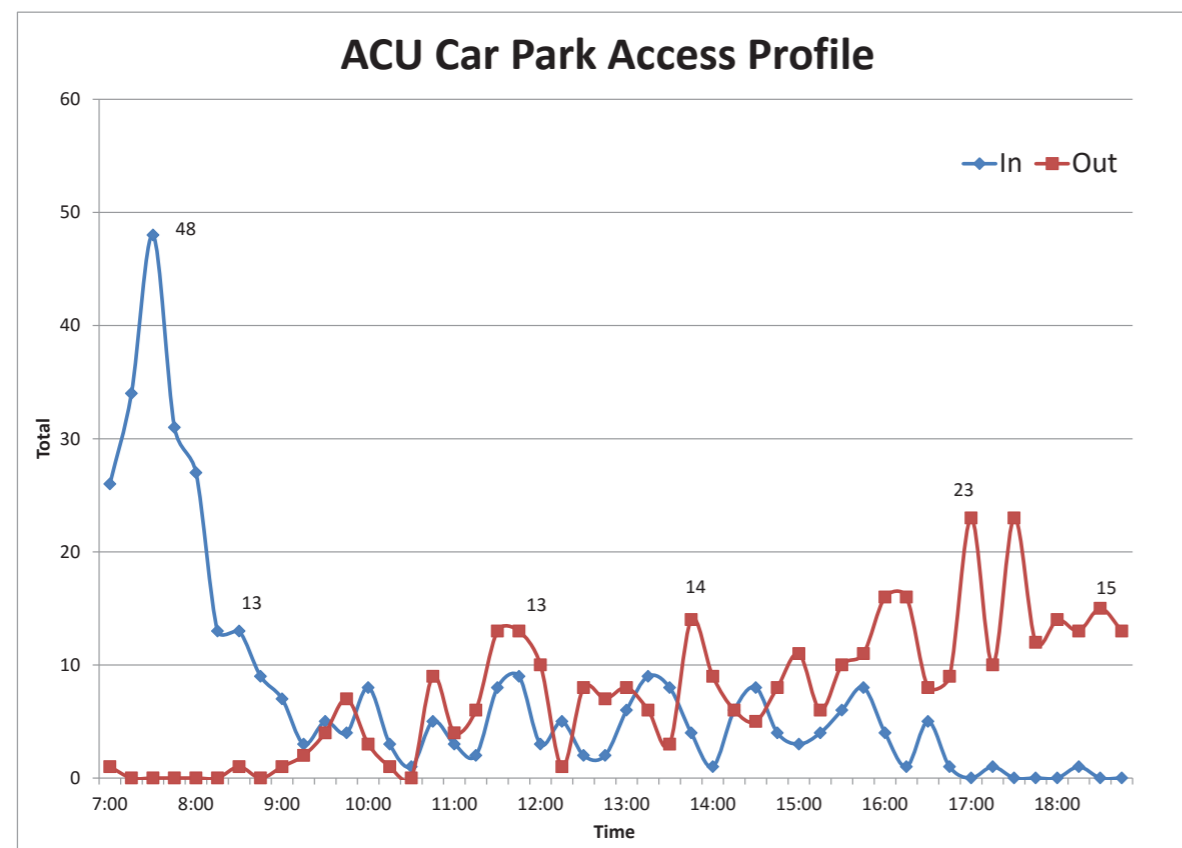
The existing ACU deck car park with 250 spaces used by both staff and students provides a suitable reference to inform consideration about projected traffic volumes at the proposed 270 space (maximum) car park at the 115B Victoria Parade project.

The existing car park was surveyed on

- Wednesday 21<sup>st</sup> May 2014 between 7am to 7pm; and
- Wednesday 7<sup>th</sup> October 2015 between 7am to 7pm

Figure 7-1 and Figure 7-2 provide a summary of the traffic profile at the ACU car park access points.

Figure 7-1 ACU Car Parking Access Profile – Wednesday 21st May 2014

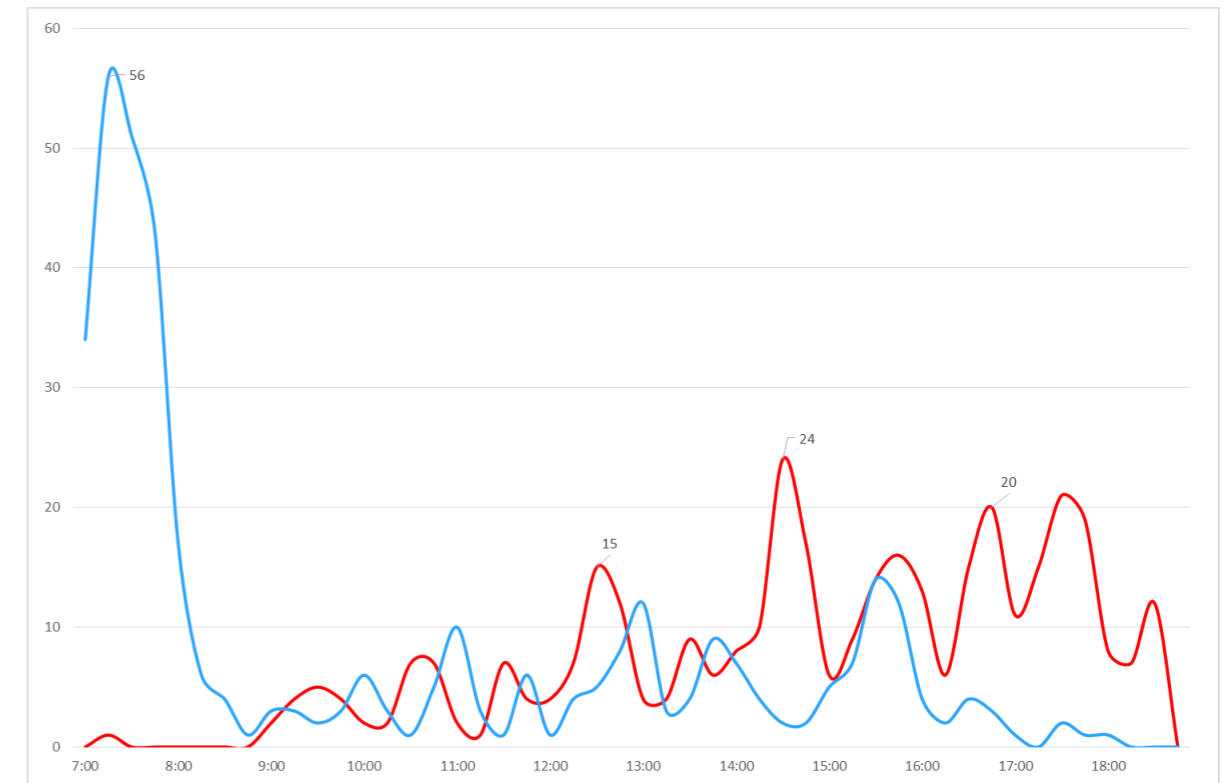


The key findings were as follows:

- > There were a total of 355 inbound movements and 360 outbound movements; and
- > The AM and PM peak hour was found to occur between 7:15am-8:15am and 5:00pm-6:00pm respectively, when a total of 140 and 68 vehicle movements were recorded at the site access points respectively;

The above equates to about 60% of the car parking spaces filling during the AM peak period, and about 30% of the spaces emptying during the PM peak. Traffic flows during the peak periods was observed as being heavily biased towards the peak direction.

Figure 7-2 ACU Car Parking Access Profile – Wednesday 7<sup>th</sup> October 2015



The key findings were as follows:

- > There were a total of 375 inbound movements and 360 outbound movements; and
- > The AM and PM peak hour was found to occur between 7:00am-8:00am and 3:15pm-4:15pm respectively, when a total of 185 and 45 vehicle movements were recorded at the site access points respectively.

The above equates to about 75% of the car parking spaces filling during the AM peak period, and about 20% of the spaces emptying during the PM peak. Traffic flows during the peak periods was observed as being heavily biased towards the peak direction.

Conservatively adopting a rate of 75% of the car spaces filling during the AM peak and 30% emptying during the PM peak, the proposed 270 space car park would be projected to generate:

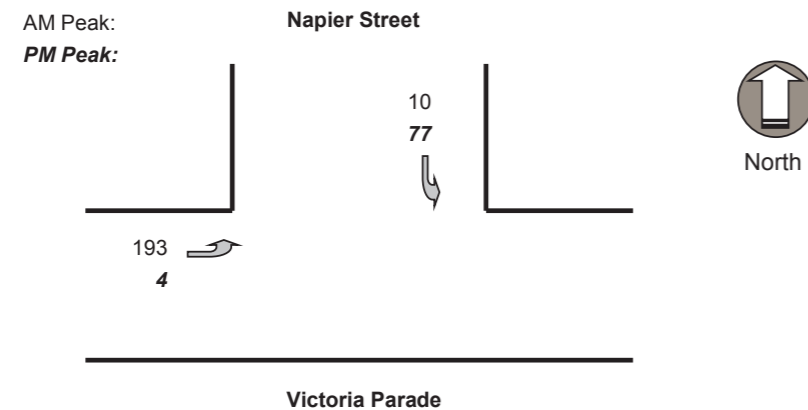
- > 203 vehicle movements during the AM peak period; and
- > 81 vehicle movements during the PM peak period.

For the purpose of this assessment, traffic flows will be biased 95% in the peak direction and 5% in the non-peak direction.

### 7.2 Traffic Distribution

Traffic to and from the proposed car park will be restricted to the Victoria Parade / Napier Street intersection. This intersection will operate as a left in / left out, with all traffic arriving from the west and departing towards the east. Figure 7-3 illustrates the projected additional traffic flows at this intersection.

Figure 7-3 Projected Additional Traffic Flows – Victoria Parade / Napier Street



Based on historic traffic data collected on Napier Street in 2010, Napier Street at a location north of Little Victoria Street carries on average about 700 southbound vehicles per day, inclusive of about 100 vehicle movements during the AM peak period and 50 vehicle movements during the PM peak period.

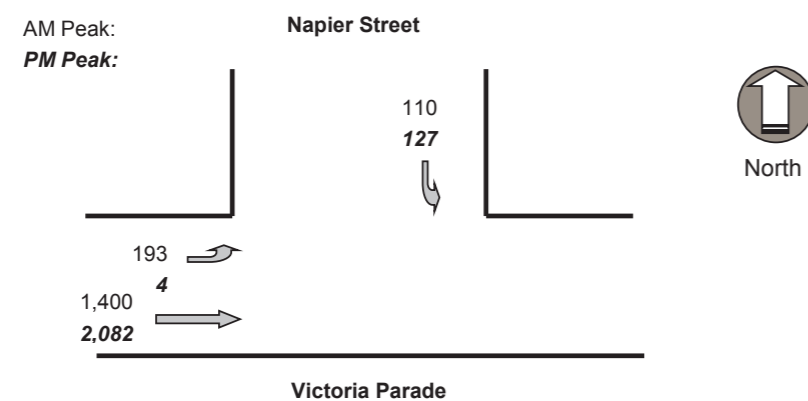
### 7.3 Post Development Traffic Flows

SCATS data sourced from VicRoads for Thursday 8<sup>th</sup> October 2015 at the intersection of Victoria Parade / Lansdowne Street, show that during the AM peak periods occurs between 11:00am-2:00pm, when 1,400 vehicles are recorded past Napier Street. The PM peak period occurs between 5:00pm-6:00pm, with 2,082 vehicles recorded past this intersection.

Noting that Napier Street is located a short distance downstream of the signalised intersection of Victoria Parade / Lansdowne Street, platooning of traffic during the peak periods has been observed which assists motorists seeking to depart from Napier Street.

Allowing for the estimated existing traffic flows on Napier Street and the recorded traffic flows along Victoria Parade, the anticipated post development traffic flows are illustrated as Figure 7-4.

Figure 7-4 Anticipated Post Development Traffic Flows – Victoria Parade / Napier Street



### 7.4 Intersection Analysis

The operation of the Victoria Parade / Napier Street intersection was analysed using SIDRA Intersection. This computer package, originally developed by the Australian Road Research Board, provides information about the capacity of an intersection in terms of a range of parameters, as described below:

**Degree of Saturation (D.O.S.)** is the ratio of the volume of traffic observed making a particular movement compared to the maximum capacity for that movement. Various values of degree of saturation and their rating are shown in Table 7-1.

Table 7-1 Rating of Degrees of Saturation

D.O.S.	Rating
Up to 0.6	Excellent
0.6 to 0.7	Very Good
0.7 to 0.8	Good
0.8 to 0.9	Fair
0.9 to 1.0	Poor
Above 1.0	Very Poor

It is considered acceptable for some critical movements in an intersection to operate in the range of 0.9 to 1.0 during the high peak periods, reflecting actual conditions in a significant proportion of suburban signalised intersections.

The **95<sup>th</sup> Percentile (95<sup>th</sup>ile) Queue** represents the maximum queue length, in metres, that can be expected in 95% of observed queue lengths in the peak hour; and

**Average Delay** is the delay time, in seconds, which can be expected over all vehicles making a particular movement in the peak hour.

The results of the SIDRA Intersection analysis are summarised in Table 7-2.

Table 7-2 SIDRA Intersection Analysis Summary

	Approach	Degree of Saturation	95 <sup>th</sup> ile Queue	Average Delay
AM Peak	Napier Street (North)	0.174	5 metres	12 seconds
	Victoria Parade (West)	0.252	0 metres	1 second
PM Peak	Napier Street (North)	0.298	8 metres	16 seconds
	Victoria Parade (West)	0.375	0 metres	0 seconds

Based on the foregoing the intersection of Victoria Parade and Napier Street is expected to operate under excellent conditions, with motorists experiencing minimal queues and delays.

#### 7.4.2 Operation of Site Access

An assessment of the operation of the site access has been undertaken to determine likely queues at the control point, especially during the AM peak period.

The analysis shows that during the AM peak period when 193 ingress vehicle movements are projected, 95<sup>th</sup> %ile queues of 4 vehicles are anticipated.

The boom gates are to be located at the bottom of the ramp, and will therefore afford motorists a queuing distance of about 24 metres, measured from the title boundary.

This setback can accommodate about 4 vehicles and as such queues on to Napier Street are not anticipated.

The design and location of the proposed car park access is therefore not expected to result in conditions that obstruct traffic flows along Napier Street or Victoria Parade.



## 8 Green Travel Initiatives

### 8.1 Preamble

Green Travel initiatives are aimed at encouraging people to choose sustainable travel alternatives such as cycling, walking or public transport, over private car usage. It is the view of the State Government that tertiary institutions are typically considered positive environments for the application of travel behaviour change programs as many students and staff already support sustainable transport for environmental, financial and social reasons.

Accordingly, and in consultation with Council, the University could develop a Green Travel Plan that would seek to encourage staff and students to choose sustainable travel alternatives such as public transport, cycling and walking.

### 8.2 Objective

As a guide, the objective of this travel plan would be to increase the proportion of alternative modes of transport users to 90% within 5 years.

The co-ordination and implementation of the Green Travel Plan would be the responsibility of the University in consultation with Council to:

- > Increase awareness of sustainable transport options to new and ongoing staff and students at the Campus;
- > Encourage behavioural change in both new and on-going staff and students from single-occupant motor vehicle use, to alternative methods of transport i.e. trams, buses and bicycle/walking paths;
- > Implement travel/behaviour change strategies and use pre/post surveys to monitor changes in attitudes and reported behaviour;
- > Identify infrastructure changes / improvements to alternative travel mode infrastructure within the locality that will facilitate take-up of sustainable transport behaviours by the University community.

### 8.3 Green Travel Actions

The following actions are provided to incentivise walking, cycling and public transport usage:

- > Continue to increase the quantity and quality of end of trip facilities on campus;
- > Ensure the design of the campus and its buildings supports simple, safe and sign-posted access to and from cycling routes;
- > Survey staff to identify demand for novated leasing of electric bicycles;
- > Install a second bike-repair station on campus consisting of a repair stand; puncture repair equipment; tyre pump and spare lights;
- > Conduct a review of nearby bike routes and foot-paths for serviceability and safety and liaise with the City of Yarra on findings;
- > Identify a local bicycle shop to supply discounted goods and services to ACU students and staff;
- > Establish a bike-buddy scheme to support new cyclists to adopt cycling;
- > Maintain support for the Campus's staff Commuter Club, a payroll deduction program for the purchase of Myki tickets;
- > Promote and encourage the use of the Melbourne Bike Share within the University, including consideration of signage directing students and staff to the Melbourne Bike Share pod to be located on Victoria Parade.

### 8.4 Monitoring and Review

In order to monitor the success of the aforementioned Green Travel Initiatives a 3 stage monitoring system could be implemented by the University.

Elected University representatives, both staff and students would be assigned as Travel Co-ordinators of the Travel Plan. The co-ordinators would be responsible for:

- > Organising the monitoring of the performance of the Travel Plan against the targets that have been agreed.
- > Reviewing the occupancy / use (and abuse) of the facilities that are provided on site, for example, cycle racks, motorcycle and motorcar parking spaces, clothes lockers, and travel information etc.
- > Reviewing the operational success or failure of the plan and produce a review report highlighting successful initiatives and also areas that require improvement. This review report would be issued to Council on an annual basis and would form the platform of an updated Travel Plan, with sign off/ input from Council sought on a regular basis, the duration of which would be determined by the relevant stake holders.

The suggested 3 stage monitoring program is outlined below:

#### Stage 1

- > Stage 1, would involve a questionnaire survey of students and staff during the enrolment process. The survey will be useful to collect information on the travel characteristics of the staff and students and assist in gauging interest in the various Green Travel initiatives and to seek ideas for other Green Travel initiatives.

#### Stage 2

- > Stage 2, would involve a questionnaire and feedback form to be filled out by Students and Staff 3 months after implementation, in order to determine what Green Travel initiatives are working and which are not.

#### Stage 3

- > Stage 3, would be the monitoring component of the plan which would be undertaken 6 months after occupation. This questionnaire would test the success rate of the various initiatives and help rework programs to suit the needs of staff and students.

It is expected that the above stages would form the basis of a continuous monitoring program to gauge the effectiveness of the travel plan.

## 9 Conclusions

- > The Development Plan has been developed to accommodate the ACU's projected growth in students, teaching staff and research from 2015 to 2025, whilst also allowing the consolidation of teaching and research activities onto the Campus.

Specifically it is anticipated that by 2020, ACU will increase their EFT student numbers to 10,700 and staff numbers to 850

- > The individual projects within the Development Plan will include:

### 115 B Victoria Parade

This project will comprise of the subdivision of 115 Victoria Parade to create a new building site. Within this site, a multi storey building is contemplated, and will include the provision of basement level car parking for up to a maximum of 270 spaces.

Vehicular access to this building is planned via Napier Street. Mitigation works will be required at the intersection of Victoria Parade and Napier Street to accommodate two-way vehicle flow within the southern portion of Napier Street.

In principle approval has been secured from VicRoads and Council to the suite of mitigation works proposed.

### 28 - 42 Young Street (Existing Deck Car Park)

The existing 250 space deck car park is to be demolished and in its place a new building is proposed.

This new building will have no car parking spaces provided, instead, the development of this site will provide the opportunity to make improvements to pedestrian access and connectivity between the campus buildings, and the adjacent campus uses and activities.

- > The key principle that will inform the Development Plan from a transport perspective is based on the City of Yarra's commitment to reduce car dependency by promoting walking, cycling and public transport use.

Specifically, the St Patrick's Campus Development Plan seeks to become a pedestrian oriented space that is safe for students and prioritises sustainable modes of transport by:

- Improving access to public transport along Victoria Parade, Brunswick Street and Gertrude Street;
- Ensuring pedestrian links from the Campus integrate and form part of the wider pedestrian network;

The above will be achieved through the creation of strong pedestrian linkages through the Campus and to adjacent uses, activities and transport networks. Notably, the facade treatment to Victoria Parade on the Mary Glowrey Building is to be removed and by so doing, substantially increasing the footpath width along Victoria Parade in the section between Young Street and Napier Street. This will be particularly beneficial at the interface of the Mary Glowrey Building and the existing bus stop.

- > A maximum of 270 spaces are proposed as part of the 115B Victoria Parade Project and results in the loss of 50 existing at-grade spaces, whilst the 28 - 42 Young Street project contemplates the demolition of the 250 space deck car park, with no additional parking provided on this site. Accordingly the Development Plan seeks to provide a net decrease of 30 spaces, against a statutory requirements of 280 spaces.

- > The proposed 115B Victoria Parade Car Park will be operated and managed as follows:

- The parking area will be secured by boom gates, activated by card readers and ticket machine on entry and departure during the facility's operating hours, anticipated to be between 7:00am-10:30pm Weekdays and 8:00am-10:30pm weekends consistent with current operational practises for the existing car park. During afterhours the car park will be secured by roller doors.
- To alert casual parkers entering the car park and ensure ease of use, clearly visible advisory signs will be posted on the car park entry and also within the car park. Additionally to avoid conflict between long term (staff) and short term (students) users, spaces will be designated to individual staff members once they are determined, with signage posted at the end of each bay.
- Operation of the public car park will be limited to the hours listed above, with its fee structure expected to be based on an hourly charge rate in-line with other commercial car park facilities in the vicinity of the site. The actual charge rates will however be determined once an operator is appointed. The car park is to be operated by ticket collection on entry, and then payment at a pay station likely to be located adjacent to the lifts.

- Dynamic signage on Victoria Parade will indicate if the car park is full, which will reduce the number of vehicles turning into Napier Street. Notwithstanding, U-turn movements can be undertaken within the ROW located on the east side of Napier Street midblock between the site access and Victoria Parade.
- > The proposal triggers a statutory requirement to provide 38 bicycle spaces. A minimum of 160 bicycle parking spaces are proposed to be provided within the Development Plan area. This provision is well in excess of the statutory requirements, and as such is in line with the sustainable transport objectives set out in local and state level policies.
- > An assessment of the post development intersection operating conditions shows that with the mitigation works proposed, the Victoria Parade and Napier Street intersection will to operate under excellent conditions, with motorists experiencing limited queues and delays.  
  
Additionally, an assessment of the operation of the site access has revealed 95<sup>th</sup> %ile queues of 4 vehicles are anticipated during the critical AM peak period. The design of the car park access and proposed location of the control points is such that motorists will be afforded a queuing distance of about 24 metres, measured from the title boundary.  
  
This setback can accommodate about 4 vehicles and as such queues on to Napier Street are not anticipated. The design and location of the proposed car park access is therefore not expected to result in conditions that obstruct traffic flows along Napier Street or Victoria Parade.
- > ACU will also actively pursue Green Travel initiatives aimed at encouraging people to choose sustainable travel alternatives such as cycling, walking or public transport, over private car usage.



Australian Catholic University,  
St. Patricks Campus, Fitzroy

APPENDIX

A

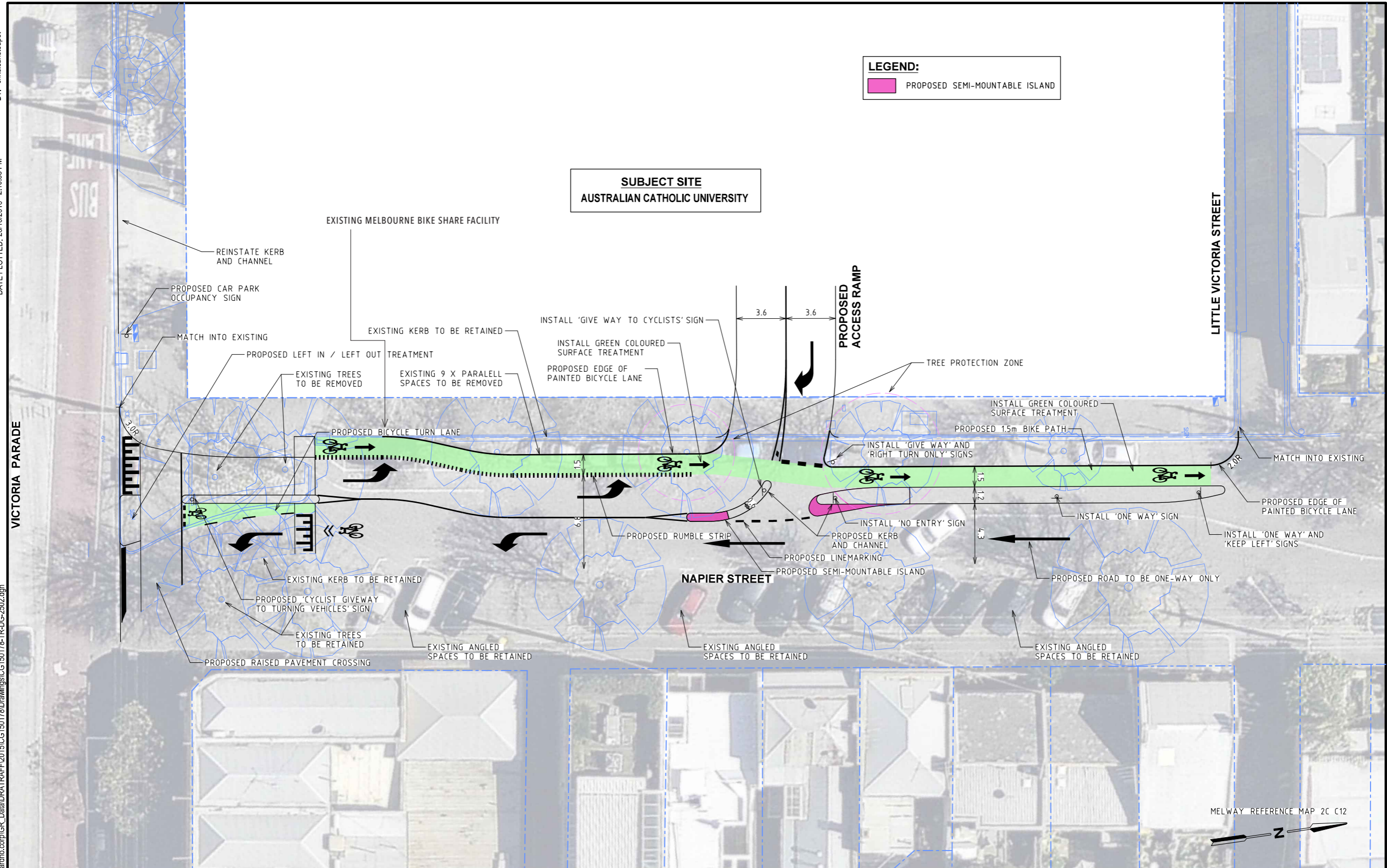
CONCEPT  
FUNCTIONAL  
LAYOUT PLANS



BY: chris.sanstoupet

DATE PLOTTED: 26/10/2016 2:10:53 PM

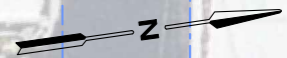
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**LEGEND:**  
 PROPOSED SEMI-MOUNTABLE ISLAND

**SUBJECT SITE**  
 AUSTRALIAN CATHOLIC UNIVERSITY

MELWAY REFERENCE MAP 2C C12



Rev	Date	Description	Drawn	Appr.
4	05.10.2016	COUNCIL COMMENTS	CS	SM
3	11.10.2016	COUNCIL COMMENTS	TR	SM
2	07.10.2016	CLIENT COMMENTS	EG	SM
1	27.09.2016	ISSUED FOR INFORMATION	CS	JPM

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 BEWARE OF UNDERGROUND SERVICES  
 THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE.

1. BASE INFORMATION SUPPLIED BY BOSCO JONSON PTY LTD. REF No. 17460 AND MERRIMAP AERIAL PHOTOGRAPHY. (BASE INFORMATION IS PARTIALLY INDICATIVE. SUBJECT TO FULL FEATURE SURVEY)  
 2. ALL DIMENSIONS TO FACE OF KERB AND CHANNEL U.N.O  
 3. DECLARED ROAD - VICTORIA PARADE (SPEED ZONE 60KM/H) LOCAL ROAD - NAPIER STREET (SPEED ZONE 50KM/H)  
 4. LINE MARK IN ACCORDANCE WITH VICTROADS TEM VOLUME 2 AND REMOVE ALL REDUNDANT LINEMARKING.

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Drawn	C.SANSTOUPET
Designed	C.SANSTOUPET
Checked	JP.MAINA
Authorised	JP.MAINA

Client	AUSTRALIAN CATHOLIC UNIVERSITY
Project	AUSTRALIAN CATHOLIC UNIVERSITY NAPIER STREET, FITZROY CITY OF YARRA
Title	SIGNAGE AND LINEMARKING PLAN FUNCTIONAL LAYOUT PLAN OPTION 02

Status	<b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Date	11.10.2016	Scale	1:250
Drawing Number	CG150178-TR-DG-2502	Size	A3
Revision		Revised	4