

# Christ Church Grammar School, Claremont

## TRAFFIC MANAGEMENT AND TRANSPORT PLAN

Prepared for  
CHRIST CHURCH GRAMMAR SCHOOL

Prepared by  
Uloth and Associates  
11 Sep 2014; Updated 17 Aug 2015; 29 July 2016,  
18 August 2016, and 8 September 2016

## **EXECUTIVE SUMMARY**

### **INTRODUCTION**

Uloth and Associates was initially appointed by Christ Church Grammar School in 2008 to investigate the provision of a warden-controlled school crossing in Queenslea Drive, and the crossing was approved by the Children's Crossing and Road Safety Committee in July 2011.

Uloth and Associates was then appointed by Christ Church Grammar School to prepare a Traffic Management and Transport Plan in consultation with the community, as part of a condition of approval for the addition and alteration to the existing R-Block development, and an initial report was published in August 2013.

After a review by Town of Claremont, the initial report was then updated and expanded in September 2014 to include additional background information, while also taking into account a number of changes that have occurred since that time. An additional update was then carried out, to incorporate the modifications to the Stirling Highway - Queenslea Drive - Stirling Road traffic signals, and to also provide further detail regarding existing bus routes in the vicinity of Christ Church Grammar School.

A further update was then requested, to address parking requirements for a proposed increase in overall student numbers, and to also include data regarding private bus services (a jointly funded initiative by Christ Church Grammar School and Methodist Ladies College), which have now been introduced to assist in the reduction of private vehicle travel to and from the 2 schools.

### **EXISTING SITUATION**

In order to obtain good data regarding traffic flows and pedestrian movement at the School, video traffic surveys at 5 locations along Queenslea Drive were taken on Thursday 4 April 2013, during both the AM and PM peak periods. A bicycle parking demand survey was also carried out, at 12 noon on Tuesday 14 May 2013.

The traffic surveys confirmed that school traffic generated along Queenslea Drive represents a high proportion of the total traffic for the very short pick-up and drop-off periods, but only a very small contribution (just 15 percent) of the overall traffic flow on Queenslea Drive throughout the day. It was also noted that the capacity of Queenslea Drive is very much a function of the amount of 'Green Time' allocated to Queenslea Drive at the Stirling Highway traffic signals.

With priority given to the major traffic flows along Stirling Highway, it is therefore important to understand that as traffic flows along Stirling Highway continue to grow, and as further development occurs within the Claremont Town Centre and along Stirling Road, the amount of 'Green Time' available to Queenslea Drive may be reduced. This may result in reduced capacity and therefore increased levels of congestion within Queenslea Drive, even if the actual traffic volumes remain unchanged.

It is also important to note that the most significant pedestrian movement was observed at the northern end of Queenslea Drive, on the eastern side where large groups of students were seen walking to and from bus stops along Stirling Highway or from Claremont Train Station, north-east of the school during both peak periods but this was more predominant in the AM peak.

### **EXISTING TRANSPORT PLANNING INITIATIVES AND RECOMMENDATIONS**

Christ Church Grammar School is already very proactive and successful in managing the traffic impacts of the School, with a number of existing initiatives already in place to reduce the number of private vehicle trips occurring.

However several traffic management and safety issues have also been identified and analysed for possible modifications as part of previous studies and reviews, which were included in this current assessment for possible inclusion into the Traffic Management and Transport Plan, with the view to reducing the number of vehicle trips generated by the school.

A community workshop was also held at Christ Church Grammar School on the evening of Wednesday 15 May 2013 in order to give the community an opportunity to provide input on these identified traffic management and safety issues, and to voice their concerns over the existing situation.

The previously identified issues and analyses are presented in Chapter 3, followed by an overall summary of the Community Workshop in Chapter 4, and further assessment and discussion of possible solutions in Chapter 5.

## RECOMMENDATIONS

The recommendations for the Christ Church Grammar School Traffic Management and Transport Plan are documented in Chapter 6, as follows:

1. It is recommended to install a Type A Children's Crossing in Queenslea Drive at the previously approved location in front of house number 10, with no median island, as shown in Figure 3, and as discussed in Section 5.1. It is important to note that Main Roads WA and the Children's Crossing and Road Safety Committee have granted 'In-Principle' approval for this proposed plan. It is also important to note that the recent modification to the Stirling Highway - Queenslea Drive - Stirling Road intersection does not remove the need for this proposed crossing. The approved plan includes a reduction of the existing embayment in Queenslea Drive by approximately 15 metres, and the introduction of a 20 metre 'No Standing' zone (to be applicable only during times that the crossing is manned).
2. It is recommended that the School enforce pedestrian access between R-Block and S-Block in order to direct students to and from the proposed crossing, as noted in Figure 3. (The School has already commenced this enforcement by having School Prefects on location to ensure that students cross at the site of the proposed crossing. The Prefects are supported by the School Marshall to ensure compliance).
3. It is recommended to formalise a new student pick-up/drop-off area at the western end of the Staff car park accessed off the northern end of Queenslea Drive, as indicated in Figure 4 and as discussed in Section 5.4. (This may require a formal Development Application to Town of Claremont, but is only expected to require signage and pavement markings, and is not expected to result in any loss of existing parking).
4. It is recommended that Town of Claremont continue to actively monitor and enforce the new Clearway at the southern end of the Church parking area adjacent to the Staff car park access in Queenslea Drive.
5. It is recommended to pursue the re-opening of the left-turn exit from the northern Staff car park onto Stirling Highway, as indicated in Figure 4 and as discussed in Section 5.5, in order to reduce the amount of traffic exiting the school onto Queenslea Drive. It is also acknowledged that a formal application will need to be made through Town of Claremont and Main Roads WA, including justification regarding possible impacts to traffic flows along Stirling Highway and at the adjacent access road to Methodist Ladies College, as well as impacts on cyclists using the dual use path, and access to properties on the opposite side of Stirling Highway.
6. It is recommended that Christ Church Grammar School actively continue the current transport initiatives, while also introducing new initiatives, as listed below in Recommendations 7 to 11 (and as discussed in Section 5.6), in order to reduce reliance on private vehicle travel to/from the School, with an initial aim of reaching the travel mode targets identified in Table 1 in Chapter 6.

7. It is recommended that Christ Church Grammar School work closely with Town of Claremont and Public Transport Authority to identify all alternative means of transport to and from the school, and to advise students/parents and staff of the available options prior to the start of each school year, with periodic reminders in weekly newsletters, in order to help reduce the number of vehicle trips generated by the school as detailed below in Items 7.1 - 7.4.
  - 7.1 It is recommended to identify and promote all available public transport options to and from the school, including information regarding safety improvements offered by various initiatives. It is anticipated that public transport usage (Bus and Train) can be increased from the existing 23.2 percent to an initial target of 27 percent (as shown in Table 1), and a possible long term target of up to 30 percent, with actual improvements to be determined by undertaking updated travel surveys 2 years after Council's final adoption of this report.
  - 7.2 It is recommended to promote car-pooling as an additional way to reduce private vehicle travel. It is therefore recommended to advise families across all Year Groups (taking into account possible privacy concerns) of other school families living close by, who may not otherwise be aware of each other, and to provide a means of contact between them for car-pooling. It is anticipated that carpooling can be increased from the existing 2.9 percent to an initial target of 5 percent (as shown in Table 1), and a possible long term target of up to 10 percent.
  - 7.3 It is recommended that the School should continue to promote its 'Walk a Little Way' scheme, but to also investigate possible additional pick-up and drop-off locations as part of this scheme. It is anticipated that the percentage of students walking to/from school can be increased from the existing 9.8 percent to an initial target of 12 percent (as shown in Table 1), and a possible long term target of up to 15 percent.
  - 7.4 It is recommended that the School also continue to encourage students to cycle to school, and to ensure that the supply of bicycle parking continues to exceed demand. It is anticipated that the percentage of students cycling to/from school can be increased from the existing 6.3 percent to an initial target of 8 percent (as shown in Table 1), and a possible long term target of up to 10 percent.
8. It is recommended (and agreed) that Christ Church Grammar School will play an active role in the preparation of any plan to address traffic and parking congestion in streets surrounding schools in the locality resulting from the initiatives being promoted by the Western Suburbs School Traffic Committee. This includes assisting with any survey of parents required to implement a plan, assisting in the development of plans and once endorsed, actively implementing the plans for a common CAT Bus Service or any other measure identified and adopted by the Councils of the Committee as a solution to traffic congestion relating to schools in the locality. It is noted that the School has already commenced jointly-funded private bus services in conjunction with MLC, including a recent extension of services to Shenton Park and Subiaco. It is also noted that the School is currently already involved in a MRWA-funded study of traffic congestion in the local area, together with Methodist Ladies College and Scotch College. The School has also recently agreed to participate in Public Transport Education sessions to promote public transport awareness for Year 6 students before they start High School.

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## **1. INTRODUCTION**

Uloth and Associates was initially appointed by Christ Church Grammar School in 2008 to investigate the introduction of a warden-controlled school crossing in Queenslea Drive, and the crossing was approved by the Children's crossing and Road Safety Committee in July 2011.

Then in August 2013, when Christ Church Grammar School was in the final stages of additions and alterations to the existing R-Block, Uloth and Associates published the initial version of this Traffic Management and Transport Plan, which was required as part of the conditions of approval for this development. After a review by Town of Claremont, the initial report was then updated and expanded in September 2014 to include additional background information, while also taking into account a number of changes that have occurred since that time.

An additional update was then carried out, to incorporate the modifications to the Stirling Highway - Queenslea Drive - Stirling Road traffic signals, and to also provide further detail regarding existing bus routes in the vicinity of Christ Church Grammar School.

A further update was then requested, to address parking requirements for a proposed increase in overall student numbers, and to also include data regarding private bus services (a jointly funded initiative by Christ Church Grammar School and Methodist Ladies College), which have now been introduced (in 2016) to assist in the reduction of private vehicle travel to and from the 2 schools.

### **1.1 STUDY OBJECTIVES**

The overall study objective is to carry out a detailed assessment of traffic management matters relating to the school pick-up and drop-off periods, and to identify transport planning initiatives to help reduce the number of vehicle trips generated by the School. It is then necessary to prepare a Traffic Management and Transport Plan in consultation with the community, to the satisfaction of Town of Claremont.

Specific objectives are as follows:

- Identify and assess the existing situation at the School, in regard to traffic flows, pedestrian movements, mode of travel to and from school, and current travel demand management initiatives.
- Identify safety issues and other shortcomings that may be affecting decisions regarding mode of travel to and from school.
- Identify additional travel management initiatives with a view to reducing the number of vehicle trips generated by the school.
- Carry out a community workshop to seek input from the community regarding traffic and transport matters relating to the school.
- Review and assess the existing situation, possible additional initiatives, and input from the community to develop specific recommendations for inclusion in the overall Traffic Management and Transport Plan.

## 2. EXISTING SITUATION

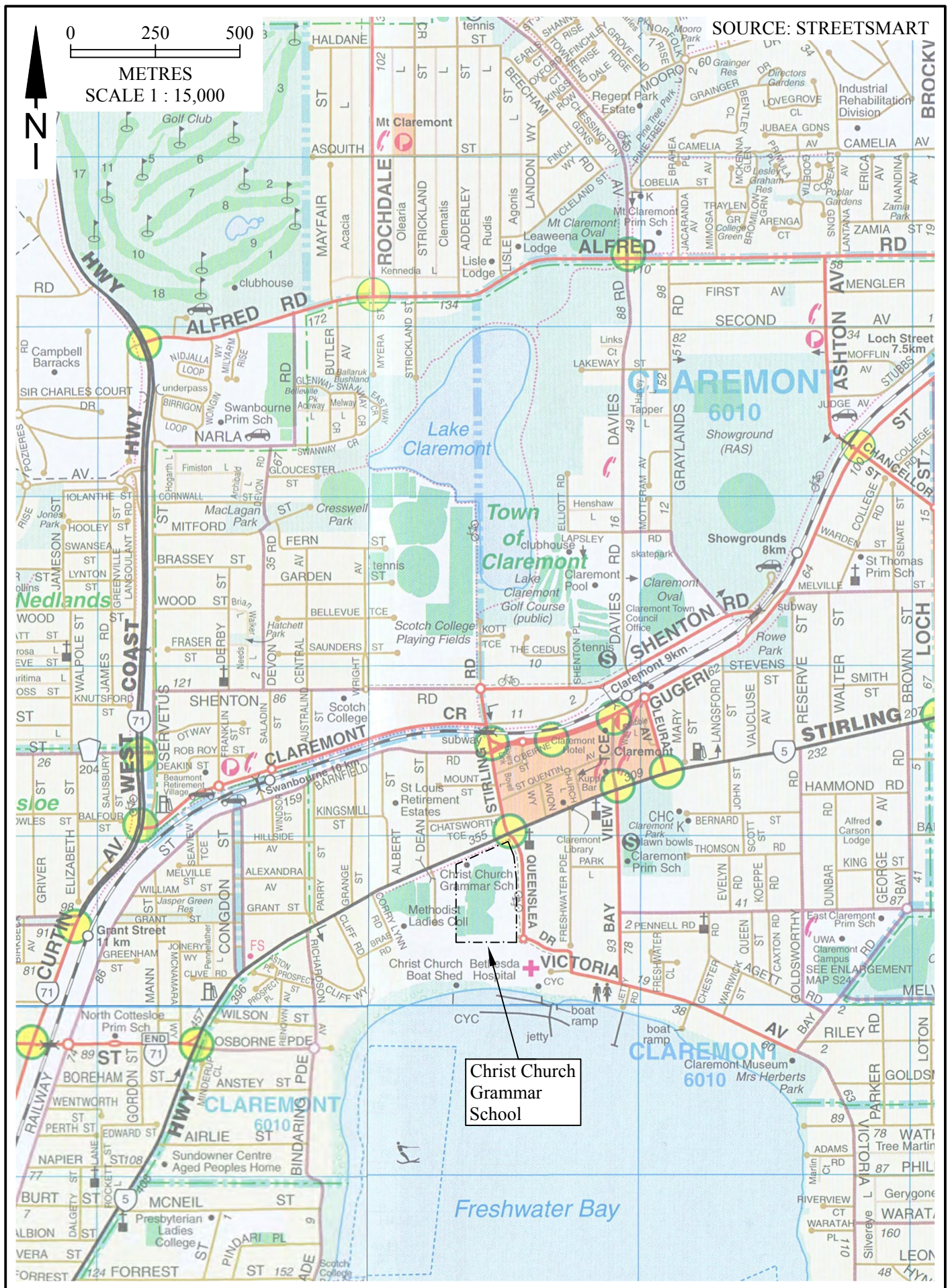
Christ Church Grammar School is located adjacent to the Stirling Highway - Queenslea Drive - Stirling Road signalised intersection, as shown in the Locality Plan in Figure 1, in close proximity to the Claremont Town Centre and Claremont Train Station. At the time of the various surveys carried out, the school catered for a student population of 1,600 students, with a total of 252 staff (but a maximum of 215 staff on-site at any one time).

### 2.1 EXISTING SITE PLAN AND ADJACENT ROADS

The existing site plan for the School (as at 2013 when the various surveys were carried out) is shown in Figure 2, together with a topographic plan of the adjacent roads and intersections.

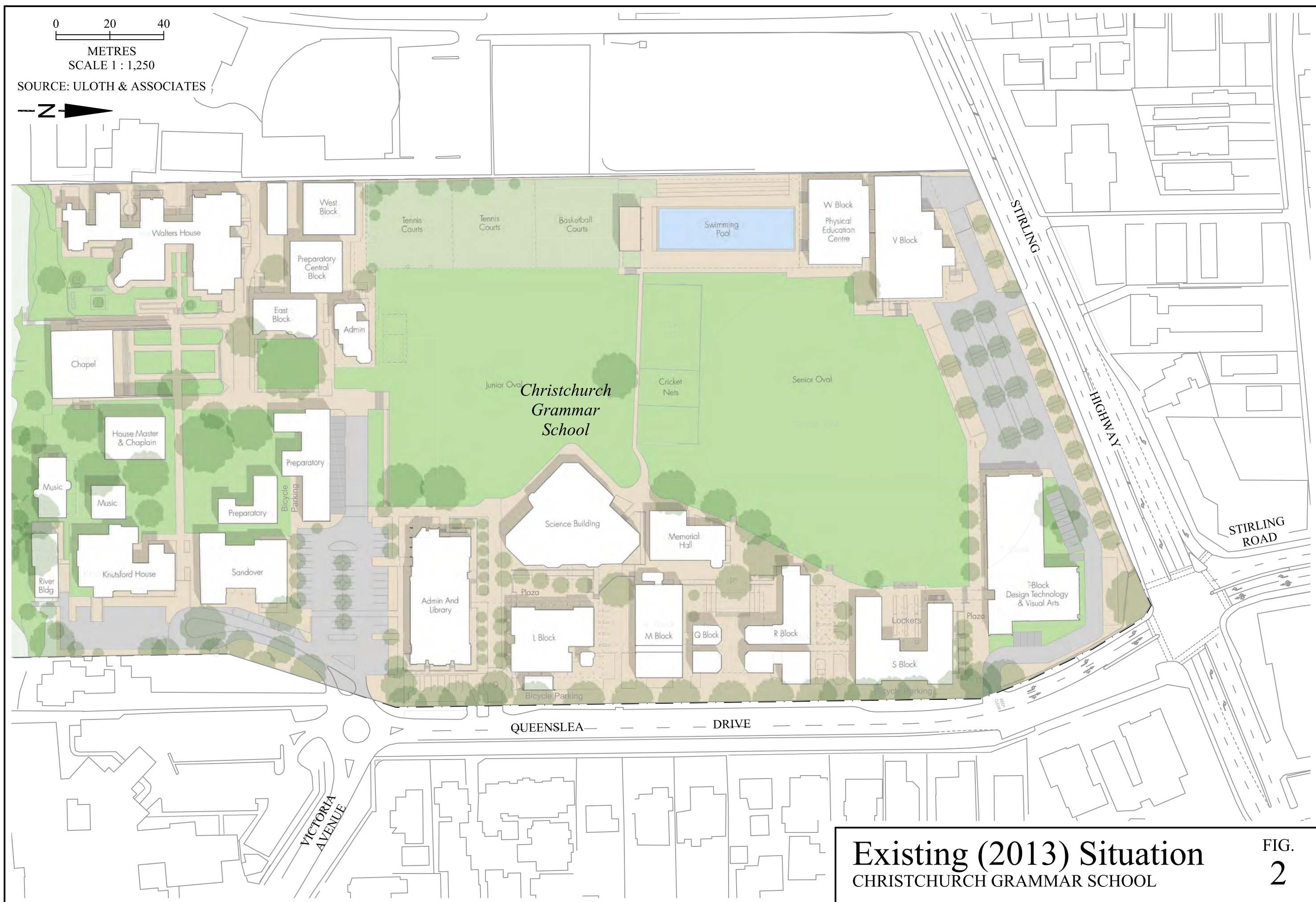
- It can be seen in Figure 2 that Stirling Highway is a 4 lane undivided carriageway west of Queenslea Drive becoming a 4 lane divided carriageway with a raised central median east of Queenslea Drive.
- Traffic signals at the Stirling Highway - Queenslea Drive - Stirling Road intersection provide diamond right-turn phasing for vehicles in Stirling Highway, but split phases for Queenslea Drive and Stirling Road due to the shared lanes on each of these approaches. However, the separate left-turn lane within Queenslea Drive allows this left turn to operate together with the right-turn into Queenslea Drive from Stirling Highway west.
- Stirling Highway is classified as a Primary Distributor road in the Main Roads WA Functional Road Hierarchy, while Queenslea Drive is classified as District Distributor B.
- Queenslea Drive is a 2 lane undivided road with a speed limit of 50 kilometres per hour and is a significant road access onto Stirling Highway for traffic travelling to and from the Nedlands and Dalkeith catchment area. There is also a 40 kilometre per hour School Speed Zone along Queenslea Drive adjacent to the School.
- There is an existing embayment approximately 120 metres in length along the west side of Queenslea Drive adjacent to the school. Between 7:00am and 3:00pm vehicles can park within the embayment for a maximum of 5 minutes, whilst between 3:00pm and 6:00pm the embayment can only be used by school buses. No Standing signs are located on the east side of Queenslea Drive prohibiting drop-offs and pick-up along this side of the road. The car parking area adjacent to the Church at the north end of Queenslea Drive currently has no line markings, but allows parking at 90 degrees to the kerb. However, Clearway conditions operate from 7:30 to 9:00am and from 2:30 to 3:30pm.
- Vehicular access to the school site is via 3 driveways off Queenslea Drive and 1 driveway off Stirling Highway, as indicated in Figure A.3 in Chapter A.1 in the Technical Appendix.
- Driveways 1 and 2 off Queenslea Drive provide the only public access into the site (to the 2 main parking areas), while the third driveway provides access to a small staff-only parking area adjacent to the administration area. Driveway 3 (off Stirling Highway) is blocked by retractable bollards, with access currently restricted to Emergency Vehicles only.
- Existing (2013) on-site parking facilities are also shown in Figure A.3, identifying a total of 249 parking spaces (incl. 2 motorcycle spaces) in 5 distinct locations, thus satisfying the Town Planning Scheme parking requirement of 1 bay per full-time staff member. Existing queuing locations for pick-up and drop-off within the site are also shown in Figure A.3, noting that the potential maximum queuing capacity for these areas is 57 vehicles, bringing the overall on-site parking and queuing capacity to 306 spaces. (However it is also important to note that an additional 13 spaces (incl. 2 motorcycle spaces) have been added adjacent to the administrative building since 2013, bringing the total on-site parking capacity in 2016 to 319 vehicles, as also noted in Figure A.3).





Locality Plan  
CHRIST CHURCH GRAMMAR SCHOOL





Existing (2013) Situation  
CHRISTCHURCH GRAMMAR SCHOOL

FIG.  
2

- Additional on-street parking capacity in the vicinity of Christ Church Grammar School is presented and discussed in Section 5.9.
- There are footpaths on both sides of both Stirling Highway and Queenslea Drive, adjacent to the school, linking to the pedestrian crossing facilities at the Stirling Highway - Queenslea Drive signalised intersection.
- Pedestrian access to the school site is via a number of locations along Queenslea Drive, as shown in Figure A.8 in Chapter A.1 of the Technical Appendix.
- Kerb ramps, indicating an informal crossing point, are provided just north of the roundabout at the southern end of Queenslea Drive. However, the location and design of the roundabout splitter island means that some pedestrians and cyclists experience difficulties when crossing at this point.
- The Perth Bicycle Network (PBN) identifies the paths along the west side of Queenslea Drive then west along the south side of Stirling Highway as Shared Paths accommodating PBN route NW19.
- Cycle parking facilities available on the school site are also shown in Figure A.8 in Chapter A.1 of the Technical Appendix, with parking for 165 bicycles currently provided.
- Bus stops are located in Stirling Highway on either side of Queenslea Drive, as also shown in Figure A.8, with Bus routes servicing the school discussed below in Section 2.3.

## 2.2 DATA COLLECTION AND ANALYSIS

In order to obtain good data regarding traffic flows and pedestrian movement at the School, video traffic surveys at 5 different locations along Queenslea Drive were taken on Thursday 4 April 2013, during both the AM and PM peak periods. A bicycle parking demand survey was also carried out, at 12 noon on Tuesday 14 May 2013.

Town of Claremont has since advised that the Stirling Road subway under the railway line was closed for roadworks on that day, which may have affected traffic patterns at Stirling Highway - Queenslea Drive. A comparison of SCATS traffic count data has therefore been carried out between Thursday 4 April 2013 and Thursday 21 March 2013, with the following results confirming no significant impact on the conclusions drawn for this study:

- The closure of the subway caused a reduction of traffic in Stirling Road (north of Stirling Highway) by approximately 14 percent.
- However, there was no change in total flows on Queenslea Drive.
- Except that left-right turns between Queenslea Drive and Stirling Highway west were approximately 6 percent higher (with corresponding reductions of the through movements to/from Stirling Road).

Figure A.1 in Chapter A.1 in the Technical Appendix shows the video survey locations at the southern end of Queenslea Drive with south facing cameras located at the Victoria Avenue - Queenslea Drive roundabout and within Queenslea Drive itself. Figure A.2 shows the video survey locations at the northern end of Queenslea Drive, with north facing cameras located midway along Queenslea Drive and at the access to the staff car park. The fifth camera was located at the Stirling Highway - Queenslea Drive intersection.

### 2.2.1 Existing Traffic Flows

- Figure A.3 in Chapter A.1 in the Technical Appendix shows the vehicular access locations for Christ Church Grammar School. The plan shows all possible entry and exit routes to / from the school grounds together with the different car park areas and existing car parking available on-site. The main school access is at the south end of Queenslea Drive at the roundabout, with a secondary access via the staff car park at the north end of Queenslea Drive.

- By analysing the video footage, together with additional information obtained from Main Roads WA, the existing total traffic flows adjacent to the school were determined, together with the traffic volumes and traffic distribution specifically relating to the School as shown in Figure A.4 in the Technical Appendix. It can be seen in Figure A.4 that Queenslea Drive carries a total of 8,700 vehicles per day at the northern end, reducing to 7,900 vehicles per day at Victoria Avenue. It can also be seen that School traffic comprises just 1,300 vehicles per day out of the 8,700 vehicles per day at the northern end, a contribution of just 15 percent of the overall traffic flow on Queenslea Drive.
- It is also important to note that during the PM peak hour, a total of 41 vehicles were observed turning left to exit the Staff car park at the northern end of Queenslea Drive and then turning left into Stirling Highway. These 41 vehicles could make use of the proposed left-turn exit onto Stirling Highway discussed below in Sections 3.3 and 3.5.
- The traffic fluctuations throughout the day at the Stirling Highway traffic signals were also assessed and are shown in Figures A.5 to A.7 in the Technical Appendix. Figure A.5 shows the traffic flows for the entire intersection for a school day and a day during the school holidays. The graph shows a significant reduction of traffic through the intersection during both the morning and afternoon peak periods. However it also shows that traffic flows on Queenslea Drive represent a very small proportion of the overall traffic flows using the traffic signals.
- Figure A.6 then shows the Queenslea Drive traffic at a larger scale for both a school day and a non school day while Figure A.7 shows the Queenslea Drive traffic again, but this time just for a school day with actual school traffic identified from the video surveys along Queenslea Drive also shown.
- The reduction in traffic flows for the AM and PM peak periods during school holidays is again evident in Figure A.6. However, it can be seen that significant traffic flows also occur on Queenslea Drive throughout the day, with very little change during school holidays, thus suggesting that Queenslea Drive is well utilised by non-school traffic, with steady non-school traffic flows between 9am and 6pm.
- Figure A.7 also confirms that the school traffic generated along Queenslea Drive is a high proportion of the total traffic for the very short pick-up and drop-off periods, but only a very small portion of the total traffic throughout the day. However, it is interesting to note that there is very little non-school traffic on Queenslea Drive at the peak pick-up and drop-off times for the school, but significantly higher non-school flows on either side of these peaks. This suggests that there is a limit on the capacity of Queenslea Drive, and that non-school traffic avoids using Queenslea Drive at these times due to the awareness that the available capacity is fully utilised by the school for these short pick -up and drop-off periods.
- In this regard, it is important to note that the capacity of Queenslea Drive is very much a function of the amount of 'Green Time' allocated to Queenslea Drive at the Stirling Highway traffic signals. However, with priority given to the major traffic flows along Stirling Highway, the amount of time available for Queenslea Drive (and Stirling Road) will always be limited.
- It is therefore important to understand that as traffic flows along Stirling Highway continue to grow, and as further development occurs within the Claremont Town Centre and along Stirling Road, the amount of 'Green Time' available to Queenslea Drive may be reduced (and may have already been reduced in the past). This reduction of available 'Green Time' reduces the traffic capacity of Queenslea Drive, and therefore increases the level of congestion within Queenslea Drive, even if the actual traffic volumes remain unchanged.

### 2.2.2 Surveyed Bicycle Parking

- Figure A.8 in the Technical Appendix shows the existing pedestrian and cycle facilities to/from Christ Church Grammar School, including the location of bicycle parking within the site.

- It can be seen in Figure A.8 that bicycle parking is currently provided in 3 locations, with a total provision for 165 bicycles.
- It is important to note that at 12 noon on Tuesday 14 May 2013 there were a total of 67 bicycles plus 4 scooters parked within the 165 parking spaces, suggesting that there is significant parking already available for increased bicycle ridership.

### 2.2.3 Observed Pedestrian Flows

- Figures A.9 and A.10 in the Technical Appendix show the observed pedestrian flows at each end of Queenslea Drive, during the combined AM and PM peak periods, noting that the current pedestrian flows are very similar to flows identified in a previous survey undertaken in 2008. Flows were seen to reach a total of 380 pedestrians during the observed AM and PM peak hour on the northern footway along Victoria Avenue, at the southern end of Queenslea Drive, due to students walking to school after being dropped off east of the school along Bayview Terrace and Freshwater Parade.
- The most significant pedestrian movement however was at the northern end of Queenslea Drive, on the eastern side, with a total flow of 580 pedestrians during the observed AM and PM peak hour. While small groups of students were seen crossing just north of Queenslea Drive - Victoria Avenue roundabout, it was at the northern end of Queenslea Drive where large groups of students were seen, walking from bus stops along Stirling Highway or from Claremont Train Station, north-east of the school, as can be seen in the photos in Figure A.11 in the Technical Appendix. This occurred on many occasions during both peak periods, however was more predominant in the AM peak.

## 2.3 EXISTING PUBLIC TRANSPORT SERVICES

Christ Church Grammar School is well serviced by existing public transport services, including Transperth Bus Routes along both Bayview Terrace and Stirling Highway, and Train Services on the Fremantle Line stopping at Claremont Train Station. In 2016, private bus services have also commenced, jointly funded by Christ Church Grammar School and Methodist Ladies College.

### 2.3.1 Transperth Bus Services

- There are 10 Transperth Bus Routes operating within 400 metres of the site, and Claremont Train Station is approximately 500 metres away, as shown in Figure A.12 in Section A.1.3 in the Technical Appendix.
- The closest Bus stops are located in Stirling Highway on either side of Queenslea Drive, as shown in Figure A.12. These bus stops are serviced by Routes 103 and 107, which run along Stirling Highway, as well as Routes 98 and 99 (the Circle Route), which is a high frequency route that runs through Perth's inner suburbs and connects Perth's suburban railway lines. Bus Routes 23, 24, 25, 27, 28 and 102 are also located close by, with Bus stops in Stirling Road and Bayview Terrace, providing connections to and from Claremont Train Station.
- Figure A.13 in the Technical Appendix then shows the broader catchment areas of the existing Bus Routes providing services to Christ Church Grammar School, to/from the adjoining suburbs.

### 2.3.2 Private Bus Services

- As a jointly funded project with Methodist Ladies College, Christ Church Grammar School has commenced operation of 3 additional bus services, servicing Nedlands/Dalkeith/Subiaco/Shenton Park, Floreat/City Beach, and Booragoon/Attadale/East Fremantle. The new services include 2 morning runs and 3 afternoon runs on the Floreat route, 2 morning and 2 afternoon runs on the Nedlands route, and 1 morning and 1 afternoon run on the Booragoon route.

- The selected routes were chosen based on a review of student numbers living in the various suburbs, noting that this review is ongoing and has resulted in several changes being made to the existing routes and stops.
- Operating statistics between March and June 2016 show that the combined routes already carry (on average) a total of 83 students each morning and 65 students each afternoon. This includes 54 and 39 students on the Floreat service, 6 and 11 students to and from Nedlands, plus 23 and 15 students to and from Booragoon.

## 2.4 EXISTING TRANSPORT PLANNING INITIATIVES

- In 2013, when this study commenced, Christ Church Grammar School was already very proactive and successful in managing the traffic impacts of the School, with a number of existing initiatives already in place to reduce the number of private vehicle trips occurring at the School, and to spread out the timing of trips as much as possible.
- The School regularly communicates with the school community regarding parking restrictions on-site and in the vicinity of the school, and encourages the use of alternative modes of transport in order to ease traffic congestion.
- The ‘Walk a little way’ slogan, which encourages parents to pick-up and drop-off students within a short walking distance from the school is a successful scheme that continues to be encouraged. The school also encourages cycling to school by providing bicycle facilities at various locations around the school and offering prizes to students who bike to school on various occasions. Bicycle education classes are also conducted on a regular basis.
- An official pick-up/drop-off point is provided at the south end of the school for younger students, with prefects on hand to assist them, ensuring a faster turnaround. Prefects are also used to provide assistance when crossing Queenslea Drive just north of the Victoria Avenue - Queenslea Drive roundabout.
- In addition, the school has now commenced the jointly-funded private bus runs to/from school, as described above in Section 2.3.2. The school also spends significant funds on Buswest buses to provide travel to and from the school, 4 days of the week, as part of the sports programme.
- School start and finish times are also staggered in order to spread the traffic demand on Queenslea Drive as much as possible. The Preparatory School currently starts at 8.20am, while the Senior School starts at 8.30am. Current finish times are as follows:
  - Pre-Primary        2.45pm
  - Year 1                2.50pm
  - Year 2                3.00pm
  - Years 3-6            3.10pm
  - Senior School      3.05pm
- Further details of the existing traffic management measures introduced by Christ Church Grammar School are provided in Section A.1.3 in the Technical Appendix.

## 2.5 EXISTING TRAVEL MODE SURVEYS

- In order to provide a benchmark for future assessment of ongoing transport planning initiatives and travel demand management, Christ Church Grammar School carried out a travel mode survey of all families at the School during May 2014.
- The survey results are detailed in Table A.2 in Section A.1.4 in the Technical Appendix, showing that approximately 61 percent of students currently travel by car, while 23 percent travel by train or bus, and 16 percent walk or cycle.



- On the basis of the school's location compared to its broad catchment, and its proximity to bus and train services, these figures appear quite reasonable for the existing situation.

## 2.6 MODIFICATIONS AT STIRLING HIGHWAY - QUEENSLEA DRIVE - STIRLING ROAD

- Town of Claremont worked with Main Roads WA in 2015 to identify modifications at the Stirling Highway - Queenslea Drive - Stirling Road signalised intersection, with a view to improving traffic flows in Stirling Road (by adding a left turn lane under Give Way control), and improving the standard of the existing pedestrian crossing facilities.
- The modified intersection layout is shown in Figure A.14 in Section A.1.6 in the Technical Appendix. The work was carried out in late 2015 and completed in 2016.
- The improved standard of pedestrian crossing facilities resulting from this intersection upgrade is acknowledged. However, it is important to note that although the intersection modification improved safety for pedestrians crossing the road, this does not remove the need for the proposed School Crossing within Queenslea Drive which is discussed below in Section 3.1.

## 3. **PREVIOUSLY IDENTIFIED ISSUES AND ANALYSES**

Several traffic management and safety issues have already been identified and analysed for possible modifications as part of previous studies and reviews. These issues are identified and background information summarised within this chapter, for further assessment and discussion in Chapter 5.

### 3.1 POSSIBLE SCHOOL CROSSING IN QUEENSLEA DRIVE

- Uloth and Associates prepared a report in March 2008 on behalf of Christ Church Grammar School as part of an application for a school crossing.
- The report investigated pedestrian activity in Queenslea Drive and showed that the warrants for a warden-controlled school crossing were satisfied in 2 locations, just south of the staff car park access at the northern end of Queenslea Drive, and just north of the Victoria Avenue roundabout at the southern end of Queenslea Drive.
- In December 2010 Christ Church Grammar School submitted an application for a Type A/B Crossing on Queenslea Drive in response to findings from the March 2008 report. Further surveys were conducted in February 2011 and April 2011 by the Student Pedestrian Policy Unit to confirm that a Type A/B crossing was warranted, and in May 2011 the Children's Crossing and Road Safety Committee (CC&RSC) recommended the establishment of a Type 'A' children's crossing.
- An onsite meeting was then held in June 2011 to discuss and confirm the location of the crossing and the required infrastructure, and in July 2011 the school received a letter from the CC&RSC confirming the requirement for a Type A children's crossing on Queenslea Drive. In August 2011 the school contacted Town of Claremont regarding the progress of the design and plans for the crossing and received a response that there would be a delay until a new engineering technical officer was appointed. The position was filled in November 2011 and design plans were prepared for the crossing with the preferred location on Queenslea Drive opposite Number 10. It is important to note that the initial plan prepared by Town of Claremont did not include a median island, however in response to

initial comments from Main Roads WA the plan was revised to include an island, as shown in Figure A.12 in Chapter A.2 in the Technical Appendix.

- The recommendation for a Traffic Warden controlled pedestrian crossing was finally put forward to Town of Claremont Council in September 2012 but was refused on the basis that the treatment did not recognise the impact that the proposed crossing (with a median island) would have on traffic flows both in Queenslea Drive and Stirling Highway. The Mayor then met with the headmaster of Christ Church Grammar School in October 2012 to discuss the school's request for a pedestrian crossing on Queenslea Drive.
- The recommendation was again put forward at the December 2012 Town of Claremont Council Meeting and a 3 month trial was approved with conditions. However a notice of revocation for the trial was submitted in January 2013 following concerns raised by residents in the subject area and in turn by council members, regarding the practicality of implementing the trials. In February 2013 the Town of Claremont Council revoked the proposal for a 3 month trial of the school crossing in order to allow consultation with the residents likely to be affected by this proposal and to establish how works would be reversed after the trial period if it is deemed that the trial was unsatisfactory.
- On 14 February 2013 Town of Claremont wrote to the Children's Crossing and Road Safety Committee to advise them that the installation of the crossing would not proceed.
- In May 2013 the chair of the Children's Crossing and Road Safety Committee wrote a letter to the Minister for Police and Road Safety, noting that this is the first children's crossing to have been rejected by a local council and voicing concern that the safety of student pedestrians could be compromised if Local Councils are allowed to stop children's crossings from being installed.
- As noted above in Section 2.6, the recent modification to the Stirling Highway - Queenslea Drive - Stirling Road intersection does not remove the need for the proposed School Crossing within Queenslea Drive, and should not be used by Town of Claremont as a reason to prevent the installation of the approved crossing.
- The design and recommended installation of a warden-controlled school crossing is further discussed in Section 5.1.

### 3.2 PARKING AT CHURCH

- There are currently no line markings for the car parking area adjacent to the Church at the northern end of Queenslea Drive, however the configuration suggests that 90 degree parking is appropriate.
- Unfortunately, vehicles parking at 90 degrees at the southern end of this parking area stick out into the travel lane and prevent southbound traffic from passing vehicles waiting to turn right into the staff car park, as indicated in Figures A.13 and A.14 in the Technical Appendix. This results in congestion and queuing within Queenslea Drive, and worsens an already unsafe situation for pedestrians crossing Queenslea Drive at this location.
- Following initial discussions with Town of Claremont in 2013, signage has now been installed to introduce a Clearway along this section of Queenslea Drive during school pick-up and drop-off times, with reportedly significant improvements as a result.

### 3.3 ACCESS OFF STIRLING HIGHWAY

- Figure A.15 in Chapter A.4 in the Technical Appendix shows the existing access driveway off Stirling Highway but with restricted use for emergency vehicles only, as part of a previous condition for the Design Technology and Visual Arts building. This condition was stipulated by Town of Claremont

partly due to poor visibility at this location resulting from walls and other structures that existed at that time.

- In September 2008, prior to the completion of the adjacent parking area, Uloth and Associates prepared a letter on behalf of Christ Church Grammar School requesting approval to retain the crossover with left-in/left-out access, in light of concerns over existing traffic congestion already experienced at peak times on Queenslea Drive. This letter was submitted on the basis that Town of Claremont officers had indicated their support for the crossover to remain open to all traffic, as long as access was limited to left-turn traffic only.
- It is important to note that the walls and obstructions that previously resulted in poor visibility have since been removed, as can be seen in the aerial photo in Figure A.19 in the Technical Appendix. Furthermore, at an on-site meeting in June 2011 a Main Roads WA representative confirmed that there should be no issue with the reinstatement of the access on the grounds of visibility. The school therefore contacted Town of Claremont in July 2011 seeking advice on how to proceed with the potential reopening of the Stirling Highway access driveway. No formal response has been received, however it is understood that the Town is happy to support a left-turn exit onto Stirling Highway, as long as the existing path along the Highway is deviated into the school grounds to assist in providing adequate sight lines towards the east. This will need to be addressed in detail as part of a formal application, as discussed further in Section 5.5. However, it should be noted that this may require the relocation of part of the existing boundary fence, and the introduction of a pedestrian easement.

#### **4. COMMUNITY WORKSHOP**

In order to give the community an opportunity to voice their concerns over the existing situation, and to provide input regarding possible traffic management measures and transport initiatives, a community workshop was held at Christ Church Grammar School on the evening of Wednesday 15 May 2013. The workshop was presented by Uloth and Associates, as a starting point to address issues of school traffic management and seek input from the community to help guide the preparation of the Traffic Management and Transport Plan for Christ Church Grammar School.

- The aim of the workshop was to present traffic data, provide background information and highlight issues along Queenslea Drive based on observations made of the existing situation. Possible treatments and measures were also identified and discussed.
- The workshop was attended by 29 people, including 12 parents from the School, 10 local residents, 3 School staff, 2 Town of Claremont councillors and 2 Town of Claremont staff
- Of the 10 residents, 8 live in Queenslea Drive and 2 live in Victoria Avenue. 10 of the 12 parents, 1 of the 2 school staff and the 2 Town of Claremont Councillors live locally in the Claremont, Nedlands or Dalkeith area, while all remaining attendees were non-local.
- To ensure that everyone had the opportunity to be heard a feedback form was provided to each attendee, with the option to provide comments and hand back the form at the end of the workshop, or to email/mail the form to Uloth and Associates by the end of the week. 13 feedback forms were received, 7 from residents (6 from Queenslea Drive and 1 from Victoria Avenue), 5 from parents (3 of which live locally) and 1 from a Town of Claremont Councillor.
- A summary of all feedback/comments received from the Workshop is provided in Table A.3 in Chapter A.7 in the Technical Appendix, with comments made in relation to the following issues:
  - School Crossing in Queenslea Drive
  - Parking in Queenslea Drive
  - Access off Stirling Highway
  - Rat-running via Princess Road and Victoria Avenue
  - Dedicated School Buses
  - General Congestion
  - Roundabout at Queenslea Drive - Victoria Avenue
  - Stirling Highway - Queenslea Drive traffic signals
  - Cycling
  - Public Transport
  - Access to staff car park
  - Pedestrian Overpass/Underpass on Stirling Highway
- The workshop discussions, together with the specific responses received have all been taken into account in the preparation of the proposed Traffic Management and Transport Plan, as discussed below in Chapter 5.

## 5. FURTHER ASSESSMENT AND DISCUSSION

This chapter documents the further assessment and discussion of possible solutions, taking into account the issues raised and responses received from the community Workshop.

### 5.1 SCHOOL CROSSING IN QUEENSLEA DRIVE

- As discussed in Section 3.1, the need for a warden-controlled school crossing in Queenslea Drive has already been identified, confirmed, and recommended by the Children's Crossing and Road Safety Committee. A preferred location has also been identified, and design drawings prepared. The installation of the crossing is considered to be crucial for the safety of students currently crossing Queenslea Drive, and also as a critical component to encouraging more students to walk, ride or catch public transport to school by improving safety at this key location. The recent modification to the Stirling Highway - Queenslea Drive - Stirling Road intersection does not remove the need for the proposed school crossing.
- As noted in Table A.3 in Chapter A.5 in the Technical Appendix, local residents were generally not in favour of the proposed crossing, due to an expectation that queuing will result within Queenslea Drive (and even extending back into Stirling Highway), and concerns that the proposed refuge island within Queenslea Drive will restrict traffic flow, while also requiring the removal of the existing cycle lane along the eastern side. It was suggested that a crossing is not required because students should use the existing crossing facility at the Stirling Highway traffic signals, and that a crossing should only be provided if there is a history of pedestrian accidents.
- In response to these concerns, it is important to reiterate that the need for the crossing has been identified and confirmed and recommended, in addition to the existing crossing facility at Stirling Highway. Whilst the initial proposal was for a crossing to be located immediately south of the staff car park access, the currently recommended location was preferred after taking into account the possible queuing within Queenslea Drive, the required sight lines for both the crossing warden and the approaching traffic, and the possible impacts on access to adjacent properties. It is also important to note that wardens are trained to consider impacts on traffic flows when operating the crossing, so queuing within Queenslea Drive can be controlled. The school has also confirmed that the proposed location aligns well with the pedestrian access between R-Block and S-Block, and has committed to ensuring that students will be instructed (and managed) to use this access and the proposed crossing.
- In regard to the proposed design of the crossing, it is agreed that the provision of a refuge island would restrict traffic flows along Queenslea Drive. It is also important to note that a refuge island is not necessary under Australian Standard AS 1742.10.
- An alternative plan was therefore prepared and discussed with Main Roads WA and members of the Children's Crossing and Road Safety Committee. After further modifications a final concept plan was submitted and Main Roads WA has now granted 'In-Principle' approval for the proposed crossing without a median island.
- It is therefore recommended that a warden-controlled crossing should be introduced at the proposed location (at Number 10 Queenslea Drive), as soon as possible. The crossing should be installed as a permanent fixture, without any suggestion of a trial period, with the cost of installation already agreed to be paid by the School.
- The approved plan includes a reduction of the existing embayment in Queenslea Drive by approximately 15 metres, and the introduction of a 20 metre 'No Standing' zone (to be applicable only during times that the crossing is manned) as shown in Figure 3 in Chapter 6 Recommendations.

## 5.2 PARKING IN QUEENSLEA DRIVE AT CHURCH

- As noted in Section 3.2, 90-degree parking in front of the church creates congestion and queuing in Queenslea Drive by blocking southbound traffic that is trying to pass vehicles waiting to turn right into the School staff car park.
- It is also important to note that none of the existing parking area is compliant with the cross sectional requirements of Australian Standard AS 2890.5.
- It was suggested at the Workshop that the staff car park access should be closed. However this is impossible as it is the only access possible for this car park unless full access was provided off Stirling Highway.
- Alternative suggestions were to introduce clearway conditions to prevent parking in this location at peak times, or to accommodate parallel parking instead of 90-degree parking.
- As noted above in Section 3.2, Clearway conditions have now been introduced to prevent parking in this location during school pick-up and drop-off times. Both Christ Church Grammar School and Town of Claremont representatives have agreed that this has significantly improved things, although ongoing enforcement by the Town's Ranger should be actively addressed.

## 5.3 CONGESTION AT QUEENSLEA DRIVE - VICTORIA AVENUE ROUNDABOUT

- Congestion currently occurs at the Queenslea Drive - Victoria Avenue roundabout, primarily in relation to vehicles accessing the student pick-up and drop-off area accessed off this roundabout.
- While modifications to the roundabout infrastructure were suggested and discussed at the Workshop, it is clear that significant modifications (such as a suggested free-flow left turn lane for southbound traffic) would not be possible without land take from adjacent properties, which is not viable.

## 5.4 NEW PICK-UP/DROP-OFF AREA IN NORTH CAR PARK

- In order to relieve congestion along Queenslea Drive, it has been suggested that a new pick-up/drop-off area could be formalised within the northern car park. This would allow school traffic to enter the car park and queue within the site, rather than travel the full length of Queenslea Drive (potentially twice). It would also provide a convenient pick-up/drop-off location for vehicles seeking to exit onto Stirling Highway west, as discussed below in Section 5.5.
- It is noted that a formal Development Application would need to be lodged with Town of Claremont for any physical changes to the car park. However, it is also noted that there would be no loss of parking associated with this proposal. Rather, the potential queuing capacity for up to 28 vehicles (as indicated in Figure A.3 in the Technical Appendix) would be formalised.

## 5.5 ACCESS OFF STIRLING HIGHWAY

- As noted in Section 3.3, Town of Claremont has previously indicated support for access onto Stirling Highway for left-turn movements only, and MRWA has confirmed that the previous sight-line concerns should no longer be an issue.
- In order to reduce the amount of traffic exiting the School onto Queenslea Drive, it is therefore recommended to permit a left-turn exit from the Staff car park onto Stirling Highway, with the installation of a raised kerb within the existing painted median to prevent right turns.

- The provision of this left turn movement will also improve the operation of the proposed new pick-up/drop-off area within this car park (discussed above in Section 5.4), to further relieve existing congestion within Queenslea Drive. An alternative treatment has been suggested to link the car parks between Methodist Ladies College (MLC) and Christ Church Grammar School in order to make use of the existing Stirling Highway access driveway serving MLC. However, a review of topography and existing infrastructure suggests that a loop road linking with the MLC car park and access road is not viable.
- It is acknowledged that the design of the proposed access driveway off Stirling Highway will need to consider safety for cyclists along the shared path on Stirling Highway, although an acceptable outcome can be achieved by limiting the access to a left-turn exit only and possibly deviating the shared path into the school grounds (with an easement) to assist in providing adequate sight lines towards the east.
- It is also acknowledged that a formal application will need to be made through Town of Claremont and Main Roads WA, including justification regarding possible impacts to traffic flows along Stirling Highway and at the adjacent access road to Methodist Ladies College, as well as impacts on cyclists using the dual use path, and access to properties on the opposite side of Stirling Highway.
- The specific design of the proposed modifications will need to be determined as part of this formal application process. However, it should be noted that this may require the relocation of part of the existing boundary fence, and the introduction of a pedestrian easement.

## 5.6 TRAVEL DEMAND MANAGEMENT

- In addition to the above physical traffic management measures, it is also noted that the School will continue to increase its efforts to reduce the overall number of private vehicle trips generated by the school during peak times.
- The provision of the new school crossing in Queenslea Drive should be seen as a significant catalyst to encouraging more students to catch public transport to and from school, given the improved safety the crossing will provide for students walking to/from Bus Stops and the Train Station.
- It is therefore recommended that Christ Church Grammar School should work closely with Town of Claremont and Public Transport Authority to identify all available public transport options to and from school, and to advise students and families of the available options prior to the start of each school year, with ongoing reminders and encouragement in monthly newsletters and on the School website.
- It is also suggested that the School could increase the occurrence of car-pooling, by sharing information across the School community so families are made aware of other school families living close by, and are provided with a means of contacting those families for car-pooling opportunities.
- The ‘Walk a Little Way’ scheme should continue to be promoted for those unable to avoid the use of private vehicles, however additional pick-up and drop-off locations could also be identified in order to spread the traffic impact away from residential areas.
- Cycling should also continue to be encouraged, and the number of bicycle parking spaces should be monitored to ensure that supply remains ahead of demand.
- Town of Claremont suggested that the introduction of a shared bus service with other private schools within the area should be investigated. It was recommended that the Town should facilitate an investigation into the viability of such a scheme, and Christ Church Grammar School was encouraged to actively participate. Christ Church Grammar School is supportive of such a service and looks forward to the process commencing. In the meantime, the School has already commenced a jointly-funded bus service shared with Methodist Ladies College, as described in Section 2.3.2.

- Town of Claremont has also suggested that joint forums may be established to investigate possible further improvements to pedestrian and cyclist facilities in the broader area including along and across Stirling Highway. It is recommended that Christ Church Grammar School should actively participate in any such forum.
- By implementing the above initiatives, in addition to those currently in place, it is anticipated that the number of private vehicle trips to and from school can be reduced, with initial targets as shown in Table 1 in Chapter 6 Recommendations.

## 5.7 INCREASE IN STUDENT NUMBERS

- When the school starting age was changed in 2001, it resulted in a ‘half year’ group of students that had then progressed through to Year 12 in 2014. When this group (136 students) departed at the end of 2014, it was replaced by a ‘standard size’ cohort of 185 students progressing through from the younger age groups.
- As a result, total student numbers increased in 2015 by approximately 50 students (from 1,600 to 1,650 students), but with no change to existing staff numbers (and hence no change in required overall parking provision).
- It is important to note that the Town of Claremont’s 2012 Planning Approval for the construction of R-Block included a condition limiting student enrolments to 1,600. However, since there are currently 100 boarders included within the current 1,650 enrolments, and therefore only 1,550 students contributing to the overall traffic impact of the site, it is considered that the intent of the cap on student enrolments has not been breached.
- With additional classrooms currently also proposed, it is planned to increase student numbers to approximately 1,750 students by 2018, with a possible further increase beyond 2018 to 1,800 students. This growth of overall student numbers, together with the corresponding number of staff is as shown below in Table 1, while the corresponding impacts on overall parking demands are discussed below in Section 5.8.

TABLE 1  
EXISTING AND FUTURE STUDENT AND STAFF NUMBERS  
CHRIST CHURCH GRAMMAR SCHOOL

ITEM	AMOUNT	
	Existing (2013)	Future
• Number of Students		
- Pre-Primary	45	120
- Primary (Years 1 to 6)	455	480
- Secondary (Years 7 to 12)	1,100 <sup>1)</sup>	1,200 <sup>2)</sup>
- Total Students	1,600	1,800
- Total Non-Boarders	1,500	1,690
• Number of Staff		
- Full Time Staff	201	211
- Total Staff (FTE)	252	270
- On-site at one time	215	230

Notes: 1) Existing situation includes 100 boarders.

2) Future situation includes 110 boarders.

Source: Christ Church Grammar School



## 5.8 OVERALL PARKING REQUIREMENTS

- Recommended parking ratios for the determination of parking requirements at Christ Church Grammar School (in accordance with ratios identified under the Road Safety Around Schools programme) are as follows:

14 spaces per 100 Primary School students  
 + 7 spaces per 100 Secondary School students  
 + 1 space per staff member

- Staff parking should be all-day parking provided on-site, while the remaining parking demand is for pick-up/drop-off activity, and can be a combination of parking spaces and queuing capacity either on-site or within the adjacent streets.
- Existing parking demands at Christ Church Grammar School at the time of the various surveys (2013) can therefore be calculated, as follows:

- Primary:	500 students @ 14/100 students	= 70 spaces
- Secondary (excl. boarders):	1,000 students @ 7/100 students	= 70 spaces
- Total Pick-up/Drop-off Parking		= 140 spaces
- Staff:	201 staff @ 1/1 staff	= 201 spaces
- Total Parking Requirement		= 341 spaces

- With a total existing parking and queuing provision for 306 vehicles on-site at the time of the various surveys, as noted above in Section 2.1, this suggests that there would have been 49 vehicles either parking or queuing within Queenslea Drive and the surrounding streets at that time.
- Taking into account the proposed increases in student and staff numbers, as noted above in Section 5.7, the future parking demands for Christ Church Grammar School will be as follows:

- Primary:	600 students @ 14/100 students	= 84 spaces
- Secondary (excl. boarders):	1,090 students @ 7/100 students	= 76 spaces
- Total Pick-up/Drop-off Parking		= 160 spaces
- Staff:	211 staff @ 1/1 staff	= 211 spaces
- Total Parking Requirement		= 371 spaces

- As noted above in Section 2.1, the existing on-site parking and queuing capacity in 2016 has increased to 319 vehicles (incl. motorcycles). However, with the construction of the proposed new classrooms referred to above in Section 5.7, it is also proposed to construct an additional 49 on-site parking spaces and increased queuing capacity for 16 additional vehicle (as shown in Figure A.20 in Chapter A.5 in the Technical Appendix), bringing the overall on-site parking and queuing capacity to 384 vehicles, which is an excess of 13 spaces compared to the total requirement of 371 spaces.
- It is also important to note that there is on-street parking capacity for approximately 80 vehicles (50 percent of the total on-street parking provision) within a short walking distance of the School, as discussed below in Section 5.9.

## 5.9 ON-STREET PARKING

In order to assess the availability of on-street parking within a reasonable walking distance of Christ Church Grammar School, the existing characteristics of Queenslea Drive, Victoria Avenue, Freshwater Parade, Park Lane and Bay View Terrace have been identified, as described in this section and shown diagrammatically in Figure A.21 in Chapter A.6 in the Technical Appendix.

### Queenslea Drive

- The physical characteristics of Queenslea Drive adjacent to the School are already discussed above in Section 2.1.
- The car parking area adjacent to the Church at the north end of Queenslea Drive currently has no line markings, but allows 90-degree for up to 15 vehicles. However, since this area is denoted as a Clearway during both the morning (7:30 to 9:00 am) and evening (2:30 to 3:30 pm) peak periods, it makes no contribution to the available parking provision for school pick-up or drop-off.
- The existing bus embayment on the western side can accommodate up to 18 cars with a 5 minute time limit, acting as a drop-off zone during the morning peak. However, parking is not permitted during the afternoon peak.
- As noted above in Section 5.1, the recommended provision of a Type A Children's Crossing on Queenslea Drive involves a reduction of the existing embayment by approximately 15 metres and the introduction of 20 metre 'No Standing' zone during the manned crossing times. This will have no impact on the amount of on-street parking available during the PM Peak period, but will reduce the AM peak parking capacity by 6 spaces.

### Victoria Avenue

- Queenslea Drive continues south to become Victoria Avenue, which is a 2 lane divided road with a functional classification of a District Distributor B under the Main Roads WA Functional Road Hierarchy, with a speed limit of 50 kilometres per hour. On-street parking is not allowed on the southern section of Queenslea Drive between the roundabout and Victoria Avenue, with "No-Stopping" signs in place.
- The overall road pavement in Victoria Avenue is 11 metres wide with a 1 metre wide painted/paved central median, 3 metre wide traffic lanes in each direction and 2 metre wide parallel on-street parking lanes on either side (with 2-hour parking restrictions). The property access driveways are denoted with "No Stopping" painted on the pavement. The parking lane on the southern side of the road is denoted as a Clearway during the morning peak (7:30 to 9:00 am), while the northern side is denoted as a Clearway in the evening peak (3:00 to 4:00 pm).
- The section of Victoria Avenue between Queenslea Drive and Bay View Terrace provides on-street parking for 12 vehicles during the AM peak, and for 14 vehicles during the PM peak as indicated in Figure A.21 in Chapter A.6 in the Technical Appendix.

### Freshwater Parade

- Freshwater Parade is a 2 lane undivided residential access road located to the east of Queenslea Drive, with a speed limit of 50 kilometres per hour. It is an 8 metre wide road with 1.6 metre footpaths on each side. Freshwater Parade is currently a 'No Through Road' at the southern end. However, is connected to Queenslea Drive via a 1.6 metre wide footpath. On-street parking is permitted on either side with 2-hour parking restrictions during the day (although vehicles with residential parking permits are exempt). There are 65 on-street parking spaces currently available on Freshwater Parade that could potentially be used for school pick-up/drop-off.

### Park Lane

- Park Lane is a 2 lane undivided residential access road connecting Freshwater Parade and Bay View Terrace, with a speed limit of 50 kilometres per hour. It is a 6 metre wide road with on-street parking permitted on the southern side, with 2 hour parking restrictions during the day, and a total parking capacity of 10 vehicles. Footpaths are also provided on both sides.

### Bay View Terrace

- Bay View Terrace, south of Stirling Highway is a 2-lane road which runs parallel and to the east of Freshwater Parade and Queenslea Drive. It is classified as a District Distributor B under the Main Roads WA Functional Road Hierarchy, and has a speed limit of 50 kilometres per hour, but with a School Speed Zone adjacent to Freshwater Bay Primary School. Bay View Terrace is a 13 metre wide road with a 2 metre wide median, 3 metre wide traffic lanes, and 2.5 metre wide parallel parking spaces on each side, with 2 hour parking restrictions during the day. It also provides 1.7 metre wide footpaths on both sides. On-street parking is provided on either side of the road with 2P restrictions during the day. There are currently 70 on-street parking spaces provided along Bay View Terrace between Stirling Highway and Victoria Avenue.

### Total On-Street Parking

- The total number of existing on-street parking spaces in close proximity of Christ Church Grammar School is therefore 175 spaces during the AM peak period, and 159 spaces during the PM peak period, as indicated in Figure A.21 in Chapter A.6 in the Technical Appendix.
- However, as noted above, the AM peak parking capacity will be reduced by 6 spaces (to 169 spaces) as a result of the introduction of the Type A Children's Crossing in Queenslea Drive.
- It is therefore reasonable to expect that 84 on-street spaces will be available during the AM peak period, with 80 spaces available during the PM peak period, being 50 percent of the overall parking capacity (as previously noted by Town of Claremont regarding the Scotch College TMTP).

## 5.10 PARKING MANAGEMENT FOR EVENTS AT THE SCHOOL CHAPEL

- Following an application for refurbishment works at the School Chapel, concern was raised by Town of Claremont regarding the possible impact of events/activities at the Chapel on existing parking and traffic congestion during school pick-up and drop-off times.
- In this regard, the School has advised that the Chapel will continue to be used almost exclusively for school events. Approximately 3 to 4 times per year the school is asked to conduct a significant funeral service. On these occasions the school opens the top and bottom ovals to allow parking to be contained on site. These events rarely occur during times of peak congestion on Queenslea Drive.
- Town of Claremont has confirmed that Chapel use outside of School peak periods is not a concern.

## 6. RECOMMENDATIONS

The recommendations for the Christ Church Grammar School Traffic Management and Transport Plan are made on the basis of the surveys and analyses in Chapters 2 and 3, the workshop discussions and responses in Chapter 4, and the follow up assessment in Chapter 5. The recommendations are as follows:

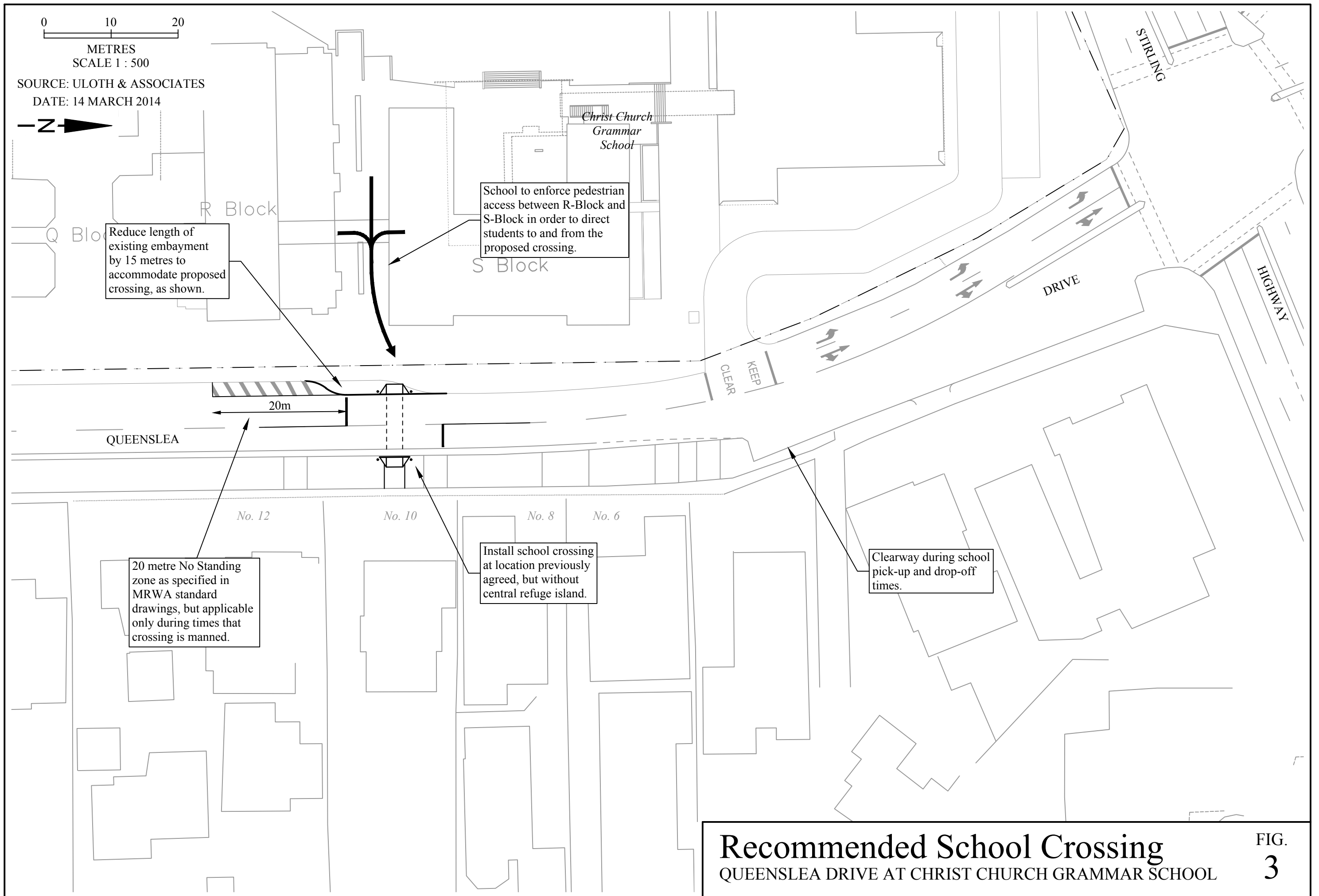
- 1. It is recommended to install a Type A Children's Crossing in Queenslea Drive at the previously approved location in front of house number 10, with no median island, as shown in Figure 3, and as discussed in Section 5.1. It is important to note that Main Roads WA and the Children's Crossing and Road Safety Committee have granted 'In-Principle' approval for this proposed plan. It is also important to note that the recent modification to the Stirling Highway - Queenslea Drive - Stirling Road intersection does not remove the need for this proposed crossing. The approved plan includes a reduction of the existing embayment in Queenslea Drive by approximately 15 metres, and the introduction of a 20 metre 'No Standing' zone (to be applicable only during times that the crossing is manned).
- 2. It is recommended that the School enforce pedestrian access between R-Block and S-Block in order to direct students to and from the proposed crossing, as noted in Figure 3. (The School has already commenced this enforcement by having School Prefects on location to ensure that students cross at the site of the proposed crossing. The Prefects are supported by the School Marshall to ensure compliance).
- 3. It is recommended to formalise a new student pick-up/drop-off area at the western end of the staff car park accessed off the northern end of Queenslea Drive, as indicated in Figure 4 and as discussed in Section 5.4. (This may require a formal Development Application to Town of Claremont but is only expected to require signage and pavement markings and is not expected to result in any loss of existing parking).
- 4. It is recommended that Town of Claremont continue to actively monitor and enforce the new Clearway at the southern end of the Church parking area adjacent to the staff car park access in Queenslea Drive.
- 5. It is recommended to pursue the introduction of a left-turn exit from the northern Staff car park onto Stirling Highway, as indicated in Figure 4 and as discussed in Section 5.5, in order to reduce the amount of traffic exiting the school onto Queenslea Drive. It is also acknowledged that a formal application will need to be made through Town of Claremont and Main Roads WA, including justification regarding possible impacts to traffic flows along Stirling Highway and at the adjacent access road to Methodist Ladies College, as well as impacts on cyclists using the dual use path, and access to properties on the opposite side of Stirling Highway.
- 6. It is recommended that Christ Church Grammar School actively continue the current transport initiatives, while also introducing new initiatives, as listed below in Recommendations 7 and 8 (and as discussed in Section 5.6), in order to reduce reliance on private vehicle travel to/from the School, with an initial aim of reaching the travel mode targets identified in Table 2.
- 7. It is recommended that Christ Church Grammar School work closely with Town of Claremont and Public Transport Authority to identify all alternative means of transport to and from the school, and to advise students/parents and staff of the available options prior to each school year, with periodic reminders in weekly newsletters, in order to help reduce the number of vehicle trips generated by the school as detailed below in Items 7.1 to 7.4.
  - 7.1 It is recommended to identify and promote all available public transport options to and from the school, including information regarding safety improvements offered by various other initiatives. It is anticipated that public transport usage (Bus and Train) can be increased from the existing 23.2 percent to an initial target of 27 percent (as shown in Table 2), and a possible long term target of up to 30 percent, with actual improvements to be determined by undertaking updated travel surveys 2 years after Council's final adoption of this report.

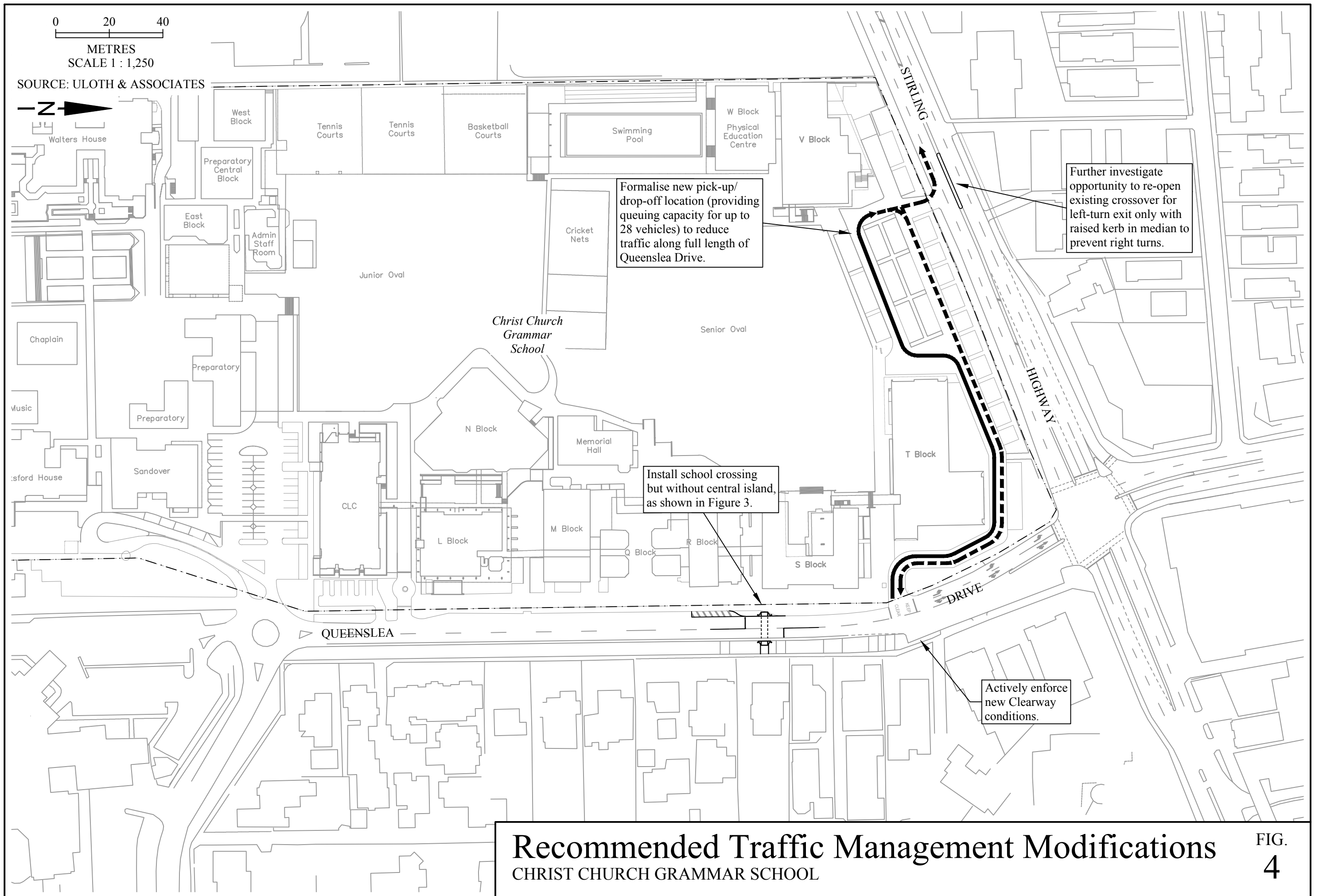
- 7.2 It is recommended to promote car-pooling as an additional way to reduce private vehicle travel. It is therefore recommended to advise families across all Year Groups (taking into account possible privacy concerns) of other school families living close by, who may not otherwise be aware of each other, and to provide a means of contact between them for car-pooling. It is anticipated that carpooling can be increased from the existing 2.9 percent to an initial target of 5 percent (as shown in Table 2), and a possible long term target of up to 10 percent.
- 7.3 It is recommended that the School should continue to promote its ‘Walk a little way’ scheme, but to also investigate possible additional pick-up and drop-off locations as part of this scheme. It is anticipated that the percentage of students walking to/from school can be increased from the existing 9.8 percent to an initial target of 12 percent (as shown in Table 2), and a possible long term target of up to 15 percent.
- 7.4 It is recommended that the School also continue to encourage students to cycle to school, and to ensure that the supply of bicycle parking continues to exceed demand. It is anticipated that the percentage of students cycling to/from school can be increased from the existing 6.3 percent to an initial target of 8 percent (as shown in Table 2), and a possible long term target of up to 10 percent.
- 8. It is recommended (and agreed) that Christ Church Grammar School will play an active role in the preparation of any plan to address traffic and parking congestion in streets surrounding schools in the locality resulting from the initiatives being promoted by the Western Suburbs School Traffic Committee. This includes assisting with any survey of parents required to implement a plan, assisting in the development of plans and once endorsed, actively implementing the plans for a common CAT Bus Service or any other measure identified and adopted by the Councils of the Committee as a solution to traffic congestion relating to schools in the locality. It is noted that the School has already commenced jointly-funded private bus services in conjunction with MLC, including a recent extension of services to Shenton Park and Subiaco. It is also noted that the School is currently already involved in a MRWA-funded study of traffic congestion in the local area, together with Methodist Ladies College and Scotch College. The School has also recently agreed to participate in Public Transport Education sessions to promote public transport awareness for Year 6 students before they start High School.

TABLE 2  
EXISTING MODE OF TRAVEL AND FUTURE TRAVEL MODE TARGETS  
CHRIST CHURCH GRAMMAR SCHOOL

MODE OF TRAVEL	EXISTING PERCENTAGE (2014)	FUTURE PERCENTAGES	
		Initial Target (2019)	Possible Long Term Target (2024)
Family Car	57.8%	48%	35%
Car Pool	2.9%	5%	10%
Bus	15.0%	17%	19%
Train	8.2%	10%	11%
Walk	9.8%	12%	15%
Cycle	6.3%	8%	10%
	100%	100%	100%

Source: Uloth and Associates





## **TECHNICAL APPENDIX**

The Technical Appendix documents the existing situation at Christ Church Grammar School, the traffic management initiatives already in place, several issues previously identified and analysed, and a summary of comments received following the Community Workshop.



## **A.1 EXISTING SITUATION**

Figures A.1 and A.2 show the location and position of video cameras set up to identify existing traffic and pedestrian flows within Queenslea Drive on Thursday 4 April 2013. An additional camera was also used to observe traffic and pedestrian flows at the Stirling Highway - Queenslea Drive intersection.

### **A.1.1 WEEKDAY TRAFFIC FLOWS**

Figure A.3 shows the vehicular access points serving Christ Church Grammar School, including 2 main driveways and 1 minor driveway off Queenslea Drive, plus one driveway off Stirling Highway (restricted for use by emergency vehicles only). Existing on-site parking facilities are also shown, indicating a total of 215 parking spaces.

Existing weekday traffic flows on Queenslea Drive are as shown on the left side of Figure A.4, while the centre and right diagrams show the daily traffic flows separated into School Traffic and Non-School Traffic.

Figures A.5 to A.7 show the hourly fluctuation of traffic flows entering the Stirling Highway - Queenslea Drive signalised intersection throughout the day. Figure A.5 shows the traffic flows for the entire intersection (including both a school day and a day during school holidays), as well as the traffic flows entering the intersection from Queenslea Drive only.

Figure A.6 then shows the Queenslea Drive traffic at a larger scale, again with both a school day and a non-school day for comparison purposes. Figure A.7 shows the Queenslea Drive traffic again, but this time together with the actual school traffic (identified from the video surveys along Queenslea Drive) and resulting non-school traffic.

It is clear from each of these comparisons that the school traffic generated along Queenslea Drive is a high proportion of the total traffic during the very short pick-up and drop-off peak periods, but only a very small proportion of the total traffic flows throughout the day.

SOURCE: ULOTH & ASSOCIATES



LOCATION 1: VICTORIA AVENUE - QUEENSLEA DRIVE ROUNDABOUT



LOCATION 2: QUEENSLEA DRIVE (SOUTH FACING)

## Video Camera Locations

CHRIST CHURCH GRAMMAR SCHOOL

FIG.  
A.1





LOCATION 3: QUEENSLEA DRIVE (NORTH FACING)

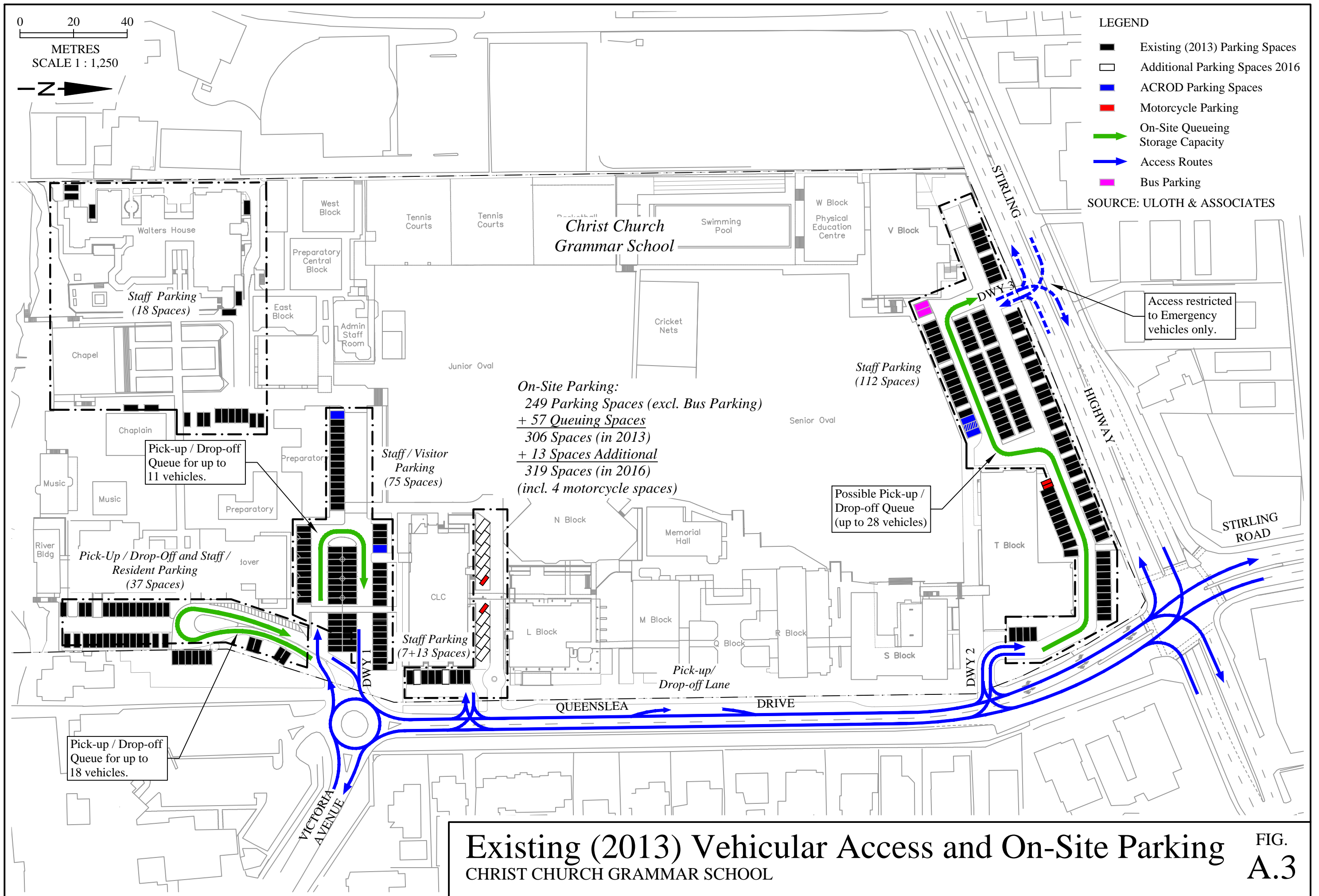


LOCATION 4: STAFF CAR PARK ACCESS

## Video Camera Locations

CHRIST CHURCH GRAMMAR SCHOOL

FIG.  
A.2



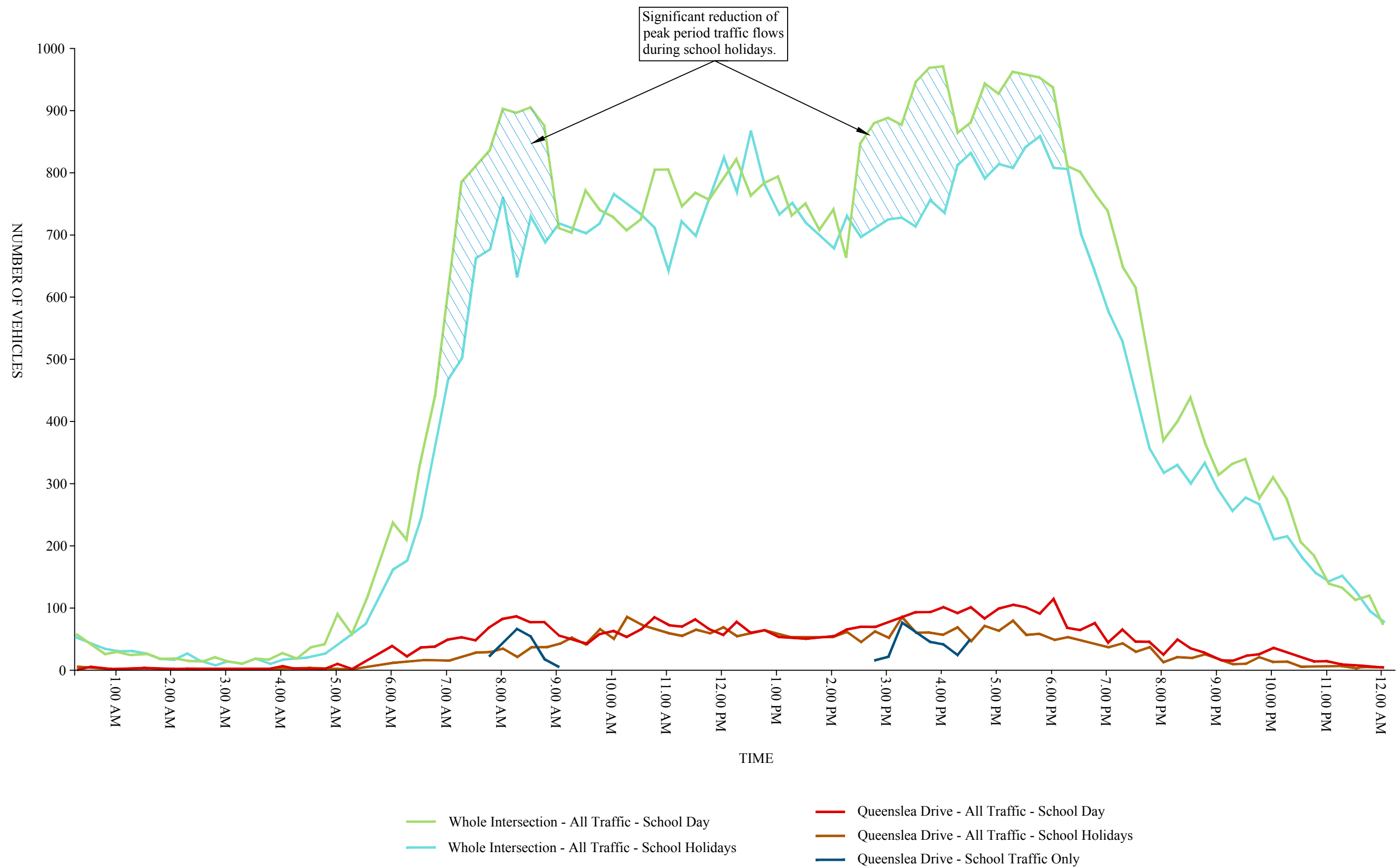




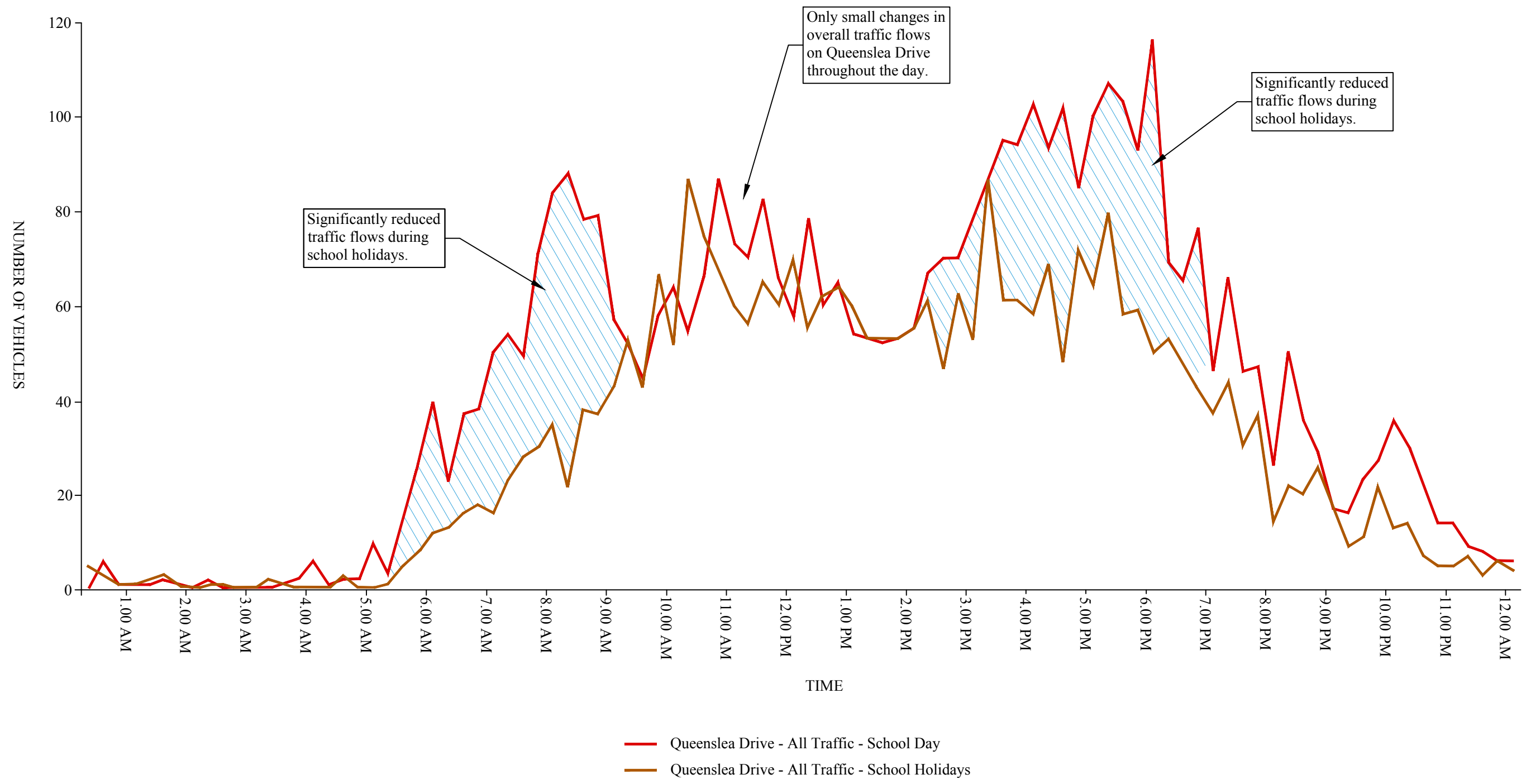
# Existing Daily Traffic

QUEENSLEA DRIVE AT CHRIST CHURCH GRAMMAR SCHOOL

FIG.  
A.4



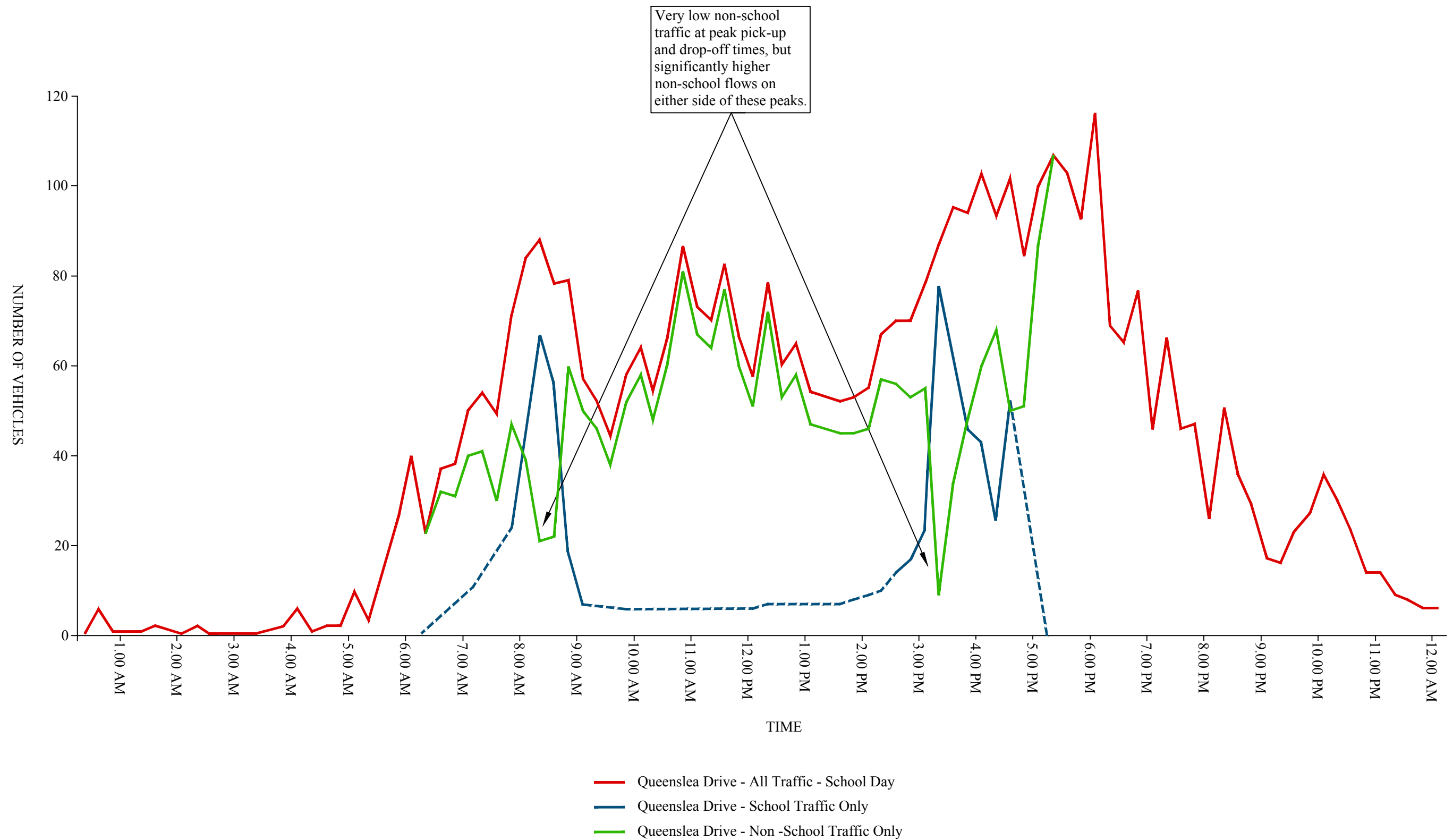
**Existing Weekday Traffic Flows**  
ENTERING STIRLING HWY - QUEENSLEA DR INTERSECTION



## Existing Weekday Traffic Flows

ENTERING STIRLING HWY - QUEENSLEA DR INTERSECTION FROM QUEENSLEA DR

FIG.  
A.6



## Existing Weekday Traffic Flows

ENTERING STIRLING HWY - QUEENSLEA DR INTERSECTION FROM QUEENSLEA DR

FIG.  
A.7



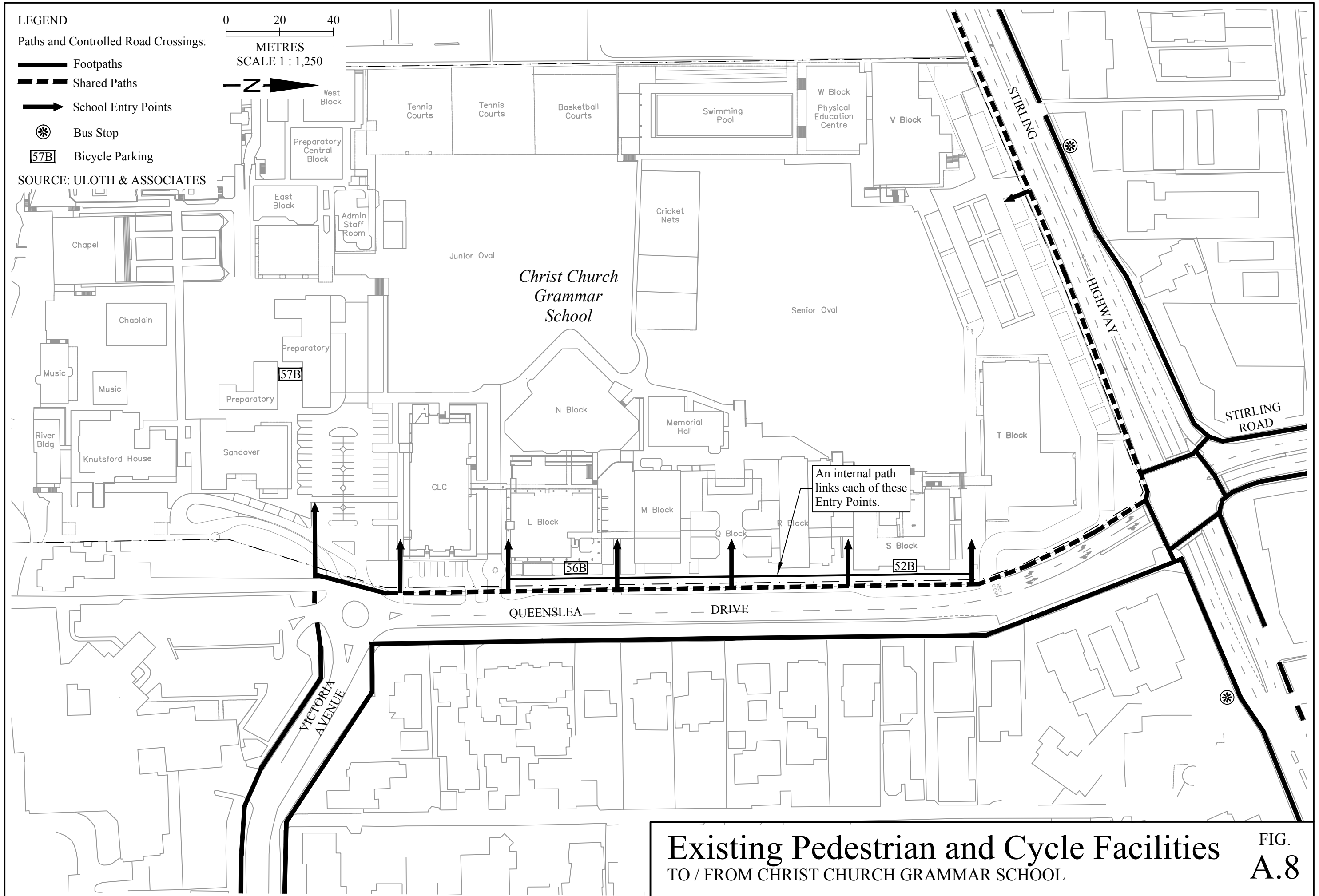
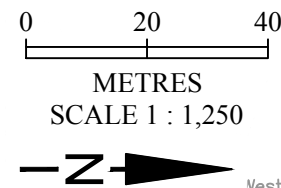
### A.1.2 CYCLE FACILITIES AND PEDESTRIAN FLOWS

Figure A.8 shows the existing cycle parking facilities available on the school site and the existing bus stop locations along Stirling Highway. Figure A.8 also shows pedestrian access into the school and available footpaths in the vicinity.

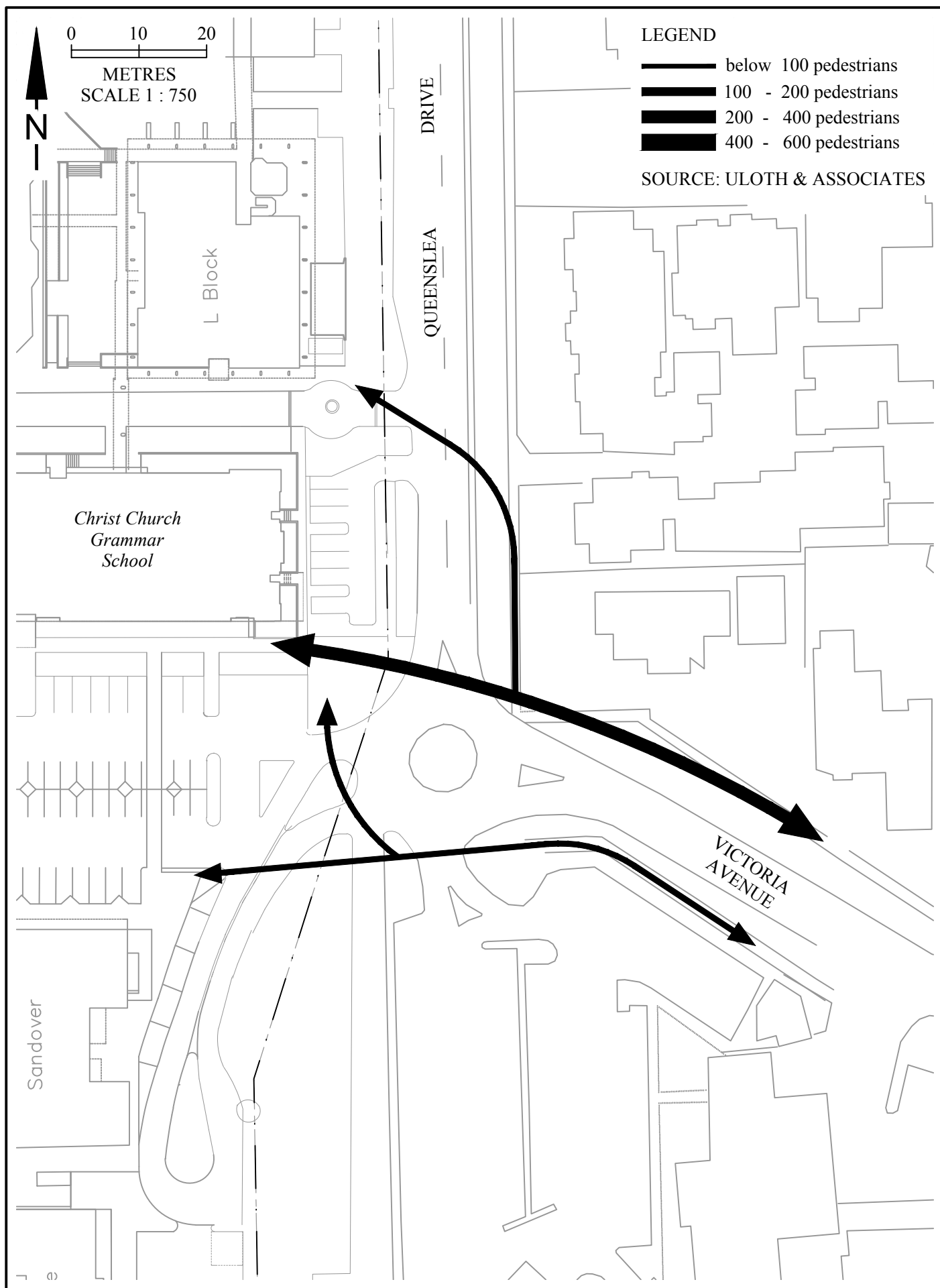
Figures A.9 and A.10 shows the observed pedestrian flows at each end of Queenslea Drive.

Figure A.11 shows snap shots from the video surveys of groups of students crossing Queenslea Drive north-east of the school, from bus stops along Stirling Highway or from Claremont Train Station, during the AM peak period.

- LEGEND
- Paths and Controlled Road Crossings:
- Footpaths
  - Shared Paths
  - School Entry Points
  - Bus Stop
  - Bicycle Parking
- SOURCE: ULOTH & ASSOCIATES

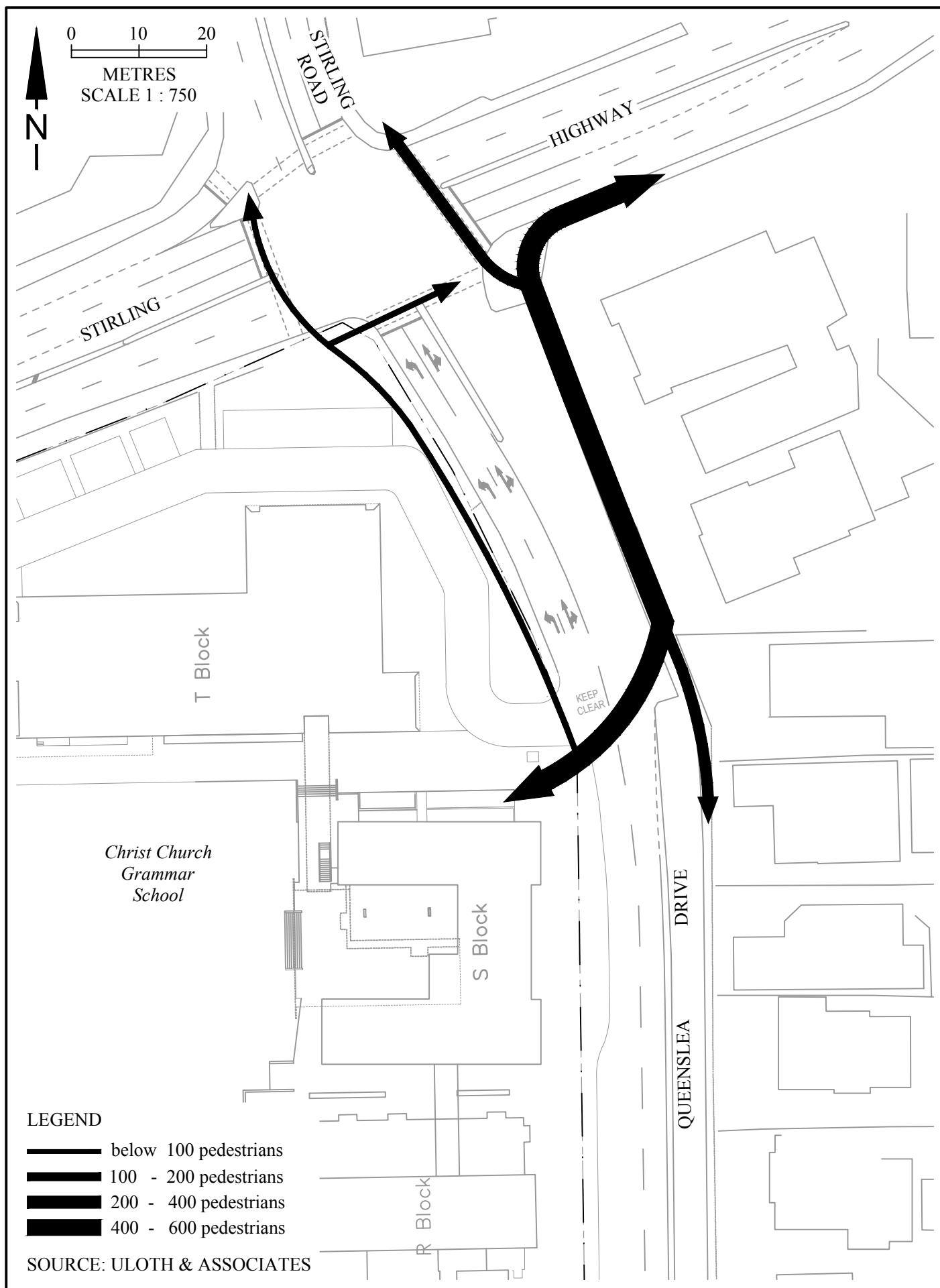


Existing Pedestrian and Cycle Facilities  
TO / FROM CHRIST CHURCH GRAMMAR SCHOOL



**Observed AM & PM Pedestrian Flows**  
 QUEENSLEA DRIVE AT VICTORIA AVENUE (APRIL 2013)

FIG.  
 A.9



**Observed AM & PM Pedestrian Flows**  
 QUEENSLEA DRIVE SOUTH OF STIRLING HIGHWAY (APRIL 2013)



**Pedestrian Flows Across Queenslea Dr**  
CHRIST CHURCH GRAMMAR SCHOOL

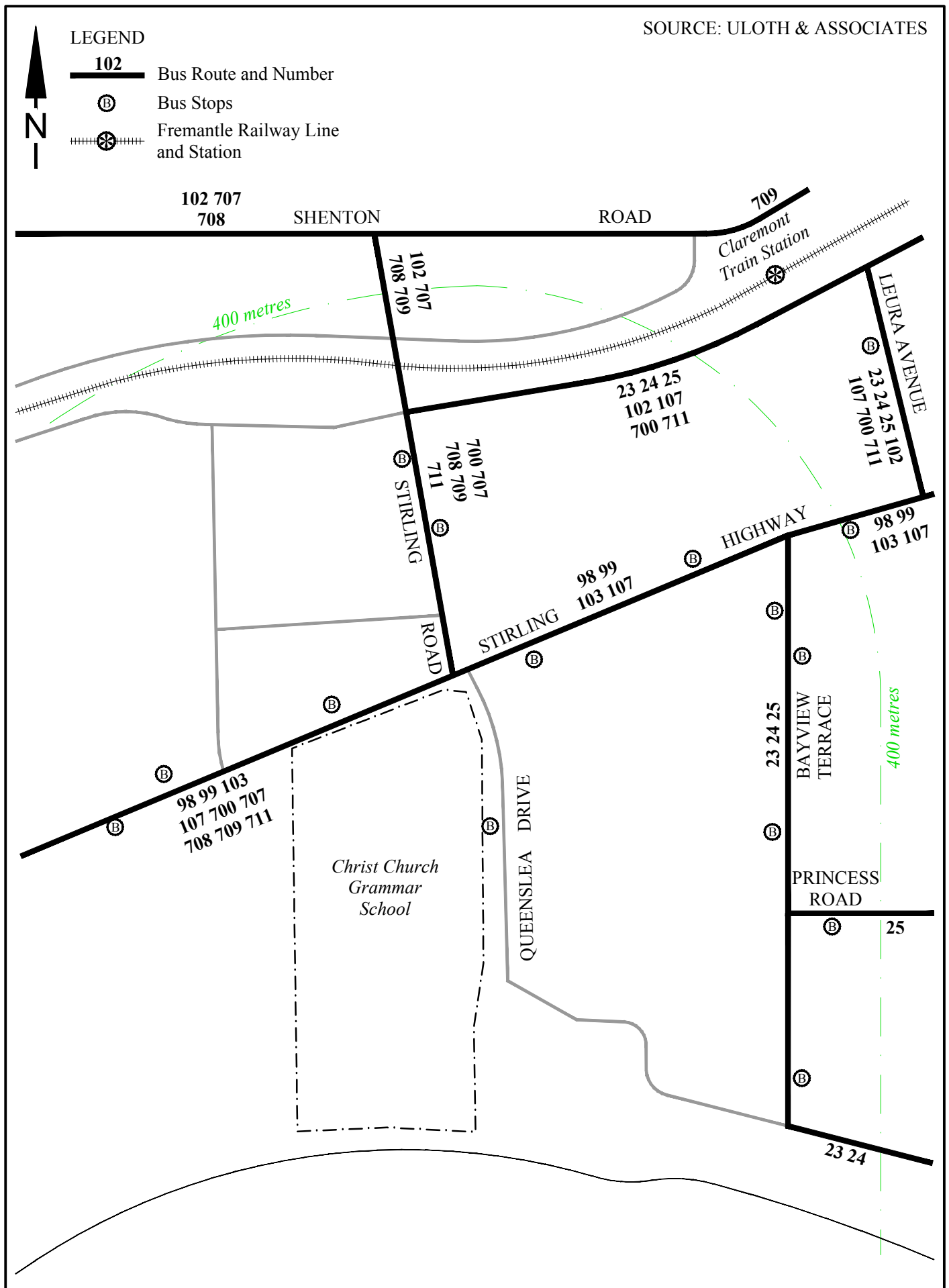
### A.1.3 EXISTING BUS ROUTES AND BUS STOPS

Figure A.12 shows the location of Bus Stops (and the Train Station) within walking distance of the School, together with the various Transperth Bus Routes that service the School.

Figure A.13 then shows the catchment areas of these existing Transperth Bus Routes within the adjoining suburbs.

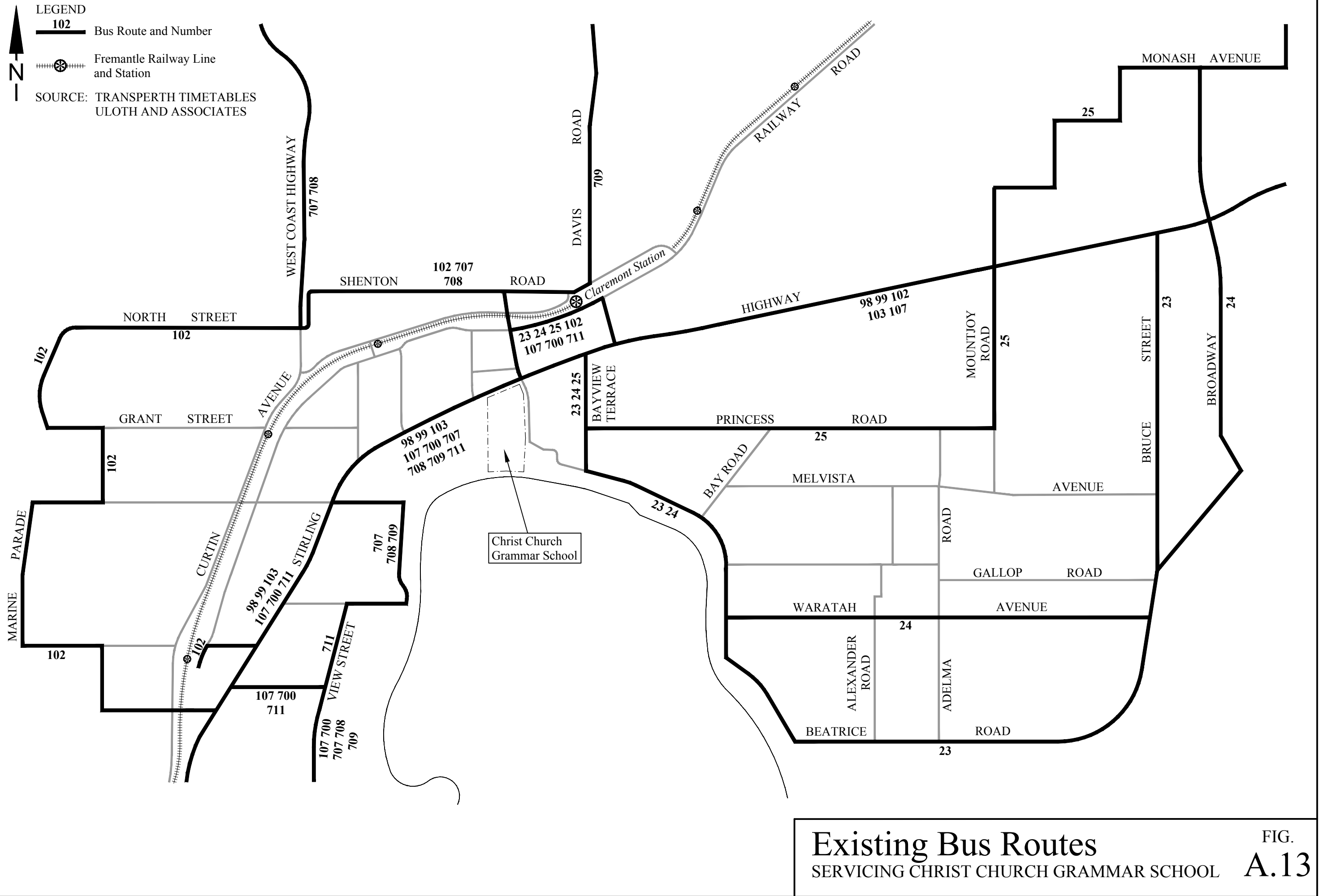
Additional privately-funded bus routes also operate to and from the School, as described in Section 2.3.2.





**Existing Bus Stops and Train Station**  
IN THE VICINITY OF CHRIST CHURCH GRAMMAR SCHOOL

FIG.  
**A.12**





#### A.1.4 EXISTING TRAFFIC INITIATIVES

Christ Church Grammar School has actively investigated the possibility of upgrading the existing 40km/hr school zone signage to new electronic solar powered signs which would provide improved visibility and awareness for vehicles. The school was informed however that the new technology was prioritised to schools adjacent to roads at 60km/hr while Christ Church Grammar School is in a 50km/hr built-up area.

The school has also pursued possible improvements to the crossing environment on Queenslea Drive by reducing the cycle time at the Stirling Highway - Queenslea Drive intersection in order to reduce delays for students crossing Queenslea Drive to access the school. This was discussed with Main Roads WA, however the school was informed that priority is to traffic on Stirling Highway therefore the cycle time could not be changed during the school traffic peak.

Whilst the above measures could not be introduced, Christ Church Grammar School has also identified a number of other traffic management initiatives, which have already been included as part of the existing school operations, as shown below in Table A.1.

TABLE A.1  
SUMMARY OF EXISTING TRAFFIC MANAGEMENT INITIATIVES  
CHRIST CHURCH GRAMMAR SCHOOL

TRAFFIC MANAGEMENT INITIATIVE	ISSUE ADDRESSED	COMMENT
<p>Parking allocations within the site allocate most convenient spaces to highest priority users.</p> <p>Restricted use of embayment on western side of Queenslea Drive with priority to school buses during the peak period.</p> <p>Provision of additional parking for events by using the top oval to ensure school traffic and parking does not have an impact on the neighbourhood.</p> <p>Events organised for mid-morning when non-school traffic is not at its peak.</p> <p>Traffic demand on Queenslea Drive is managed by only permitting 2 year groups per event to take place to prevent possible queues into/out of school.</p>	Parking	<p>Highest priority users to use the most convenient parking spaces quickly and efficiently.</p> <p>Parking management within the school.</p>
School spends significant funds on Buswest buses to provide travel to and from the school 4 days of the week as part of their sports programme.	Congestion	Reduction in School Traffic.
The school has also recently commenced jointly-funded private bus services, shared with MLC.	Congestion	Reduction in School Traffic.
Introduction of the 'Walk a Little Way' initiative to encourage pick-up/drop-off within walking distance of the school.	Walking	Encourage walking to school.

(...cont'd)

TABLE A.1 (CONT'D)  
SUMMARY OF EXISTING TRAFFIC MANAGEMENT INITIATIVES  
CHRIST CHURCH GRAMMAR SCHOOL

TRAFFIC MANAGEMENT INITIATIVE	ISSUE ADDRESSED	COMMENT
Provision of bike racks at various locations around the school.  'Bike to School' initiatives with prizes to students who bike to school.	Cycling	Encourage cycling to school.
Arranged with Town of Claremont a trialling of a pick-up/drop-off zone in Bayview Terrace at the Victoria Avenue end. This is ongoing and has proved successful in reducing the traffic demand on Queenslea Drive.  Staff actively making sure that school access for pick-up/drop-off is primarily for younger students and older students are expected to be dropped off further afield and walk to school.  Students are taken to sports grounds via bus. Parents are encouraged to pick up students from the sports grounds rather than at Queenslea Drive. Buses taking students back to School after sports are staggered to reduce the traffic impact they have on Queenslea Drive.	Congestion	Alternative pick-up/drop-off location to reduce traffic disruption on Queenslea Drive
School had located existing lockers near exit closest to lights and plan a further 600 lockers to be located in this position.  Prefects are used to help students crossing along Queenslea Drive just north of Victoria Avenue Roundabout	Road Safety	Encourage use of particular school exits to manage people movement entering and exiting the school.
School prefects are used to assist pick-up/drop-off at the designated zones to speed the interchange / turnaround process.	Congestion	Improve turnaround of vehicles at designated drop off points to reduce queuing into school site and blocking non-school traffic on Victoria Avenue and Queenslea Drive.
Finish times at the primary school are staggered.	Congestion	Stagger school traffic demand
Traffic Management measures are posted on the School website and are regularly included in the newsletter to remind parents.	Traffic Management	Encourage use of roundabout at the southern end of Queenslea Drive.  Discourage 3 point turns or U-turn movements along Queenslea Drive.  Inform parents that the eastern side of Queenslea Drive is not a picking up/dropping off point.  Inform parents that they should not pick up their child too early.

Source: Compiled by Uloth and Associates

#### A.1.5 EXISTING MODE OF TRAVEL

Table A.2 summarises the results of the existing travel mode surveys carried out by Christ Church Grammar School in May 2014. It is important to note, however, that this was prior to the introduction of the additional jointly-funded bus services, shared with MLC.

All families at the school were requested to take part in an online survey regarding travel behaviour and transport choices, including a question specific to the number of times each travel mode was used both to and from school over a week.

The data in Table A.2 shows the average results across the week.

TABLE A.2  
EXISTING MODE OF TRAVEL TO/FROM SCHOOL  
CHRIST CHURCH GRAMMAR SCHOOL - MAY 2014

MODE OF TRAVEL	TO SCHOOL		FROM SCHOOL		TOTAL %
	No.	%	No.	%	
Family Car	555	60.4 %	470	55.0 %	57.8 %
Car Pool (Friend's Car)	21	2.3 %	30	3.5 %	2.9 %
Bus	120	13.0 %	146	17.1 %	15.0 %
Train	76	8.2 %	70	8.2 %	8.2 %
Walk	86	9.3 %	89	10.4 %	9.8 %
Cycle	62	6.8 %	50	5.8 %	6.3 %
Total Responses	920	100.0 %	855	100.0 %	100.0 %

Source: Christ Church Grammar School

#### A.1.6 STIRLING HIGHWAY - QUEENSLEA DRIVE - STIRLING ROAD

Figure A.14 shows the modifications to the Stirling Highway - Queenslea Drive - Stirling Road intersection, as carried out in late 2015 to improve traffic flows in Stirling Road and to improve the standard of the existing pedestrian crossing facilities.





**Modified Intersection Layout**  
STIRLING HWY - QUEENSLEA DVE - STIRLING RD

FIG.  
**A.14**

## **A.2 PREVIOUSLY APPROVED SCHOOL CROSSING**

Figure A.15 shows the previously approved plan for the proposed children's crossing following modifications by Main Roads WA, with the preferred location on Queenslea Drive opposite house number 10. The plan indicates an extension of the paved verge on the western side, but would have required the removal of the existing cycle lane on the eastern side to accommodate the then proposed pedestrian refuge island.

## **A.3 PARKING AT CHURCH**

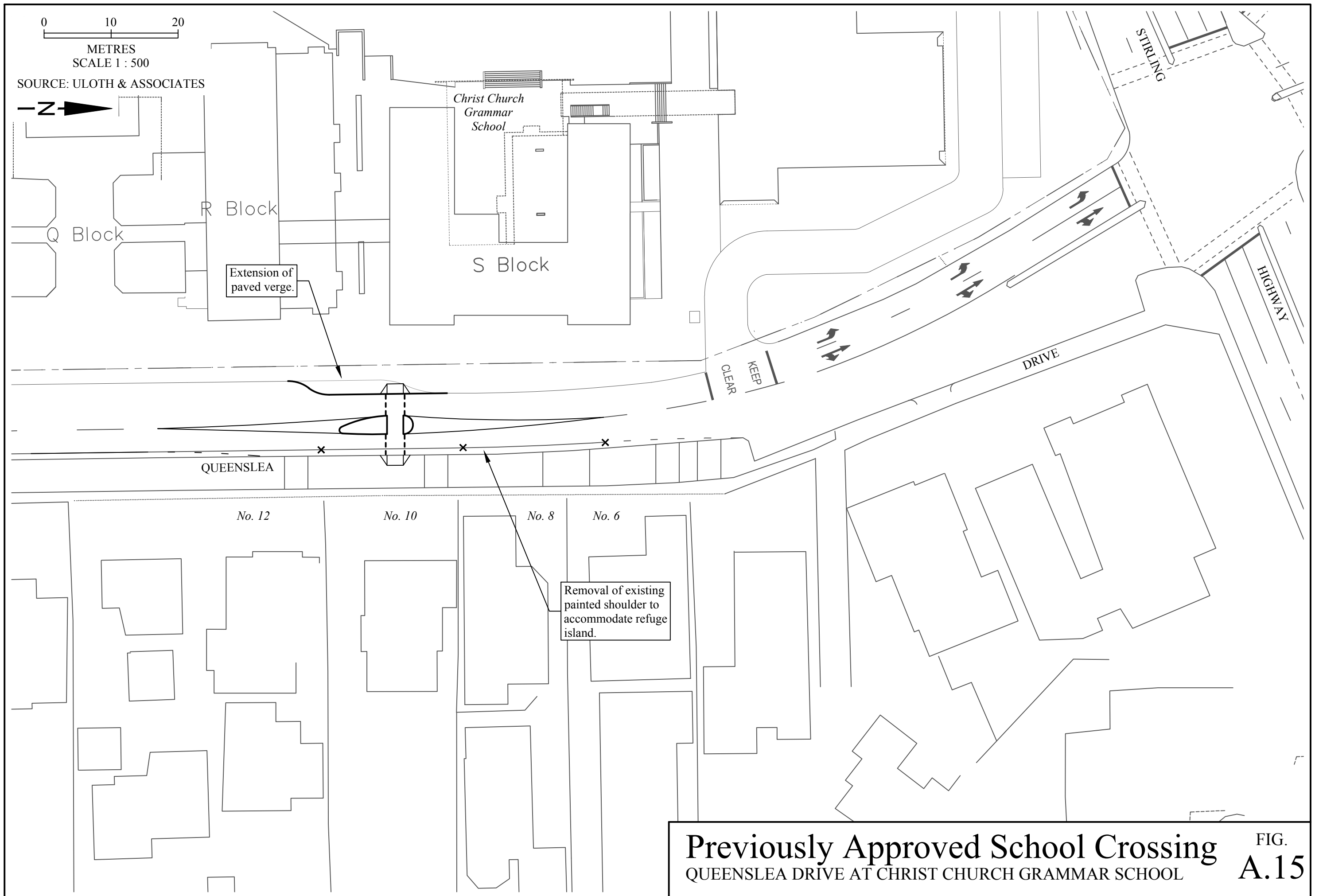
Figure A.16 identifies the possible queuing that currently occurs southbound on Queenslea Drive when there is 90 degree parking adjacent to the Church, combined with a vehicle waiting to turn right into the Staff Car Park at the northern end of Christ Church Grammar School.

Figure A.17 shows pictures taken on site where 90 degree parking was observed and also includes a snap shot of the video survey showing southbound queues starting along Queenslea Drive.

## **A.4 ACCESS OFF STIRLING HIGHWAY**

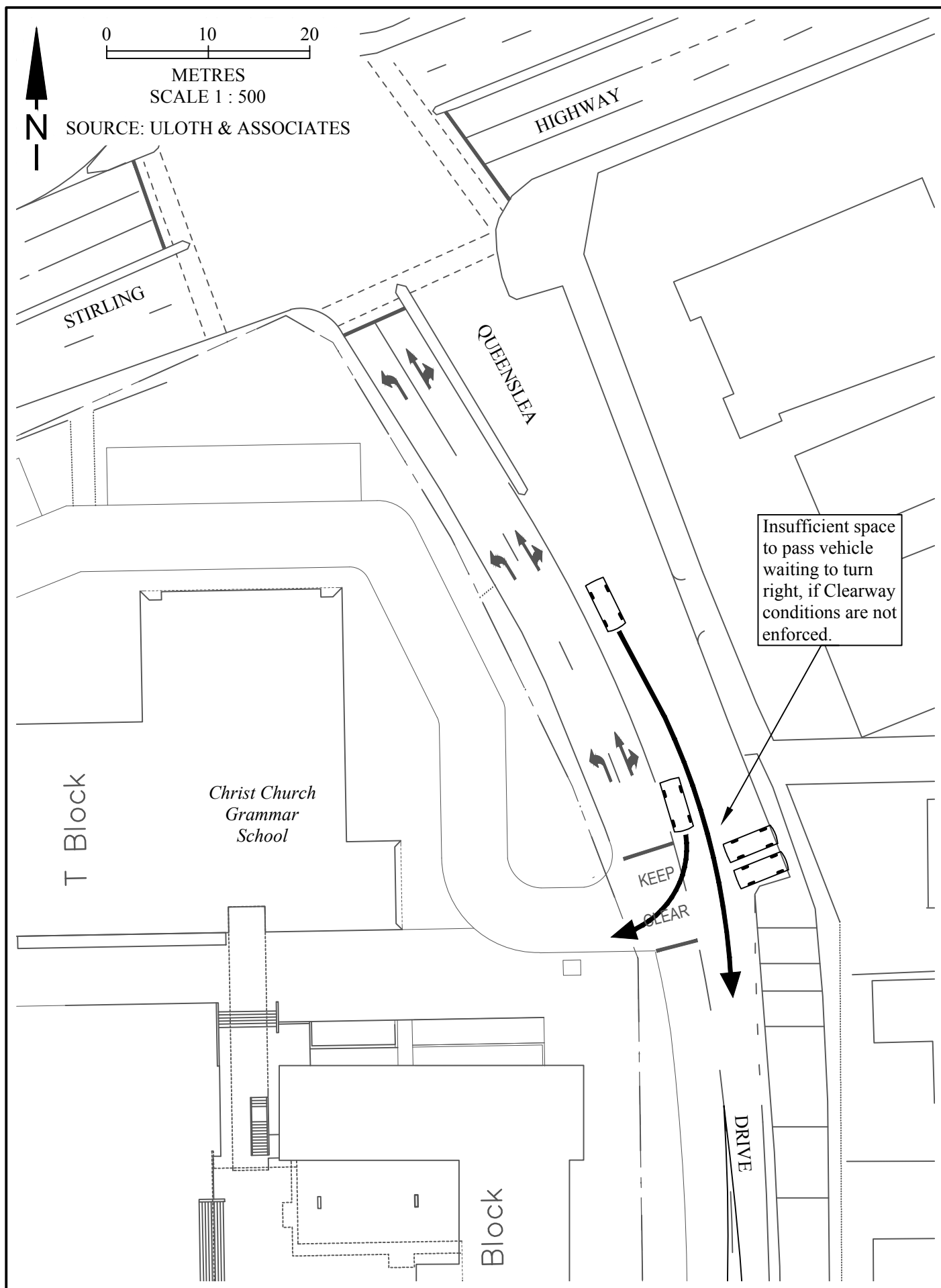
Figure A.18 shows a plan of the existing access off Stirling Highway, which is restricted for emergency vehicle use only, as part of a previous condition for the Design Technology and Visual Arts building.

Figure A.19 shows an aerial view of Stirling Highway and the north car park for Christ Church Grammar School, where it can be seen that there is now good visibility along Stirling Highway at the access driveway.



**Previously Approved School Crossing** FIG. A.15  
QUEENSLEA DRIVE AT CHRIST CHURCH GRAMMAR SCHOOL





**Possible Queuing at Staff Car Park**  
 QUEENSLEA DRIVE AT CHRIST CHURCH GRAMMAR SCHOOL

FIG.  
**A.16**



PARKED CARS OVERHANG INTO TRAVEL LANE

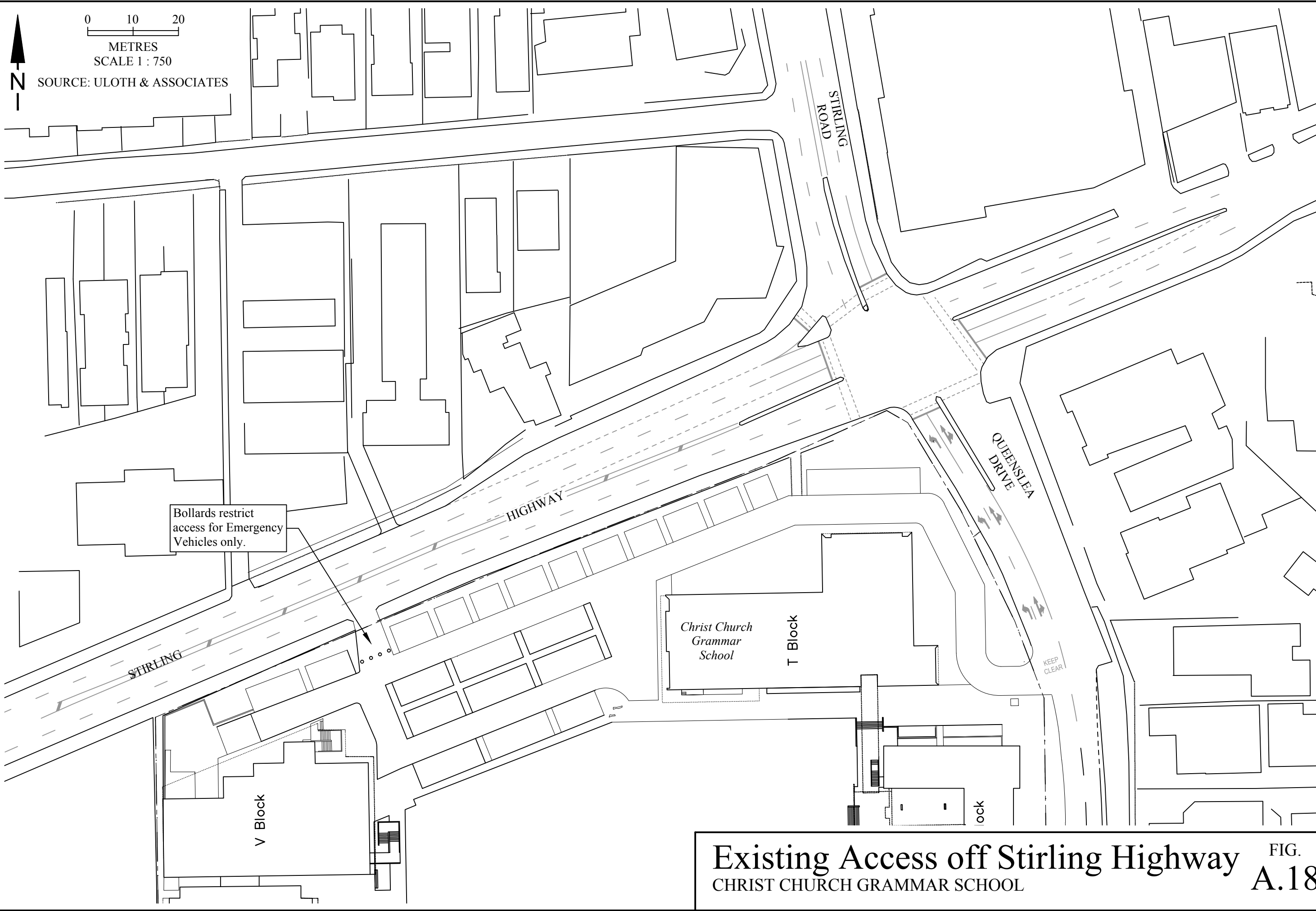


SOUTHBOUND VEHICLES UNABLE TO PASS

# Congestion Issues on Queenslea Drive DUE TO PARKING IN FRONT OF CHURCH

FIG.  
A.17





Existing Access off Stirling Highway

CHRIST CHURCH GRAMMAR SCHOOL

FIG. A.18





Access currently  
restricted for  
Emergency  
Vehicles only.

Possible new  
pick-up / drop-off  
location.

North Car Park Access onto Stirling Highway  
CHRIST CHURCH GRAMMAR SCHOOL

FIG.  
A.19

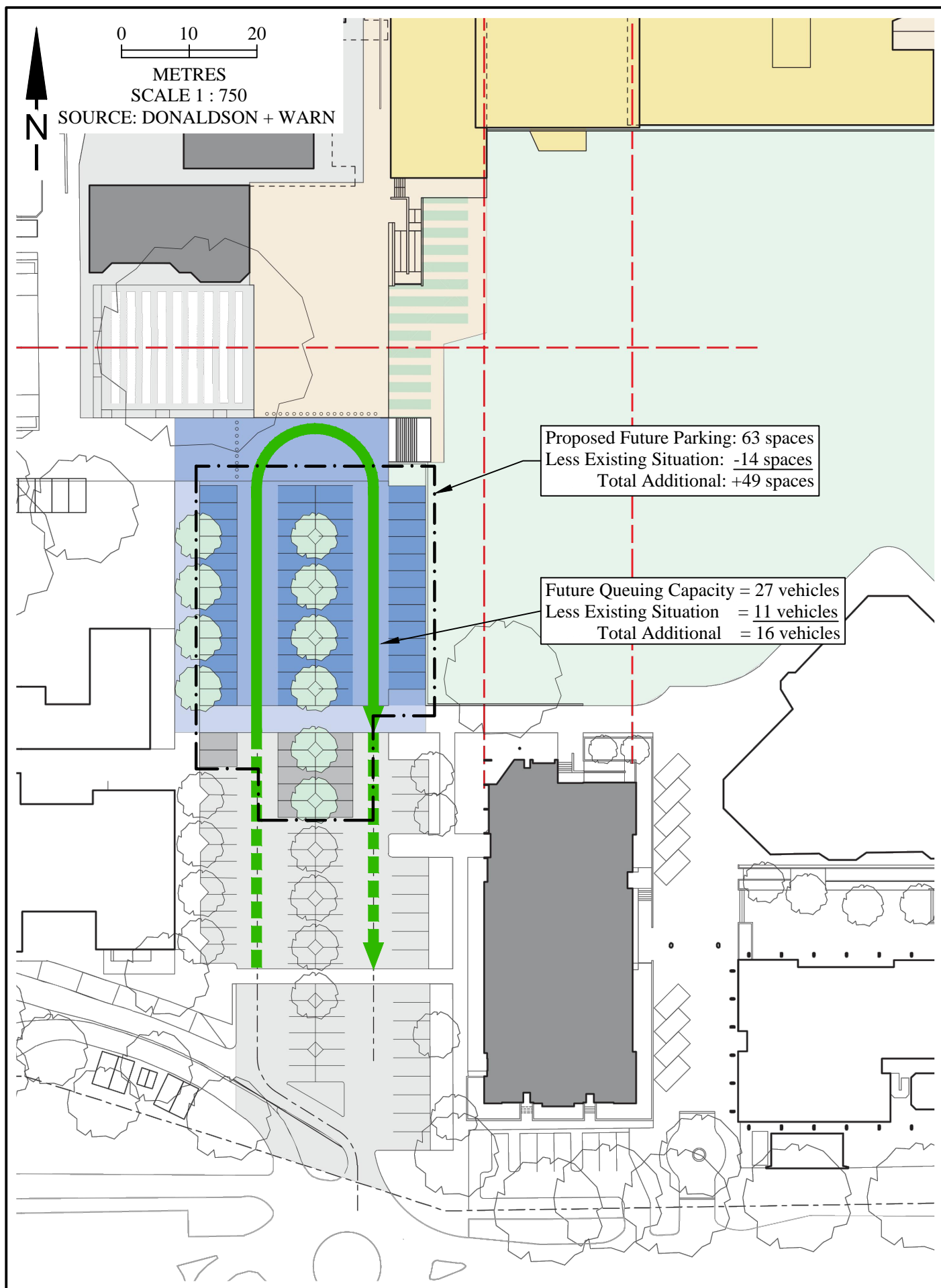


## **A.5     ADDITIONAL ON-SITE PARKING**

Figure A.20 shows the preliminary concept plans for additional parking to be provided within the School site as part of the currently proposed new development. The plans indicate an increase of 49 spaces compared to the existing situation.

## **A.6     ON-STREET PARKING**

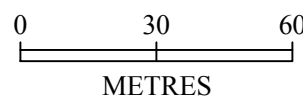
Figure A.21 shows the available on-street parking capacity in the vicinity of Christ Church Grammar School, as discussed in Section 5.9.



# Additional On-Site Parking Capacity

CHRIST CHURCH GRAMMAR SCHOOL

FIG.  
A.20



Total On-Street Parking Spaces

	AM Peak	PM Peak
Queenslea Dve:	18	0
Freshwater Pde:	65	65
Victoria Ave:	12	14
Park Lane:	10	10
Bay View Tce:	70	70
Total Space:	175	159

- LEGEND
- On-Street Parking Spaces
- AM and PM Peak Periods
  - AM Peak Only
  - PM Peak Only

SOURCE: ULOTH & ASSOCIATES

Existing On-Street Parking  
IN THE VICINITY OF CHRISTCHURCH GRAMMAR SCHOOL

FIG.  
A.21

## A.7 COMMUNITY WORKSHOP

Table A.3 summaries the various comments received regarding the issues raised and discussed at the Community Workshop held on Wednesday 15 May 2013.

TABLE A.3  
SUMMARY OF ISSUES RAISED AND RESPONSES RECEIVED  
COMMUNITY WORKSHOP - WEDNESDAY 15 MAY 2013

TRAFFIC MANAGEMENT MEASURE	COMMENT	PARENT/ RESIDENT/ COUNCILLOR
Pedestrian Crossing at Queenslea Drive	<p>Would make traffic worse.</p> <p>Children should use pedestrian crossing at Stirling Highway - Queenslea Drive intersection. Should also make use of wider footpath on western side of Queenslea Drive.</p> <p>Lollypop man would not be able to see traffic signals making it dangerous.</p> <p>Keen to have as it will make it safer for children to cross and will encourage students to walk to school.</p> <p>Needs to be positioned opposite S Block and be manned by appropriately trained staff.</p> <p>Should be positioned near Keep Clear. If positioned at number 10 bike path has to be removed which makes it unsafe for cyclists. It is also not the current crossing point for students while it is at the near the Keep Clear area.</p> <p>Crossing should not be put in unless there are significant pedestrian accidents along Queenslea Drive.</p> <p>Do not like the idea of an island on Queenslea Drive. Harder for traffic to pass through. Suggest use of red/white marker columns either side of Queenslea Drive.</p>	<p>Resident (x2)</p> <p>Resident (x4)</p> <p>Resident</p> <p>Parent (x3) Councillor</p> <p>Parent</p> <p>Resident</p> <p>Resident</p> <p>Resident (x3)</p>
Parking in Queenslea Drive	<p>Church should convert its parking bays for its own use so that the front would be left clear with no vehicles jutting out.</p> <p>Parking is required for Church Goers therefore parking bays should not be removed.</p> <p>Not safe with cars reversing from the parking area. Amend parking so that traffic has space to pass and traffic right turning into the staff car park.</p> <p>Disagree with increasing parking on the verges along Queenslea Drive.</p> <p>Parking should be limited to pick-up and drop-offs only in school zone hours (except if there is a funeral).</p>	<p>Resident</p> <p>Resident (x2)</p> <p>Parent (x4) Councillor Resident</p> <p>Resident</p> <p>Resident</p>

(...cont'd)

TABLE A.3 (CONT'D)  
SUMMARY OF ISSUES RAISED AND RESPONSES RECEIVED  
COMMUNITY WORKSHOP - WEDNESDAY 15 MAY 2013

TRAFFIC MANAGEMENT MEASURE	COMMENT	PARENT/ RESIDENT/ COUNCILLOR
Access off Stirling Highway	Short green time available for Queenslea Approach at Stirling Hwy Junction but acceptable.	Resident
	Staff Car park access onto Stirling Highway should be opened; Cars can then enter via Queenslea Drive and exit onto Stirling Highway from Staff Car Park access.	Resident (x2) Parent (x4) Councillor
	Island should be built to prevent right turns.	Parent
	Exit should be opened only during the school peak hours.	Parent
	Entry requires better visibility to cars and those using the path.	Resident
Freshwater Parade	Despite making Freshwater Parade a No Through Road, rat running occurs via Princess Road and Victoria Avenue as an alternative access to Stirling Highway	Resident
Dedicated School Buses	Have dedicated school / shuttle buses. Establish drop off points away from the school.	Resident (x2) Councillor
	Run shuttle buses for all schools in the area.	Councillor
	Claremont is already well serviced by public transport (road and rail). Unlikely that there is demand for additional bus services that could not be provided by existing public transport.	Parent (x2)
	School does not seem to provide dedicated school buses to reduce traffic	Resident
Congestion	Caused by poor drop off and pick up procedures. All pick-up/drop-offs should be on school grounds.	Resident (x2)
	Unloading of school children at Church should not be permitted.	Resident
Roundabout at southern end of Queenslea Drive	'Stop' sign should replace 'give way' sign as parents exiting school car park think they have right of way which is incorrect as the exit is not a gazetted road.	Resident
	School should monitor cars at roundabout. School has no jurisdiction over Main Roads department roads. This is a police matter not CCGS.	Resident Parent
	Southbound slip road for traffic turning left onto Victoria Avenue so that they are not trapped by traffic right turning into school.	Councillor

(...cont'd)

TABLE A.3 (CONT'D)  
SUMMARY OF ISSUES RAISED AND RESPONSES RECEIVED  
COMMUNITY WORKSHOP - WEDNESDAY 15 MAY 2013

TRAFFIC MANAGEMENT MEASURE	COMMENT	PARENT/ RESIDENT/ COUNCILLOR
Stirling Highway - Queenslea Drive Intersection	Traffic Signals should be modified at peak times to increase traffic flows out of Queenslea Drive.	Parent Resident
Cycling	Encourage more cycling to school.  Make cycling to school safer.  Bike Lanes should be more widespread and available in both directions along the entire length of Queenslea Drive, Stirling Highway and Stirling Road.	Resident  Resident  Resident
Public Transport	Encourage the use of public transport.	Resident
Staff Car Park Access	Vehicles should not be allowed to enter from Stirling Highway. Vehicles should only be allowed to exit in direction of Stirling Highway.	Resident
Provision of Pedestrian Overpass / Underpass	Not very feasible in terms of land availability and cost.	Parent

Source: Compiled by Uloth and Associates