Amended Integrated Transport Plan

East Brunswick Village, Brunswick East

CG111076



Prepared for The Banco Group of Companies

27 March 2018

PLANNING AND ENVIRONMENT ACT 1987

Amended Development Plan Approved pursuant to Clause 43.04 of the Moreland Planning Scheme

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Signed

For and on behalf of Moreland City Council

Note: This document supersedes the corresponding document previously approved on 4 October 2012





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1 Introduction

Cardno (Victoria) Pty Ltd (Cardno) was retained by The Banco Group of Companies (Banco) to prepare an Integrated Transport Plan for the proposed redevelopment of the subject site at 127-129 and 139 Nicholson Street, 149 Nicholson, 2 Elm Grove and 98 John Street, Brunswick East. It is noted that Banco own the properties located at 127-129, 139 and 149 Nicholson Street.

The subject site is part of the area covered by the Moreland City Council Amendment C92, and is herein referred to as the development plan area. The Minister for Planning approved Amendment C92, which came into effect on 20th January 2011.

In the course of preparing this document, the subject site and its environs have been inspected, and plans of the development (Drawing No's. 1050_DA.1 - 23 Rev V, dated 22nd March 2018) have been examined.

This integrated transport plan is to be referred to as the Amended Integrated Transport Plan, dated March 2017.



2 Development Plan Overlay Requirements Access and Transport

Schedule 11 to the Development Plan Overlay identifies the following requirements for the development plan that relate to access and transport.

"Access and Transport

An Integrated Transport Plan prepared by a suitably qualified person(s) to the satisfaction of the Responsible Authority. The views of the Department of Transport and VicRoads must be considered prior to the approval of the Integrated Transport Plan. The Integrated Transport Plan must include and demonstrate the following:

- 1. A site layout plan showing convenient and safe access to and from Nicholson Street generally opposite Sumner Street, which includes development set back from Nicholson Street if this is required to facilitate staged and/or final site access arrangements, to the satisfaction of the Director of Public Transport and VicRoads. This must include:
 - a. a traffic signalised intersection; and
 - b. a fully accessible (Disability Discrimination Act 1992 compliant) tram stop.
- 2. How the cost for the provision of the traffic signalised intersection and fully accessible tram stop will be distributed between parties.
- 3. The primary access point to the Neighbourhood Activity Centre (the Precinct) via a signalised intersection in Nicholson Street opposite Sumner Street.
- 4. No vehicle access to or from the Precinct via Gamble Street.
- 5. The vehicular traffic role in Main Street west of Gamble Street will be subservient to the pedestrian and bicycle roles.
- 6. A parking plan that:
 - a. provides centralised parking areas to serve the Precinct;
 - b. locates and designs parking to ensure safety in parking areas while avoiding car parking being visually dominant; and
 - c. incorporates measures to preclude visitors, employees and residents from within the Precinct from parking in the adjoining and nearby streets.
- 7. How development will support and integrate public transport and sustainable transport options to and from the Precinct.
- 8. Access and transport management showing the location and details of all pedestrian, cycle, vehicle, truck and other traffic access ways, including ingress and egress from the Precinct.
- 9. How vehicles associated with the retail and commercial uses within the Precinct primarily use the Nicholson Street access point or points to enter and exit the Precinct.
- 10. Internal street functional hierarchy.
- 11. Any necessary treatments of intersections to surrounding streets, and/or any upgrades or modifications to existing roads, and the process for works and/or costs proportionate to the scale and impact of development.
- 12. The location of any proposed traffic management devices.
- 13. Typical proposed road cross-sections to demonstrate that emergency and service vehicles will be able to appropriately manoeuvre through the Precinct.
- 14. How development will support and integrate the existing Nicholson Street tram service and Glenlyon Road bus service.
- 15. How development and streetscape improvements will support and integrate with the John Street and Albert Street bicycle routes.
- 16. The nature of connections to the local road network and streetscape improvements along the streets adjoining the Precinct and along the length of John Street.
- 17. How development will retain adjoining residential area amenity by traffic management measures to limit traffic volumes in adjoining residential streets to their designed performance capacities.
- 18. The function of the new Main Street, including pedestrian, cycling, management of vehicles, access and egress information and parking facilities.
- 19. How development optimises accessibility for the mobility impaired."

Each of the above points is addressed in the following sections.



2.1 Nicholson Street Access

"A site layout plan showing convenient and safe access to and from Nicholson Street generally opposite Sumner Street, which includes development set back from Nicholson Street if this is required to facilitate staged and/or final site access arrangements, to the satisfaction of the Director of Public Transport and VicRoads. This must include:

- a traffic signalised intersection; and
- a fully accessible (Disability Discrimination Act 1992 compliant) tram stop."

A traffic layout plan (Drawing No. CG111076T01 P1) has been prepared that shows an access intersection for the site, located opposite Sumner Street, with a treatment that shows the possible future provision of tram stops. Appendix A shows this access treatment, which is in accordance with the tram stop layout that is preferred by Yarra Trams and the Department of Transport (DoT). The layout shows that acquisition of part of several properties would be required to provide width for the tram stop arrangement preferred by Yarra Trams and the DoT.

The Yarra Trams and DoT preferred tram stop layout has a separate platform for each direction, located on the departures, and keeps the right turn traffic lane off the tram tracks. This layout would require the acquisition of land from several landowners within the area that is affected by Amendment C92 and DPO11. Consequently the Nicholson Street access layout shown by Drawing No. CG111076T01 P1 cannot be implemented without these acquisitions.

The Panel Report on the Moreland Planning Scheme Amendment C92, Section 5.1.5, includes the following:

"The Panel considers the revision of the DPO11 wording, generally as put forward at the Panel hearing, would be sufficient to ensure the implementation of an appropriate treatment of the signalised intersection and a DDA compliant tram stop in a way that is acceptable to relevant agencies. The material presented as part of this panel process documents the nature of treatments contemplated and, although all parties acknowledged that these treatments may well change as the design process progresses, these plans establish the basis for subsequent processes. The Panel also notes that, while the plans are not yet sufficiently advanced to specifically define a Public Acquisition Overlay or specific setbacks along the Nicholson Street frontage for traffic/tram management treatments, the proposed revisions to DPO11 foreshadow the need to address the issue."

The highlighted part of the above quote shows that the issue of a Public Acquisition Overlay was identified as part of the Panel Hearing.

The required setbacks along Nicholson Street, and associated public acquisition, are shown by the access layout on Drawing No. CG111076T01 P1 (Appendix A). The developer has set back its development (127-129, 139 and 149 Nicholson Street) from Nicholson Street to provide an opportunity to Yarra Trams and/or the DoT to acquire the setback area to accommodate a new tram stop.

Banco has supplied a site layout plan for the Nicholson Street site access intersection, in accordance with the requirements of Yarra Trams and the DoT. <u>Banco has set back its development to provide the setback required to Yarra Trams and/or the DoT to acquire the setback area to accommodate the preferred layout.</u> It is thus concluded that Banco has made provision for a possible tram stop in accordance with the relevant requirements of Schedule 11 to the Development Plan Overlay.

Discussions with Yarra Trams and the DoT indicate that they are generally satisfied with the access treatment shown by Drawing No. CG111076T01 P1, which is in accordance with the tram stop layout that is preferred by Yarra Trams and the Department of Transport (DoT).

Yarra Trams, the DoT and VicRoads have indicated that they would consider an interim layout for the access treatment with the following features:

- 1. Cars turning right from on the tram tracks, north to west;
- 2. North bound traffic to be in one lane clear of the tram tracks;
- 3. Tram priority phasing to promote efficient tram operation;



- 4. Elimination of kerbside parking for an appropriate distance both north and south of the access intersection;
- 5. Banning the right turn from South to East, Nicholson to Sumner;
- 6. Banning the right turn from North to West, during the 7.00am to 9.00am interval weekdays.

Drawing No. CG111076T05 P2, dated 11th August 2011, was prepared addressing the above points and is attached as Appendix B.

Yarra Trams and the DoT requested that traffic modelling be undertaken to estimate the effect of the interim access layout, shown by Drawing No. CG111076T05 P2, on tram travel times. Aimsun microsimulation traffic modelling was completed and submitted to both the DoT and VicRoads in April 2012 along with a summary of the anticipated effects on tram travel times from the proposed interim access layout.

The Aimsun microsimulation model shows that the additional signalised intersection and additional development traffic is expected to result in an increase in southbound travel time of 4 seconds during the AM peak and 19 seconds during the PM peak. An increase in northbound travel time of 9 seconds is anticipated during the AM peak and 98 seconds during the PM Peak, when compared with the existing conditions. The modelled increase in northbound PM peak travel time occurs at the *very* north end of the route, and discussions with the DoT indicate that this could be addressed through changes to the traffic signal operations. It is further anticipated that future tram travel times will be reduced through the rationalisation of tram stops associated with the Route 96 upgrade project.

The layout shown by Drawing No. CG111076T05 P2 (Appendix B) anticipates that the intersection would operate in accordance with the requirements of Yarra Trams and the DoT, as previously listed: the tram stops would be retained at either or both Glenlyon Road and Albert Street, and allowing traffic to turn right into the development (north to west) from a shared traffic lane on the tram tracks, and that the delays to trams would be minimised at this location through the use of active tram priority traffic signal phasing measures. Figure 2-1 shows a partial view of the interim access layout (CG111076T05 P2).

INTERN BOAD SESSAYE BOUNDARY

170 TAPES

200 LEFT TURN LANE

NATCH INTO EXISTING

NATCH INTO EXISTING

NATCH INTO EXISTING

NO STOPPING

Figure 2-1 Interim Nicholson St Signalised Access Layout Option (CG111076T05 P2)

The Department of Transport (DoT) issued a letter dated 5th February 2012 stating that the Director of Public Transport supports the Development Plan and associated Integrated Transport Plan, subject to the unsignalised Nicholson Street access opposite Peers Street being restricted to left-in and left-out movements.

Appendix C of this document shows the DoT letter supporting the ITP.

An access intersection treatment was developed during June 2012, in discussion with VicRoads, incorporating a left-turn slip lane from south to west, Nicholson Street to the main access street. Cardno Drawing No. CG111076T05 P3, dated 12th July 2012, shows the intersection layout featuring a left-turn slip lane. This layout



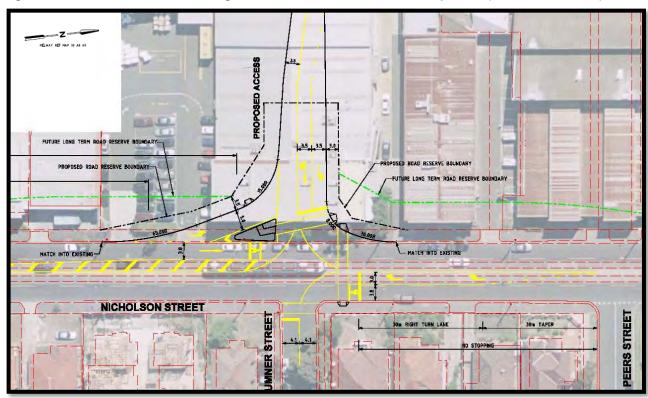
is designed so that it can be implemented independent of the property to the immediate south at 125 Nicholson Street.

SIDRA analysis of the intersection layout with the left turn slip lane provides a high level of service for the left turn from south to west, Nicholson to the main access street, with a 95th percentile cycle maximum queue of around 3 metres anticipated during the PM peak period, and a mean cycle maximum queue of 1.8 metres. The left-turn slip lane accommodates three or four vehicles clear of the Nicholson Street traffic, with an effective storage length of around 26 metres.

Appendix D shows the Cardno Drawing No. CG111076T05 P3, dated 12th July 2012, showing an intersection layout featuring a left-turn slip lane south to west.

Figure 2-2 shows a partial view of the interim access layout (CG111076T05 P3).

Figure 2-2 Interim Nicholson St Signalised Access with Left Turn Slip Lane (CG111076T05 P3)



2.2 Traffic Signals, Apportioning of Costs

"How the cost for the provision of the traffic signalised intersection and fully accessible tram stop will be distributed between parties."

The Banco Group of Companies is prepared to setback its development to allow for the acquisition of the setback area to accommodate a possible future tram stop in accordance with the Drawing No. CG111076T01 P1. The layout shown by Drawing No. CG111076T01 P1 represents the largest likely land-take, and shows the Yarra Trams and DoT preferred tram stop layout with a separate platform for each direction and keeps the right turn traffic lane (North to West) off the tram tracks.

Vehicle access to Amendment C92 is to be provided via a new Nicholson Street access intersection with traffic signal control, located near Sumner Street. It is proposed that the intersection be constructed and operate with the layout shown by either Drawing No. CG111076T05 P2 or Drawing No. CG111076T05 P3, subject to VicRoads and DoT approvals. The cost of the traffic signal controlled access treatment would be contributed to by those parts of the Amendment C92 development that would take vehicle access via the signals.



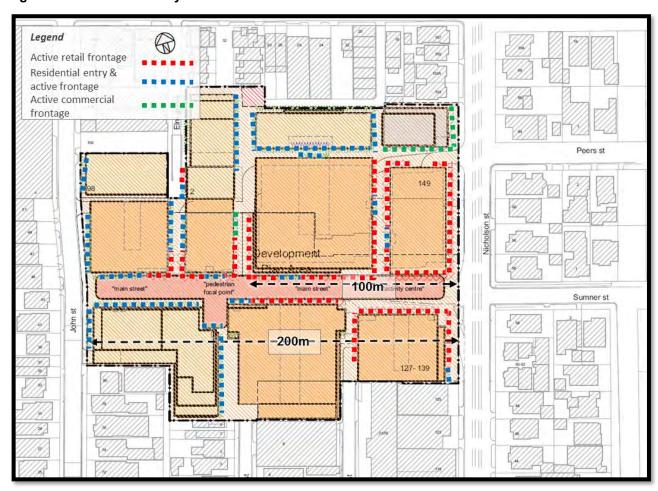
2.3 Neighbourhood Activity Centre, Primary Access

"The primary access point to the Neighbourhood Activity Centre (the Precinct) via a signalised intersection in Nicholson Street opposite Sumner Street."

The primary vehicle access for the Neighbourhood Activity Centre is to be via the Nicholson Street signalised access intersection, which will align with Sumner Street to the east. The 'Main Street' is to extend west from the Nicholson Street intersection, providing vehicle access to basement car parking areas via a laneway to the north (approximately aligned with Gamble Street).

Figure 2-3 shows a partial view of Drawing No. 1050_DA.16 Rev V prepared by Jam Architects, dated 22nd March 2018.

Figure 2-3 Main Street Layout



The above figure shows that 'Main Street' extends for around 200 metres between Nicholson Street and John Street. The 'Main Street' extends for 100 metres from Nicholson Street before entering a laneway that leads to the access for the basement car parking. The 'Main Street' also provides access for a number of conveniently located on-street spaces that are to serve as retail car parking. The 'Main Street' design includes around 240 metres of retail frontage, as highlighted in the above figure (dotted), with further retail frontage to Nicholson Street.

From John Street, Main Street extends for 60 metres as a pedestrian-only zone that leads to the central pedestrian "focal point".

It is anticipated that the John Street end of the main street would be designed to facilitate occasional access for emergency and service vehicles. This could take the form of a section of John Street with semi mountable kerb with no parking, and might include removable or frangible bollards.

The central 40 metres of Main Street is described as a "pedestrian focal point" in the above figure.



The Main Street and Nicholson Street intersection is to be traffic signal controlled. The approach to the signals is at-grade providing clear sightlines to the signals. The Main Street access to Nicholson Street is to cater for the majority of vehicle access, around 80 percent, with the design providing traffic capacity and queue space at the traffic signals.

The proposed 100 metre section of 'Main Street', between Nicholson Street and the laneway to the basement car park access, is considered appropriate to accommodate the anticipated traffic queues while providing the required traffic capacity. Analysis of the anticipated peak traffic operation indicates that the 95th percentile maximum queue length, back along Main Street from Nicholson Street, is around 90 metres while the average maximum queue would be around 60 metres.

The signalised Nicholson Street access intersection is to include provision for pedestrians to cross Nicholson Street.

The existing Nicholson Street and Albert Street intersection configuration is expected to cater for a component of the C92 traffic, as discussed further in Section 2.17 of this document. The provision of traffic signals at the Nicholson Street and Albert Street intersection is considered unwarranted taking into consideration a number of factors. The anticipated change in traffic volumes associated with C92 is low in traffic engineering terms, equating to less than one vehicle movement per minute during peak periods for any particular manoeuvre at the Nicholson Street and Albert Street intersection. Furthermore traffic signals at this location would have the adverse effect of focussing traffic both from and through the surrounding area, which would increase Albert Street traffic.

2.4 Gamble Street, No Vehicle Access

"No vehicle access to or from the Precinct via Gamble Street."

The north end of Gamble Street provides access to the central pedestrian area. There is to be <u>no</u> motor vehicle access to the precinct via Gamble Street. The North end of Gamble Street is to be closed to motor vehicles, while allowing pedestrian and bicycle access.

2.5 Main Street Traffic Function West of Gamble Street

"The vehicular traffic role in Main Street west of Gamble Street will be subservient to the pedestrian and bicycle roles."

The section of 'Main Street', west of Gamble Street and east of John Street, is to be a pedestrian-only zone which leads to the central pedestrian "focal point".

It is anticipated that the John Street end of the main street would be designed to facilitate occasional access for emergency and service vehicles. This could take the form of a section of John Street with semi mountable kerb with no parking, and might include removable or frangible bollards.

The central 40 metres of Main Street is described as a "pedestrian focal point".

2.6 Parking Plan

"A parking plan that:

- provides centralised parking areas to serve the Precinct;
- locates and designs parking to ensure safety in parking areas while avoiding car parking being visually dominant; and
- incorporates measures to preclude visitors, employees and residents from within the Precinct from parking in the adjoining and nearby streets."

Resident and retail parking is to be provided in centralised basement car parks for the 127-129, 139 and 149 Nicholson Street Banco components of the Amendment C92 development, which is to comprise around 800 to 900 apartments, 500 to 550sq.m of medical centre, 2,500 to 2,600sq.m of office, and 7,800 to 8,000 square metres of retail.

The parking provision for the Banco development (127-129, 139 and 149 Nicholson Street) is around 1,200 spaces, comprised as follows:



- 800 to 840 resident spaces;
- 60 to 70 office car spaces;
- 300 to 320 spaces for the medical centre, shop and supermarket uses, including 18 on-street spaces on 'Main Street'.

The Integrated Transport Plan (ITP) currently describes parking detail for the Banco component of the EBV, which now includes 149 Nicholson Street. Parking details for the other components of the development plan area have not been made available at this time.

Access for retail customer parking is to occur via the signalised Nicholson Street intersection access. Basement resident parking for the Banco development is to be accessed via the two Nicholson Street points of access, and via two John Street crossovers.

The combination of restrictions for on-street parking in the surrounding area, and availability of on-site parking is expected to discourage the use of parking in the adjoining and nearby streets. It is anticipated that Council will review the John Street parking restrictions, particularly along the site abuttal.

Most resident parking is to be provided in accordance with the Planning Scheme requirements, with one resident car space for each one and two bedroom apartment.

It is proposed to provide around 280 car parking spaces for the retail and medical centre customer parking, and around 30 further spaces for staff parking, equating to around 3.5 spaces and 4.0 spaces per 100 square metres for retail, medical centre parking and supermarket parking respectively. The proposed levels of retail parking are considered appropriate, taking into consideration the neighbourhood activity centre nature of the development and good accessibility for the surrounding area, and are consistent with the rates adopted within the approved September 2012 ITP.

The residential parking within the Development Plan Area is to be provided at overall rates of not less than 0.5 per bedsit, 0.64 per one bedroom, 1.0 per two bedroom and 1.5 per three bedroom dwelling, in accordance with Council recommendations.

A preliminary assessment of parking provisions shows that the overall parking for the residential component of the 127-129, 139 and 149 Nicholson Street development is at around one space per dwelling and is thus expected to satisfy Council requirements for the Development Plan Area overall.

Office car parking will be provided at the rate of not less than 2.5 spaces per 100sq.m of floor area.

Resident bicycle parking is to be provided at one space per dwelling. Bicycle parking is also to be provided for retail and commercial uses in excess of the planning scheme requirement. Visitor bicycle parking is to be provided at purpose built parking facilities.

Appendix E shows the proposed basement car park layouts and an indicative parking allocation.

2.7 Public Transport and Sustainable Transport Integration

"How development will support and integrate public transport and sustainable transport options to and from the Precinct."

Figure 2-4 shows the site location relative to available transport. The figure shows the Amendment C92 area superimposed on a TravelSmart map of the area, showing the locally available transport options.



C92 Area ELM BLY ARTHURTON' VICTORIA AUBURN GEORGE Northcote BRUNSWIC FO. MCCRACKEN GLENLYON Merri Park RD ABERDEEN RD DN Off Road Shared Pat On-Road Blke Lane HILLIF Informal Bike Route A. San H. 57 6.8km Rallway Station, HOLDEN

Figure 2-4 Transport Options for the Amendment C92 Area, Moreland

The above figure shows that the Amendment C92 area is served by several modes of transport. Trams service the site via Nicholson Street (ten trams per hour in each direction), and buses travel along Glenlyon Road (five buses per hour in each direction) and Blyth Street (five buses per hour in each direction). FlexiCars are located in both Glenlyon Road and Blyth Street.

The City of Moreland has a high percentage of bicycle users and the site is well linked into the bike network located in the local streets and has connections to the Merri Creek bike path that provides longer distance connections to surrounding suburbs such as Northcote.

Informal bicycle routes pass the site on John Street, Albert Street and Nicholson Street while an on-road bicycle route is on Glenlyon Road. The Merri Creek bicycle path is nearby, which connects with the Capital City Trail which in turn loops around central Melbourne and provides connections with bicycle trails across the metropolitan area.

The 60 metre section of "Main Street' west of Gamble Street and east of John Street is to be a pedestrian only zone, leading to the central pedestrian "focal point". It is anticipated that this area could also provide for bicycle access.

Bicycle parking is to be provided throughout Amendment C92, in excess of the rates recommended in section 52.34 of the Planning Scheme.

It is proposed to investigate the potential for providing a share car location. A share car could be located centrally, along the section of the main street accessed off Nicholson Street.

2.8 Movement Network

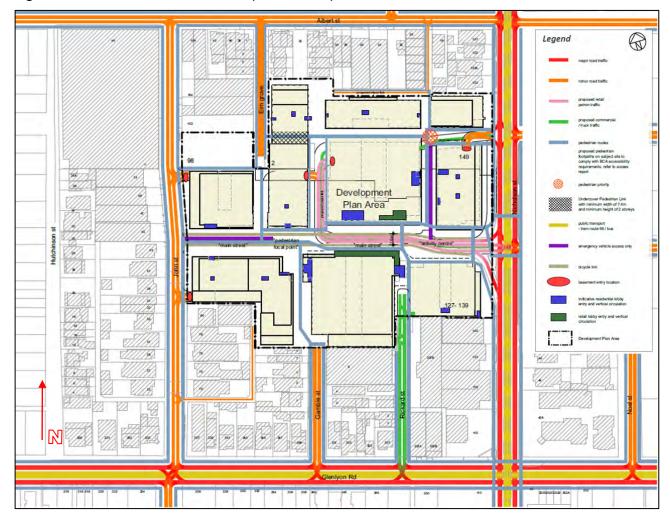
"Access and transport management showing the location and details of all pedestrian, cycle, vehicle, truck and other traffic access ways, including ingress and egress from the Precinct."

Figure 2-5 shows a partial view of a drawing prepared by Jam Architects (Drawing No. 1050_DA.10 Rev V, dated 22nd March 2018) that shows an accessibility map for Amendment C92.

Appendix F shows the full precinct circulation plan.



Figure 2-5 Precinct Circulation Plan (Partial View)



The above figure shows that access for retail customer parking is proposed via the main Nicholson Street access. Retail loading access is proposed via Rickard Street and the left in/left out only intersection with Nicholson Street. Residential parking access is available via a number of locations, as discussed elsewhere.

Swept path diagrams have been prepared showing access arrnagements for service vehicles, and are included at Appendix H.

The site affords a high degree of permeability for pedestrians and bicycles, in both north-south and east-west directions. A "pedestrian focal point" is proposed for the centre of the site, with the west section of the main street providing a pedestrian connection with John Street.

Appendix G shows the proposed street cross-sections (Figure No. CG111076SK10 P5).

2.9 Nicholson Street as Primary Retail and Commercial Access

"How vehicles associated with the retail and commercial uses within the Precinct primarily use the Nicholson Street access point or points to enter and exit the Precinct."

The retail and commercial uses and associated parking are to be located such that the Nicholson Street access points are to act as the primary vehicle access points for the precinct, as discussed in the preceding sections and consistent with the approved September 2012 ITP.

2.10 Hierarchy for Internal Streets

"Internal street functional hierarchy."

The internal streets are to be managed and maintained by the body corporate.



Primary access for the Amendment C92 areas site is proposed via a signalised access at Nicholson Street and the proposed internal access road 'Main Street'. The 'Main Street' provides access to the on-street car parking spaces and two basement car parking areas (separate residential and retail areas) via the laneway to the north.

The proposed carriage width for the laneway of 6.6m is considered adequate to facilitate two-way traffic flow. Furthermore, it is proposed that no on-street parking will be provided on the laneway.

The south section of Rickard Street, extending north from Glenlyon Road, is to provide for service and delivery vehicle access to the proposed supermarket and liquor outlet. Pedestrian access through to the main access street is to be provided at the end treatment for this section of Rickard Street.

Appendix F shows the precinct circulation plan for Amendment C92, while Appendix G shows the proposed street cross sections.

2.11 Road and Street Improvements

"Any necessary treatments of intersections to surrounding streets, and/or any upgrades or modifications to existing roads, and the process for works and/or costs proportionate to the scale and impact of development."

Some existing street cross sections are summarised in Table 2-1.

lable 2-1	Existing Street Cross Sections

Ctroot Name	Road Dimension	ns (metres)	s)			
Street Name	Direction	Footpath	Road	Footpath	Total	
Elm Grove	E->W	2.2	5.95	2.15	10.3	
Albert Street	S->N	1.9	8.4	1.85	12.15	
Rickard Street	E->W	1.55	7.25	1.58	10.38	
Gamble Street	E->W	2.38	7.62	2.45	12.45	

The above table shows that while none of the tabulated local streets have an overall road reserve width dimensioned in accordance with the Planning Scheme section 56.06 dimensions, the road pavement widths do accord.

Rickard Street currently allows parking on both sides, and caters for truck access to adjoining industrial properties. If cars are parked opposite then they require around 4.0 metres width (4.0=2x2.0) leaving around 3.2 metres for access. A width of 3.5m is more appropriate for truck access. It is therefore recommended that the parking be prohibited along one side of the street during times when truck access is required. The existing Rickard Street footpath widths are considered adequate.

The existing Gamble Street cross section is considered adequate for the existing and future conditions. Both Rickard Street and Gamble Street are to provide Glenlyon Road pedestrian access.

Redundant crossovers are to be removed, and kerb and channel reinstated as appropriate. Detail of the main street design is provided in the "Main Street Detail Plan" provided as drawing number 1050_DA.21 Rev V dated 22nd March 2018 as part of the East Brunswick Village Development Plan prepared by JAM Architects.

The "Main Street Detail Plan" shows that bollards are proposed for the west end of the main street. Zebra type pedestrian crossings have been mooted for 'Main Street'. Pedestrian crossings are Major Traffic Control Items, and VicRoads is normally the Responsible Authority. VicRoads has strict criteria regarding the provision of crossings in terms of the number of both pedestrians and vehicles per hour. Consequently the provision of pedestrian crossings would be subject to VicRoads approval.

Elm Grove is expected to provide vehicle access for the abutting properties, and not for the wider Neighbourhood Activity Centre. It is proposed to retain a vehicle closure near the south end of Elm Grove. The Elm Grove closure would permit both pedestrian and bicycle access. It is understood that Council is to initiate the closure works near the south end of Elm Grove to maintain the local access nature.

The various links proposed through Amendment C92 are to provide multiple new pedestrian routes. The main Nicholson Street access intersection is discussed in Section 2.1 of this document.



2.12 Traffic Management

"The location of any proposed traffic management devices."

Zebra type pedestrian crossings are under consideration for the section of the main access street that extends west from Nicholson Street. Further information is provided in the preceding section on road and street improvements.

The main street is to include a central section that will be a piazza/pedestrian-focal-point, closed to through vehicle traffic, commencing around 100 metres west of Nicholson Street.

The straight sections of the proposed 'Main Street' are not more than 100 metres, which is expected to assist in constraining vehicle speed.

The west section of the main street off John Street, is proposed as a pedestrian zone, to be closed to vehicle traffic, becoming part of an extended public open space. The closure of the street opening to John Street would allow retention of 3 or 4 on-street car spaces on John Street.

It is proposed that emergency vehicle access would be facilitated through the provision of a short section of mountable kerb on the east side of John Street, adjacent to the main street. A 'No Stopping' parking restriction would apply for this short section.

The main street is also to include a restriction on the size of vehicles that can access the basement parking.

The north ends of both Gamble Street and Rickard Street are to be closed to motor vehicle traffic, and are to facilitate both pedestrian and bicycle access.

Elm Grove is expected to provide vehicle access for the abutting properties, and not for the wider Neighbourhood Activity Centre. It is proposed to retain a vehicle closure near the south end of Elm Grove. It is proposed that the Elm Grove closure would permit both pedestrian and bicycle access.

One road hump will be installed in John Street to the satisfaction of Council. Intersection thresholds will be installed at Glenlyon Road/John Street and Albert Street/John Street to the satisfaction of the Council.

2.13 Street Cross Sections and Emergency and Service Vehicle Access

"Typical proposed road cross-sections to demonstrate that emergency and service vehicles will be able to appropriately manoeuvre through the Precinct."

The typical road cross sections are provided in Appendix G. It is noted that the internal streets are to be body corporate. The street cross sections are designed in accordance with the requirements of the Metropolitan Fire Brigade (MFB), providing a clear trafficable width of not less than 3.5 metres.

The MFB have indicated that they are currently required to provide a "first response" service in this area, and as a consequence may on occasion have to respond to a medical emergency utilising a large ladder truck. The internal road network has been designed to accommodate the manoeuvring requirements of an 11.8 metre MFB ladder truck. Swept paths have been prepared to show the MFB ladder truck access is catered for, and are included at Appendix H.

2.14 Nicholson Street Tram and Glenlyon Road Bus Integration

"How development will support and integrate the existing Nicholson Street tram service and Glenlyon Road bus service."

The proposed development is well served by the existing Nicholson Street tram service and the existing Glenlyon Road bus service.

Trams service the site via Nicholson Street (ten trams per hour in each direction during peaks), and buses travel along Glenlyon Road (five buses per hour in each direction during peaks) and Blyth Street (five buses per hour in each direction during peaks).

The existing Glenlyon Road bus stops currently provide an effective interchange with the Nicholson Street tram service stops at Glenlyon Road, being located immediately west of Nicholson Street and at around 100 metres from the Amendment C92 site.



Discussions with the DoT and VicRoads indicate that the future interchange between bus route 506 and the Nicholson Street tram service is expected to occur further along Nicholson Street, in association with any improvement works by Yarra Trams and the DoT. Bus route number 506 travels along the section of Nicholson Street between Glenlyon Road and Miller Street, facilitating connection with the Nicholson Street tram service.

Nicholson Street, Rickard Street, Gamble Street and John Street facilitate pedestrian access for bus route 506, which operates on Glenlyon Road. The Nicholson Street tram service has good access with existing tram stops within easy walking distance at Glenlyon Road (120m south) and at Albert Street (150m north).

The developer has agreed to set back its development to provide an opportunity for the acquisition of the setback area by Yarra Trams and/or the DoT for tram improvements. The subject-to-acquisition setbacks along Nicholson Street are shown by the access layout figure CG111076T01 P1 (Appendix A).

An interim layout for the signalised Nicholson Street access intersection was prepared, in consultation with Yarra Trams, the DoT and VicRoads, and is shown by figure CG111076T05 P2 dated August 2011 (Appendix B). With this layout the Nicholson Street tram stops would be retained at either or both Glenlyon Road and Albert Street. Subsequent discussions with VicRoads lead to the development of a second interim intersection design that features a left turn slip lane from south to west, discussed further as follows.

An access intersection treatment was developed during June 2012, in discussion with VicRoads, incorporating a left-turn slip lane from south to west, Nicholson Street to the main access street. Cardno Drawing No. CG111076T05 P3, dated 12th July 2012, shows the intersection layout featuring a left-turn slip lane, and is shown in Appendix D. This layout is designed to permit implementation independent of the property to the immediate south at 125 Nicholson Street. This intersection layout is compatible with a number of alternate tram stop arrangements that VicRoads and the DoT are considering for this location.

2.15 Bicycle Routes

"How development and streetscape improvements will support and integrate with the John Street and Albert Street bicycle routes."

The Amendment C92 precinct is to provide a high level of permeability for pedestrian and bicycle movements.

John Street, Gamble Street, Rickard Street and Nicholson Street facilitate bicycle access to the on-road bike lane on Glenlyon Road. Access to the Albert Street informal on-road bicycle route is available via John Street, Elm Grove and Nicholson Street. The section of informal on-road bicycle route on John Street is to be accessible via the main east west street, and via a laneway connection.

Nicholson Street currently provides an informal bicycle route. The designs for the Nicholson Street access intersection (Appendix A, Appendix B & Appendix D) facilitate Nicholson street bicycle traffic through bicycle "Head Start" storage boxes in front of the adjoining traffic lane. The access intersection designs also facilitate bicycle traffic by maximising the width available for the kerbside traffic lane.

Figure 2-6 shows the location of bicycle routes around the site.

Figure 2-6 Bicycle Route Integration, Map Courtesy of Travel Smart



The above figure shows the proximity of the Merri Creek bicycle path, which connects with the Capital City Trail which in turn loops around central Melbourne and provides connections with bicycle trails across the metropolitan area.



Clause 52.34 of the Moreland Planning Scheme specifies the following bicycle parking provision requirements with regard to the different components of the proposed development.

Table 2-2 Planning Scheme Bicycle Parking Requirements – Clause 52.34

Component	Area/No	Requirement		
Component	Area/NO	Rate	Total Spaces	
Dwelling	800-840 dwellings	1 to each 5 dwellings for residents 1 to each 10 dwellings for visitors	160-168 res 80-84 vis	
Medical Centre	500-550sq.m (6 practitioners)	1 to each 8 practitioners for employees 1 to each 4 practitioners for visitors	1 employee 2 vis	
Office	2,500-2,600sq.m	1 to each 300sq.m of net floor area for employees 1 to each 1,000sq.m for visitors	8-9 employee 3 vis	
Shop	7,800-8,000sq.m	1 to each 600sq.m of leasable floor area for employees 1 to each 500sq.m of leasable floor area for visitors	13 employee 16 visitor	
Total - Employees/Residents 182-191 res - Visitors 101-105 vis				

Additionally, Clause 52.34 requires the provision of employee showers in accordance with the following requirements.

Table 2-3 Shower Requirements – Clause 52.34

Component	Employee Bike	Requirement Rate Total 1 shower for the first 5 employee spaces; plus			
	Parking Spaces	Rate	Total 3		
Showers	22-23	1 shower for the first 5 employee spaces; plus 1 shower for each additional 10 employee spaces.	3		

Furthermore, all showers should be provided with access to a change room, or should incorporate a combined change room with the shower.

The provision of both employee and visitor bicycle parking spaces is to exceed the Planning Scheme Requirements detailed above. Resident bicycle parking is to be provided at one space per dwelling. Bicycle parking is also to be provided for retail and commercial uses in excess of the planning scheme requirement. Visitor bicycle parking is to be provided at purpose built parking facilities.

The development proposes a total of between 900 and 1,000 bicycle spaces, with an indicative distribution as follows:

- > 140-160 visitor spaces at ground level;
- > 310-360 resident/retail/office employee spaces in basement level 1;
- > 450-480 resident spaces in basement level 2.

Resident bicycle parking is to be provided within the basement parking areas, through a combination of separate bicycle parking areas, and through wall mounted bicycle parking such as the Bicycle Network 'Mona Lisa' wall mounted bicycle rack. The bicycle parking layouts are to be in accordance with the recommendations of the Bicycle Victoria Handbook (Bicycle Network). Vehicle ramps accessing the basement parking areas are to cater for bicycle access, with grades of not more than 1:8.

The provision of visitor bicycle parking on-street is considered to be appropriate, with the proposed locations shown by Figure 2-7.



Figure 2-7 Bicycle Parking, On-street



The above figure (an excerpt from Drawing No. 1050_DA.17 Rev U prepared by Jam Architects, dated 9 February 2017) shows a number of proposed visitor bicycle locations, which are to provide 140-160 spaces, significantly exceeding the Planning Scheme requirements.

2.16 Local Road Connections and Streetscapes

"The nature of connections to the local road network and streetscape improvements along the streets adjoining the Precinct and along the length of John Street."

An accessibility map prepared by Jam Architects shows the connections with the surrounding streets. Figure 2-7 shows a partial view of the drawing prepared by Jam Architects that shows the Amendment C92 accessibility map. Appendix F shows the full precinct circulation plan.



Retail Car park
a CCess

Bollards

Bollards

Road closure

Retail Car park
a CCess

Bollards

Figure 2-8 Precinct Circulation Plan (Partial View) - Amendment C92 Moreland

The above figure shows a pedestrian focal point midway along the main street, which connects with the pedestrian access via the North end of Gamble Street. The above figure also shows bicycle links along Main Street. Appendix G shows some indicative cross sections.

Redundant crossovers are to be removed, and kerb and channel reinstated as appropriate. Details of the 'Main Street' design are provided on the 'Main Street Detail Plan' (Drawing number 1050_DA.21 Rev V dated 22nd March 2018) as part of the East Brunswick Village Development Plan as prepared by JAM Architects. The 'Main Street Detail Plan' shows bollards and/ or street furniture are proposed for the west end of 'Main Street'.



2.17 Traffic Distribution and Capacities

"How development will retain adjoining residential area amenity by traffic management measures to limit traffic volumes in adjoining residential streets to their designed performance capacities."

2.17.1 **Existing Traffic:**

Cardno arranged for automated tube counts to be undertaken for the one week period Sunday 15th May to Saturday 21st May 2011 inclusive. The results are summarised as follows, with 24 hour two way weekday volumes:

- 1,430vpd: Albert Street near Nicholson Street;
- 9,400vpd: Glenlyon Road near Nicholson Street;
- 967vpd: John Street near Albert Street;
- 967vpd: John Street near Glenlyon Road.

It is noted that the existing volumes include traffic generated by the current uses of the C92 Amendment area.

Nicholson Street traffic data sourced from VicRoads, and collected by AusTraffic in September 2008, shows that Nicholson Street was carrying around 19,000 vehicles per day. The Nicholson Street traffic volume data provided by VicRoads is in accordance with the traffic volumes adopted by GTA in their evidence to the Panel for Amendment C92 to the Moreland Planning Scheme.

2.17.2 <u>C92 Traffic:</u>

The GTA traffic impact assessment of Amendment C92 estimated a daily traffic generation of 9,580 vehicle movements for *full development of Amendment C92*. The Traffix Group assessment, on behalf of DoT, estimated a traffic generation of around 9,856 daily car trips for Amendment C92.

Assessment by Cardno indicates that the anticipated C92 volumes are appropriate, and that these traffic estimates are still considered relevant.

Table 2-4 below shows the anticipated C92 traffic volumes at various locations. The anticipated C92 volumes are consistent with the Traffix Group assessment, with around 80 percent of traffic accessing via Nicholson Street.

Table 2-4 Anticipated Amendment C92 Traffic Distribution

Intersection	Daily Traffic Volume (vpd)			
intersection	Existing	C92 Traffic	Future Total	
Main Street/Nicholson Street	0	7,000	7,000	
Nicholson Street, Left-in Left-out	0	1,230	1,230	
Albert Street/Nicholson Street	1,430	700	2,130	
John Street/Albert Street	970	300	1,270	
John Street/Glenlyon Rd	970	900	1,870	
Rickard Street/Glenlyon Road *	<300	70	<370	
Gamble Street/Glenlyon Rd *	<300	0	<300	
Elm Grove/Albert Street *	<250	700	<950	

^{*:} existing daily traffic estimated.

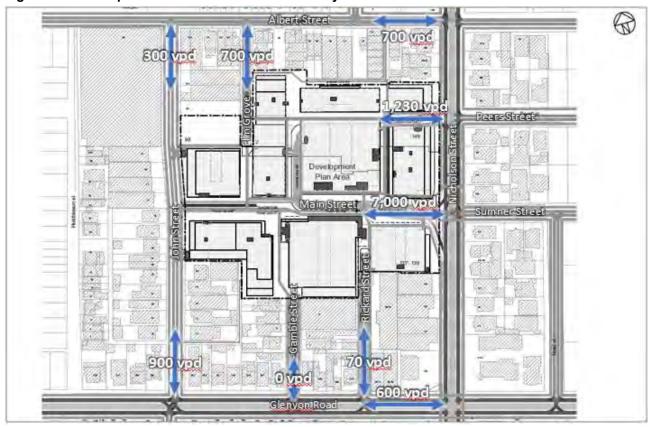
The above table shows that traffic volumes are expected to remain within the acceptable ranges identified within Clause 56 of the Planning Scheme. The anticipated traffic volumes are comparable to those estimated as part of the Amendment C92 assessment, and are thus considered appropriate.

What was previously identified as a minor road extending west of Nicholson Street between the former Banco site and the Pacific Laundry Site (149 Nicholson Street) was to provide access to the Pacific Laundry Site, but now is not required. The former Pacific Laundry Site is now an integrated part of the Banco Site. The left-in left-out Nicholson Street access, opposite Peers Street is to be retained and is to continue to provide basement car park and loading/service vehicle access consistent with the September 2012 Integrated Transport Plan.



Figure 2-9 below shows the anticipated traffic for full development of the Amendment C92 area.

Figure 2-9 Anticipated Amendment C92 Traffic Only

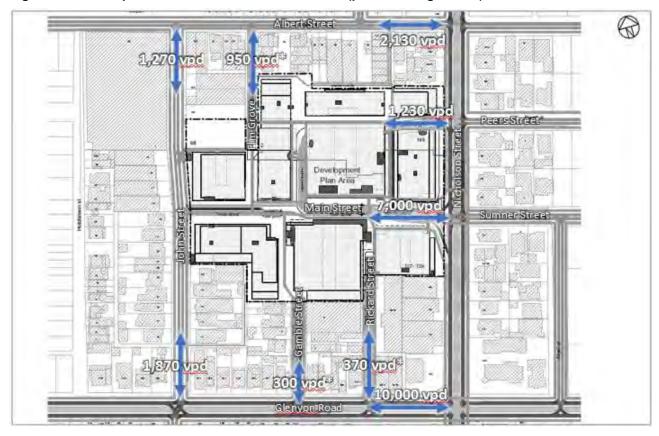


As shown above, the anticipated C92 traffic to John Street is expected to total around 1,200 vehicle movements per day distributed between north and south, as shown above. The residential basement parking for the Banco component (127-129, 139 and 149 Nicholson Street) is expected to contribute not more than 1,000 vehicle movements per day, in accordance with the approved September 2012 Integrated Transport Plan.

Figure 2-10 shows the anticipated post development traffic volumes, inclusive of all traffic associated with full development of Amendment C92, and existing traffic.



Figure 2-10 Anticipated Post Amendment C92 Traffic (plus Existing Traffic)



^{*:} based on estimated existing daily traffic

The above figures show that traffic volumes are expected to remain within the acceptable ranges identified within Clause 56 of the Planning Scheme. The anticipated traffic volumes are comparable to those estimated as part of the Amendment C92 assessment, and are thus considered appropriate.

The above figure shows the anticipated post C92 traffic volumes, which are derived by combining the anticipated C92 traffic with the existing traffic. It is noted that this approach is conservative as the existing traffic would contain a component of *existing-use-traffic* for the C92 area.



2.17.3 <u>Discussion of C92 Traffic Generation:</u>

The anticipated generation of traffic associated with the C92 Development Plan Area is shown in Table 2-5. Given that there was no medical centre use assessed in the previous ITP, the peak hour traffic generation was calculated by first principle as follows:

- > 18 car parking spaces required for medical centre use by Planning Scheme;
- > It is assumed that the medical centre will be staffed by no more than six practitioners at any one time, all of whom are allocated a car parking space (six spaces total). It is also assumed that practitioners will not make trips in the peak hour periods;
- > It is assumed that the remaining twelve car parking spaces provided for patients will turnover twice an hour.

 This gives a trip generation rate of four vehicles per hour per space (two trips in, two trips out);
- > 12 spaces x 4vph = 48vph total. This is considered to be a conservative estimate, as it is likely that trips to the medical centre would be part of a multi-purpose trip (i.e. customers may visit the supermarket/shops as well).

The proposed office is in the range of 2,500 to 2,600 sqm, which is a significant reduction from the anticipated 7,000 sqm envisaged in the 2012 Integrated Transport Plan. The significant reduction in office offsets the proposed medical centre and the increase in specialty retail, yielding an overall traffic generation that is consistent with the September 2012 Integrated Transport Plan.

Table 2-5 Anticipated C92 Development Plan Area Traffic Generation

Component	Yield	Peak hour traffic per unit	Peak hour vehicles	Daily traffic per unit	Daily Vehicles
Apartments	1050 dwellings	0.362 per Apt	380vph	3.62 per Apt	3,801vpd
Medical Centre	500-550 sq.m	-	48vph*	10 x peak hour volumes	480vpd
Office	2,500-2,600 sq.m	0.015 per sq.m	38-39vph	0.08 per sq.m	200-208vpd
Specialty retail	4,800-5000sq.m	0.056 per sq.m	269-280vph	0.56 per sq.m	2,688-2800vpd
Supermarket	3,000 sq.m	0.1 per sq.m	300vph	1 per sq.m	3,000vpd
Totals	-	-	1,035-1,047vph	-	10,169-10,289vpd

^{*:} Forecast as per first principles assessment above.

The above table shows that the anticipated traffic from the C92 Development Plan Area is similar to that anticipated by the GTA and Traffix Group assessments for the C92 Amendment. Table 2-6 shows a comparison of the anticipated traffic generations.

 Table 2-6
 Comparison of Anticipated C92 Traffic Generation

Component	PM peak hour vehicles	Daily Vehicles	
Cardno	1,035-1,047vph	10,169-10,289vpd	
GTA	953vph	9,580vpd	
Traffix Group	1,062vph	9,856vpd	

The proposed C92 composition has changed since the GTA and Traffix Group assessments, as shown in Table 2-6 above. The above table shows that the anticipated overall traffic generation is not expected to change significantly.

The anticipated traffic generation is consistent with the September 2012 Integrated Transport Plan.



2.17.4 <u>Discussion of C92 Traffic Distribution:</u>

The anticipated C92 traffic distribution is consistent with the Panel recommendation with not less than 80 percent of C92 traffic accessing via either Nicholson Street or Glenlyon Road. The potential for the distribution of C92 traffic to local streets is controlled, and is discussed as follows.

2.17.4.1 John Street:

The anticipated traffic from the Development Plan Area (DPA) to John Street is to be primarily from the west basement car park proposed as part of the Banco residential development, which is currently proposed at around 216 spaces. The quantity of traffic that is forecast to utilise the John Street access was calculated as follows:

- > There are 215 to 260 residential car parking spaces with access to John Street (west residential car parking);
- > As the traffic generation rates utilised in the previous ITP traffic assessment were based upon the number of dwellings, a traffic generation rate was calculated based upon the number of car parking spaces;
- > Residential traffic generation = 295vph/851 car parking spaces = 0.35vph per car parking space;
- > 215 to 260 car parking spaces x 0.35vph per car parking space = 75-91vph. This is equivalent to around 750 to 910 vehicles per day.

Given the above, the traffic generation anticipated to John Street from the Development Plan Area is expected to be around 750 to 910 vehicle movements per day. The adopted C92 traffic generation to John Street is 1,200 vehicle movements per day. This traffic volume allows for 290 to 450 vehicle movements per day from the remainder of the DPA part of C92. A further 80 to 120 apartments with parking could thus be supported with John Street access while remaining in accordance with the traffic volumes estimated herein, and remaining in accordance with the approved September 2012 Integrated Transport Plan.

2.17.4.2 Elm Grove:

The anticipated distribution of 700 vehicle movements per day to Elm Grove from C92 equates to around 195 apartments with parking accessed via Elm Grove (193=700/3.62).

Further C92 apartments with parking could access via Elm Grove without increasing the estimated post C92 traffic levels, as the traffic generation of the existing land use would offset a component of traffic generation associated with future development.

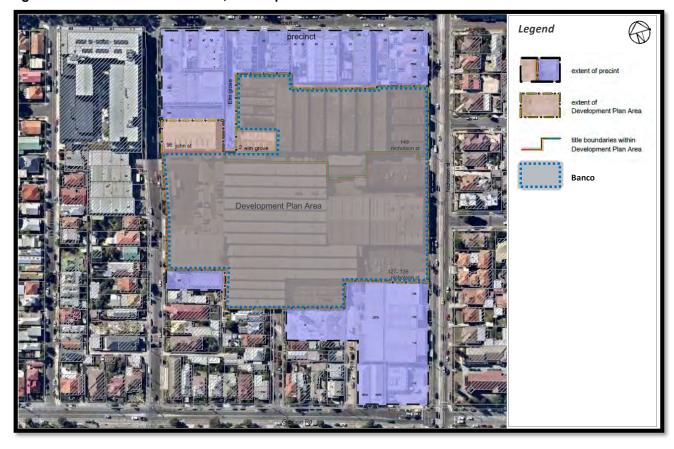
Elm Grove is expected to provide vehicle access for the abutting properties, and not for the wider Neighbourhood Activity Centre. It is proposed to retain a vehicle closure near the south end of Elm Grove, and that this closure would permit both pedestrian and bicycle access.



2.17.4.3 Comparison of C92 Amendment, Development Plan and Banco Areas:

Figure 2-11 shows a partial view of a drawing prepared by Jam Architects (Drawing No. 1050_DA.2 Rev U, dated 9th February 2017), identifying the C92 amendment area ('precinct'), the Development Plan (DP) area, the Banco area, and also title boundaries with the DP area.

Figure 2-11 Amendment C92 Area, Development Plan Area & Banco Area





The anticipated future development within the various C92 component areas is summarised in Table 2-7 below.

Table 2-7 C92 Development Summary

Component	Banco	Development Plan	Non DP C92	Total C92
Apartments/Dwellings	800-840 dwellings	+210	##	1,210-1,250 ##
Medical Centre	500-550sq.m	0	0	500-550sq.m
Office	2,500-2,600sq.m	0	0	2,500-2,600sq.m
Specialty retail	4,800-5,000sq.m	0	0	4,800-5,000sq.m
Supermarket	3,000sq.m	0	0	3,000sq.m
Car parking	1,190 to 1,210 spaces	+200 #	#	1,390-1,410 #

[#] Resident parking to be provided at less than 52.06 rates.

The preceding table shows that around 210 apartments with parking are proposed for that part of the DPA outside of the BANCO area. It also shows that further residential development could be considered for the remainder of the C92 area subject to planning approvals.

It is noted that a number of the lots located within the non-DPA part of the C92 Amendment area have already been redeveloped/developed as multi-level residential. Traffic from these lots is included within this assessment as part of the existing traffic.

2.18 Main Street Function

"The function of the new Main Street, including pedestrian, cycling, management of vehicles, access and egress information and parking facilities."

The primary vehicle access for the Neighbourhood Activity Centre is to be via the proposed Nicholson Street signalised access intersection, to be located at Sumner Street. The main access street is to extend west from the Nicholson Street intersection, providing vehicle access to both the basement parking and access to the north via provision for a street connecting to the north along the extension of the Rickard Street alignment.

Appendix 7 shows drawing CG111076SK10P4 that details a number of road cross sections for the proposed development, including cross sections for the main street. Figure 2 (*Section 2.3 Neighbourhood Activity Centre, Primary Access*) shows an indicative layout for the main street. The internal streets are to be body corporate.

Section 2.3 of this document provides additional information regarding the function of Main Street as the primary vehicle access for the Neighbourhood Activity Centre. Section 2.15 entitled "Bicycle Routes" provides additional information about the integration of bicycle routes and Main Street bicycle parking.

The east part of the Main Street is to provide access to the basement retail car park, and to the basement residential parking. The first part of the main access street is to terminate at around 100 metres west of Nicholson Street, at the basement car park access. The west and central sections of the main street are to be pedestrian areas, without regular vehicle access. The traffic function of Main Street is further discussed in Section 2.3.

From John Street, Main Street extends for 60 metres as a pedestrian-only zone that leads to the central pedestrian "focal point" which extends for around 40 metres.

The John Street end of the main street would be designed to facilitate occasional access for emergency and service vehicles. This could take the form of a section of John Street with semi mountable kerb with no parking, and might include removable or frangible bollards.

2.19 Mobility Impaired Access

"How development optimises accessibility for the mobility impaired."

Access for the mobility impaired is to be designed in accordance with Australian Standard requirements.

^{##} Further apartments could be developed in the non-DP-C92 area, subject to planning approvals.



3 Conclusion

Based on the foregoing analysis, it is concluded that the proposed development accords with the requirements of Schedule 11 to the development plan overlay, and is recommended for approval.

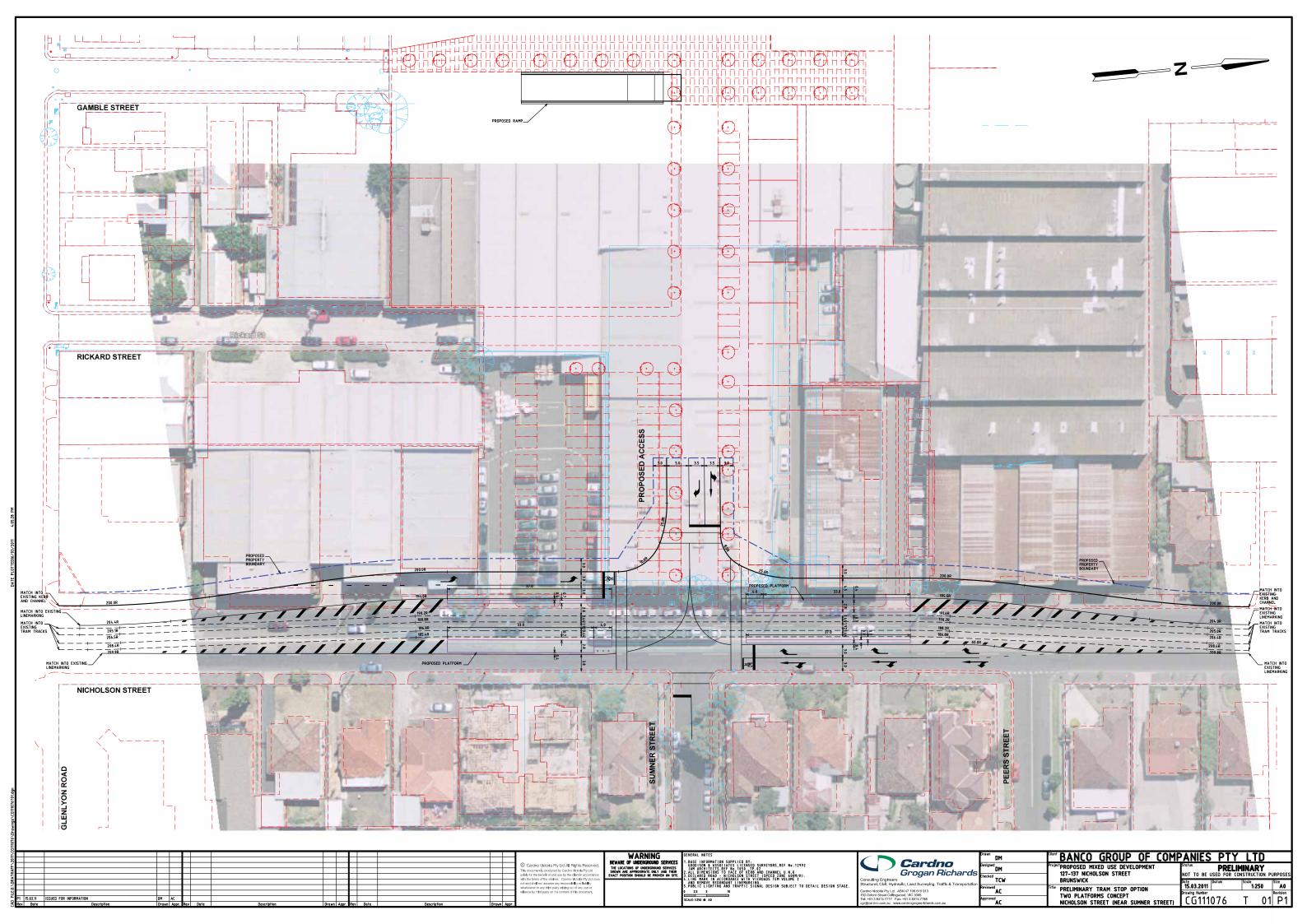
This Amended Integrated Transport Plan is consistent with the September 2012 Integrated Transport Plan.

APPENDIX



YARRA TRAMS & DOT PREFERRED LAYOUT CG11107T01 P1



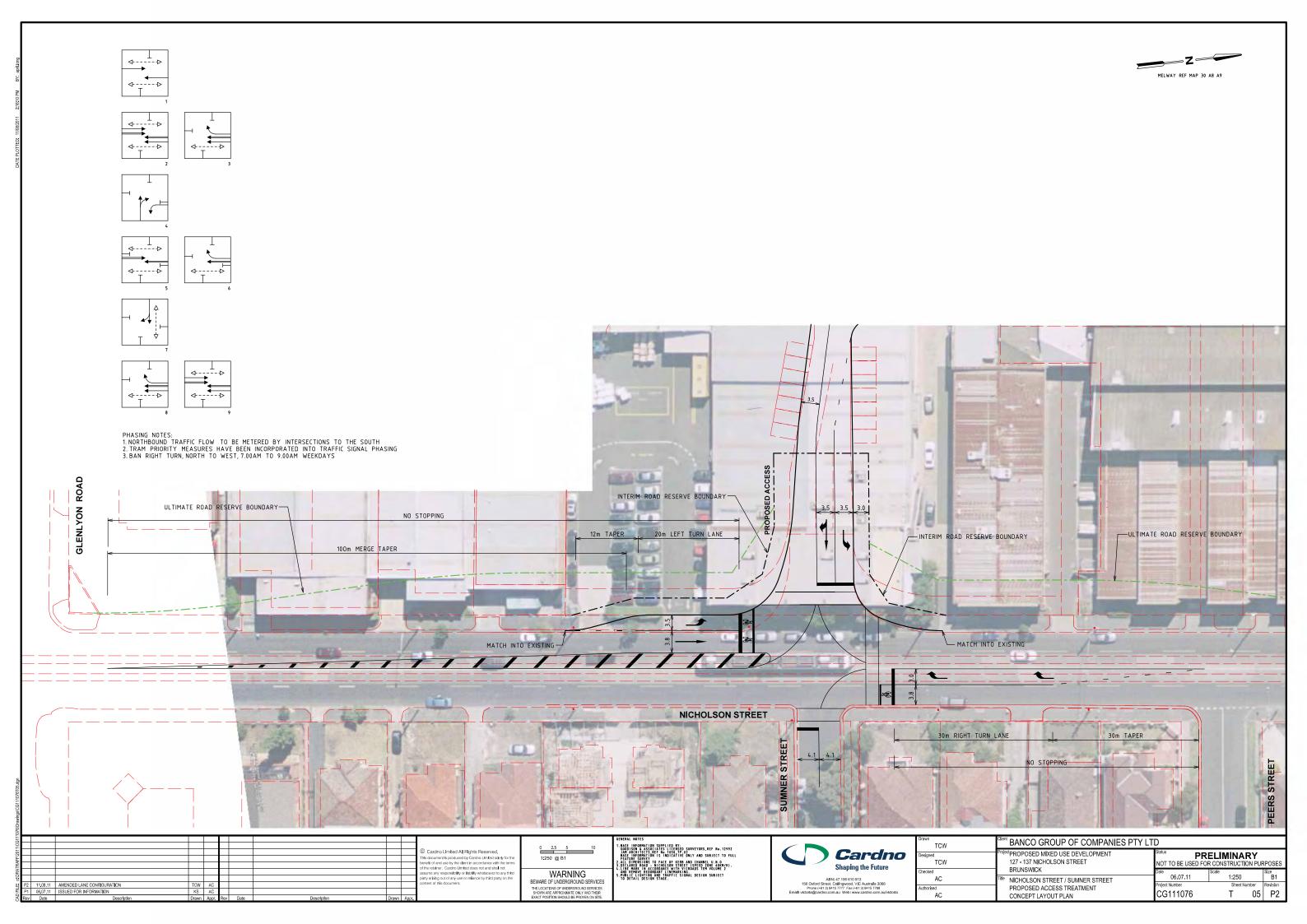


APPENDIX

B

INTERIM ACCESS LAYOUT CG111076T05 P2





APPENDIX

C

DOT LETTER OF SUPPORT DATED 5TH FEBRUARY 2012







Department of Transport

File: FOL/11/35956 Ref: DOPT2011/0333 PO Box 2797
Melbourne Victoria 3001
Telephone: (03) 9655 6666
Facsimile: (03) 9095 4096
www.transport.vic.gov.au
DX 210410

Nicole Ford Strategic Planner Moreland City Council Locked Bay 10 MORELAND VIC 3058 7 Dear Ms Ford

MORELAND PLANNING SCHEME

PROPOSAL: EAST BRUNSWICK VILLAGE DEVELOPMENT PLAN

ADDRESS: NICHOLSON STREET BRUNSWICK EAST

Thank you for your letter dated 17th November 2011 referring the above Development Plan to the Director of Public Transport for comment.

The Director of Public Transport has been in extensive discussions with the developers of the site for some time and our requirements have primarily been satisfied as outlined in the submitted Integrated Transport Plan and supporting information.

One variation is however requested to the plans throughout the document which reflect the panels recommendations at 5.3. The report states:

"the Proponent did not challenge VicRoads view that the unsignalised access to Nicholson Street opposite Peers Street should be restricted to left in / left out movements."

As such the Director of Public Transport would request that the various plans throughout the Development Plan be amended to reflect this recommendation.

Subject to the above alteration the Director of Public Transport supports the Development Plan and associated Integrated Transport Plan as submitted.

Should you require any further clarification, I can be contacted on telephone 03 9095 4106.

Yours sincerely

Planning Referrals Co-ordinator

Delegate of the Director Public Transport

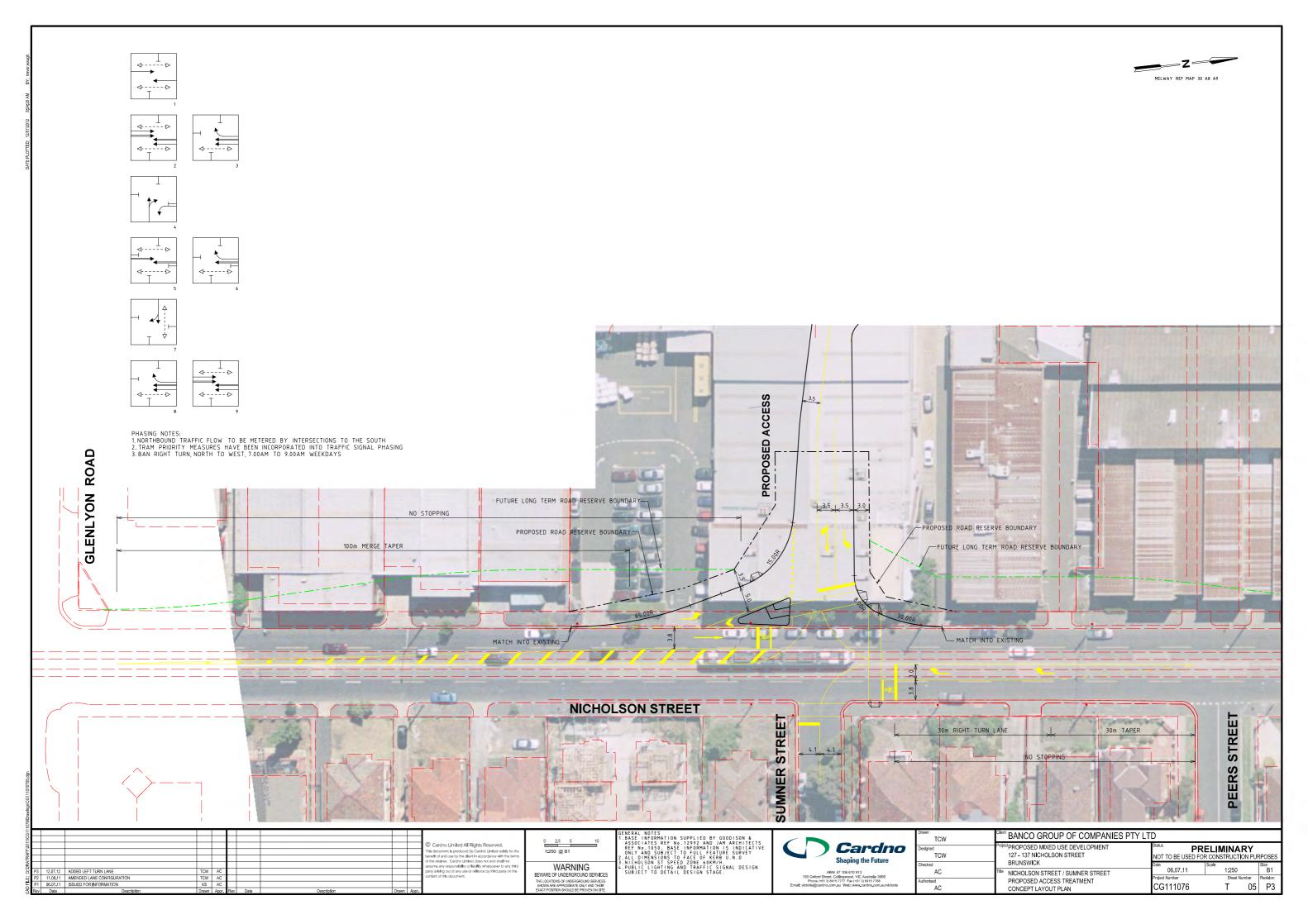
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APPENDIX

INTERIM ACCESS LAYOUT, WITH LEFT TURN SLIP LANE CG111076T05 P3

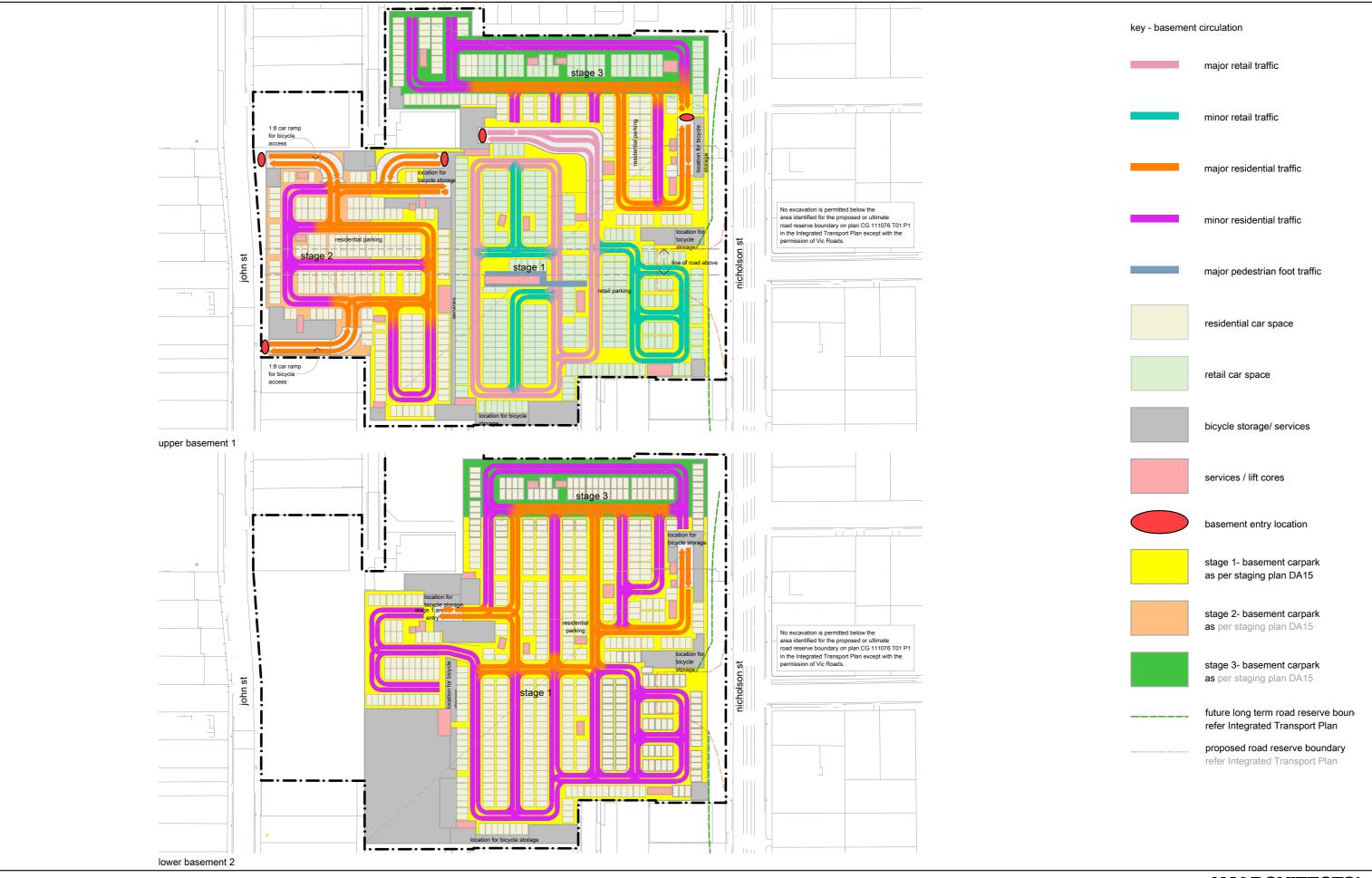




APPENDIX

BASEMENT CIRCULATION



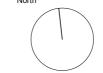


BASEMENT CIRCULATION

127-139 NICHOLSON STREET, BRUNSWICK

15/08/2016 09/02/2017 22/03/2018 REV T. AMENDED DEVELOPMENT PLAN REV U. AMENDED DEVELOPMENT PLAN REV V. AMENDED FOR VCAT ORDER 21/2/18





Client Date
BANCO GROUP OF COMPANIES PTY LTD NOV 2010

Drawing BASEMENT CIRCULATION

Drawing Number 1050_DA.11 Rev. V

JAMRCHITECTS°

Plot Date 22/03/2018 1:1500 @ A3

Drawn AG

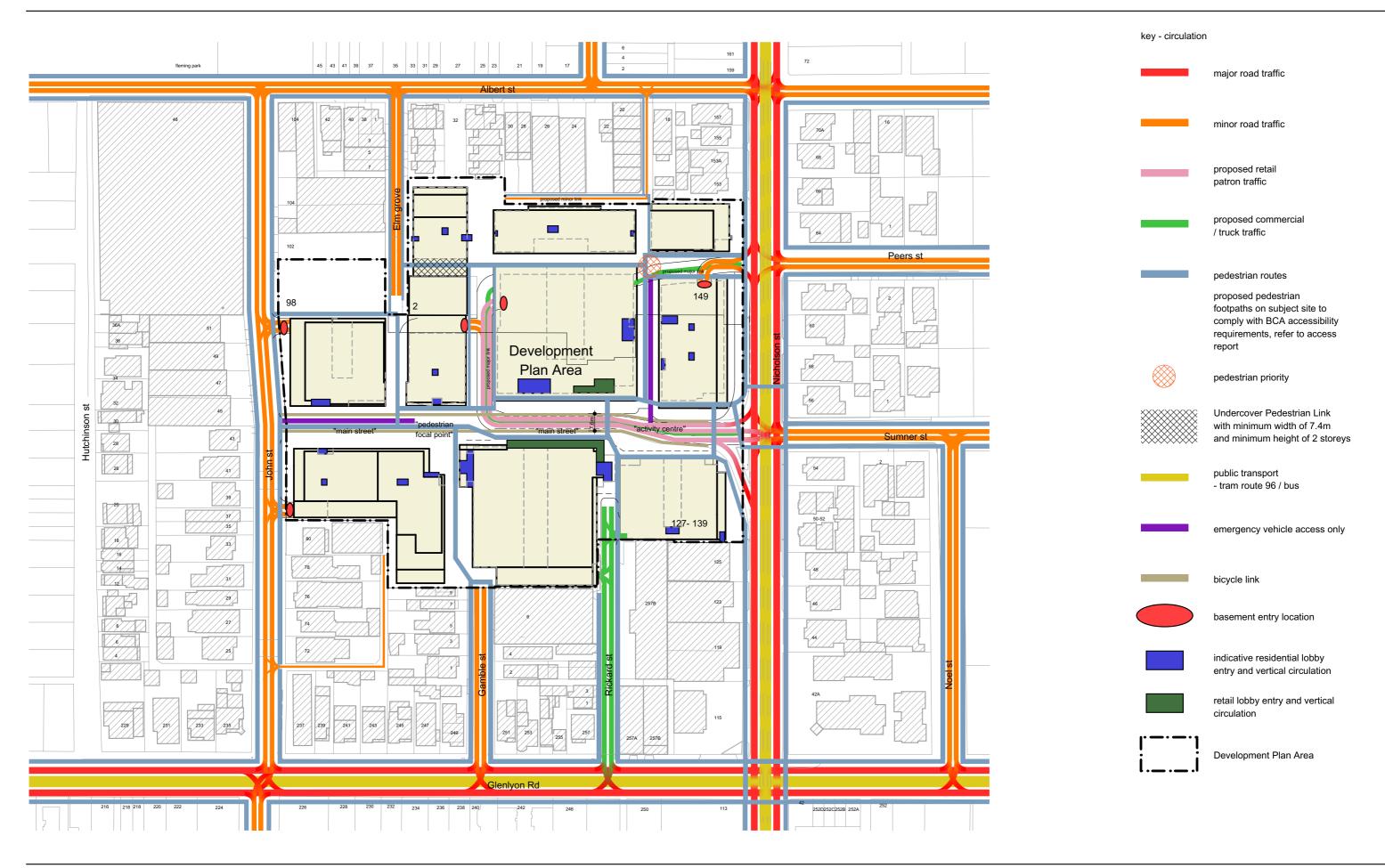
7 Howard Street T 61 3 9429 7744 Richmond, Victoria F 61 3 9429 3955 3121 Australia jamarchitects.com.au

APPENDIX

F

PRECINCT CIRCULATION PLAN





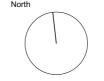


127-139 AND 149 NICHOLSON STREET. 98 JOHN STREET AND 2 ELM GROVE, BRUNSWICK

15/08/2016 09/02/2017 22/03/2018

REV T. AMENDED DEVELOPMENT PLAN REV U. AMENDED DEVELOPMENT PLAN REV V. AMENDED FOR VCAT ORDER 21/2/18





Client Date
BANCO GROUP OF COMPANIES PTY LTD NOV 2010

Rev. V

Drawing PRECINCT CIRCULATION PLAN

Drawing Number 1050_DA.10 Plot Date 22/03/2018

1:1500 @ A3

JAMRCHITECTS°

7 Howard Street 3121 Australia

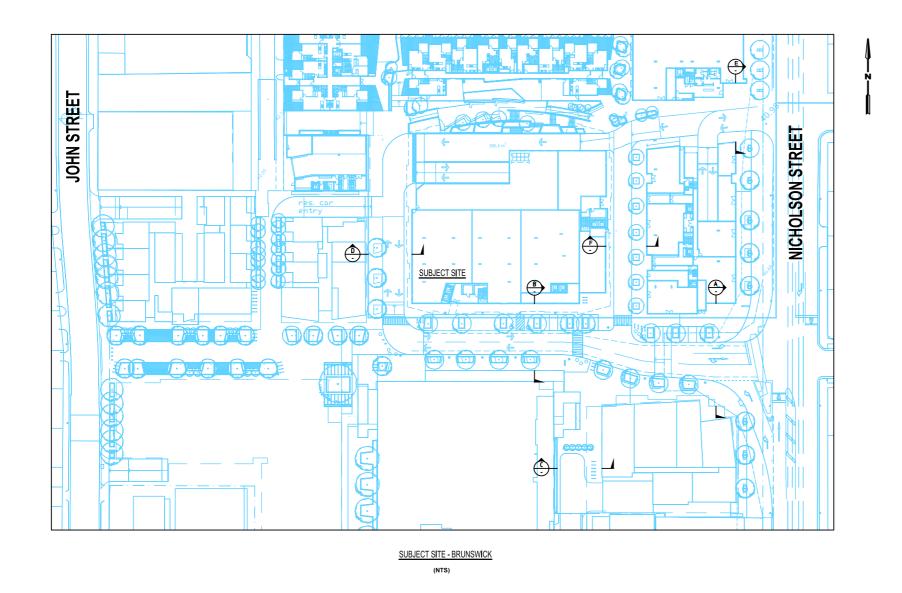
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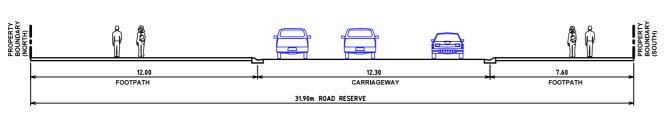
APPENDIX

G

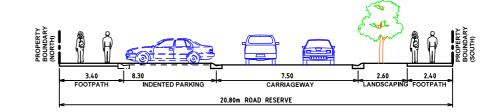
CROSS SECTIONS



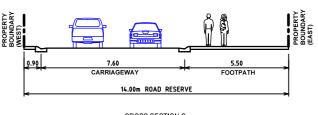




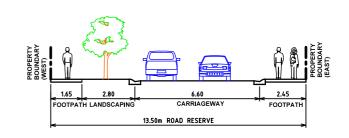
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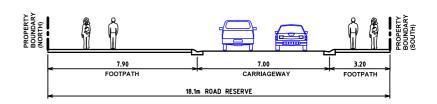
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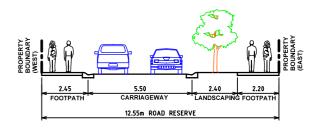
CROSS SECTION C 14.0m ROAD RESERVE



CROSS SECTION D 13.50m ROAD RESERVE



CROSS SECTION E 18.1m ROAD RESERVE



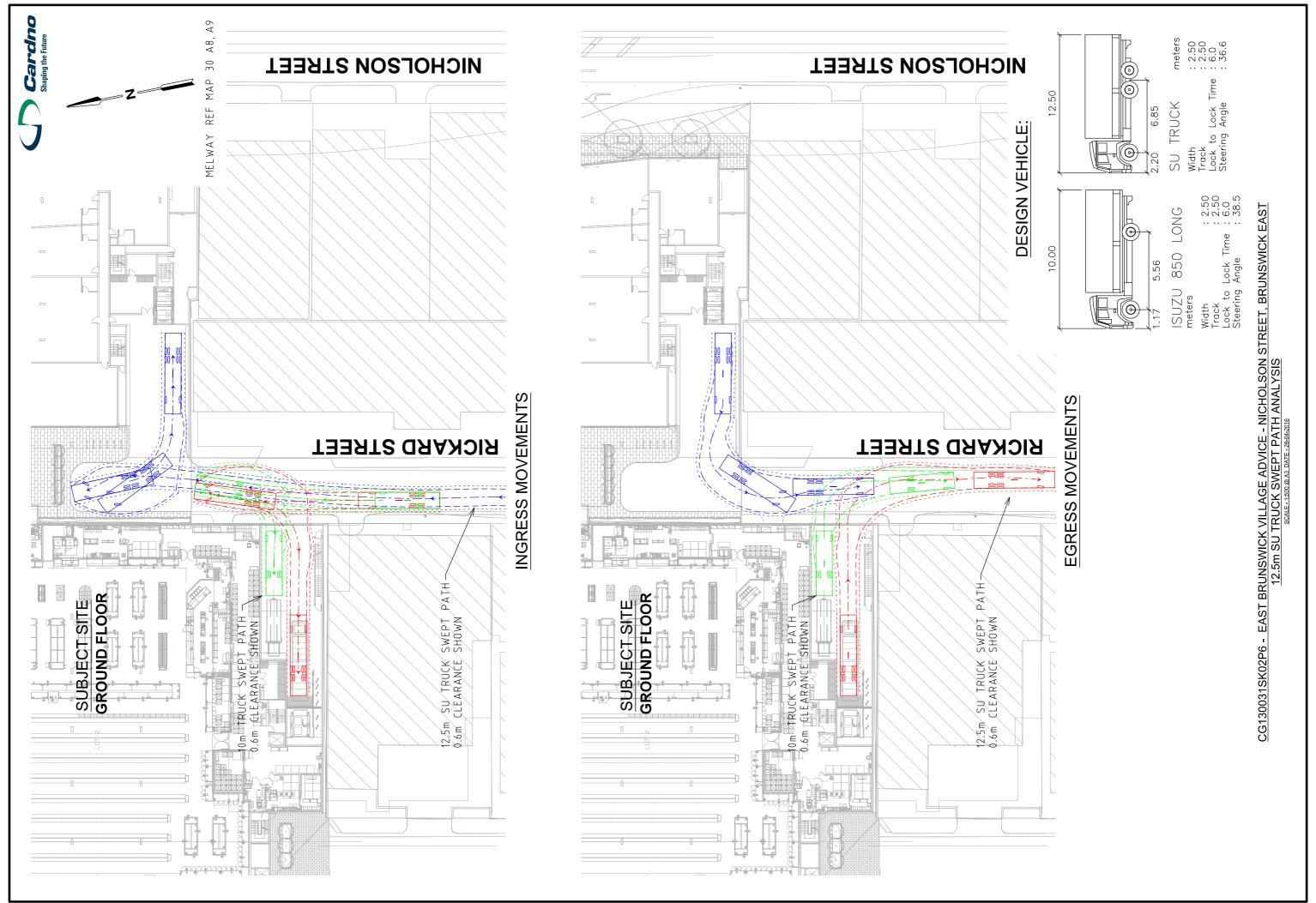
CROSS SECTION F 12.55m ROAD RESERVE

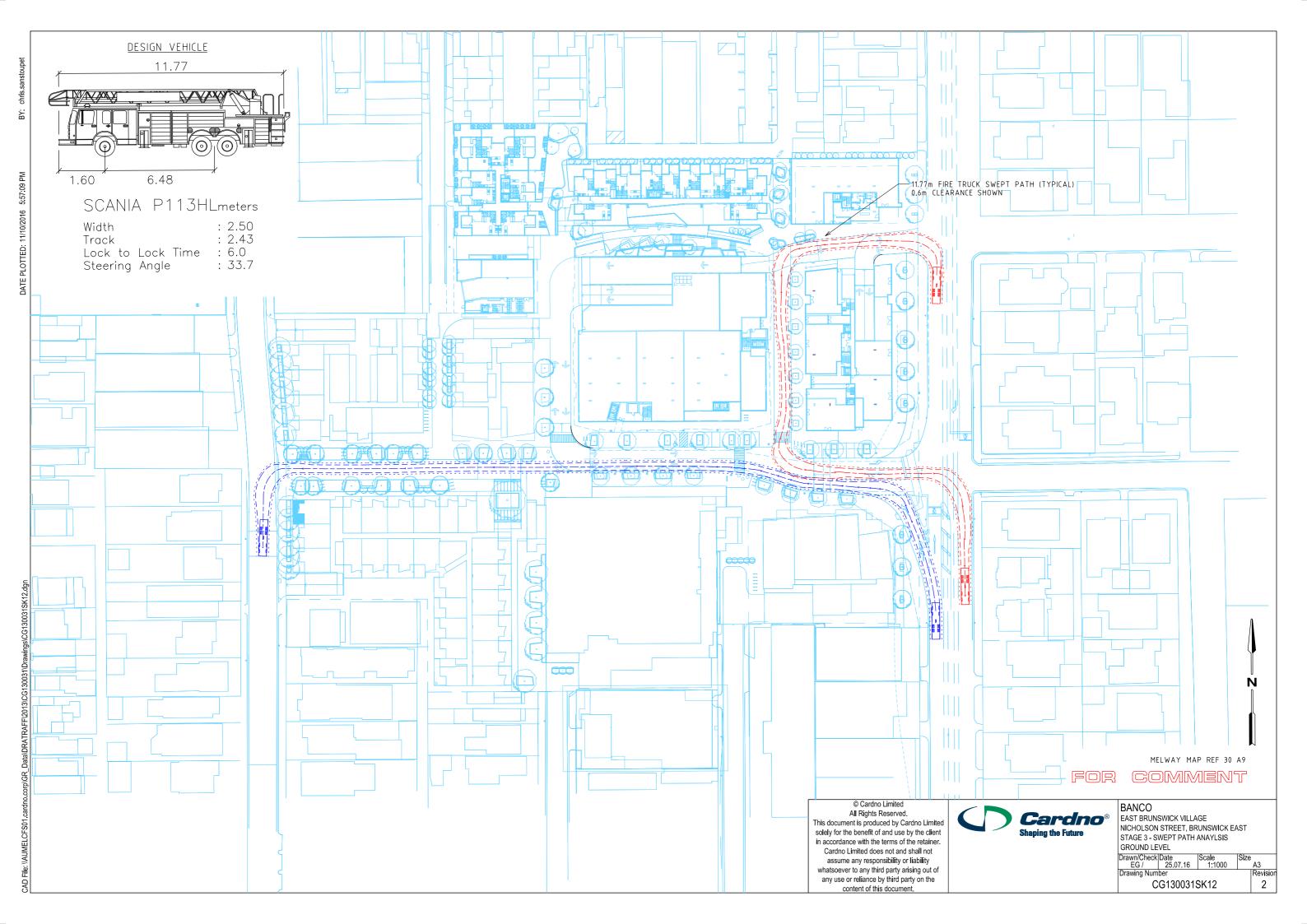
APPENDIX

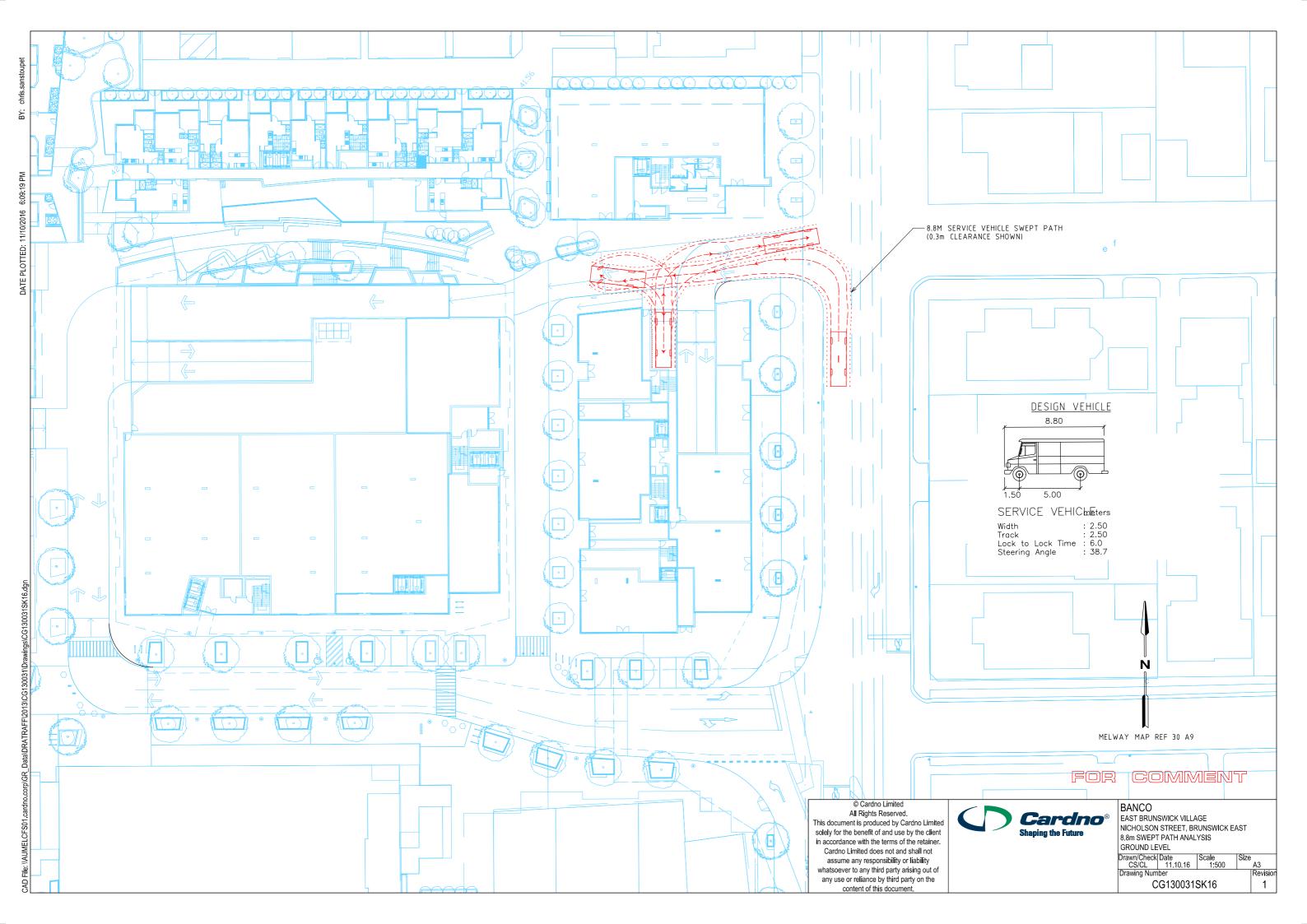
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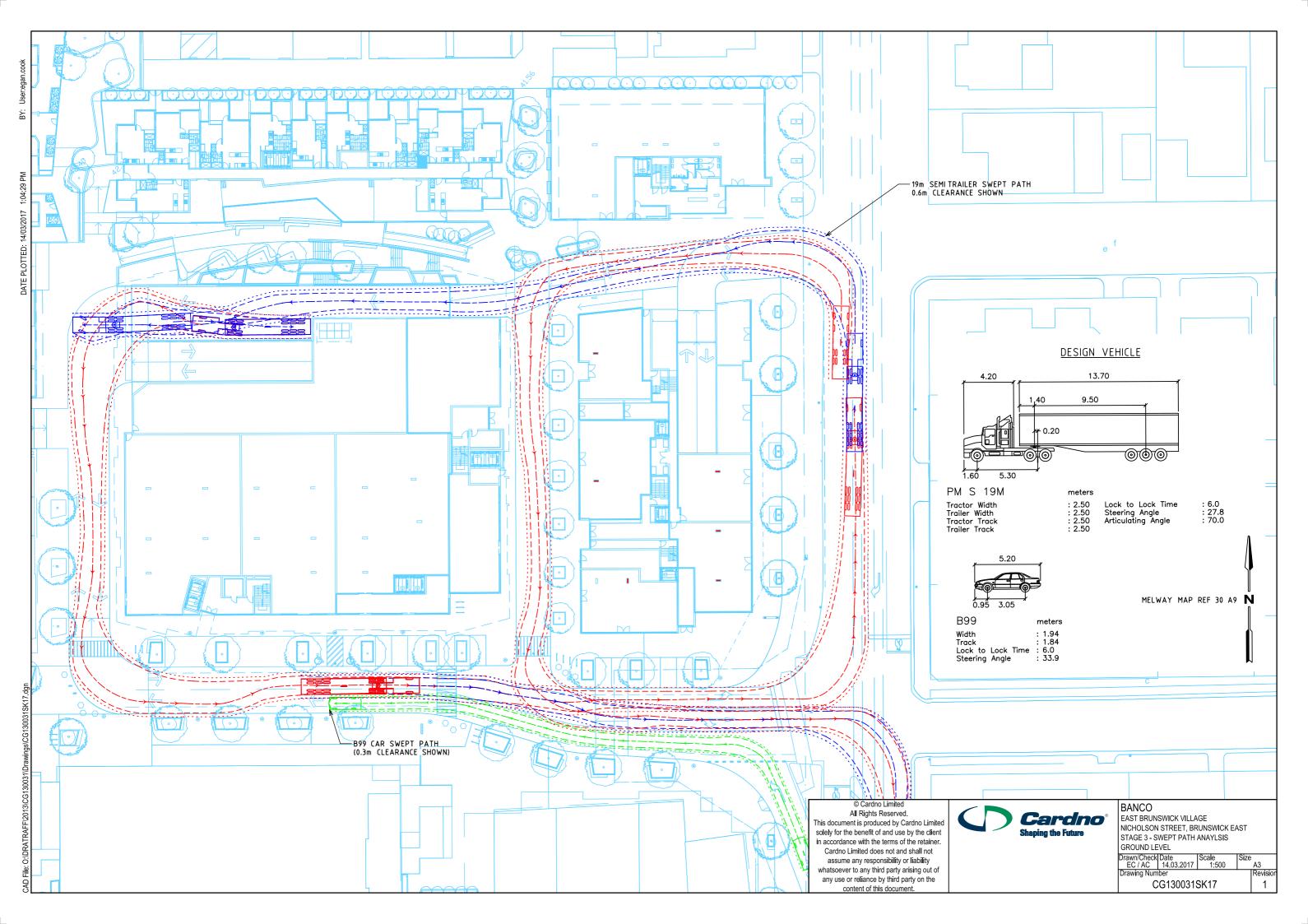
SERVICE VEHICLE SWEPT PATH DIAGRAMS











APPENDIX

VICROADS APPROVAL LETTER, DATED 26TH JULY 2012





Metropolitan North West Region 499 Ballarat Road Sunshine Victoria 3020 Private Bag 4000 Sunshine Victoria 3020

Telephone (03) 9313 1333 Fax (03) 9313 1198

vicroads.vic.gov.au

Nicole Ford Strategic Planner Moreland City Council Locked Bag 10 MORELAND VIC 3058

Contact: Simon Lanza Telephone: 9313 1149 Our Ref: 0449406 File No: SY 030 MRD C92

26 July 2012

Dear Ms Ford

MORELAND PLANNING SCHEME
NON-STATUTORY REFERRAL
EAST BRUNSWICK VILLAGE DEVELOPMENT PLAN
LAND GENERALLY BOUND BY NICHOLSON STREET, GLENLYON ROAD, JOHN STREET &
ALBERT STREET, BRUNSWICK EAST

I refer to the 'East Brunswick Village' Development Plan and VicRoads most recent correspondence by letter dated 20 June 2012 advising that a number of matters relating to the Integrated Transport Plan and interim and ultimate signalised intersection arrangements were still be resolved.

VicRoads has more recently been in discussion with the applicant and has received and reviewed an updated Integrated Transport Plan (Cardno Grogan Richards, Job No. CG111076, dated 12 July 2012) including revised plans for the Nicholson Street/Sumner Street/site access signalised intersection.

VicRoads is generally satisfied that its requirements have been met, and has no objection to the proposed East Brunswick Village Development Plan, subject to the following:

- Section 2.1 of the Integrated Transport Plan states that 'tram stops would be retained
 at either or both Glenlyon and Albert Street'. However, Schedule 11 of the
 Development Plan Overlay, under 'Access and Transport' requires the inclusion of a
 traffic signalised intersection, and fully accessible tram stop. Accordingly, the
 Integrated Transport Plan should be amended to reflect this for both interim and
 ultimate conditions, with a more appropriate statement being that 'the developer will
 work with VicRoads, PTV and Yarra Trams to provide fully accessible tram stops at the
 intersection as part of the interim design'.
- Section 2.1 of the Integrated Transport Plan discusses required setbacks along Nicholson Street to accommodate the ultimate intersection treatment, as depicted in Annex 1. Noting that this ultimate treatment provides not only for the 'ultimate' accessible tram stop but also for improved intersection capacity, safety and



minimisation of tram delay (ie. with right turn movements from Nicholson Street clear of tram tracks, and full length left turn lane), which cannot be achieved under the 'interim' access layout (due to existing structures) there is a nexus between the required setbacks and the proposed development. Accordingly, the statements in Section 2.1 suggesting that provision of the setback areas for the ultimate treatment must occur through acquisition alone should be removed or amended to reflect the greater nexus between the development impacts and the required setback area.

Please do not hesitate to contact me or Padma Dissanayake on 9313 1294 should you have any queries in relation to this matter.

Yours sincerely

SIMON LANZA TEAM LEADER

PLANNING NORTH CENTRAL