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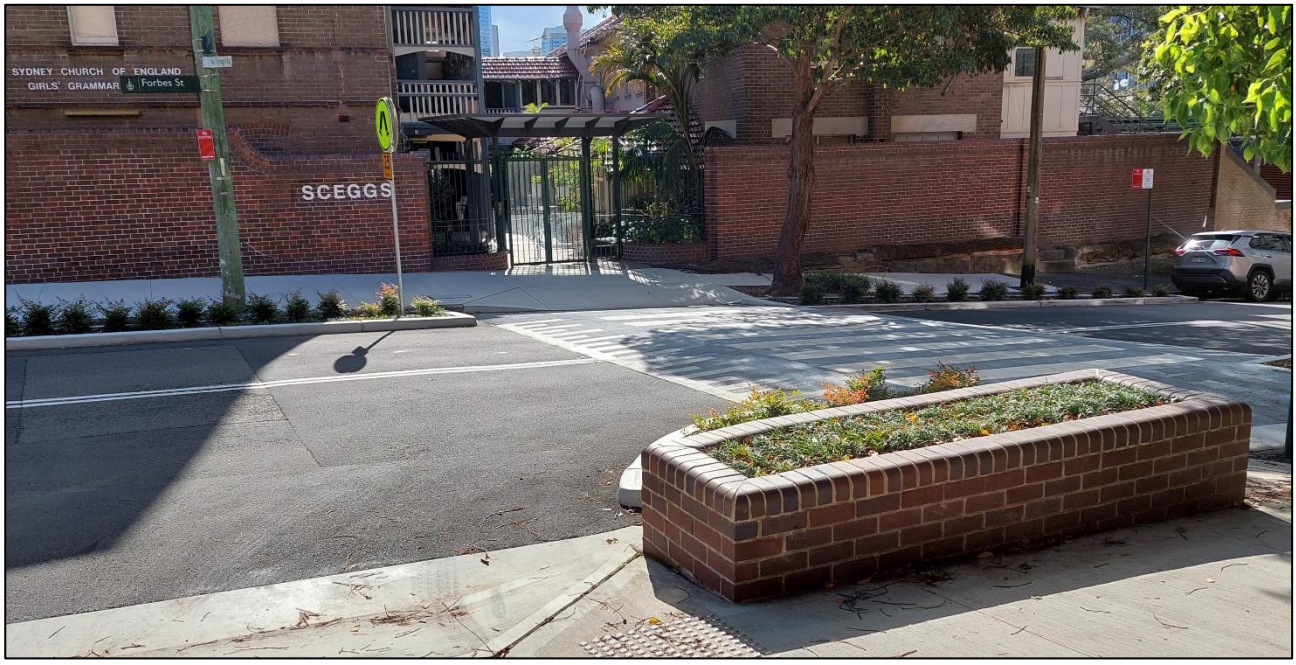
SCEGGS Darlinghurst

Existing stage road safety audit



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SCEGGS Darlinghurst

Existing stage road safety audit

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This report has been prepared for Traffix.

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Appendices

1 Project and audit details

1.1 Audit details

Details of the road safety audit have been summarised in Table 1.

Table 1 Details of the road safety audit.

Audited project	The school zone associated with the Sydney Church of England Girls Grammar (SCEGGS) School in Darlinghurst.
Client/ contact	Ben Liddell Senior Engineer Traffix Ph: 0410 460 043 E: Ben.Liddell@traffix.com.au
Audit type	*Existing stage* road safety audit.
Purpose and background	Conditional Development Consent was granted by the IPC on 22 May 2020 to the Concept DA (SSD 8993) for the redevelopment of SCEGGS at its main campus at 215 Forbes Street, Darlinghurst, excluding St. Peter's Precinct and 217 Forbes Street. Development Consent was not granted for Stage 1 works to Wilkinson House, including the demolition of existing Wilkinson House, excavation of a basement and construction of a new 4 storey building for general school purposes. The Concept Approval only approved the existing building envelope of the Wilkinson House. This road safety audit is to accompany the first detailed SSDA (SSD-19989744) under the Concept DA SSD 8993, for the adaptive re-use of Wilkinson House for general school learning areas and sport facilities to support the senior school, including alteration and additions to the existing Wilkinson House. Condition B12 part (d) of the concept consent conditions stated that "all future development applications for new built form must be accompanied by a road safety evaluation". A road safety evaluation is defined by Transport for NSW as a combined study including an *existing stage* road safety audit, a crash analysis and investigation, and a speed zone review. Through subsequent discussions with Department Planning, Industry and Environment and as part of the preparation of detailed SSDA for Adaptive re-use of Wilkinson House (SSD-19989744) we propose to change the requirement to a road safety audit as the most appropriate assessment for this development. Justification of this change is provided in the Section 4.55 Modification Report to SSD 8993. This road safety audit is to accompany Adaptive re-use of the Wilkinson House (SSD-19989744). Being consistent with *existing stage* road safety audits of other school sites, the spatial scope of this road safety audit was limited to the roads, footpaths and bicycle facilities that fall within the signposted 40km/h school zone. This is further described in *scope of audit*. As this audit has reviewed the surrounding roads and footpaths in their current state, and as these roads and footpaths will mostly remain unchanged by the proposed development in the school, this road safety audit should remain valid for future applications, provided that there are no major changes to the road and footpath layout.

Scope of audit	<u>Spatial scope</u> The spatial scope of the audit includes all roads, footpaths and bicycle facilities within the signposted 40km/h school zone. This includes the following roads (also depicted below): ▪ Bourke Street from Liverpool Street to Sutton Lane (southern connection to Bourke Street). ▪ Forbes Street from 130m north of Liverpool Street to its cul-de-sac terminal adjacent to St. Peters Lane. ▪ St. Peters Street from Forbes Street to Bourke Street. Note: This is a one-way *westbound only* road that is gated at both the Forbes Street and Bourke Street ends. Vehicular access is only allowed when the gates are opened. The opening and closing of the gates is managed by SCEGGS. It should be noted that as this is a split campus with the majority of school property on the southern side of St. Peters Street, and additional school buildings on the northern side, this road is a critical pedestrian connector for school students and staff moving between the two sides of the road. ▪ Stanley Street from 0-30m west of Bourke Street. ▪ Clapton Place from 0-40m east of Forbes Street. These roads are marked in yellow in the image below.  ***Left:*** *The school campus (in full colour) and the surrounding school zone as bounded in yellow. The Wilkinson Building is marked "subject site".* It should be noted that although Thompson Street and Thompson Lane share spatial boundaries with the school, these are not part of the signposted 40km/h school zone. Thompson Street is also vertically separated from the school campus and has no vehicular or pedestrian connection with the school. Also, the southern connection of Sutton Lane meets Bourke Street just within the school zone. However, this laneway is not part of the signposted school zone. St. Peters Lane is a small laneway which runs along the northern frontage of the northern campus of the school. However, there is no direct vehicular link between the 40km/h school zone sections of Forbes Street and Bourke Street to this laneway. As such, this laneway is not part of the 40km/h school zone. The audit team notes, however, that there is a pedestrian access from the school to this laneway. However, as this laneway is part of a 10km/h shared zone, it is considered to have more pedestrian-benefitting safety conditions compared with the adjacent 40km/h zoned streets. Thompson Place is restricted access road stemming off the eastern side of Bourke Street to the north of its intersection with Liverpool Street. This is a gated road and only allows local access. Public access is not permitted. In these respects, Thompson Street, Thompson Lane, Thompson Place, Sutton Lane and St. Peters Lane were all precluded from the audit scope.

Scope of audit (continued)	Temporal scope The reported road safety audit findings were based on the conditions ("version") of the site as inspected at the following times/ dates: ▪ Day time inspection carried out between 1420-1530h on 16/9/2021 (including PM school zone operations). ▪ Night-time inspection carried out between 2000-2100h on 19/9/2021. It should be noted that at the time of the inspections, NSW was put under stay-at-home lockdown orders as part of the Covid-19 response. This meant that most students were not attending the campus and attendance would be mostly by children of essential workers. As such, there was less criticality on performing the inspections on school days since it would not capture typical before school and after school movement patterns. The day time inspection date of 16/9/2021 was not a school day (rather, the first day of the spring school holidays). However, notwithstanding these unavoidable limitations, the audit team were still able to inspect all physical aspects of the road, footpath and bicycle facilities including the operation of flashing light units as part of the school zone signage.
Team details	Damien Chee, DC Traffic Engineering (level 3 and lead auditor – RSA-02-0094). Linda Chee, DC Traffic Engineering (Level 2 road safety auditor - RSA-02-1069).
Methodology	The road safety audit was undertaken using the following methodology: ▪ Day time inspection carried out between 1420-1530h on 16/9/2021. ▪ Night-time inspection carried out between 2000-2100h on 19/9/2021. ▪ The road safety review findings have been documented in this report in accordance with the NSW Centre for Road Safety's *Guidelines for Road Safety Auditing Practices* (2011). ▪ This report includes a completed checklist as sourced from the Austroads *Guide to Road Safety Part 6A: Implementing Road Safety Audits*.
Material supplied	Not applicable.

1.2 Responding to the audit report

Road safety audits provide the opportunity to highlight potential road safety problems and have them formally considered by the project manager in conjunction with all other project considerations.

The responsibility for the project rests with the project manager, not with the auditor. The project manager is under no obligation to accept the audit findings. Also, it is not the role of the auditor to agree to, or approve the project manager's responses to the audit.

1.3 Previous audits

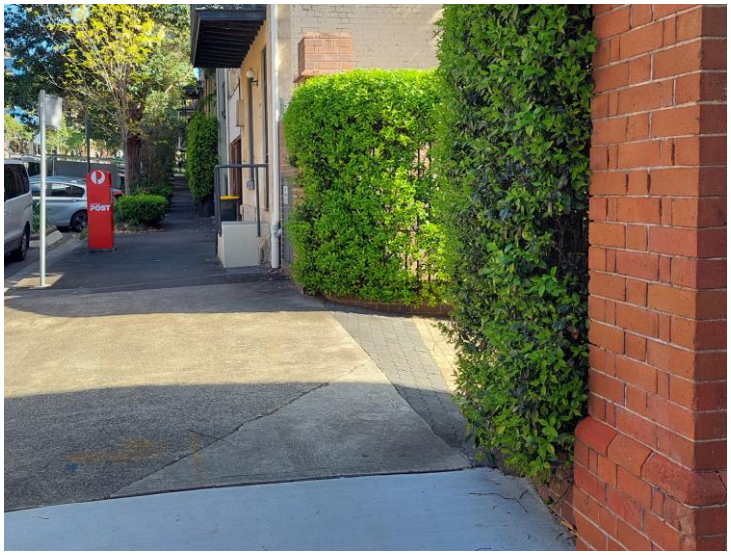
There were no previous road safety audit reports of direct relevance to this audit, that were issued to the audit team.

2 Safety audit findings

The road safety audit findings are documented in Table 2.

Table 2 Road safety audit findings.

Ref	Location	Road safety audit finding	Priority
1	Sutton Lane at its southern connection with Bourke Street.	The southern connection of Sutton Lane enters Bourke Street within the school zoned section. This side road is a one-way eastbound only road. However, there are several missing signs which are considered critical. These include: ▪ There is no ONE WAY sign indicating the one way *eastbound only* restriction in this side road, that is visible to southbound traffic on Bourke Street (see left-hand image). The audit team notes that there is a sign for northbound traffic (see right-hand image). As a matter of consistency, there should also be a similar sign for the southbound direction on Bourke Street. ▪ There are no access restriction signs for traffic on Bourke Street to prohibit inbound (westbound) movements into Sutton Lane. For example, these could include (i) a pair of NO ENTRY signs facing east with one sign placed either side of Sutton Lane, or (ii) NO RIGHT TURN/ NO LEFT TURN signs for the southbound and northbound travel directions on Bourke Street respectively, or (iii) both sets of signs. ▪ An outbound (eastbound) pavement arrow in Sutton Lane would also improve legibility of the one-way *eastbound only* travel restrictions on this side road.   ***Above:*** *There is no ONE WAY sign (with east/left facing arrow) in place for southbound drivers on Bourke Street when looking towards Sutton Lane (left-hand image). This is despite there being an equivalent sign for northbound traffic as shown in the right-hand image.*	High

Ref	Location	Road safety audit finding	Priority
2	Vehicular gate to the school from Forbes Street.	There is a vehicular access to the school on the western side of Forbes Street. However, as shown there is limited visibility between any outbound driver from the driveway and pedestrians on the footpath approaching from either direction. The main sight-obstructing features are the hedges and brick walls either side of the driveway. This could present risks of *vehicle-pedestrian* crashes.   ***Left:*** *Looking north along the western footpath of Forbes Street showing the lack of mutual sight line between a pedestrian facing in this direction, and any egressing driver/ vehicle from this gate.* ***Right:*** *A similar visibility constraint for a southbound pedestrian approaching from the north.*	High

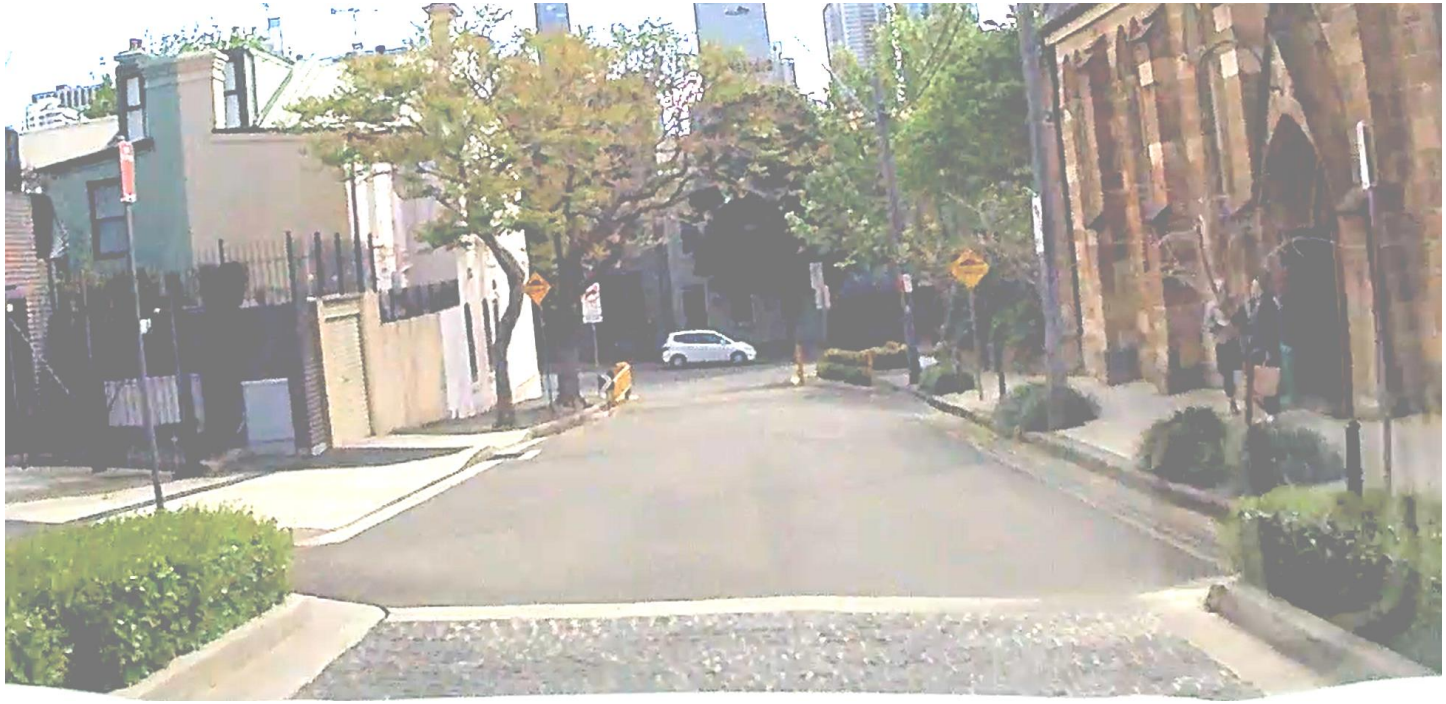
Ref	Location	Road safety audit finding	Priority
3	Northbound direction of Bourke Street between Liverpool Street and Stanley Street.	The PEDESTRIAN CROSSING AHEAD sign (left-hand image) provided for northbound traffic on Bourke Street to the north of Liverpool Street is partially obscured by overhanging tree foliage. This sign may also be blocked by any tall vehicles parked along the western kerbline. This reduces the effectiveness of the sign was an advanced warning device. As such, consideration should be given to providing a zig-zag pavement markings to complement this sign. Further north, there is a sign warning of *left-turn on bicycle* crashes (see right-hand image). This sign is also partially obscured by overhanging tree foliage. As such, drivers that fail to see/ notice this sign may lack awareness of cyclists crossing over Stanley Street. This could lead to *left-turn on bicycle* crashes or near miss events.   ***Left:*** *The PEDESTRIAN CROSING AHEAD sign is partially obscured by overhanging tree foliage. Northbound drivers may lack awareness of the wombat crossing in the road ahead, including its pedestrians. The crossing would be used by many school students as part of their walk-trips to and from the school.* ***Right:*** *The overhanging foliage on the western side of Bourke Street also visually obscures the LEFT TURN ON BICYCLE CRASH warning sign.*	Medium

Ref	Location	Road safety audit finding	Priority
4	Wombat crossing on St. Peters Street.	A wombat crossing is in place over St. Peters Street to provide pedestrian access between the two campuses of the school. PEDESTRIAN CROSSING (“WALKING FEET”) signs are in place on both sides of the road. There is also a HUMP 25KM/H sign on the right-hand signpost assembly. Both of these signage assemblies are partially obscured by overhanging tree branches. The left-hand (southern) sign is most critically affected as circled in yellow below. If drivers fail to see this sign, they may lack awareness of the crossing and the presence of pedestrians. This risk would be exacerbated when the tree is in full bloom. At the time of the inspections, the tree lacked foliation (presumably part of its seasonal growth cycle). As shown in the image below, the right-hand (northern) signage assembly is also partially obscured.  ***Left:*** *Looking westbound along St. Peters Street showing the two partially obscured signage assemblies due to overhanging tree branches.*	Medium

Ref	Location	Road safety audit finding	Priority
5	Western end of St. Peters Street at its interface with Bourke Street.	The audit team noted the following signage issues at the western end of St. Peters Street at its interface with Bourke Street: ▪ St. Peters Street falls within the signposted school zone since its eastern end is directly accessible from the school zoned section of Forbes Street. The section of Bourke Street that St. Peters Street connects into is not yet part of the Bourke Street school zone (the school zone on Bourke Street commences further to the south of this point). As such, there needs to be an END SCHOOL ZONE – 40 sign provided for outbound (westbound) traffic on St. Peters Street so that drivers are aware that they are leaving the school zone. Although Bourke Street is still within a 40km/h *area* zone, drivers still need to be aware of when they are in a 40km/h school zone versus a 40km/h common speed zone. This is because there are additional penalty implications for road rule breaches when in school zones versus non-school zones. ▪ There is a NO TRUCKS – 3 TONNES AND OVER sign in place for outbound (westbound) traffic on St. Peters Street labelled F in the left-hand image. This contains a two-way arrow base plate. Although the two-way arrow indicates that the overhead load limit rule applies to both directions of Bourke Street, this is potentially misleading. As noted from the other signs in place, all westbound traffic on St. Peters Street are required to turn left into Bourke Street. The most significant sign effecting this rule is the LEFT TURN ONLY sign (labelled G). However, sign G is partially obscured by sign F. Furthermore, the two-way arrow on sign F gives a false impression that outbound traffic (as long as they are under 3 tonnes in GVM) would normally be allowed to turn left or right. In these respects, consideration should be given for removing the NO TRUCKS – 3 TONNES AND OVER sign and its two-way arrow base plate (sign F). There is not expected to be a high volume of offending trucks in the first place since St. Peters Street is gated, and has a local access road character. Furthermore, if there were any offending vehicles at this point, they have no choice but to proceed into Bourke Street since any other alternative movement would also involve a road rule breach (such as u-turning and proceeding the wrong way along St. Peters Street). The load limit restriction should really commence at a more strategic point such as the entry to the section of Forbes Street from its intersection with Liverpool Street. ▪ There are three NO ENTRY signs facing west to advise drivers on Bourke Street that they are not permitted to enter St. Peters Street (in the eastbound direction). Two of these signs (labelled Q and R in the right-hand image) are severely faded and lack effectiveness as regulatory signs.  ***Left:** Looking westbound along St. Peters Street towards Bourke Street. There is no END SCHOOL ZONE sign, and the "NO TRUCKS" sign (F) blocks visibility to the more critical LEFT TURN ONLY sign (G). **Right:** Looking eastbound from Bourke Street to St. Peters Street. The NO ENTRY signs labelled Q and R are severely faded. Sign Q may not be necessary since there is another more prominent NO ENTRY sign in front of this.*	Medium

Ref	Location	Road safety audit finding	Priority
6	Eastbound travel direction of Stanley Street in approach to Bourke Street.	For eastbound traffic on Stanley Street, the school zone commences immediately upstream of the Bourke Street intersection. The audit team notes the following signage issues: ▪ There is a signage assembly consisting of (i) a STOP sign, (ii) a PEDESTRIAN CROSSING "WALKING FEET" sign and (iii) a HUMP 25KM/H sign as circled in yellow in the left-hand image. However, as shown, this signage assembly is partially obscured by overhanging tree foliage. The tree should be pruned to restore visibility. ▪ The STOP sign on the three-sign assembly circled in yellow is actually incorrect. Drivers are not required to stop at this point. Rather, they are required to give way to pedestrians on the wombat crossing and cyclists on the two-way cycleway. As such, this STOP sign should be removed. ▪ The downstream and right-hand STOP sign at point F is partially obscured by a small tree. This tree should also be pruned to restore visibility to the sign. ▪ There is a NO TRUCKS – 3 TONNES AND OVER sign on the eastern side of Bourke Street (see right-hand image) which also contains a two-way arrow base plate and a TWO WAY sign (labelled G). Sign G is unnecessary as there is no condition upstream or downstream of this point that would suggest that any roads are one-way only streets. This sign is also faded and lacks retroreflectivity. It is also unclear whether this sign refers to Stanley Street or Bourke Street. If it refers to Bourke Street, then the arrow directions are very misleading as Bourke Street traffic lanes (from this view point would be left-right aligned, not up-down aligned as the arrows indicate). The audit team also notes that both Bourke Street and Stanley Street are used as part of a bus route and these buses would exceed the 3 tonne load limit. However, it is acknowledged that the load limit is specifically linked to trucks and not other vehicles.   ***Left:*** *Looking eastbound along Stanley Street towards Bourke Street where there is a three-sign assembly on the left-hand side which is partially obscured by tree foliage.* ***Right:*** *The TWO WAY sign labelled G is unnecessary.*	Medium

Ref	Location	Road safety audit finding	Priority
7	Northbound direction of Forbes Street at the start of the school zone (just south of Clapton Place).	For northbound traffic on Forbes Street, the school zone commences immediately south of Clapton Place. However, as shown below, there is only one SCHOOL ZONE sign and this is placed on the right-hand (eastern) side of the road. Typically, at changes in speed zones and at commencement of school zones, the speed limit sign (which in this case is the SCHOOL ZONE sign) should be placed on both sides of the road. Consideration should be given to providing an additional SCHOOL ZONE sign on the left-hand (western) side of the road in line with the eastern sign and the 40km/h pavement patch. The audit team acknowledges that upstream of this point, Forbes Street is already part of a 40km/h area zone. However, there are additional road rule and penalty implications when in a 40km/h school zone versus a common 40km/h speed zone. As such, it is critical that drivers understand when they are in a school zone. The 40km/h pavement patch is also faded and should be re-marked.  ***Left:*** *Looking northbound along Forbes Street where there is only one SCHOOL ZONE sign, placed on the right-hand (eastern) side of the road.*	Medium

Ref	Location	Road safety audit finding	Priority
8	Kerbline parking restrictions on St Peters Street.	On St Peters Street to the west of the wombat crossing, the northern kerbline is mostly signposted as a *no parking* zone, which means that drivers can stop (including to drop off and pick up passengers) but they are not allowed to leave the car unattended. The southern kerbline of the road s signposted as a *no stopping* zone which means that drivers cannot stop or park. This is a missed opportunity as described below. As St Peters Street is a one-way *westbound only* road, the northern side of the road is effectively the “driver-side” of the road and the southern side of the road is effectively the “front passenger side” of the road. If drivers are only allowed to pull up along the northern kerbline in accordance with the *no parking* rule, then any passengers boarding into or alighting from the front passenger seat would be required to walk and stand on the roadway with unnecessary exposure to impacts by other traffic. By contrast, if the parking/ stopping restrictions were swapped such that the southern kerbline becomes a *no parking* zone, then these same drivers would be able to stop along the southern kerbline. This gives direct kerb access to both front and back left-hand doors of the vehicle and there is substantially less need for the pedestrian to walk or stand on the road.  ***Above:*** *Looking westbound along St. Peters Street. There is a missed opportunity since the southern kerbline, as the more favoured door-to-kerb access side is signposted as a no stopping zone. By contrast, the northern kerbline is signposted as a no parking zone and only the rear right door would have direct car-to-kerb access.*	Medium

Ref	Location	Road safety audit finding	Priority
9	Northern end of Forbes Street at its cul-de-sac terminal.	The northern end of Forbes Street is a *no through road* for road vehicles and terminates as a cul-de-sac. *Through* access to St Peters Lane is still available for pedestrians and cyclists. A 10km/h SHARED ZONE sign is provided as circled in yellow. This is to advise the speed zone and shared space conditions of St. Peters Lane. However, this sign faces east such that it is not immediately clear that it applies to St Peters Lane. The sign should ideally face south towards pedestrians and cyclists that would be moving from Forbes Street into St Peters Lane. The sign should also be placed closer to the interface between these two roads to make it clear where this speed zone and shared space boundary is. Also, a smaller sign should be used to make it clear that it is only intended for pedestrians and cyclists (not drivers of road vehicles).  ***Above:*** *A 10km/h SHARED ZONE sign is provided at the northern end of Forbes Street. However, this faces east and is not immediately clear that it applies to St Peters Lane.*	Medium

Ref	Location	Road safety audit finding	Priority
10a	Cycleway on western side of Bourke Street throughout the length of the school zone.	A two-way cycleway is in place on the western side of Bourke Street. The audit team notes the following spatial clearance issues for cyclists on this facility: ▪ There is limited door-opening clearance between vehicles parked in the adjacent parallel parking lane and the cycleway. Cyclists may be at risk of being struck by opened car doors. They may also be at risk of impacting any pedestrians accessing these parked cars, particularly those that alight from a vehicle unexpectedly. Alternatively, the cyclist may react by veering away from the parked car/ opened door and tracking too close to other cyclists on the path. There are also signs in place stating that Bourke Street is a bus route and that drivers should park as close to the kerb as possible. This further increases the risk of opened door clashes with cyclists. Continued in items 10b and 10c…  ***Left:*** *There is limited door-opening envelope from the parked cars to the cycleway on the western side of Bourke Street. A view in the southbound direction of the cycleway.* ***Right:*** *Looking north along the cycleway.*	Medium

Ref	Location	Road safety audit finding	Priority
10b	Cycleway on western side of Bourke Street throughout the length of the school zone.	Continued from item 10a… ▪ Many of the trees on the western side of the cycleway lean over, or have branches/ foliage that hang over the cycleway. These would pose as obstructions to cyclists on this facility. Alternatively, and as a more likely consequence, many northbound cyclists (the bicycle direction most likely to be affected) would tend to veer to the right and take a more central track/ line along the cycleway. This could impose more *head-on* crash risk with southbound cyclists. It also shifts both bicycle directions closer to the parked cars and potentially opened doors and alighting passengers. ▪ Many of the ground-level shrubbery also encroaches over the edge of the cycleway and could impose a *shyline effect*, in making cyclists shy/veer away from the edges. ▪ Another side effect of the dense tree line is that there was a high degree of leaf and twig litter along the cycleway. Whilst these were light weight and relatively benign to bicycles, they may impose more wheel-snag risk to small-wheeled devices such as scooters. This could lead to toppling/ ejection of the scooter rider. The added risk factor noted during the night-time inspection, is that many parts of this cycleway are poorly lit at night time. Although there are streetlights provided, the tree crowns tend to cast shadows over large portions of the cycleway.   ***Left:*** *Looking northbound along the cycleway where there are several large trees that lean over the cycleway*. ***Right:*** *Leaf and twig litter along the cycleway that may pose as a wheel-snag risk for small-wheel devices such as scooters.*	Medium

Ref	Location	Road safety audit finding	Priority
10c	Cycleway on western side of Bourke Street throughout the length of the school zone.	Continued from items 10a and 10b… ▪ In addition to posing as lateral width constraints, many of the trees also impose a headroom clearance (vertical) constraint. The fern in the left-hand image and the tree foliage in the middle image reduce the headroom clearance such that cyclists may run into these objects. These may also force cyclists to veer around these trees. Note also the leaning parking sign post in the middle image. ▪ Although drainage pits are not considered to be obstructions *per se*, they have a similar impact since most cyclists do not feel comfortable riding over them. The drainage grate in the right-hand image, whilst being a bicycle-friendly design, would be something that many cyclists would consciously avoid. Cyclists that veer around the pit are more likely to impose *head-on* crash risks with southbound cyclists. Both bicycle traffic streams are also likely to track closer to the parked cars as a result.  ***Left:*** *Headroom clearance constraint due to the overhanging fern.* ***Middle:*** *Reduced headroom clearance due to the overhanging tree foliage.* ***Right:*** *A drainage pit and grate which may also make cyclists shift towards the parked cars.*	Medium

Ref	Location	Road safety audit finding	Priority
11a	Wombat crossing over Bourke Street to the north of Stanley Street.	  A wombat crossing is in place over Bourke Street to the immediate north of Stanley Street. However, drivers may lack awareness of the exact format of this crossing and the prevailing priority rules. The flag-holder candy stick poles on the eastern side of the crossing (southern pole marked by the yellow arrow in the top image) suggest that this crossing operates as a childrens crossing. This is further supported by the CHILDREN CROSSING + CROSSING AHEAD signage combination provided for southbound traffic as shown in the bottom image. On the other hand, there are several features that do not support this as a childrens crossing. These include (i) the lack of STOP lines, (ii) the lack of flag-holder candy stick poles on the western side of the crossing and (iii) the lack of CHILDREN CROSSING + CROSSING AHEAD signage combination for northbound traffic. A decision needs to be made whether this will be a wombat crossing or a childrens crossing, or a combination of both. Signage and pavement marking treatments, as well as flag poles should be provided such that the message is consistent for all road users including northbound and southbound drivers and northbound and southbound cyclists. The audit team notes that there are distinctly different priority rules for wombat crossings (referenced as *pedestrian crossings* in the NSW Road Rules) and childrens crossing. Most critically, drivers are required to stop when yielding for pedestrians at a childrens crossing. By contrast, they are only required to give way when yielding for pedestrians at wombat (and zebra) crossings. ***Top:*** *Looking northbound on Bourke Street where the crossing takes the appearance of a wombat crossing, yet it contains flag-holder candy stick poles on the eastern side which are characteristic of childrens crossings.* ***Bottom:*** *Looking southbound towards the same crossing where there is a CHILDREN CROSSING + CROSSING AHEAD signage combination provided. This sign indicates that the facility is a childrens crossing.*	Low

Ref	Location	Road safety audit finding	Priority
11b	Wombat crossing over Bourke Street to the north of Stanley Street.	Continued from item 11a…  ***Above:*** *There are flag-holder candy stick poles on the eastern side of Bourke Street (red and white poles). However, there are no corresponding poles on the western side of the road/ crossing. Further to the issues as discussed in item 11a, the pole in the foreground and its accompanying CHILDRENS CROSSING flags (not in place at the time of this photo) would be difficult to see by southbound drivers since it is partially obscured by vehicles parked along the kerbline.*	Low

Ref	Location	Road safety audit finding	Priority
12	Southbound direction of Bourke Street at the commencement of the school zone (at the Sutton Lane southern intersection).	A SCHOOL ZONE flashing light assembly is in place to mark the start of the school zone for the southbound direction of Bourke Street. However, the sign is partially obscured by a pair of parking restriction signs. Whilst the impact is limited, and most drivers would still understand and be aware that they are entering a school zone, the partial obstruction could be used as a legal defence against non-complying behaviour. For example, if the driver claims that they were not able to read the supporting information such as the time periods that the school zone is operational, or the SCHOOL DAYS condition. A 40km/h pavement patch is also provided for southbound traffic. However, as shown below, this patch is positioned centrally in the entire roadway rather than in the southbound traffic lane that it applies to. This could give a false impression that the southbound lane is more centrally aligned than it really is. Misguided southbound drivers may track too close to, or even within the northbound traffic lane. This could impose *head-on* crash risks or simply reduce passing clearance between opposing vehicles. The 40km/h pavement patch is also faded and should be re-marked.  ***Above:*** *Looking southbound along Bourke Street at the start of the school zone (near its southern intersection with Sutton Lane).*	Low

Ref	Location	Road safety audit finding	Priority
13	Wombat crossing over Forbes Street to the north of Clapton Place.	A wombat crossing is in place over Forbes Street to the north of Clapton Place. However, drivers may lack awareness of the exact format of this crossing and the prevailing priority rules. The first sign that northbound drivers encounter is the PEDESTRIAN CROSSING AHEAD sign as labelled “A” in the left-hand image. This indicates that the crossing is either a zebra crossing or wombat crossing and therefore this sign is appropriate. The second sign that the northbound driver encounters is the CHILDRENS CROSSING + CROSSING AHEAD signage combination labelled “B” in the left-hand image. This implies that the crossing would also operate as a childrens crossing. However, the audit team notes the following issues/omissions in these respects: ▪ There are no flag-holder candy stick poles (red and white poles) either side of the road to indicate that this is a childrens crossing. These poles would normally be used to support the CHILDRENS CROSSING flags at the times of operation. Also, at the time of the inspections (including the PM school zone period), there were no school crossing supervisors present on this crossing to suggest that this is the control method associated with the childrens crossing. If this is not a childrens crossing, then the CHILDRENS CROSSING + CROSSING AHEAD sign blades at point “B” should be removed and a common PEDESTRIAN (W6-1) sign should be installed instead. ▪ There are also no STOP lines in each direction of Forbes Street prior to the crossing. As such, it would lack legibility as a childrens crossing. This also suggests that the crossing should simply operate as a wombat crossing and not a combined wombat + childrens crossing. ▪ At the crossing itself, a pair of PEDESTRIAN CROSSING (“WALKING FEET”) signs is in place as shown in the right-hand image. This is appropriate. However, a 25km/h base plate is provided on the left-hand (western) sign. This should really be accompanied by a HUMP sign as the 25km/h advisory speed applies to the HUMP, not to the crossing *per se*. The audit team notes that there are distinctly different priority rules for wombat crossings (referenced as *pedestrian crossings* in the NSW Road Rules) and childrens crossing. Most critically, drivers are required to stop when yielding for pedestrians at a childrens crossing. By contrast, they are only required to give way when yielding for pedestrians at wombat (and zebra) crossings.   ***Left:*** *Looking northbound along Forbes Street showing the advanced warning signs in place associated with the wombat crossing.* ***Right:*** *Looking north over the wombat crossing showing all existing signs.*	Low

Ref	Location	Road safety audit finding	Priority
14	Forbes Street to the north of the wombat crossing.	A BB double barrier centreline is in place as part of the wombat crossing. However, as shown below, there is a change in the alignment of the traffic lanes to the north of the crossing. This is primarily due to the start of the 60-degree parking on the eastern side of Forbes Street and the need to shift northbound-southbound traffic to the west. The BB centreline has a poor geometric transition as shown below. This includes discontinuity in the centreline itself (marked by yellow star), as well as a sudden change in alignment (see red arrow) with no transition curves included. As a result, northbound traffic would be shifted abruptly to the left (west) and closer to the line of parked cars (in the parallel kerbside parking "lane"). Alternatively, northbound drivers would simply ignore the centreline and drive over it. This appears to be the case with the angled portion of the centreline being faded compared with the upstream one.  ***Left:*** *Looking northbound along Forbes Street where there is a poor transition in the BB double barrier centreline.*	Low

Ref	Location	Road safety audit finding	Priority
15	Eastern footpath of Bourke Street throughout the length of the school zone.	There are many large trees along the eastern side of Bourke Street. These have introduced several access and mobility limitations for pedestrians on the footpath. These include: ▪ Many parts of the footpath have been uplifted by root growth. The resulting undulating and cracked footpath has introduced many trip hazards. ▪ There was a high degree of leaf litter and tree material. This may also make the path slippery.   ***Left:*** *Looking south along the eastern footpath of Bourke Street where the footpath has been badly cracked from the adjacent tree root growth.* ***Right:*** *Although there is considerably less pavement cracking, the roots themselves may pose as a trip hazard, especially to pedestrians moving between the footpath and the parked cars. Also, future root growth may lead to uplift and cracking.*	Low

Ref	Location	Road safety audit finding	Priority
16	Eastern side of Bourke Street outside the school gates.	There are signs placed along the eastern side of Bourke Street which advise drivers to park close to the kerbline since Bourke Street is used by buses (see sign circled in yellow in left-hand image). However, if drivers do so, they may be at greater risk of impacting protruding portions of the kerbline. The kerbline is an old sandstone type where many sections jut out into the roadway. The kerbline is not smooth in the same way that a concrete kerb is. Also, as shown in the right-hand image, there are several trees that have limited offset to the roadway and which also lean towards the road. Many drivers could be at risk of impacting the trees if they stop/ park too close to the kerbline. This includes impacts by taller vehicles (mini-buses and vans) and impacts by overhanging vehicle body parts (mirrors, ute-trays) or loads.   ***Left:*** *There are signs along the eastern side of Bourke Street advising drivers to park close to the kerb to leave more residual road width for bus movements.* ***Right:*** *By parking/ stopping close to the kerbline, this could result in more nuisance impacts with the protruding parts of the kerb as well as trees that lean towards the road.*	Low

Ref	Location	Road safety audit finding	Priority
17	Western side of Forbes Street along the school frontage.	There are several trees along the western side of Forbes Street which lean across the walk-able area of the footpath. These leaning trunks may pose as head clash hazards for pedestrians or simply obstruct the walk-path. For example, if a vision-impaired pedestrian uses their cane and detects the tree trunk at ground-level, but does not expect the trunk to lean inwards from the point where they make ground-level contact.  ***Left:*** *Looking southbound along the western footpath of Forbes Street where there are several leaning trees that obstruct the walk-path for pedestrians.*	Low

Ref	Location	Road safety audit finding	Priority
18	Eastern side Forbes Street at the wombat crossing.	A wombat crossing is in place on Forbes Street and provides access to the school entrance. However, there is a utility pole on the eastern kerb ramp which partially blocks access to and from the crossing. This may pose as an obstruction to pedestrian movements. The saving grace is that any pedestrians egressing from the crossing would not be trapped on the roadway, but rather in the refuge space created by the kerb blisters. However, any pedestrians with wheeled devices may become stuck at the invert level of the gutter. This includes wheelchair users, walking frames, gophers, and prams.   ***Left:*** *Looking east across the wombat crossing showing the utility pole that obstructs the walk-path off the crossing.* ***Right:*** *Looking west across the crossing from the eastern side of the road.*	Low

3 Concluding statement

DC Traffic Engineering has undertaken an *existing stage* road safety audit of the project in accordance with the methodology outlined in Section 1 of this report.

Issues identified have been noted in this report for the Project Manager to review, assess, and where appropriate, make the necessary recommendations to improve safety.

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DC Traffic Engineering Pty Ltd

Appendix A

Road Safety Audit Checklist

Checklist questions	Comments
6.1 Road alignment and cross section	
1 Visibility ▪ sight distance Is sight distance adequate for the speed of traffic using the route? ▪ Is adequate sight distance provided for intersections and crossings? (eg. pedestrian, cyclist, cattle, railway) ▪ Is adequate sight distance provided at all private driveways and property entrances?	Yes.
2 Design speed ▪ Is the horizontal and vertical alignment suitable for the (85th percentile) traffic speed? ▪ If not are: o Warning signs installed? Advisory speed signs installed? o Are the posted advisory speeds for curves appropriate?	Yes.
3 Speed limit/speed zoning ▪ Is the speed limit compatible with the function, road geometry, land use and sight distance?	Issues raised with legibility of the school zones due to missing and obscured SCHOOL ZONE signs, and missing END SCHOOL ZONE signs.
4 Overtaking ▪ Are safe overtaking opportunities provided?	NA.
5 Readability by drivers ▪ Is the road free of elements which may cause confusion? For example: o Is alignment of the roadway clearly defined? o Has disused pavement (if any) been removed or treated? o Have old pavement markings been removed properly? o Do tree lines follow the road alignment? o Does the line of street lights or the poles follow the road alignment? ▪ Is the road free of misleading curves or combinations of curves?	Poor centreline alignment on Forbes Street.
6 Widths ▪ Are medians and islands of adequate width for the likely users? ▪ Are traffic lane and carriageway widths adequate for the traffic volume and mix? ▪ Are bridge widths adequate?	Lack of offset between parking lane and cycleway on western side of Bourke Street.
7 Shoulders ▪ Are shoulders wide enough to allow drivers to regain control of errant vehicles? ▪ Are shoulders wide enough for broken down or emergency vehicles to stop safely? ▪ Are shoulders sealed? ▪ Are shoulders trafficable for all vehicles and road users? (I.e. are shoulders in good condition) ▪ Is the transition from road to shoulder safe? (no drop-offs)	NA.

Checklist questions	Comments
8 Crossfalls ▪ Is appropriate superelevation provided on curves? ▪ Is any adverse crossfall safely managed (for cars, trucks, etc.)? ▪ Do crossfalls (carriageway and shoulder) provide adequate drainage?	Yes.
9 Batter slopes ▪ Are batter slopes traversable by cars and trucks which run off the road?	NA.
10 Drains ▪ Are roadside drains and culvert end walls traversable?	Drainage pits and grates along cycleway would be features that many cyclists would consciously avoid tracking over.
6.2 Auxiliary lanes	
1 Tapers ▪ Are starting and finishing tapers located and aligned correctly? ▪ Is there sufficient sight distance to the end of the auxiliary lane?	NA.
2 Shoulders ▪ Are appropriate shoulder widths provided at merges? ▪ Have shoulder widths been maintained beside the auxiliary lane?	NA.
3 Signs and markings ▪ Have all signs been installed in accordance with the appropriate guidelines? ▪ Are all signs conspicuous and clear? ▪ Does all linemarking conform to these guidelines (particularly three merge arrows)? ▪ Is there advance warning of approaching auxiliary lanes?	NA.
4 Turning ▪ Have right turns from the through lane been avoided? ▪ Is there advance warning of turn lanes?	No. However, these are low-volume and low-speed roads.
6.3 Intersections	
1 Location ▪ Are all intersections located safely with respect to the horizontal and vertical alignment? ▪ Where intersections occur at the end of high speed environments (eg. at approaches to towns), are there traffic control devices to alert drivers?	Yes.
2 Visibility ▪ sight distance o Is the presence of each intersection obvious to all road users? o Is the sight distance appropriate for all movements and all users? o Is there stopping sight distance to the rear of any queue or slow moving turning vehicles? o Has the appropriate sight distance been provided for entering and leaving vehicles?	Yes.

Checklist questions	Comments
3 Controls and delineation ▪ Are pavement markings and intersection control signs satisfactory? ▪ Are vehicle paths through intersections delineated satisfactorily? ▪ Are all lanes properly marked (including any arrows)?	Poor centreline alignment on Forbes Street. Faded 40km/h pavement patches noted.
4 Layout ▪ Are all conflict points between vehicles safely managed? ▪ Is the intersection layout obvious to all road users? ▪ Is the alignment of kerbs obvious and appropriate? ▪ Is the alignment of traffic islands obvious and appropriate? ▪ Is the alignment of medians obvious and appropriate? ▪ Can all likely vehicle types be accommodated? ▪ Are merge tapers long enough? ▪ Is the intersection free of capacity problems which may produce safety problems?	Yes.
5 Miscellaneous ▪ Particularly at rural sites, are all intersections free of loose gravel?	Loose leaf litter and twigs on the cycleway noted.
6.4 Signs and lighting	
1 Lighting ▪ Is lighting required and if so, has it been adequately provided? ▪ Is the road free of features which interrupt illumination (eg. trees or overbridges)? ▪ Is the road free of lighting poles which are a fixed roadside hazard? ▪ Are frangible or slip-base poles provided? ▪ Ambient lighting: if it creates special lighting needs, have these been satisfied? ▪ Is the lighting scheme free of confusing or misleading effects on signals or signs? ▪ Is the scheme free of any lighting black patches?	Light shadowing over the cycleway noted.
2 General signs issues ▪ Are all necessary regulatory, warning and direction signs in place? Are they conspicuous and clear? ▪ Are the correct signs used for each situation, and is each sign necessary? ▪ Are all signs effective for all likely conditions (eg. day, night, rain, fog, rising or setting sun, oncoming headlights, poor lighting)? ▪ If restrictions apply for any class of vehicle, are drivers adequately advised? ▪ If restrictions apply for any class of vehicle, are drivers advised of alternative routes?	Signage issues noted.

Checklist questions	Comments
3 Sign legibility ▪ In daylight and darkness, are signs satisfactory regarding: o visibility: Clarity of message? Readability/legibility at the required distance? ▪ Is sign retroreflectivity or illumination satisfactory? ▪ Are signs able to be seen without being hidden by their background or adjacent distractions? ▪ Is driver confusion due to too many signs avoided?	Several signs faded and lack retroreflectivity.
4 Sign supports ▪ Are sign supports out of the clear zone? ▪ If not, are they: o Frangible? o Shielded by barriers (eg. guard fence, crash cushions)?	Yes. This is a 40km/h speed environment.
6.5 Markings and delineation	
1 General Issues ▪ Is the line marking and delineation: o Appropriate for the function of the road? o Consistent along the route? o Likely to be effective under all expected conditions? (day, night, wet, dry, fog, rising and setting sun position, oncoming headlights, etc) ▪ Is the pavement free of excessive markings? (eg. unnecessary turn arrows, unnecessary barrier lines, etc.)	Poor centreline alignment on Forbes Street. Faded 40km/h pavement patches noted.
2 Centrelines, edgelines, lane lines ▪ Are centrelines, edgelines, and lane lines provided? If not, do drivers have adequate guidance? ▪ Are RRPM's required? ▪ If RRPM's are installed, are they correctly placed, correct colours, in good condition? ▪ Are profiled (audible) edgelines provided where required? ▪ Is the linemarking in good condition? ▪ Is there sufficient contrast between linemarking and pavement colour?	Poor centreline alignment on Forbes Street.
3 Guideposts and reflectors ▪ Are guideposts appropriately installed? ▪ Are delineators clearly visible? ▪ Are the correct colours used for the delineators? ▪ Are the delineators on guard fences, crash barriers and bridge railings consistent with those on guideposts?	If the Bourke Street and Forbes Street crossings are meant to be childrens crossings, these should have flag-holder candy-stick posts for the CHILDRENS CROSSING flags.

Checklist questions	Comments
4 Curve warning and delineation ▪ Are curve warning signs and advisory speed signs installed where required? ▪ Are advisory speed signs consistent along the route? ▪ Are the signs correctly located in relation to the curve? (ie. not too far in advance) ▪ Are the signs large enough? ▪ Are chevron alignment markers (CAMs) installed where required? ▪ Is the positioning of CAMs satisfactory to provide guidance around the curve? ▪ Are the CAMs the correct size? ▪ Are CAMs confined to curves (not used to delineate islands, etc)?	NA.
6.6 Crash barriers and clear zones	
1 Clear zones ▪ Is the clear zone width traversable (i.e. drivable)? ▪ Is the clear zone width free of rigid fixtures? (if not, can all of these rigid fixtures be removed or shielded?) ▪ Are all power poles, trees, etc., at a safe distance from the traffic paths? ▪ Is the appropriate treatment or shielding provided for any objects within the clear zone?	NA. This is a low-speed environment.
2 Crash barriers ▪ Are crash barriers installed where necessary? ▪ Are crash barriers installed at all necessary locations in accordance with the relevant guidelines? ▪ Are the barrier systems suitable for the purpose? ▪ Are the crash barriers correctly installed? ▪ Is the length of crash barrier at each installation adequate? ▪ Is guard fence attached correctly to bridge railings? ▪ Is there sufficient width between the barrier and the edge line to contain a broken down vehicle?	NA. This is a low-speed environment.
3 End treatments ▪ Are end treatments constructed correctly? ▪ Is there a safe run off area behind breakaway terminals?	NA. This is a low-speed environment.
4 Fences ▪ Are pedestrian fences frangible? ▪ Are vehicles safe from being "speared" by horizontal fence railings located within the clear zone?	NA.
5 Visibility of barriers and fences ▪ Is there adequate delineation and visibility of crash barriers and fences at night?	NA.
6.7 Traffic signals	

Checklist questions	Comments
1 Operations ▪ Are traffic signals operating correctly? ▪ Are the number, location and type of signal displays appropriate for the traffic mix and traffic environment? ▪ Where necessary, are there provisions for visually impaired pedestrians (eg. audio-tactile push buttons, tactile markings)? ▪ Where necessary, are there provisions for elderly or disabled pedestrians (eg. extended green or clearance phase)? ▪ Is the controller located in a safe position? (i.e. where it is unlikely to be hit, but maintenance access is safe) ▪ Is the condition (especially skid resistance) of the road surface on the approaches satisfactory?	There are no traffic signals in the audited area (school zone).
2 Visibility ▪ Are traffic signals clearly visible to approaching motorists? ▪ Is there adequate stopping sight distance to the ends of possible vehicle queues? ▪ Have any visibility problems that could be caused by the rising or setting sun been addressed? ▪ Are signal displays shielded so that they can be seen only by the motorists for whom they are intended? ▪ Where signal displays are not visible from an adequate distance, are signal warning signs and/or flashing lights installed? ▪ Where signals are mounted high for visibility over crests, is there adequate stopping sight distance to the ends of traffic queues? ▪ Is the primary signal free from obstructions on the nearside footway to approaching drivers? (trees, light poles, signs, bus stops, etc)	There are no traffic signals in the audited area (school zone).
6.8 Pedestrians and cyclists	
1 General issues ▪ Are there appropriate travel paths and crossing points for pedestrians and cyclists? ▪ Are safety fences installed where necessary to guide pedestrians and cyclists to crossings or overpasses? ▪ Are safety barriers installed where necessary to separate vehicle, pedestrian and cyclist flows? ▪ Are pedestrian and bicycle facilities suitable for night use?	Trees noted as obstructions on footpath on Forbes Street. Trees and car doors noted as obstructions on cycleway.

Checklist questions	Comments
2 Pedestrians ▪ Is there adequate separation distance between vehicular traffic and pedestrians on footways? ▪ Is there an adequate number of pedestrian crossings along the route? ▪ At crossing points is fencing oriented so pedestrians face oncoming traffic? ▪ Is there adequate provision for the elderly, the disabled, children, wheelchairs and baby carriages (eg. holding rails, kerb and median crossings, ramps)? ▪ Are adequate hand rails provided where necessary (eg. on bridges, ramps)? ▪ Is signing about pedestrians near schools adequate and effective? ▪ Is signing about pedestrians near any hospital adequate and effective? ▪ Is the distance from the stop line to a cross walk sufficient for truck drivers to see pedestrians?	One kerb ramp blocked by a utility pole. Issues raised with legibility of the crossings on Bourke Street and Forbes Street.
3 Cyclists ▪ Is the pavement width adequate for the number of cyclists using the route? ▪ Is the bicycle route continuous (i.e. free of squeeze points or gaps)? ▪ Are drainage pit grates 'bicycle safe'?	Obstructions noted on the cycleway.
4 Public transport ▪ Are bus stops safely located with adequate visibility and clearance to the traffic lane? ▪ Are bus stops in rural areas sign posted in advance? ▪ Are shelters and seats located safely to ensure that sight lines are not impeded? Is clearance to the road adequate? ▪ Is the height and shape of the kerb at bus stops suitable for pedestrians and bus drivers?	Yes.
6.9 Bridges and culverts	
1 Design features ▪ Are bridges and culverts the full formation width? ▪ Are bridge and culvert carriageway widths consistent with approach conditions? ▪ Is the approach alignment compatible with the 85th percentile travel speed? ▪ Have warning signs been erected if either of the above two conditions (I.e. width and speed) are not met?	NA.
2 Crash barriers ▪ Are there suitable traffic barriers on bridges and culverts and their approaches to shield errant vehicles? ▪ Is the connection between barrier and bridge safe? ▪ Is the bridge free of kerbing which would reduce the effectiveness of barriers or rails?	NA.
3 Miscellaneous ▪ Are pedestrian facilities on the bridge appropriate and safe? ▪ Is fishing from the bridge prohibited? If not, has provision been made for "safe" fishing? ▪ Does delineation continue over the bridge?	NA.

Checklist questions	Comments
6.10 Pavement	
1 Pavement defects ▪ Is the pavement free of defects (eg. excessive roughness or rutting, potholes, loose material, etc) which could result in safety problems (eg. loss of steering control)? ▪ Is the condition of the pavement edges satisfactory? ▪ Is the transition from pavement to shoulder free of dangerous edge drop offs?	Footpath pavement uplift due to tree roots noted.
2 Skid resistance ▪ Does the pavement appear to have adequate skid resistance, particularly on curves, steep grades and approaches to intersections? ▪ Has skid resistance testing been carried out where necessary?	Yes.
3 Ponding ▪ Is the pavement free of areas where ponding or sheet flow of water could contribute to safety problems?	Yes.
4 Loose stones/material ▪ Is the pavement free of loose stones and other material?	Loose leaf litter and twigs on cycleway noted.
6.11 Parking	
1 General issues ▪ Are the provisions for or restrictions on parking satisfactory in relation to traffic safety? ▪ Is the frequency of the parking turnover compatible with the safety of the route? ▪ Is there sufficient parking for delivery vehicles so that safety problems due to double parking do not occur? ▪ Are parking manoeuvres along the route possible without causing safety problems? (eg. angle parking) ▪ Is the sight distance at intersections and along the route, unaffected by parked vehicles?	Door clashes with cyclists on cycleway.
6.12 Provision for heavy vehicles	
1 Design issues ▪ Are overtaking opportunities available for heavy vehicles where volumes are high? ▪ Does the route generally cater for the size of vehicle likely to use it? ▪ Is there adequate manoeuvring room for large vehicles along the route, at intersections, roundabouts, etc.? ▪ Is access to rest areas and truck parking areas adequate for the size of vehicle expected? (Consider acceleration, deceleration, shoulder widths, etc.)	Load limits apply with regards to truck movements. Bourke Street is a noted bus route.

Checklist questions	Comments
2 Pavement/shoulder quality ▪ Are shoulders sealed at bends to provide additional pavement for long vehicles? ▪ Is the pavement width adequate for heavy vehicles? ▪ In general, is the pavement quality sufficient for the safe travel of heavy and oversized vehicles? ▪ On truck routes, are reflective devices appropriate for truck drivers' eye heights?	NA.
6.13 Floodways and causeways	
1 Ponding, flooding ▪ Are all sections of the route free from ponding or flow across the road during wet weather? ▪ If there is ponding or flow across the road during wet weather, is there appropriate signposting? ▪ Are floodways and causeways correctly signposted?	NA.
2 Safety of devices ▪ Are all culverts or drainage structures located outside the clear roadside recovery area? ▪ If not, are they shielded from the possibility of vehicle collision?	NA.
6.14 Miscellaneous	
1 Landscaping ▪ Is landscaping in accordance with guidelines (eg. clearances, sight distance)? ▪ Will existing clearances and sight distances be maintained following future plant growth? ▪ Does the landscaping at roundabouts avoid visibility problems?	Trees noted that lean over the cycleway, into the roadway and across walk-paths on footpaths.
2 Temporary works ▪ Are all locations free of construction or maintenance equipment that is no longer required? ▪ Are all locations free of signs or temporary traffic control devices that are no longer required?	Yes.
3 Headlight glare ▪ Have any problems that could be caused by headlight glare been addressed (eg. a two-way service road close to main traffic lanes, the use of glare fencing or screening)?	Yes.
4 Roadside activities ▪ Are the road boundaries free of any activities that are likely to distract drivers? ▪ Are all advertising signs installed so that they do not constitute a hazard?	Yes.
5 Errant vehicles ▪ Is the roadside furniture on the verges and footways free of damage from errant vehicles which could indicate a possible problem, hazard or conflict at the site?	NA. This is a low-speed environment.

Checklist questions	Comments
6 Other safety issues ▪ Is the embankment stability safe? ▪ Is the route free of unsafe overhanging branches? ▪ Is the route free of visibility obstructions caused by long grass? ▪ Are any high wind areas safely dealt with? ▪ If back to back median kerbing is used is it: o Adequately delineated? o Obvious where it starts? o Obvious at intersections? o Unlikely to be a hazard to pedestrians?	NA.
7 Rest Areas ▪ Is the location of rest areas and truck parking areas along the route appropriate? ▪ Is there adequate sight distance to the exit and entry points from rest areas and truck parking areas at all times of the day?	NA.
8 Animals ▪ Is the route free from large numbers of animals (eg. cattle, sheep, kangaroos, koalas, wombats, etc.)? ▪ If not, is it protected by animal-proof fencing?	Yes.